

FIRESTONE SDS 2022

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56 quickseam-sa-patch-for-pipe-flashing

57 quickseam-splice-tape

58 quickseam-universal-pipe-flashing

59 quickseam-walkway-pad

60 rubbergard-epdm-pipe-flashing

61 rubbergard-epdm-formflash-flashing

62 epdm-pipe-flashings-pdf

63 single-ply-lvoc-bonding-adhesive-1168

64 single-ply-lvoc-bonding-adhesive

65 single-ply-lvoc-primer-pdf-3

66 single-ply-lvoc-splice-wash-pdf

67 splice-adhesive-sa-1065-sds

68 splice-adhesive-sa-1065-2009-pdf

69 splice-wash-sw-100-pdf-2

70 water-based-bonding-adhesive-p-sds

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74 ultraply-tpo-coated-metal

75 ultraply-tpo-series-pdf

76 ultraply-tpo-platinum-membrane

77 ultraply-tpo-xr-t-membrane

78 single-ply-lvoc-bonding-adhesive-1168

79 single-ply-lvoc-bonding-adhesive

80 single-ply-lvoc-primer-pdf-3

81 single-ply-lvoc-splice-wash-pdf

82 tpo-quickseam-flashing

83 ultraflash-lvoc-primer

84 ultraply-tpo-bonding-adhesive-pdf

85 msds_ultraply-tpo-cut-edge-sealant-lvoc-pdf

86 ultraply-tpo-cut-edge-sealant-sds

87 ultraply-tpo-cut-edge-sealant-tan-sds

88 ultraply-tpo-cut-edge-sealant-white-sds

89 ultraply-tpo-general-purpose-sealant

90 firestone-tpo-penetration-pocket-pdf

91 ultraply-tpo-quickseam-r-p-f-strip

92 ultraply-quickseam-t-joint-covers-p

93 ultraply-tpo-18-curb-flashing-sds

94 ultraply-tpo-custom-accessories

95 ultraply-tpo-insideoutside-molded-corner

96 ultraply-tpo-large-pipe-flashing

97 ultraply-tpo-quickseam-flashing

98 ultraply-tpo-quickseam-flashing-p

99 ultraply-tpo-quickseam-outside-corner

100 ultraply-tpo-quickseam-outside-corner-p

101 ultraply-tpo-quickseam-pipe-boot

102 ultraply-tpo-quickseam-pipe-boot-p

103 ultraply-tpo-quickseam-r-m-a-strip

104 ultraply-tpo-quickseam-rma-strip-p

105 ultraply-tpo-quickseam-rpf-strip-p

106 ultraply-tpo-quickseam-t-joint-patch

107 ultraply-tpo-reinforced-cover-strip

108 ultraply-tpo-reinforced-curb-corner

109 ultraply-tpo-reinforced-split-pipe-boot

110 ultraply-tpo-t-joint-cover

111 ultraply-tpo-universal-pipe-flashing

112 ultraply-tpo-walkway-pad

113 xr-bonding-adhesive-sds

114 xr-stick-adhesive-part-1-sds

115 xr-stick-adhesive-part-2-sds

116 fibertop-_all-designations_-pdf

117 hailgard-polyiso-insulation

118 iso-95-pdf

119 isogard-hd-composite-msds-pdf

120 isogard-hd-cover-board-pdf

121 resista-10-16-12-pdf

122 i-s-o-stick-part-2-pdf

123 i-s-o-stick-part-1-pdf-2

124 i-s-o-twin-pack-insulation-adhesive-part-1

125 i-s-o-twin-pack-insulation-adhesive-part-2

126 iso-fix-ii-pdf

127 structodek-high-density-fiberboard-roof-insulation-sds

128 fibertop-plus

129 fibertop-_all-designations_-pdf

130 densdeck-sds-pdf

131 basegard-sa-pdf-2

132 sa-lvoc-primer

133 sa-solvent_based_sb_primer_sds

134 sa-water_based_primer_wb_sds

135 sa-primer-sds

136 sbs-glass-base-series-pdf-2

137 ultraply-tpo-sa-membrane-sds

138 v-force-sb-primer-sds

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • RubberGard™ EPDM Series: RubberGard™ Fire Retardant (FR) EPDM Membrane, Modular Bilaminate EPDM (White) Membrane, Fastening Strip (RPF), RubberGard™ EPDM Pipe Flashing, RubberGard™ EPDM FormFlash™ Flashing, RubberGard™ MAX Reinforced EPDM Membrane, RubberGard™ EPDM Platinum™ Membrane, RubberGard™ EcoWhite™ EPDM Membrane, RubberGard™ Low Slope Fire Retardant (LSFR) EPDM Membrane

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

Telephone (General) • firestonemsds@bfdp.com
800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP
Hazard statements • No label element(s) required

DSD/DPD
Risk phrases • No label element(s) required

2.3 Other Hazards

- CLP**
 - This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
- DSD/DPD**
 - Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
 - Not classified

2.2 Label elements

- OSHA HCS 2012**
 - Hazard statements**
 - No label elements(s) required

2.3 Other hazards

- OSHA HCS 2012**
 - Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

- WHMIS**
 - Not classified

2.2 Label elements

- WHMIS**
 - No label element(s) required

2.3 Other hazards

- WHMIS**
 - Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
				EU DSD/DPD: None	

Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA
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See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|--|
| Suitable Extinguishing Media | <ul style="list-style-type: none"> Water, foam, dry chemical, carbon dioxide (CO2). |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"> None known. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none"> Does not present any special fire or explosive hazards. |
| Hazardous Combustion Products | <ul style="list-style-type: none"> Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes. |

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|---|
| Personal Precautions | <ul style="list-style-type: none"> No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. |
| Emergency Procedures | <ul style="list-style-type: none"> No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures. |

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black or white solid with slight rubber odor.
Color	Black or white.	Odor	Slight rubber odor.
Odor Threshold	Data lacking		

General Properties

Boiling Point	Not relevant	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		

Volatility

Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		

Flammability

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant.		

Environmental

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

- Reproductive Effects** • No reproductive effects expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information

Last Revision Date

- 06/May/2013

Preparation Date

- 16/August/2012

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name

- **EcoWhite™ QuickSeam™ Accessories**

Synonyms

- EcoWhite™ QuickSeam™ Corner Flashing; EcoWhite™ QuickSeam™ Corner Flashing P; EcoWhite™ QuickSeam™ Curb Flashing; EcoWhite™ QuickSeam™ Curb Flashing P; EcoWhite™ QuickSeam™ Flashing P; EcoWhite™ QuickSeam™ Flashing; EcoWhite™ QuickSeam™ Joint Cover; EcoWhite™ QuickSeam™ Joint Cover P; EcoWhite™ QuickSeam™ Penetration Pocket Kit; EcoWhite™ QuickSeam™ Penetration Pocket Kit P; EcoWhite™ QuickSeam™ Pipe Flashing; EcoWhite™ QuickSeam™ Pipe Flashing P; EcoWhite™ QuickSeam™ SA Flashing; EcoWhite™ QuickSeam™ SA Flashing P; EcoWhite™ QuickSeam™ SA Patch for Conduit Flashing; EcoWhite™ QuickSeam™ SA Patch for Conduit Flashing P; EcoWhite™ QuickSeam™ SA Pipe Boot Patch; EcoWhite™ QuickSeam™ SA Pipe Boot Patch P; EcoWhite™ QuickSeam™ Splice Tape; EcoWhite™ QuickSeam™ Splice Tape P; EcoWhite™ QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)
- Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP

- Not classified

DSD/DPD

- Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

- CLP** • This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
- DSD/DPD** • Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012** • Not classified

2.2 Label elements

- OSHA HCS 2012**
- Hazard statements** • No label elements(s) required

2.3 Other hazards

- OSHA HCS 2012** • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

- WHMIS** • Not classified

2.2 Label elements

- WHMIS** • No label element(s) required

2.3 Other hazards

- WHMIS** • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments

Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA
-------------------------	-----	------	-----	---	-----

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under

ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	White solid (EPDM) laminated to tape. No odor.
Color	White	Odor	Slight rubber odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Not relevant	Explosive Properties	Not relevant.

Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

- Other Material Information**
- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Reproductive Effects

- No reproductive effects expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information

Revision Date

- 17/January/2018

Preparation Date

- 11/July/2013

Other Information

- Changes to this revision: Product name modification; Additional product names added to section 1.1. Reclassified product to an article that affected most sections of the SDS since no hazard anticipated. Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company, LLC assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • RubberGard™ EPDM Series: RubberGard™ Fire Retardant (FR) EPDM Membrane, Modular Bilaminate EPDM (White) Membrane, Fastening Strip (RPF), RubberGard™ EPDM Pipe Flashing, RubberGard™ EPDM FormFlash™ Flashing, RubberGard™ MAX Reinforced EPDM Membrane, RubberGard™ EPDM Platinum™ Membrane, RubberGard™ EcoWhite™ EPDM Membrane, RubberGard™ Low Slope Fire Retardant (LSFR) EPDM Membrane

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

Telephone (General) • firestonemsds@bfdp.com
800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP
Hazard statements • No label element(s) required

DSD/DPD
Risk phrases • No label element(s) required

2.3 Other Hazards

- CLP**
 - This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
- DSD/DPD**
 - Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
 - Not classified

2.2 Label elements

- OSHA HCS 2012**
 - Hazard statements**
 - No label elements(s) required

2.3 Other hazards

- OSHA HCS 2012**
 - Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

- WHMIS**
 - Not classified

2.2 Label elements

- WHMIS**
 - No label element(s) required

2.3 Other hazards

- WHMIS**
 - Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
				EU DSD/DPD: None	

Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA
-------------------------	-----	------	-----	-------------------------------------	-----

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|--|
| Suitable Extinguishing Media | <ul style="list-style-type: none"> Water, foam, dry chemical, carbon dioxide (CO2). |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"> None known. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none"> Does not present any special fire or explosive hazards. |
| Hazardous Combustion Products | <ul style="list-style-type: none"> Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes. |

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|---|
| Personal Precautions | <ul style="list-style-type: none"> No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. |
| Emergency Procedures | <ul style="list-style-type: none"> No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures. |

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description

Physical Form	Solid	Appearance/Description	Black or white solid with slight rubber odor.
Color	Black or white.	Odor	Slight rubber odor.
Odor Threshold	Data lacking		

General Properties

Boiling Point	Not relevant	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		

Volatility

Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		

Flammability

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant.		

Environmental

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

- Reproductive Effects** • No reproductive effects expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information

Last Revision Date

- 06/May/2013

Preparation Date

- 16/August/2012

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • RubberGard™ EPDM Series: RubberGard™ Fire Retardant (FR) EPDM Membrane, Modular Bilaminate EPDM (White) Membrane, Fastening Strip (RPF), RubberGard™ EPDM Pipe Flashing, RubberGard™ EPDM FormFlash™ Flashing, RubberGard™ MAX Reinforced EPDM Membrane, RubberGard™ EPDM Platinum™ Membrane, RubberGard™ EcoWhite™ EPDM Membrane, RubberGard™ Low Slope Fire Retardant (LSFR) EPDM Membrane

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

Telephone (General) • firestonemsds@bfdp.com
800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP
Hazard statements • No label element(s) required

DSD/DPD
Risk phrases • No label element(s) required

2.3 Other Hazards

- CLP**
 - This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
- DSD/DPD**
 - Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
 - Not classified

2.2 Label elements

- OSHA HCS 2012**
 - Hazard statements**
 - No label elements(s) required

2.3 Other hazards

- OSHA HCS 2012**
 - Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

- WHMIS**
 - Not classified

2.2 Label elements

- WHMIS**
 - No label element(s) required

2.3 Other hazards

- WHMIS**
 - Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
				EU DSD/DPD: None	

Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA
-------------------------	-----	------	-----	-------------------------------------	-----

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|--|
| Suitable Extinguishing Media | <ul style="list-style-type: none"> Water, foam, dry chemical, carbon dioxide (CO2). |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"> None known. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none"> Does not present any special fire or explosive hazards. |
| Hazardous Combustion Products | <ul style="list-style-type: none"> Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes. |

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|---|
| Personal Precautions | <ul style="list-style-type: none"> No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. |
| Emergency Procedures | <ul style="list-style-type: none"> No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures. |

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black or white solid with slight rubber odor.
Color	Black or white.	Odor	Slight rubber odor.
Odor Threshold	Data lacking		

General Properties

Boiling Point	Not relevant	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		

Volatility

Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		

Flammability

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant.		

Environmental

Octanol/Water Partition coefficient	Data lacking		
-------------------------------------	--------------	--	--

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

- Reproductive Effects** • No reproductive effects expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information

Last Revision Date

- 06/May/2013

Preparation Date

- 16/August/2012

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • RubberGard™ EPDM SA

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.

DSD/DPD • This product is not considered dangerous under the European Directive 1999/45/EC

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012

- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Not classified

2.2 Label elements

WHMIS

- No label element(s) required.

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Non hazardous components	NDA	100%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.

Eye

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.

Ingestion

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage • Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory • No respiratory protection is required under normal conditions of use.

Eye/Face • Under normal conditions of use, eye protection is not required.

Skin/Body • No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid with slight rubber odor.
Color	Black	Odor	Slight rubber odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Data lacking
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin

Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

- Chronic (Delayed)**
 - Under normal conditions of use, no health effects are expected.
- Eye**
- Acute (Immediate)**
 - Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)**
 - Under normal conditions of use, no health effects are expected.
- Ingestion**
- Acute (Immediate)**
 - Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)**
 - Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

- Product waste**
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Packaging waste**
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

- 14.6 Special precautions for**
 - None specified.

user

14.7 Transport in bulk
according to Annex II of
Marpol and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

Not Listed

Australia - High Volume Industrial Chemicals List

Not Listed

Australia - List of Designated Hazardous Substances - Classification

Not Listed

Environment

Australia - National Pollutant Inventory (NPI) Substance List

Not Listed

Australia - Ozone Protection Act - Scheduled Substances

Not Listed

Australia - Priority Existing Chemical Program

Not Listed

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date

- 26/January/2018

Preparation Date

- 26/March/2015

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • RubberGard™ Pre-Taped (PT) Membrane Series: RubberGard™ LSFR PT Membrane, RubberGard™ MAX PT Membrane, RubberGard™ Platinum™ PT Membrane, RubberGard™ EcoWhite™ PT Membrane, RubberGard™ EcoWhite™ Platinum™ PT Membrane

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP
Hazard statements • No label element(s) required

DSD/DPD
Risk phrases • No label element(s) required

2.3 Other Hazards

CLP • This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

DSD/DPD • Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label elements(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

• This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

• Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- Skin**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black or white solid with slight rubber odor.
Color	Black or white.	Odor	Slight rubber odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %

Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

- Reproductive Effects** • No reproductive effects expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 06/January/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No Data Available

Firestone Building Products Company, LLC

Material Safety Data Sheet

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Page: 1

SECTION 1: PRODUCT IDENTIFICATION

Product Name:	RubberGard™ MAX PT Pre-Applied Tape Panels
Chemical Name / Synonym:	None
Chemical Family:	Mixture
24-Hour Emergency Phone:	(800) 424-9300 CHEMTREC
Manufacturer's Name:	Firestone Building Products Company, LLC
Manufacturer's Address:	250 West 96 th Street, Indianapolis, IN 46260
NFPA Hazard Rating:	Health 1, Flammability 1, Reactivity 0
HMIS Hazard Rating:	Health 0, Flammability 1, Reactivity 0

SECTION 2: CHEMICAL COMPOSITION

Chemical Name:	Common Name:	CAS #:	% (by wt)	Exposure Limits:
Nonhazardous as per 29 CFR 1910.1200	None	None	100	None Established

SECTION 3: HAZARD IDENTIFICATION

Primary Route of Exposure:	Eye contact
Signs and Symptoms of Exposure:	Contact with eye may result in irritation, redness, tearing and blurred vision.
Medical Conditions Aggravated by Exposure:	None known.
Chronic Effects:	No known adverse effects.
Carcinogenicity:	None.

SECTION 4: FIRST AID MEASURES

First Aid Procedures:	Treat as a foreign object in eye. Flush large amounts of water, frequently flushing under the lids. Get medical attention if irritation persists.
-----------------------	---

SECTION 5: FIRE FIGHTING PROCEDURES

Suitable Extinguishing Media:	Foam, water, dry chemical, or carbon dioxide.
Hazardous Combustion Products:	Carbon dioxide and carbon monoxide, oxides of nitrogen, sulfur dioxide, partially burned carbon.
Recommended Fire Fighting Procedures:	Treat as a Class "B" fire. Limit fire fighting to those trained to do so. Minimize breathing gases, vapor, fumes, or decomposition products. Use air-supplied respirator for enclosed or confined spaces or as otherwise needed.
Unusual Fire and Explosion Hazards:	None known.

SECTION 6: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled:	Shovel or scoop into a sealable container for disposal.
--	---

Firestone Building Products Company, LLC

Material Safety Data Sheet

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Precautions to Be Taken in Handling and Storing:	Do not store or handle at temperatures in excess of 130°F. Store in a cool, dry area. Avoid prolonged or repeated contact with the skin. Product readily removed from the skin with waterless hand cleaners followed by washing with soap and water.
--	--

SECTION 7: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation:	No special ventilation requirements.
Respiratory Protection:	None required
Eye Protection:	Safety glasses with side shields may be necessary when handling, cutting or applying this product.
Skin Protection:	None recommended.
Other:	None recommended.
Work / Hygienic Practices:	Wash exposed skin prior to eating, drinking or smoking and at the end of each work shift. Wash contaminated clothing prior to reuse.

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	EPDM is black solid with slight rubber odor. Tape is tacky black solid with no odor.		
Flash Point:	>200°C	Lower Explosive Limit:	None
Method Used:	Estimate based on the flash point of the most volatile component.	Upper Explosive Limit:	None
Evaporation Rate:	Not Applicable	Boiling Point:	None
pH (undiluted product):	Not Applicable	Melting Point:	Unknown
Solubility in Water:	None	Specific Gravity:	0.98 ± .02 ¹ 1.15 ± .05 ² (Water=1)
Vapor Density:	Not Applicable	Percent Volatile:	0.7% Maximum
Vapor Pressure:	Not Applicable		¹ Tape ² EPDM

SECTION 9: STABILITY AND REACTIVITY

Thermal Stability:	Stable
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Heat, sparks and open flames.

SECTION 10: TRANSPORTATION

Regulatory Agency:	Not Regulated
Proper Shipping Name:	Not Applicable
Hazard Classification:	Not Applicable
Identification Number:	Not Applicable
Labels Required:	Not Applicable
Other Requirements:	Not Applicable

Firestone Building Products Company, LLC

Material Safety Data Sheet

January 6, 2012

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SECTION 11: MISCELLANEOUS INFORMATION

Additional Comments:	This product is considered to be a finished article as per 29 CFR 1910.1200(C) and is therefore exempt from the requirements of the Hazard Communication standard.
Date of Previous MSDS:	March 2, 2009
Changes Since Previous MSDS:	Review only.
Telephone Number for Additional Information:	(317) 575-7190

DISCLAIMER

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Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • RubberGard™ EPDM Series: RubberGard™ Fire Retardant (FR) EPDM Membrane, Modular Bilaminate EPDM (White) Membrane, Fastening Strip (RPF), RubberGard™ EPDM Pipe Flashing, RubberGard™ EPDM FormFlash™ Flashing, RubberGard™ MAX Reinforced EPDM Membrane, RubberGard™ EPDM Platinum™ Membrane, RubberGard™ EcoWhite™ EPDM Membrane, RubberGard™ Low Slope Fire Retardant (LSFR) EPDM Membrane

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

Telephone (General) • firestonemsds@bfdp.com
800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP
Hazard statements • No label element(s) required

DSD/DPD
Risk phrases • No label element(s) required

2.3 Other Hazards

- CLP**
 - This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
- DSD/DPD**
 - Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
 - Not classified

2.2 Label elements

- OSHA HCS 2012**
 - Hazard statements**
 - No label elements(s) required

2.3 Other hazards

- OSHA HCS 2012**
 - Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

- WHMIS**
 - Not classified

2.2 Label elements

- WHMIS**
 - No label element(s) required

2.3 Other hazards

- WHMIS**
 - Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
				EU DSD/DPD: None	

Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA
-------------------------	-----	------	-----	-------------------------------------	-----

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|--|
| Suitable Extinguishing Media | <ul style="list-style-type: none"> Water, foam, dry chemical, carbon dioxide (CO2). |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"> None known. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none"> Does not present any special fire or explosive hazards. |
| Hazardous Combustion Products | <ul style="list-style-type: none"> Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes. |

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|---|
| Personal Precautions | <ul style="list-style-type: none"> No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. |
| Emergency Procedures | <ul style="list-style-type: none"> No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures. |

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black or white solid with slight rubber odor.
Color	Black or white.	Odor	Slight rubber odor.
Odor Threshold	Data lacking		

General Properties

Boiling Point	Not relevant	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		

Volatility

Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		

Flammability

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant.		

Environmental

Octanol/Water Partition coefficient	Data lacking		
-------------------------------------	--------------	--	--

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

- Reproductive Effects** • No reproductive effects expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information

Last Revision Date

- 06/May/2013

Preparation Date

- 16/August/2012

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **AcryliTop™ Base Coat for EPDM**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Hazardous to the aquatic environment Chronic 2 - H411

DSD/DPD • Dangerous to the Environment (N)
R51, R53

2.2 Label Elements

CLP



Hazard statements • H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

Prevention • P273 - Avoid release to the environment.

Response • P391 - Collect spillage.

Storage/Disposal • P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases** • R51 - Toxic to aquatic organisms.
R53 - May cause long-term adverse effects in the aquatic environment.

- Safety phrases** • S57 - Use appropriate containment to avoid environmental contamination.

2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD** • According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012** • Eye Irritation 2
Specific Target Organ Toxicity Single Exposure 1
Specific Target Organ Toxicity Repeated Exposure 1

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • Causes serious eye irritation
Causes damage to organs.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention** • Do not breathe mists, vapours, and/or spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear eye/face protection , .
- Response** • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF exposed: Call POISON CENTER or doctor/physician.
Specific treatment, see supplemental first aid information.
Get medical advice/attention if you feel unwell.
- Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

- OSHA HCS 2012** • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

- WHMIS** • Other Toxic Effects - D2A
Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS

- Other Toxic Effects - D2A
Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Aluminum hydroxide (Al(OH) ₃)	CAS:21645-51-2 EC Number:244-492-7	25% TO 40%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Acrylic polymer blend	NDA	15% TO 30%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Titanium dioxide	CAS:13463-67-7 EC Number:236-675-5	5% TO 10%	NDA	EU DSD/DPD: Self Classified: Mut. Cat. 3; Xn; R68; Carc. Cat. 3; Xn; R40 EU CLP: Self Classified: Muta. 2, H341; Carc. 2, H351; STOT RE 2, H373 OSHA HCS 2012: Muta. 2; Carc. 2; STOT RE 2 (Lungs)	NDA
Zinc oxide	CAS:1314-13-2 EC Number:215-222-5 EU Index:030-013-00-7	1% TO 5%	NDA	EU DSD/DPD: Annex VI, Table 3.2: N; R50-53 EU CLP: Annex VI, Table 3.1: Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Eye Irrit. 2	NDA
Ethylene glycol	CAS:107-21-1 EC Number:203-473-3 EU Index:603-027-00-1	1% TO 5%	Ingestion/Oral-Rat LD50 • 4700 mg/kg Skin-Rabbit LD50 • 9530 µL/kg	EU DSD/DPD: Annex VI, Table 3.2: Xn; R22 EU CLP: Annex VI, Table 3.1: Acute Tox. 4*, H302 OSHA HCS 2012: Eye Irrit. 2; STOT SE 1 (Kidney, Orl); STOT RE 1 (Kidney, Orl)	NDA

See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical

Skin	attention.
	<ul style="list-style-type: none"> Immediately flush skin with soap and plenty of water. If irritation develops and persists, get medical attention.
Eye	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.
Ingestion	<ul style="list-style-type: none"> Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician	<ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
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Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Carbon dioxide, water, water fog, dry chemical, chemical foam.

Unsuitable Extinguishing Media • No data available

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Product is not considered flammable or combustible.

Hazardous Combustion Products • Compounds of carbon, hydrogen, oxygen, aluminium and zinc, including carbon monoxide.

5.3 Advice for firefighters

- Keep containers cool with water spray to prevent container rupture due to steam buildup; floor will become slippery if material is released. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE) Avoid breathing mist, vapours, spray. Avoid contact with skin and eyes.

Emergency Procedures • Keep unauthorized personnel away. Stay upwind. Stop leak if you can do it without risk.

6.2 Environmental precautions

- Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Stop leak if you can do it without risk. Contain and/or absorb spill with inert material (e.g. sand, vermiculite).

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal

Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only with adequate ventilation. Wear appropriate personal protective equipment. Avoid breathing mist, vapours, spray. Avoid contact with skin and eyes. Do not ingest. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Do not freeze or expose to freezing temperatures.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Australia	Belgium	Canada Alberta	Canada British Columbia
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable)	10 mg/m3 STEL (respirable)
	TWAs	2 mg/m3 TWA (respirable fraction)	10 mg/m3 TWA (containing no asbestos and <1% crystalline silica, inhalable dust); 5 mg/m3 TWA (fume)	10 mg/m3 TWA (dust); 5 mg/m3 TWA (fume)	2 mg/m3 TWA (respirable)	2 mg/m3 TWA (respirable)
Ethylene glycol (107-21-1)	STELs	Not established	40 ppm STEL (vapour); 104 mg/m3 STEL (vapour)	Not established	Not established	20 mg/m3 STEL (particulate)
	TWAs	Not established	10 mg/m3 TWA (particulate); 20 ppm TWA (vapour); 52 mg/m3 TWA (vapour)	Not established	Not established	10 mg/m3 TWA (particulate)
	Ceilings	100 mg/m3 Ceiling (aerosol only)	Not established	Not established	100 mg/m3 Ceiling	100 mg/m3 Ceiling (aerosol); 50 ppm Ceiling (vapour)
Titanium dioxide (13463-67-7)	TWAs	10 mg/m3 TWA	10 mg/m3 TWA (containing no asbestos and <1% crystalline silica, inhalable dust)	10 mg/m3 TWA	10 mg/m3 TWA	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction)
Aluminum hydroxide (Al(OH) ₃)	TWAs	1 mg/m3 TWA (respirable fraction) <i>as Aluminum insoluble compounds</i>	Not established	Not established	Not established	1.0 mg/m3 TWA (respirable) <i>as Aluminum insoluble compounds</i>

Exposure Limits/Guidelines (Con't.)						
	Result	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)
	TWAs	2 mg/m3 TWA (respirable fraction)	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, dust); 5 mg/m3 TWA (fume)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable fraction)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)
Ethylene glycol (107-21-1)	Ceilings	100 mg/m3 Ceiling (aerosol only)	100 mg/m3 Ceiling (aerosol)	50 ppm Ceiling (vapour); 127 mg/m3 Ceiling (vapour)	100 mg/m3 Ceiling (aerosol only)	50 ppm Ceiling (vapour); 127 mg/m3 Ceiling (vapour)
	STELs	Not established	Not established	20 mg/m3 STEL (particulate)	Not established	20 mg/m3 STEL (particulate)
	TWAs	Not established	Not established	10 ppm TWA (particulate)	Not established	10 mg/m3 TWA (particulate)
Titanium dioxide (13463-67-7)	TWAs	10 mg/m3 TWA	10 mg/m3 TWA	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	10 mg/m3 TWA	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Aluminum hydroxide (Al(OH) ₃)	TWAs	1 mg/m3 TWA (respirable fraction) <i>as Aluminum insoluble compounds</i>	Not established	Not established	1 mg/m3 TWA (respirable fraction) <i>as Aluminum insoluble compounds</i>	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Ontario	Canada Quebec	Canada Saskatchewan	Canada Yukon	China
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (respirable)	10 mg/m3 STEV (fume)	Not established	10 mg/m3 STEL (fume); 20 mg/m3 STEL (dust)	5 mg/m3 STEL
	TWAs	2 mg/m3 TWA (respirable)	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)	2 mg/m3 TWA (dust and fume, respirable fraction)	5 mg/m3 TWA (fume); 30 mppcf TWA (dust); 10 mg/m3 TWA (dust)	3 mg/m3 TWA
Ethylene glycol (107-21-1)	STELs	Not established	Not established	Not established	10 ppm STEL (particulate); 20 mg/m3 STEL (particulate); 125 ppm STEL (vapour); 325 mg/m3 STEL (vapour)	40 mg/m3 STEL
	TWAs	Not established	Not established	Not established	10 mg/m3 TWA (particulate); 100 ppm TWA (vapour); 250 mg/m3 TWA (vapour)	20 mg/m3 TWA
	Ceilings	100 mg/m3 Ceiling (aerosol only)	50 ppm Ceiling (mist and vapour); 127 mg/m3 Ceiling (mist and vapour)	Not established	Not established	Not established

	STELs	Not established	Not established	Not established	20 mg/m3 STEL (as Ti)	16 mg/m3 STEL (total dust)
Titanium dioxide (13463-67-7)	TWAs	10 mg/m3 TWA	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust)	10 mg/m3 TWA	30 mppcf TWA (as Ti); 10 mg/m3 TWA (as Ti)	8 mg/m3 TWA (total dust)
Aluminum hydroxide (Al(OH) ₃)	TWAs	1 mg/m3 TWA (respirable) <i>as Aluminum insoluble compounds</i>	Not established	Not established	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Cyprus	Denmark	Germany DFG	Germany TRGS	NIOSH
Zinc oxide (1314-13-2)	TWAs	Not established	4 mg/m3 TWA (including vapour, as Zn)	Not established	Not established	5 mg/m3 TWA (dust and fume)
	Ceilings	Not established	Not established	1 mg/m3 Peak (respirable fraction, fume)	Not established	15 mg/m3 Ceiling (dust)
	STELs	Not established	Not established	Not established	Not established	10 mg/m3 STEL (fume)
	MAKs	Not established	Not established	1 mg/m3 TWA MAK (fume, respirable fraction)	Not established	Not established
Ethylene glycol (107-21-1)	TWAs	20 ppm TWA; 52 mg/m3 TWA	10 ppm TWA; 26 mg/m3 TWA; 10 mg/m3 TWA (vapor)	Not established	10 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 26 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2)	Not established
	STELs	40 ppm STEL; 104 mg/m3 STEL	Not established	Not established	Not established	Not established
	Ceilings	Not established	Not established	20 ppm Peak; 52 mg/m3 Peak	Not established	Not established
	MAKs	Not established	Not established	10 ppm TWA MAK; 26 mg/m3 TWA MAK	Not established	Not established
Titanium dioxide (13463-67-7)	TWAs	Not established	6 mg/m3 TWA (as Ti)	Not established	Not established	Not established
Aluminum hydroxide (Al(OH) ₃) (21645-51-2)	MAKs	Not established	Not established	4 mg/m3 TWA MAK (dust, inhalable fraction); 1.5 mg/m3 TWA MAK (dust, respirable fraction)	Not established	Not established

Exposure Limits/Guidelines (Con't.)		
	Result	OSHA
Zinc oxide (1314-13-2)	TWAs	5 mg/m ³ TWA (fume); 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)
Titanium dioxide (13463-67-7)	TWAs	15 mg/m ³ TWA (total dust)

Exposure Control Notations

Cyprus

- Ethylene glycol (107-21-1): **Skin:** (Skin-potential for cutaneous absorption)

ACGIH

- Aluminum hydroxide (Al(OH)₃) as Aluminum insoluble compounds: **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Ethylene glycol (107-21-1): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Titanium dioxide (13463-67-7): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Germany TRGS

- Ethylene glycol (107-21-1): **Skin:** (skin notation)

Germany DFG

- Aluminum hydroxide (Al(OH)₃) (21645-51-2): **Pregnancy:** (classification not yet possible (respirable, inhalable, dust))
- Ethylene glycol (107-21-1): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)
- Titanium dioxide (13463-67-7): **Carcinogens:** (Category 3A (could be carcinogenic for man, inhalable fraction with the exception of ultra small particles))

Exposure Limits Supplemental

ACGIH

- Aluminum hydroxide (Al(OH)₃) as Aluminum insoluble compounds: **TLV Basis - Critical Effects:** (pneumoconiosis; lower respiratory tract irritation; neurotoxicity)
- Ethylene glycol (107-21-1): **TLV Basis - Critical Effects:** (eye and upper respiratory tract irritation)
- Titanium dioxide (13463-67-7): **TLV Basis - Critical Effects:** (lower respiratory tract irritation) | **Notice of Intended Changes (TLVs):** (1 mg/m³ TWA (respirable fraction); A3 - confirmed animal carcinogen with unknown relevance to humans; TLV basis: lower respiratory tract irritation, pneumoconiosis)
- Zinc oxide (1314-13-2): **TLV Basis - Critical Effects:** (metal fume fever)

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene
 MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration
 NIOSH = National Institute of Occupational Safety and Health
 OSHA = Occupational Safety and Health Administration
 STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Creamy, gray liquid with a paint-like odor.
Color	Gray	Odor	Paint-like
Odor Threshold	Data lacking		
General Properties			
Boiling Point	212 °F(100 °C)	Melting Point/Freezing Point	Not relevant
Decomposition Temperature	Data lacking	pH	8 to 9
Specific Gravity/Relative Density	= 1.44 Water=1	Water Solubility	Dispersible
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	760 @ 212°F	Vapor Density	> 1 Air=1
Evaporation Rate	<1	Volatiles (Wt.)	47.7 %
Volatiles (Vol.)	47.7 %		
Flammability			
Flash Point	> 212 °F(> 100 °C) STCC (Seta Test/Seta Flash Closed Cup)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Extreme temperatures. Do not freeze or expose to freezing temperatures.

10.5 Incompatible materials

- Strong acids. Strong oxidizing substances.

10.6 Hazardous decomposition products

- Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, aluminum, and zinc fumes and smoke may be produced.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Aluminum hydroxide (Al(OH) ₃) (25% TO 40%)	21645-51-2	<p>Multi-dose Toxicity: Ingestion/Oral-Woman TDLo • 73912.5 mg/kg 26 Week(s)-Intermittent; Blood:Changes in serum composition (e.g., TP, bilirubin cholesterol); Musculoskeletal:Osteoporosis; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:P;</p> <p>Reproductive: Ingestion/Oral-Woman TDLo • 84 g/kg (1-40W preg); Reproductive Effects:Effects on Newborn:Physical</p>
Ethylene glycol (1% TO 5%)	107-21-1	<p>Acute Toxicity: Ingestion/Oral-Rat LD50 • 470 mg/kg; Ingestion/Oral-Man TDLo • 15 g/kg; Peripheral Nerve and Sensation:Sensory change involving peripheral nerve; Gastrointestinal:Ulceration or bleeding from small intestine; Kidney, Ureter, and Bladder:Renal function tests depressed; Ingestion/Oral-Man TDLo • 1195 mg/kg; Peripheral Nerve and Sensation:Sensory change involving peripheral nerve; Kidney, Ureter, and Bladder:Renal function tests depressed; Ingestion/Oral-Man TDLo • 24 g/kg; Brain and Coverings:Other degenerative changes; Behavioral:Ataxia; Behavioral:Coma; Ingestion/Oral-Rat TDLo • 120 mg/kg; Blood:Changes in bone marrow not included above; Inhalation-Human TCLo • 22 mg/m³; Kidney, Ureter, and Bladder:Proteinuria; Inhalation-Rat TCLo • 0.004 g/m³ 2 Hour(s); Behavioral:Muscle contraction or spasticity; Lungs, Thorax, or Respiration:Respiratory stimulation; Gastrointestinal:Hypermotility, diarrhea; Skin-Rabbit LD50 • 9530 mg/kg;</p> <p>Irritation: Eye-Rabbit • 100 mg 1 Hour(s) • Mild irritation; Skin-Rabbit • 555 mg-Open • Mild irritation;</p> <p>Multi-dose Toxicity: Inhalation-Guinea Pig TCLo • 0.003 g/m³ 45 Day(s)-Intermittent; Behavioral:Excitement; Liver:Liver function tests impaired; Inhalation-Rat TCLo • 1 mg/m³ 32 Week(s)-Intermittent; Lungs, Thorax, or Respiration:Other changes; Liver:Liver function tests impaired; Kidney, Ureter, and Bladder:Changes in tubules (including acute renal failure, acute tubular necrosis); Inhalation-Rat TCLo • 0.003 g/m³ 228 Day(s)-Intermittent; Brain and Coverings:Other degenerative changes; Vascular:Structural changes in vessels; Lungs, Thorax, or Respiration:Emphysema; Inhalation-Rat TCLo • 0.02 g/m³ 153 Day(s)-Intermittent; Lungs, Thorax, or Respiration:Emphysema; Kidney, Ureter, and Bladder:Changes in tubules (including acute renal failure, acute tubular necrosis); Blood:Changes in spleen;</p> <p>Mutagen: Cytogenetic analysis • Ingestion/Oral-Rat • 1200 mg/kg;</p> <p>Reproductive: Ingestion/Oral-Mouse TDLo • 850 mg/kg (multigenerations); Reproductive Effects:Specific Developmental Abnormalities:Urogenital system; Inhalation-Mouse TCLo • 1000 mg/m³ 6 Hour(s)(6-15D preg); Reproductive Effects:Maternal Effects:Uterus, cervix, vagina; Reproductive Effects:Maternal Effects:Other effects; Reproductive Effects:Effects on Fertility:Pre-implantation mortality; Inhalation-Mouse TCLo • 2100 mg/m³ 6 Hour(s)(6-15D preg); Reproductive Effects:Effects on Fertility:Litter size (e.g., # fetuses per litter; measured before birth); Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system; Inhalation-Rat TCLo • 2500 mg/m³ 6 Hour(s)(6-15D preg); Reproductive Effects:Maternal Effects:Other effects; Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system; Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities</p>
Titanium dioxide (5% TO 10%)	13463-67-7	<p>Irritation: Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation;</p> <p>Multi-dose Toxicity: Inhalation-Mouse TCLo • 10 mg/m³ 6 Hour(s) 13 Week(s)-Intermittent; Lungs, Thorax, or Respiration:Other changes; Biochemical:Metabolism (intermediary):Effect on inflammation or mediation of inflammation; Inhalation-Rat TCLo • 250 mg/m³ 6 Hour(s) 4 Week(s)-Intermittent; Lungs, Thorax, or Respiration:Chronic pulmonary edema; Lungs, Thorax, or Respiration:Other changes;</p> <p>Mutagen: Micronucleus test • Ingestion/Oral-Mouse • 280 mg/kg 7 Day(s)-Intermittent; DNA damage • Ingestion/Oral-Mouse • 280 mg/kg 7 Day(s)-Intermittent; Cytogenetic analysis • Ingestion/Oral-Mouse • 280 mg/kg 7 Day(s)-Intermittent;</p> <p>Tumorigen / Carcinogen: Inhalation-Rat • 10 mg/m³ 18 Hour(s) 2 Year(s)-Intermittent; Tumorigenic:Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors; Inhalation-Rat TCLo • 250 mg/m³ 6 Hour(s) 2 Year(s)-Intermittent; Tumorigenic:Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors</p>
Zinc oxide (1% TO 5%)	1314-13-2	<p>Acute Toxicity: Inhalation-Mouse LC50 • 2500 mg/m³;</p> <p>Irritation: Eye-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation;</p> <p>Reproductive: Ingestion/Oral-Rat TDLo • 6846 mg/kg (1-22D preg); Reproductive Effects:Specific Developmental Abnormalities:Homeostasis; Reproductive Effects:Effects on Newborn:Stillbirth; Reproductive Effects:Effects on Newborn:Growth statistics (e.g., reduced weight gain)</p>

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Eye Irritation 2
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 1
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1

Potential Health Effects

Inhalation

Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- No data available

Skin

Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Prolonged or repeated skin contact may cause irritation.

Eye

Acute (Immediate)

- Causes serious eye irritation.

Chronic (Delayed)

- No data available

Ingestion

Acute (Immediate)

- May affect the kidney. Symptoms may include but are not limited to fatigue, confusion, nausea, vomiting, shortness of breath, seizures, or a dramatic decrease in urine output and in some cases blood in the urine.

Chronic (Delayed)

- Repeated and prolonged exposure may affect the kidneys. Symptoms may include but are not limited to weight loss, nausea, swelling of the arms and legs, vomiting, fatigue, headaches, decreased urine or urine that is mostly water, decreased mental sharpness, and muscle cramps and shakes.

Carcinogenic Effects

- Although this material contains titanium dioxide, which may be a carcinogen, due to the physical form of this material, it is unlikely that exposure to titanium dioxide will occur while using this material under normal conditions.

Carcinogenic Effects		
	CAS	IARC
Titanium dioxide	13463-67-7	Group 2B-Possible Carcinogen

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information**12.1 Toxicity**

	CAS	
AcryliTop™ Base Coat for EPDM	NDA	Aquatic Toxicity-Crustacea: 48 Hour(s) EC50 <i>Daphnia magna</i> 1 mg/L Comments: Zinc oxide 48 Hour(s) NOEC <i>Daphnia magna</i> 0.4 mg/L Comments: Zinc oxide

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- Toxic to aquatic life with long lasting effects.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Aluminum hydroxide (Al(OH) ₃)	21645-51-2	No	No	No
Ethylene glycol	107-21-1	Yes	Yes	Yes
Titanium dioxide	13463-67-7	Yes	Yes	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Yes	No	Yes	Yes	No
Ethylene glycol	107-21-1	Yes	No	Yes	Yes	No
Titanium dioxide	13463-67-7	Yes	No	Yes	Yes	No
Zinc oxide	1314-13-2	Yes	No	Yes	Yes	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Yes	Yes	Yes
Ethylene glycol	107-21-1	Yes	Yes	Yes
Titanium dioxide	13463-67-7	Yes	Yes	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Australia - High Volume Industrial Chemicals List

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	
• Titanium dioxide	13463-67-7	
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	

Australia - List of Designated Hazardous Substances - Classification

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed

• Zinc oxide	1314-13-2	Self classification required (dust and fume); N R50, R53
• Ethylene glycol	107-21-1	Xn R22

Environment

Australia - National Pollutant Inventory (NPI) Substance List

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	10 tonne/yr Threshold category 1

Australia - Ozone Protection Act - Scheduled Substances

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Australia - Priority Existing Chemical Program

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Canada

Labor**Canada - WHMIS - Classifications of Substances**

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Uncontrolled product according to WHMIS classification criteria D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Titanium dioxide, mixture containing on Health Canada's WHMIS Division website.)
• Titanium dioxide	13463-67-7	
• Zinc oxide	1314-13-2	Uncontrolled product according to WHMIS classification criteria
• Ethylene glycol	107-21-1	D1B, D2A

Canada - WHMIS - Ingredient Disclosure List

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	1 %
• Ethylene glycol	107-21-1	1 %

Environment**Canada - CEPA - Priority Substances List**

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Priority Substance List 2 (substance not considered toxic)

China**Other****China - Annex I & II - Controlled Chemicals Lists**

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Denmark**Environment****Denmark - List of Undesirable Substances - Product Groups/Function**

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed

• Zinc oxide	1314-13-2	N; R50-53
• Ethylene glycol	107-21-1	Xn; R22
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	N R:50/53 S:60-61
• Ethylene glycol	107-21-1	Xn R:22 S:(2)
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	S:60-61
• Ethylene glycol	107-21-1	S:(2)

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Environment

Germany - TA Luft - Types and Classes

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed
Germany - TA Luft - Emission Limits for Carcinogenic Substances		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed
Germany - TA Luft - Emission Limits for Fibers		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Dusts		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Gases		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed
Germany - TA Luft - Emission Limits for Organic Substances		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	ID Number 1345, not considered hazardous to water
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	ID Number 105, hazard class 1 - low hazard to waters (footnote 11)
Germany - Water Classification (VwVwS) - Annex 3		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	ID Number 5220, not considered hazardous to water
• Titanium dioxide	13463-67-7	Not Listed

• Zinc oxide	1314-13-2	ID Number 2187, hazard class 2 - hazard to waters
• Ethylene glycol	107-21-1	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	5000 lb final RQ; 2270 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed

• Ethylene glycol	107-21-1	1.0 % de minimis concentration
U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing		
• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	carcinogen, initial date 9/2/11 (airborne, unbound particles of respirable size)
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	(fume)

- Ethylene glycol

107-21-1

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Aluminum hydroxide (Al(OH) ₃)	21645-51-2	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Ethylene glycol	107-21-1	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information**Relevant Phrases (code & full text)**

- H302 - Harmful if swallowed
- H341 - Suspected of causing genetic defects.
- H351 - Suspected of causing cancer.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- R22 - Harmful if swallowed.
- R40 - Limited evidence of a carcinogenic effect.
- R50 - Very toxic to aquatic organisms.
- R68 - Possible risk of irreversible effects.

Revision Date

- 25/January/2018

Preparation Date

- 04/January/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **EPDM Bonding Adhesive BA-2004(T)**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Rubber adhesive

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Eye Irritation 2 - H319
- Flammable Liquids 2 - H225
- Hazardous to the aquatic environment Chronic 3 - H412
- Reproductive Toxicity 2 - H361d
- Skin Irritation 2 - H315
- Specific Target Organ Toxicity Repeated Exposure 2 - H373
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336

DSD/DPD

- Highly Flammable (F)
- Irritant (Xi)
- Harmful (Xn)
- Substances Toxic To Reproduction - Category 3
- R11, R38, R48/20, R52, R53, R63, R65, R67

2.2 Label Elements**CLP**

DANGER



- Hazard statements •**
- H225 - Highly flammable liquid and vapour
 - H315 - Causes skin irritation
 - H319 - Causes serious eye irritation
 - H336 - May cause drowsiness or dizziness
 - H361d - Suspected of damaging the unborn child.
 - H373 - May cause damage to organs -Central Nervous System (CNS)- through prolonged or repeated exposure
 - H412 - Harmful to aquatic life with long lasting effects

Precautionary statements

- Prevention •**
- P201 - Obtain special instructions before use.
 - P202 - Do not handle until all safety precautions have been read and understood.
 - P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 - P233 - Keep container tightly closed.
 - P240 - Ground and/or bond container and receiving equipment.
 - P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 - P242 - Use only non-sparking tools.
 - P243 - Take precautionary measures against static discharge.
 - P264 - Wash thoroughly after handling.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P273 - Avoid release to the environment.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 - P281 - Use personal protective equipment as required.

- Response •**
- P370+P378 - In case of fire: Use appropriate media for extinction.
 - P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - P352 - Wash with plenty of soap and water.
 - P332+P313 - If skin irritation occurs: Get medical advice/attention.
 - P363 - Wash contaminated clothing before reuse.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337+P313 - If eye irritation persists: Get medical advice/attention.
 - P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 - P331 - Do NOT induce vomiting.
 - P308+P313 - IF exposed or concerned: Get medical advice/attention.
 - P314 - Get medical advice/attention if you feel unwell.
 - P321 - Specific treatment, see supplemental first aid information.

- Storage/Disposal •**
- P405 - Store locked up.
 - P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 - P235 - Keep cool.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information •** 25-35 percent of this product consists of an ingredient of unknown toxicity.

DSD/DPD



- Risk phrases •**
- R11 - Highly flammable.
 - R38 - Irritating to skin.
 - R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 - R52 - Harmful to aquatic organisms.
 - R53 - May cause long-term adverse effects in the aquatic environment.
 - R63 - Possible risk of harm to the unborn child.
 - R65 - Harmful: may cause lung damage if swallowed.
 - R67 - Vapours may cause drowsiness and dizziness.

- Safety phrases •** S9 - Keep container in a well ventilated place

S16 - Keep away from sources of ignition - No Smoking.
S37 - Wear suitable gloves.

2.3 Other Hazards

CLP

- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD

- According to European Directive 1999/45/EC this preparation is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Acute Toxicity Oral 4
- Eye Irritation 2A
- Flammable Liquids 2
- Reproductive Toxicity 2
- Skin Irritation 2
- Specific Target Organ Toxicity Repeated Exposure 2
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements •**
- Highly flammable liquid and vapour
 - Harmful if swallowed
 - Causes skin irritation
 - Causes serious eye irritation
 - May cause drowsiness or dizziness
 - Suspected of damaging fertility or the unborn child.
 - May cause damage to organs - Central Nervous System (CNS) through prolonged or repeated exposure

Precautionary statements

- Prevention •**
- Obtain special instructions before use.
 - Do not handle until all safety precautions have been read and understood.
 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 - Keep container tightly closed.
 - Ground and/or bond container and receiving equipment.
 - Use explosion-proof electrical/ventilating/lighting/equipment.
 - Use only non-sparking tools.
 - Take precautionary measures against static discharge.
 - Wash thoroughly after handling.
 - Do not eat, drink or smoke when using this product.
 - Use only outdoors or in a well-ventilated area.
 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response •**
- In case of fire: Use appropriate media for extinction.
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - Wash with plenty of soap and water.
 - If skin irritation occurs: Get medical advice/attention.
 - Wash contaminated clothing before reuse.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
 Rinse mouth.
 Do NOT induce vomiting.
 IF exposed or concerned: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.
 Specific treatment, see supplemental first aid information.

Storage/Disposal • Keep cool.
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information • 25-35 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
 Other Toxic Effects - D2A
 Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS

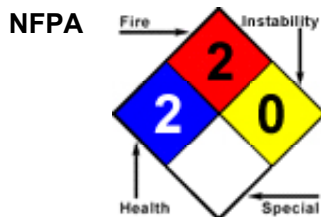
- Flammable Liquids - B2
 Other Toxic Effects - D2A
 Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information



See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Toluene	CAS: 108-88-3 EC Number: 203-625-9 UN: UN1294	34% TO 44%	Ingestion/Oral-Rat LD50 • 636 mg/kg Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s) Skin-Rabbit LD50 • 14100 µL/kg	EU DSD/DPD: Annex I - F; R11 Repr. Cat. 3; R63 Xn; R48/20-65 Xi; R38; R67 EU CLP: Annex VI - Flam. Liq. 2, H226; Repr. 2, H361d; Asp. Tox. 1, H304; STOT RE 2 * H373; Skin Irrit. 2, H315; STOT SE 3: H336 OSHA HCS 2012: Eye Irrit. 2A; Skin Irrit. 2; Flam. Liq. 2; Repr. 2; Acute Tox. 4 (oral); STOT SE 3: Narc.; Asp. Tox. 1	NDA
Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	CAS: 64741-84-0 EC Number: 265-086-6	25% TO 35%	NDA	EU DSD/DPD: Annex I - Carc. Cat. 2; R45; Muta. Cat. 2; R46; Xn; R65 EU CLP: Annex VI - Carc. 1B; Muta. 1B; Asp. Tox. 1 OSHA HCS 2012: Not Classified - Data Lacking	NDA
Polymers	NDA	11% TO 36%	NDA	EU DSD/DPD: Not Classified - Data Lacking EU CLP: Not Classified - Data Lacking OSHA HCS 2012: Not Classified - Data Lacking	NDA
Polychlorophene	CAS: 9010-98-4	< 12%	Ingestion/Oral-Rat LD50 • >40 g/kg	EU DSD/DPD: Not Classified - Classification criteria not met EU CLP: Not Classified - Classification criteria not met OSHA HCS 2012: Not Classified - Classification criteria not met	NDA
Acetone	CAS: 67-64-1 EC Number: 200-662-2 UN: UN1090	5% TO 10%	Ingestion/Oral-Rat LD50 • 5800 mg/kg Inhalation-Rat LC50 • 50100 mg/m ³	EU DSD/DPD: Annex I - F; R11 Xi; R36; R66; R67 EU CLP: Annex VI - Flam. Liq. 2, H226; Eye Irrit. 2, H319; STOT SE 3, H336 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3: Resp. Irrit. & Narc.; Repr. 2	NDA
Xylene	CAS: 1330-20-7 EC Number: 215-535-7 UN: UN1307	< 1%	Ingestion/Oral-Rat LD50 • 4300 mg/kg Inhalation-Rat LC50 • 5000 ppm 4 Hour(s) Skin-Rabbit LD50 • >1700 mg/kg	EU DSD/DPD: Annex I - R10 Xn; R20/21 Xi; R38 EU CLP: Annex VI - Flam. Liq. 3, H226; Acute Tox. 4 * H312; Acute Tox. 4 * H332; Skin Irrit. 2, H315 OSHA HCS 2012: Acute Tox. 4 (skin); Eye Irrit. 2A; Skin Irrit. 2; Repr. 2 (inhalation)	NDA
Magnesium oxide	CAS: 1309-48-4 EC Number: 215-171-9	< 1%	NDA	EU DSD/DPD: Self Classified - Xi; R36/37 EU CLP: Self Classified - Eye Irrit. 2, H319; STOT SE 3, H335 OSHA HCS 2012: Eye Irrit. 2; STO SE 3: Resp. Irrit.	NDA
Zinc oxide	CAS: 1314-13-2 EC Number: 215-222-5	< 0.3%	NDA	EU DSD/DPD: Self Classified - N; R50-53 EU CLP: Self Classified - Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Not Classified - Classification criteria not met	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none"> • IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention immediately if symptoms occur. |
| Skin | <ul style="list-style-type: none"> • In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing and shoes. If skin irritation occurs: Get medical advice/attention. |
| Eye | <ul style="list-style-type: none"> • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention. |
| Ingestion | <ul style="list-style-type: none"> • If swallowed, rinse mouth with water (only if the person is conscious) Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Get medical attention immediately if symptoms occur. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> • All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|---|
| Suitable Extinguishing Media | <ul style="list-style-type: none"> • CAUTION: For mixtures containing a high percentage of an alcohol or polar solvent, alcohol-resistant foam may be more effective.
LARGE FIRES: Water spray, fog or alcohol-resistant foam.
SMALL FIRES: Dry chemical, CO₂, water spray or alcohol-resistant foam. |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"> • Do not use a direct stream of water. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|---|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none"> • Containers may explode when heated.
Vapor explosion hazard indoors, outdoors or in sewers.
HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
Many liquids are lighter than water.
Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
Runoff to sewer may create fire or explosion hazard.
Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
Vapors may form explosive mixtures with air.
Vapors may travel to source of ignition and flash back. |
| Hazardous Combustion Products | <ul style="list-style-type: none"> • Oxides of carbon, oxides of nitrogen, hydrochloric acid. |

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk.
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- CAUTION: Victim may be a source of contamination. Do not touch or walk through spilled material.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Use clean non-sparking tools to collect absorbed material.
A vapor suppressing foam may be used to reduce vapors.
All equipment used when handling the product must be grounded.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Do not use in areas without adequate ventilation. Handle and open container with care. Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store locked up. Keep away from fire. Store in a well-ventilated place. Keep container tightly closed.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Ontario	Canada Quebec	China	Europe
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (respirable)	10 mg/m3 STEV (fume)	5 mg/m3 STEL	Not established
	TWAs	2 mg/m3 TWA (respirable fraction)	2 mg/m3 TWA (respirable)	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)	3 mg/m3 TWA	Not established
Magnesium oxide	STELs	Not established	Not established	Not established	20 mg/m3 STEL (fume)	Not established

(1309-48-4)	TWAs	10 mg/m3 TWA (inhalable fraction)	10 mg/m3 TWA (inhalable)	10 mg/m3 TWAEV (fume, as Mg)	10 mg/m3 TWA (fume)	Not established
Xylene (1330-20-7)	STELs	150 ppm STEL	150 ppm STEL	150 ppm STEV; 651 mg/m3 STEV	100 mg/m3 STEL	Not established
	TWAs	100 ppm TWA	100 ppm TWA	100 ppm TWAEV; 434 mg/m3 TWAEV	50 mg/m3 TWA	Not established
Acetone (67-64-1)	STELs	750 ppm STEL	750 ppm STEL	1000 ppm STEV; 2380 mg/m3 STEV	450 mg/m3 STEL	Not established
	TWAs	500 ppm TWA	500 ppm TWA	500 ppm TWAEV; 1190 mg/m3 TWAEV	300 mg/m3 TWA	Not established
Toluene (108-88-3)	STELs	Not established	Not established	Not established	100 mg/m3 STEL	100 ppm STEL; 384 mg/m3 STEL
	TWAs	20 ppm TWA	20 ppm TWA	50 ppm TWAEV; 188 mg/m3 TWAEV	50 mg/m3 TWA	50 ppm TWA; 192 mg/m3 TWA

Exposure Limits/Guidelines (Con't.)

	Result	Germany DFG	Germany TRGS	NIOSH	OSHA
Zinc oxide (1314-13-2)	TWAs	Not established	Not established	5 mg/m3 TWA (dust and fume)	5 mg/m3 TWA (fume); 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
	Ceilings	1 mg/m3 Peak (respirable fraction, fume)	Not established	15 mg/m3 Ceiling (dust)	Not established
	STELs	Not established	Not established	10 mg/m3 STEL (fume)	Not established
	MAKs	1 mg/m3 TWA MAK (fume, respirable fraction)	Not established	Not established	Not established
Magnesium oxide (1309-48-4)	TWAs	Not established	Not established	Not established	15 mg/m3 TWA (fume, total particulate)
	MAKs	1.5 mg/m3 TWA MAK (respirable fraction); 4 mg/m3 TWA MAK (inhalable fraction)	Not established	Not established	Not established
Xylene (1330-20-7)	TWAs	Not established	100 ppm TWA AGW (all isomers, exposure factor 2); 440 mg/m3 TWA AGW (all isomers, exposure factor 2)	Not established	100 ppm TWA; 435 mg/m3 TWA
	Ceilings	200 ppm Peak (all isomers); 880 mg/m3 Peak (all isomers)	Not established	Not established	Not established
	MAKs	100 ppm TWA MAK; 440 mg/m3 TWA MAK	Not established	Not established	Not established
Acetone (67-64-1)	TWAs	Not established	500 ppm TWA AGW (exposure factor 2); 1200 mg/m3 TWA AGW (exposure factor 2)	250 ppm TWA; 590 mg/m3 TWA	1000 ppm TWA; 2400 mg/m3 TWA
	Ceilings	1000 ppm Peak; 2400 mg/m3 Peak	Not established	Not established	Not established
	MAKs	500 ppm TWA MAK; 1200 mg/m3 TWA MAK	Not established	Not established	Not established
	Ceilings	200 ppm Peak; 760 mg/m3 Peak	Not established	Not established	300 ppm Ceiling
			50 ppm TWA AGW (The		

Toluene (108-88-3)	TWAs	Not established	risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4); 190 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4)	100 ppm TWA; 375 mg/m ³ TWA	200 ppm TWA
	STELs	Not established	Not established	150 ppm STEL; 560 mg/m ³ STEL	Not established
	MAKs	50 ppm TWA MAK; 190 mg/m ³ TWA MAK	Not established	Not established	Not established

Exposure Control Notations

China

- Toluene (108-88-3): **Skin:** (Skin notation)

Canada Quebec

- Toluene (108-88-3): **Skin:** (Skin designation)

ACGIH

- Toluene (108-88-3): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Acetone (67-64-1): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Xylene (1330-20-7): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Magnesium oxide (1309-48-4): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Germany TRGS

- Toluene (108-88-3): **Skin:** (skin notation)
- Xylene (1330-20-7): **Skin:** (skin notation (all isomers))

Germany DFG

- Toluene (108-88-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)
- Acetone (67-64-1): **Pregnancy:** (classification not yet possible)
- Xylene (1330-20-7): **Pregnancy:** (classification not yet possible (all isomers)) | **Skin:** (skin notation (all isomers))
- Magnesium oxide (1309-48-4): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to (respirable fraction); inhalable fraction)

Exposure Limits Supplemental

ACGIH

- Toluene (108-88-3): **BEIs:** (0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene; 0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene; 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)) | **TLV Basis - Critical Effects:** (female reproductive; pregnancy loss; visual impairment)
- Acetone (67-64-1): **BEIs:** (50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)) | **TLV Basis - Critical Effects:** (CNS impairment; eye and upper respiratory tract irritation; hematologic effects) | **Notice of Intended Changes (TLVs):** (200 ppm TWA; 500 ppm STEL; BEI; TLV basis: CNS impairment, upper respiratory tract irritation)
- Xylene (1330-20-7): **BEIs:** (1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids) | **TLV Basis - Critical Effects:** (CNS impairment; eye and upper respiratory tract irritation)
- Zinc oxide (1314-13-2): **TLV Basis - Critical Effects:** (metal fume fever)

8.2 Exposure controls

Engineering Measures/Controls

- This adhesive is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if

Eye/Face	exposure limits are exceeded or symptoms are experienced.
Hands	<ul style="list-style-type: none"> Wear chemical splash safety goggles.
Skin/Body	<ul style="list-style-type: none"> Wear appropriate chemical resistant gloves (neoprene, nitrile, polyvinyl alcohol (PVA)). Wear appropriate chemical resistant clothing.
Environmental Exposure Controls	<ul style="list-style-type: none"> In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Amber to yellow liquid with strong aromatic .
Color	Amber to yellow.	Odor	Strong aromatic odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	55 to 142 °C(131 to 287.6 °F)	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	Heat of Decomposition	Data lacking
pH	Data lacking	Specific Gravity/Relative Density	= 0.844 Water=1
Water Solubility	Insoluble	Viscosity	Not relevant
Explosive Properties	Data lacking	Oxidizing Properties:	Data lacking
Volatility			
Vapor Pressure	9.5 to 185 mmHg (torr) @ 20 °C(68 °F)	Vapor Density	2.4 Air=1
Evaporation Rate	1.9 to 9.5 Ether = 1	VOC (Vol.)	633 g/L
Volatiles (Vol.)	76.4 %		
Flammability			
Flash Point	-18 °C(-0.4 °F) TCC (Tagliabue Closed Cup)	UEL	12.8 %
LEL	1 %	Autoignition	Data lacking
Self-Accelerating Decomposition Temperature (SADT)	Data lacking	Flammability (solid, gas)	Data lacking
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, and other sources of ignition. Avoid contact with combustible materials. Avoid contact with incompatible materials.

10.5 Incompatible materials

- Acids, bases, combustible materials, oxidizing materials.

10.6 Hazardous decomposition products

- Thermal decomposition could produce oxides of carbon, oxides of nitrogen, hydrochloric acid.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Toluene (34% TO 44%)	108-88-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 636 mg/kg; Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s); Skin-Rabbit LD50 • 14100 µL/kg; Irritation: Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; Reproductive: Inhalation-Rat TCLo • 800 mg/m ³ 6 Hour(s)(14-20D preg); <i>Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Effects on Newborn:Behavioral</i>
Polychlorophene (< 12%)	9010-98-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • >40 g/kg
Acetone (5% TO 10%)	67-64-1	Acute Toxicity: Ingestion/Oral-Rat LD50 • 5800 mg/kg; Inhalation-Rat LC50 • 50100 mg/m ³ ; Irritation: Eye-Rabbit • 20 mg • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Reproductive: Inhalation-Rat TCLo • 30 mg/m ³ (1-13D preg); <i>Reproductive Effects:Effects on Fertility:Pre-implantation mortality; Reproductive Effects:Effects on Fertility:Post-implantation mortality; Reproductive Effects:Effects on Embryo or Fetus:Fetal death</i>
Xylene (< 1%)	1330-20-7	Acute Toxicity: Ingestion/Oral-Rat LD50 • 4300 mg/kg; Liver:Other changes; Kidney, Ureter, and Bladder:Other changes; Inhalation-Rat LC50 • 5000 ppm 4 Hour(s); Skin-Rabbit LD50 • >1700 mg/kg; Irritation: Eye-Rabbit • 5 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation; Reproductive: Inhalation-Rat TCLo • 50 mg/m ³ 6 Hour(s)(1-21D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system; Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities; Reproductive Effects:Effects on Newborn:Growth statistics (e.g., reduced weight gain)</i>
Zinc oxide (< 0.3%)	1314-13-2	Irritation: Eye-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Reproductive: Ingestion/Oral-Rat TDLo • 6846 mg/kg (1-22D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Homeostasis; Reproductive Effects:Effects on Newborn:Stillbirth; Reproductive Effects:Effects on Newborn:Growth statistics (e.g., reduced weight gain)</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Acute Toxicity - Oral 4
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2A
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Toxic to Reproduction 2 OSHA HCS 2012 • Toxic to Reproduction 2
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2

Route(s) of entry/exposure • Skin, Eye, Ingestion/Oral

Potential Health Effects

Inhalation

- Acute (Immediate)** • May be harmful. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.
- Chronic (Delayed)** • Repeated and prolonged exposure may cause Central Nervous System (CNS) effects.

Skin

- Acute (Immediate)** • Causes skin irritation.
- Chronic (Delayed)** • No data available.

Eye

- Acute (Immediate)** • Causes serious eye irritation.
- Chronic (Delayed)** • No data available.

Ingestion

- Acute (Immediate)** • May be harmful.
- Chronic (Delayed)** • No data available.

Reproductive Effects

- Repeated and prolonged exposure may cause reproductive effects.

Section 12 - Ecological Information

12.1 Toxicity

	CAS	
EPDM Bonding Adhesive BA-2004(T)	NDA	<p>Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Pimephales promelas</i> 15.22-19.05 mg/L Comments: Toluene (108-88-3)</p> <p>96 Hour(s) LC50 <i>Oncorhynchus mykiss</i> 5.89-7.81 mg/L Comments: Toluene (108-88-3)</p> <p>96 Hour(s) LC50 <i>Pimephales promelas</i> 2.1-2.98 mg/L Comments: Naphtha, petroleum, solvent-refined light (Primarily Hexane) (64741-84-0)</p> <p>96 Hour(s) LC50 <i>Oncorhynchus mykiss</i> 4.74-6.33 mg/L Comments: Acetone (67-64-1)</p> <p>Aquatic Toxicity-Crustacea: 48 Hour(s) EC50 Water Flea <i>Daphnia magna</i> 10294-17704 mg/L Comments: Acetone (67-64-1)</p> <p>48 Hour(s) EC50 Water Flea <i>Daphnia magna</i> 9.74 mg/L Comments: Naphtha, petroleum, solvent-refined light (Primarily Hexane) (64741-84-0)</p>

- This material may be toxic to aquatic organisms and cause long-term adverse effects in the aquatic environment.

12.2 Persistence and degradability

- No information available for the product.

12.3 Bioaccumulative potential

- No information available for the product.

12.4 Mobility in Soil

- No information available for the product.

12.5 Results of PBT and vPvB assessment

- No data available

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives	3	II	NDA
TDG	UN1133	ADHESIVES	3	II	NDA
IMO/IMDG	UN1133	ADHESIVES	3	II	NDA
ADN	UN1133	ADHESIVES	3	II	NDA
ADR/RID	UN1133	Adhesives	3	II	NDA
IATA/ICAO	UN1133	Adhesives	3	II	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

14.8 Other information

- DOT** • Toluene has a reportable quantity of 1000 lbs (454 kg) as listed in Appendix A to 49 CFR 172.101. Xylene has a reportable quantity of 1000 lbs (454 kg) as listed in Appendix A to 49 CFR 172.101. Acetone has a reportable quantity of 5000 lbs (2270 kg) as listed in Appendix A to 49 CFR 172.101.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- Acute, Chronic, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
Polychlorophene	9010-98-4	No	No	No
Acetone	67-64-1	Yes	Yes	Yes

Magnesium oxide	1309-48-4	Yes	Yes	Yes
Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	No	No	No
Toluene	108-88-3	Yes	Yes	Yes
Xylene	1330-20-7	Yes	Yes	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Polychlorophene	9010-98-4	Yes	No	Yes	No	No
Acetone	67-64-1	Yes	No	Yes	Yes	No
Magnesium oxide	1309-48-4	Yes	No	Yes	Yes	No
Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Yes	No	Yes	Yes	No
Toluene	108-88-3	Yes	No	Yes	Yes	No
Xylene	1330-20-7	Yes	No	Yes	Yes	No
Zinc oxide	1314-13-2	Yes	No	Yes	Yes	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
Polychlorophene	9010-98-4	Yes	Yes	Yes
Acetone	67-64-1	Yes	Yes	Yes
Magnesium oxide	1309-48-4	Yes	Yes	Yes
Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	No	Yes	Yes
Toluene	108-88-3	Yes	Yes	Yes
Xylene	1330-20-7	Yes	Yes	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Australia - High Volume Industrial Chemicals List

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	
• Magnesium oxide	1309-48-4	
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Zinc oxide	1314-13-2	Not Listed

• Polychlorophene	9010-98-4	Not Listed
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Australia - List of Designated Hazardous Substances - Classification

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Xn Carc.Cat.2, Muta.Cat.2 R45, R46, R65
• Acetone	67-64-1	F, Xi R11, R36, R66, R67
• Magnesium oxide	1309-48-4	Self classification required (fume)
• Toluene	108-88-3	F, Xn, Xi Repr.Cat.3 R11, R63, R48/20, R65, R38, R67
• Xylene	1330-20-7	Xn, Xi R10, R20/21, R38
• Zinc oxide	1314-13-2	Self classification required (dust and fume); N R50, R53
• Polychlorophene	9010-98-4	Not Listed

Environment**Australia - National Pollutant Inventory (NPI) Substance List**

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	10 tonne/yr Threshold category 1
• Magnesium oxide	1309-48-4	10 tonne/yr Threshold category 1 (fume); 2000 tonne/yr Threshold category 2b (fume); 60000 MWH Threshold category 2b (fume); 20 MW Threshold category 2b (fume)
• Toluene	108-88-3	10 tonne/yr Threshold category 1
• Xylene	1330-20-7	10 tonne/yr Threshold category 1 (including individual or mixed isomers)
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Australia - Priority Existing Chemical Program

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Candidate chemical
• Xylene	1330-20-7	Candidate chemical
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	B2, D2B
• Magnesium oxide	1309-48-4	Uncontrolled product according to WHMIS classification criteria
• Toluene	108-88-3	B2, D2A, D2B
• Xylene	1330-20-7	B2, D2A, D2B
• Zinc oxide	1314-13-2	Uncontrolled product according to WHMIS classification criteria
• Polychlorophene	9010-98-4	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	1 %
• Magnesium oxide	1309-48-4	1 %
• Toluene	108-88-3	1 %
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	1 %
• Polychlorophene	9010-98-4	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)
• Xylene	1330-20-7	Priority Substance List 1 (substance not considered toxic)
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65
• Acetone	67-64-1	F; R11 Xi; R36 R66 R67
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67
• Xylene	1330-20-7	R10 Xn; R20/21 Xi; R38
• Zinc oxide	1314-13-2	N; R50-53
• Polychlorophene	9010-98-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed

• Xylene	1330-20-7	12.5%≤C: Xn; R20/21
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling		
• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	T R:45-46-65 S:53-45
• Acetone	67-64-1	F Xi R:11-36-66-67 S:(2)-9-16-26
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62
• Xylene	1330-20-7	Xn R:10-20/21-38 S:(2)-25
• Zinc oxide	1314-13-2	N R:50/53 S:60-61
• Polychlorophene	9010-98-4	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations		
• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	P
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	C
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases		
• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	S:53-45
• Acetone	67-64-1	S:(2)-9-16-26
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	S:(2)-36/37-46-62
• Xylene	1330-20-7	S:(2)-25
• Zinc oxide	1314-13-2	S:60-61
• Polychlorophene	9010-98-4	Not Listed

Mexico

Other

Mexico - Hazard Classifications

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Hazard Class = 3 PG = II UN1090
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Hazard Class = 3 PG = II UN1294
• Xylene	1330-20-7	Hazard Class = 3 PG = II UN1307; Hazard Class = 3 PG = III UN1307
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Mexico - Regulated Substances

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	UN1090
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	UN1294
• Xylene	1330-20-7	UN1307; UN1307
• Zinc oxide	1314-13-2	Not Listed

• Polychlorophene	9010-98-4	Not Listed
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United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	(isomers and mixtures)
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	5000 lb final RQ; 2270 kg final RQ
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
• Xylene	1330-20-7	100 lb final RQ; 45.4 kg final RQ
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	1.0 % de minimis concentration
• Xylene	1330-20-7	1.0 % de minimis concentration
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - EPA - Designated Generic Categories - Lead and Lead Compounds

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - EPA - Designated Generic Categories - Warfarin and Salts

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Included in waste stream: F039
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151
• Xylene	1330-20-7	Included in waste stream: F039
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	waste number U220
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	0.28 mg/L (wastewater); 160 mg/kg (nonwastewater)
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	0.080 mg/L (wastewater); 10 mg/kg (nonwastewater)
• Xylene	1330-20-7	0.32 mg/L (wastewater); 30 mg/kg (nonwastewater)
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	(total)
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
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• Acetone	67-64-1	waste number U002 (Ignitable waste)
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	waste number U220
• Xylene	1330-20-7	waste number U239 (Ignitable waste)
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Waste Minimization Priority Chemicals

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	developmental toxicity, initial date 1/1/91
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed

• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Zinc oxide	1314-13-2	(fume)
• Polychlorophene	9010-98-4	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

United States - Rhode Island

Labor

U.S. - Rhode Island - Hazardous Substance List

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Toxic; Flammable
• Magnesium oxide	1309-48-4	Toxic (fume)
• Toluene	108-88-3	Toxic (skin); Flammable (skin)
• Xylene	1330-20-7	Toxic (skin); Flammable (skin)
• Zinc oxide	1314-13-2	Toxic
• Polychlorophene	9010-98-4	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16 - Other Information

Revision Date	• 29/January/2018
Preparation Date	• 07/February/2013
Other Information	• Changes to this revision: Updated mailing address.
Disclaimer/Statement of Liability	• The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **EPDM Solvent-Free Bonding Adhesive**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Skin Sensitization 1 - H317
Eye Irritation 2 - H319

DSD/DPD • Irritant (Xi)
R36, R43

2.2 Label Elements

CLP

WARNING

Hazard statements • H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation

Precautionary statements

Prevention • P261 - Avoid breathing mist/vapours/spray.
P264 - Wash thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves and eye/face protection , .

- Response** • P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P363 - Wash contaminated clothing before reuse.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P321 - Specific treatment, see supplemental first aid information.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
- Storage/Disposal** • P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD

- Risk phrases** • R36 - Irritating to eyes.
R43 - May cause sensitisation by skin contact.
- Safety phrases** • S24 - Avoid contact with skin.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37 - Wear suitable gloves.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Skin Sensitization 1
Eye Irritation 2

2.2 Label elements

OSHA HCS 2012

WARNING

- Hazard statements** • May cause an allergic skin reaction
Causes serious eye irritation

Precautionary statements

- Prevention** • Avoid breathing mist/vapours/spray.
Wash thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves and eye/face protection , .
- Response** • IF ON SKIN: Wash with plenty of soap and water.
Wash contaminated clothing before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
Specific treatment, see supplemental first aid information.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

- Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or

international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



- Other Toxic Effects - D2B

WHMIS

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	CAS:68515-48-0 EINECS:271-090-9	30% TO 31%	NDA	EU DSD/DPD: Self Classified: Xi R36 EU CLP: Self Classified: Eye Irrit. 2, H319 OSHA HCS 2012: Eye Irrit. 2	NDA
3-aminopropyltrimethoxysilane	CAS:13822-56-5 EINECS:237-511-5	2.4% TO 5%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Flam Liq. 4	NDA
Organofunctional Silane	NDA	1% TO 2%	NDA	EU DSD/DPD: Self Classified: Xi R43 EU CLP: Self Classified: Skin Sens. 1, H317 OSHA HCS 2012: Skin Sens. 1	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|---|
| Inhalation | <ul style="list-style-type: none"> • Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none"> • Wash skin with soap and water. If irritation develops and persists, get medical attention. |
| Eye | <ul style="list-style-type: none"> • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention. |
| Ingestion | <ul style="list-style-type: none"> • Rinse mouth. Drink 1 - 2 glasses of water. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Get medical attention immediately. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> • All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|---|
| Suitable Extinguishing Media | <ul style="list-style-type: none"> • LARGE FIRE: Water spray, fog or regular foam. • SMALL FIRES: Dry chemical, CO2, water spray or regular foam. |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"> • No data available. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none"> • Some may burn but none ignite readily. |
| Hazardous Combustion Products | <ul style="list-style-type: none"> • No data available. |

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|---|
| Personal Precautions | <ul style="list-style-type: none"> • Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. |
| Emergency Procedures | <ul style="list-style-type: none"> • As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Keep out of low areas. Stay upwind. |

6.2 Environmental precautions

- Prevent entry into waterways and sewers.

6.3 Methods and material for containment and cleaning up

- | | |
|--------------------------------------|--|
| Containment/Clean-up Measures | <ul style="list-style-type: none"> • Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. • Dike to collect large liquid spills. |
|--------------------------------------|--|

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal

Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only in well ventilated areas. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist, vapours, spray. Avoid contact with skin, eyes, and clothing. Clean equipment as soon as possible after use. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in cool, dry place (60-80°F) away from moisture or incompatible materials. Keep container tightly closed when not in use. Do not freeze. Store away from heat, sparks and flame.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate chemical resistant clothing and chemical resistant gloves.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

STEL = Short Term Exposure Limits are based on 15-minute exposures

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

STEV = Short Term Exposure Value

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

OSHA = Occupational Safety and Health Administration

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description

Physical Form	Liquid	Appearance/Description	Light yellow or amber syrupy adhesive with minimal odor.
---------------	--------	------------------------	--

Color	Light yellow or amber.	Odor	Minimal odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 1.005 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	8000 Centipoise (cPs, cP) or mPas	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	> 1 Air=1
Evaporation Rate	Data lacking	Volatiles (Vol.)	13 g/L
Flammability			
Flash Point	170 °F(76.6667 °C) PMCC (Pensky-Martins Closed Cup)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid excessive freezing and heat.

10.5 Incompatible materials

- Moisture, water.

10.6 Hazardous decomposition products

- None known.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich (30% TO 31%)	68515-48-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • >10000 mg/kg; <i>Lungs, Thorax, or Respiration:Respiratory depression</i> ; Inhalation-Rat LC50 • >67 mg/m ³ 6 Hour(s); Skin-Rabbit LD50 • >3160 mg/kg; Irritation: Eye-Rabbit • 0.1 mL • Mild irritation; Reproductive: Ingestion/Oral-Rat TDLo • 10000 mg/kg (6-15D preg); <i>Reproductive Effects:Maternal Effects:Other effects; Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus);</i>

Tumorigen / Carcinogen: Ingestion/Oral-Mouse TDLo • 65700 mg/kg 2 Year(s)-Intermittent;
Tumorigenic:Neoplastic by RTECS criteria; Liver:Tumors; Tumorigenic:Increased incidence of tumors in susceptible strains

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2
Skin sensitization	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

- Acute (Immediate) • May cause irritation.
- Chronic (Delayed) • No data available

Skin

- Acute (Immediate) • May cause skin sensitization. Symptoms include redness, and skin rash.
- Chronic (Delayed) • No data available

Eye

- Acute (Immediate) • Causes serious eye irritation.
- Chronic (Delayed) • No data available

Ingestion

- Acute (Immediate) • No data available
- Chronic (Delayed) • No data available

Key to abbreviations

LD = Lethal Dose

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- No data available

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

State Right To Know				
Component	CAS	MA	NJ	PA
1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	No	No	No
3-aminopropyltrimethoxysilane	13822-56-5	No	No	No
Arien	64742-16-1	No	No	No
Carbomethoxyethyltrimethoxysilane	76301-00-3	No	No	No
Dibutyltin Diacetyldiacetate	22673-19-4	No	No	No
Silyl-terminated polyether	75009-88-0	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Yes	No	Yes	Yes	No
3-aminopropyltrimethoxysilane	13822-56-5	Yes	No	Yes	Yes	No
Arien	64742-16-1	Yes	No	Yes	Yes	No
Carbomethoxyethyltrimethoxysilane	76301-00-3	No	No	No	No	No
Dibutyltin Diacetyldiacetate	22673-19-4	Yes	No	Yes	Yes	No
Silyl-terminated polyether	75009-88-0	Yes	No	No	No	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Yes	Yes	Yes
3-aminopropyltrimethoxysilane	13822-56-5	Yes	Yes	Yes
Arien	64742-16-1	Yes	Yes	Yes
Carbomethoxyethyltrimethoxysilane	76301-00-3	No	No	No
Dibutyltin Diacetyldiacetate	22673-19-4	Yes	Yes	Yes
Silyl-terminated polyether	75009-88-0	Yes	Yes	No

Australia**Labor****Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring**

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbomethoxyethyltrimethoxysilane	76301-00-3	Not Listed

• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed
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Australia - High Volume Industrial Chemicals List

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Australia - List of Designated Hazardous Substances - Classification

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Environment**Australia - National Pollutant Inventory (NPI) Substance List**

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Australia - Priority Existing Chemical Program

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Full assessment - report published September 2012
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Belgium**Labor****Belgium - Substances and Preparations - Carcinogens and Mutagens**

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• 3-aminopropyltrimethoxysilane	13822-56-5	B3
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Environment

Canada - CEPA - Priority Substances List

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Environment**Germany - TA Luft - Types and Classes**

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed

• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed
Germany - TA Luft - Emission Limits for Fibers		
• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Dusts		
• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Gases		
• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed
Germany - TA Luft - Emission Limits for Organic Substances		
• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	ID Number 1295, hazard class 1 - low hazard to waters
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed
Germany - Water Classification (VwVwS) - Annex 3		

• 3-aminopropyltrimethoxysilane	13822-56-5	ID Number 7587, hazard class 1 - low hazard to waters
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed

• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

United States - California

Environment**U.S. - California - Proposition 65 - Carcinogens List**

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed

• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• 3-aminopropyltrimethoxysilane	13822-56-5	Not Listed
• Arien	64742-16-1	Not Listed
• 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl ester, C9-rich	68515-48-0	Not Listed
• Silyl-terminated polyether	75009-88-0	Not Listed
• Carbmethoxyethyltrimethoxysilane	76301-00-3	Not Listed
• Dibutyltin Diacetyldiacetate	22673-19-4	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Section 16 - Other Information

Revision Date

- 29/January/2018

Preparation Date

- 22/December/2014

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • EcoWhite™ EPDM Lap Sealant
Chemical Category • Adhesives

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

Telephone (General) • firestonemsds@bfdp.com
800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC
Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]
According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Flammable Liquids 2 - H225
Skin Irritation 2 - H315
Eye Irritation 2 - H319
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
Reproductive Toxicity 2 - H361

DSD/DPD • Highly Flammable (F)
Irritant (Xi)
Substances Toxic To Reproduction - Category 3
R11, R36/37/38, R62, R63

2.2 Label Elements

CLP

DANGER



- Hazard statements** • H225 - Highly flammable liquid and vapour
 H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation
 H361 - Suspected of damaging fertility or the unborn child.

Precautionary statements

- Prevention** • P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground and/or bond container and receiving equipment.
 P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P261 - Avoid breathing mist/vapours/spray.
 P264 - Wash thoroughly after handling.
 P271 - Use only outdoors or in a well-ventilated area.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P281 - Use personal protective equipment as required.
- Response** • P370+P378 - In case of fire: Use appropriate media for extinction.
 P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P321 - Specific treatment, see supplemental first aid information.
 P332+P313 - If skin irritation occurs: Get medical advice/attention.
 P362 - Take off contaminated clothing and wash before reuse.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P308+P313 - IF exposed or concerned: Get medical advice/attention.
- Storage/Disposal** • P233 - Keep container tightly closed.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases** • R11 - Highly flammable.
 R36/37/38 - Irritating to eyes, respiratory system and skin.
 R62 - Possible risk of impaired fertility.
 R63 - Possible risk of harm to the unborn child.
- Safety phrases** • S9 - Keep container in a well ventilated place
 S16 - Keep away from sources of ignition - No Smoking.
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S37 - Wear suitable gloves.

2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD** • According to European Directive 1999/45/EC this preparation is considered dangerous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Flammable Liquids 2 - H225
- Skin Irritation 2 - H315
- Eye Irritation 2A - H319
- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
- Reproductive Toxicity 2 - H361

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- Highly flammable liquid and vapour - H225
 - Causes skin irritation - H315
 - Causes serious eye irritation - H319
 - May cause respiratory irritation - H335
 - Suspected of damaging fertility or the unborn child. - H361

Precautionary statements

- Prevention**
- Obtain special instructions before use. - P201
 - Do not handle until all safety precautions have been read and understood. - P202
 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. - P210
 - Keep container tightly closed. - P233
 - Ground and/or bond container and receiving equipment. - P240
 - Use explosion-proof electrical/ventilating/lighting/equipment. - P241
 - Use only non-sparking tools. - P242
 - Take precautionary measures against static discharge. - P243
 - Avoid breathing mist/vapours/spray. - P261
 - Wash thoroughly after handling. - P264
 - Use only outdoors or in a well-ventilated area. - P271
 - Wear protective gloves/protective clothing/eye protection/face protection. - P280
 - Use personal protective equipment as required. - P281
- Response**
- In case of fire: Use appropriate media for extinction. - P370+P378
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
 - Call a POISON CENTER or doctor/physician if you feel unwell. - P312
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353
 - Specific treatment, see supplemental first aid information. - P321
 - If skin irritation occurs: Get medical advice/attention. - P332+P313
 - Take off contaminated clothing and wash before reuse. - P362
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
 - If eye irritation persists: Get medical advice/attention. - P337+P313
 - IF exposed or concerned: Get medical advice/attention. - P308+P313
- Storage/Disposal**
- Keep container tightly closed. - P233
 - Store in a well-ventilated place. Keep cool. - P403+P235
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2B

2.2 Label elements**WHMIS**

- Flammable Liquids - B2
- Other Toxic Effects - D2B

2.3 Other hazards**WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

- Due to the paste form of this material, it is unlikely that the solids of this material will be released while using under normal conditions.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Limestone	CAS:1317-65-3 EC Number:215-279-6	30% TO 60%	NDA	EU DSD/DPD: Self Classified: Xn R48/20 EU CLP: Self Classified: STOT RE 1 (Lungs), H372 OSHA HCS 2012: STOT RE 1 (Lungs)	NDA
Calcium oxide	CAS:1305-78-8 EC Number:215-138-9	20% TO 40%	NDA	EU DSD/DPD: Self Classified: C, R34 EU CLP: Self Classified: Skin Corr. 1C, H314; Eye Dam. 1, H318 OSHA HCS 2012: Skin Corr. 1C; Eye Dam. 1	NDA
Light aliphatic solvent naphtha	CAS:64742-89-8 EC Number:265-192-2	< 15%	NDA	EU DSD/DPD: Annex VI, Table 3.2: Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65 EU CLP: Annex VI: Carc. 1B, H350; Muta. 1B, H340; Asp. Tox. 1, H304 OSHA HCS 2012: Asp. Tox 1	NDA
Distillates (petroleum), hydrotreated light	CAS:64742-47-8 EC Number:265-149-8	< 7%	NDA	EU DSD/DPD: Annex VI, Table 3.2: Xn; R65 EU CLP: Annex VI: Asp. Tox. 1, H304 OSHA HCS 2012: Asp. Tox. 1	NDA
Titanium dioxide	CAS:13463-67-7 EC Number:236-675-5	< 5%	NDA	EU DSD/DPD: Self Classified: Carc. 3 R40; N R51-53 EU CLP: Self Classified: Carc. 2, H351; Aquatic Chronic 2, H411 OSHA HCS 2012: Carc. 2	NDA

Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	CAS: 64742-52-5 EC Number: 265-155-0	< 5%	NDA	EU DSD/DPD: Annex VI, Table 3.2: Carc.Cat.2; R45 EU CLP: Annex VI: Carc. 1B, H350 OSHA HCS 2012: Skin Irrit. 2	NDA
Bentonite	CAS: 1302-78-9 EC Number: 215-108-5	< 5%	NDA	EU DSD/DPD: Self Classified: Xn R48 EU CLP: Self Classified: STOT RE 2 (Lung), H373 OSHA HCS 2012: STOT RE 2 (Lung)	NDA
Quartz	CAS: 14808-60-7 EC Number: 238-878-4	< 0.1%	NDA	EU CLP: Community workplace exposure limit	NDA

See Section 16 for full text of H-statements and R-phrases. See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention immediately if symptoms occur.

Skin

- Rinse skin with rubbing alcohol first, followed immediately by washing affected area with soap and water. Remove and isolate contaminated clothing and shoes. If skin irritation occurs: Get medical advice/attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media

- LARGE FIRE: Water spray, fog or regular foam.
SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.

Unsuitable Extinguishing Media

- Do not use a direct stream of water.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. May form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Containers may explode when heated. Many liquids are lighter than water. Toxic fumes and vapors may be produced.

Hazardous Combustion Products

- Carbon oxides, nitrogen oxides, calcium oxides.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear positive pressure self-contained breathing apparatus (SCBA).
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Move containers from fire area if you can do it without risk.
Cool fire exposed containers with water.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not walk through spilled material. Wear appropriate personal protective equipment. Do not breathe mist/vapours/spray. Avoid contact with skin, eyes, and clothing.

Emergency Procedures

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) Keep unauthorized personnel away. Ventilate closed spaces before entering. Stay upwind. Keep out of low areas.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Use clean non-sparking tools to collect absorbed material.
A vapor suppressing foam may be used to reduce vapors.
All equipment used when handling the product must be grounded.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only with adequate ventilation. All equipment used when handling the product must be grounded. Take precautionary measures against static charges. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe mist/vapours/spray. Avoid contact with skin, eyes, and clothing. Handle and open container with care. Use good safety and industrial hygiene practices. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep away from heat, sparks and flame. Keep container tightly closed. Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Belgium	Canada Alberta	Canada British Columbia	Canada Manitoba
Quartz (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable fraction)	0.1 mg/m3 TWA (alveolar dust)	0.025 mg/m3 TWA (respirable particulate)	0.025 mg/m3 TWA (respirable)	0.025 mg/m3 TWA (respirable fraction)
Titanium dioxide (13463-67-7)	TWAs	10 mg/m3 TWA	10 mg/m3 TWA	10 mg/m3 TWA	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction)	10 mg/m3 TWA
Distillates (petroleum), hydrotreated light (64742-47-8)	TWAs	Not established	Not established	Not established	200 mg/m3 TWA (application restricted to conditions in which there are negligible aerosol exposures, as total Hydrocarbon vapour)	Not established
Calcium oxide (1305-78-8)	TWAs	2 mg/m3 TWA	2 mg/m3 TWA	2 mg/m3 TWA	2 mg/m3 TWA	2 mg/m3 TWA
Limestone (1317-65-3)	TWAs	Not established	10 mg/m3 TWA	10 mg/m3 TWA	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction)	Not established
	STELs	Not established	Not established	Not established	20 mg/m3 STEL	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario
Quartz (14808-60-7)	TWAs	0.1 mg/m3 TWA (respirable fraction)	0.1 mg/m3 TWA (respirable mass); 0.3 mg/m3 TWA (total mass)	0.025 mg/m3 TWA (respirable fraction)	0.1 mg/m3 TWA (respirable mass); 0.3 mg/m3 TWA (total mass)	0.10 mg/m3 TWA (designated substances regulation, respirable, listed under Silica, crystalline)
Titanium dioxide (13463-67-7)	TWAs	10 mg/m3 TWA	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	10 mg/m3 TWA	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	10 mg/m3 TWA
Calcium oxide (1305-78-8)	TWAs	2 mg/m3 TWA	2 mg/m3 TWA	2 mg/m3 TWA	2 mg/m3 TWA	2 mg/m3 TWA
	STELs	Not established	4 mg/m3 STEL	Not established	4 mg/m3 STEL	Not established
Limestone (1317-65-3)	TWAs	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica)	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	Not established	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Quebec	Canada Saskatchewan	Canada Yukon	Denmark	Germany DFG
Quartz (14808-60-7)	TWAs	0.1 mg/m3 TWAEV (respirable dust)	0.05 mg/m3 TWA (respirable fraction, listed under Silica - crystalline)	300 particle/mL TWA (listed under Silica)	0.3 mg/m3 TWA (total); 0.1 mg/m3 TWA (respirable)	Not established
	TWAs	10 mg/m3 TWAEV (containing no Asbestos and <1%	10 mg/m3 TWA	30 mppcf TWA (as Ti); 10 mg/m3 TWA	6 mg/m3 TWA (as Ti)	Not established

Titanium dioxide (13463-67-7)		Crystalline silica, total dust)		(as Ti)		
	STELs	Not established	Not established	20 mg/m3 STEL (as Ti)	Not established	Not established
Distillates (petroleum), hydrotreated light (64742-47-8)	Ceilings	Not established	Not established	Not established	Not established	40 ppm Peak; 280 mg/m3 Peak
	MAKs	Not established	Not established	Not established	Not established	20 ppm TWA MAK; 140 mg/m3 TWA MAK
Calcium oxide (1305-78-8)	TWAs	2 mg/m3 TWAEV	2 mg/m3 TWA	2 mg/m3 TWA	2 mg/m3 TWA	Not established
	STELs	Not established	Not established	4 mg/m3 STEL	Not established	Not established
Limestone (1317-65-3)	TWAs	10 mg/m3 TWAEV (Limestone, containing no Asbestos and <1% Crystalline silica, total dust)	10 mg/m3 TWA	30 mppcf TWA; 10 mg/m3 TWA	Not established	Not established
	STELs	Not established	Not established	20 mg/m3 STEL	Not established	Not established

Exposure Limits/Guidelines (Con't.)

	Result	NIOSH	OSHA
Quartz (14808-60-7)	TWAs	0.05 mg/m3 TWA (respirable dust)	Not established
Titanium dioxide (13463-67-7)	TWAs	Not established	15 mg/m3 TWA (total dust)
Calcium oxide (1305-78-8)	TWAs	2 mg/m3 TWA	5 mg/m3 TWA
Limestone (1317-65-3)	TWAs	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)

Exposure Control Notations

Germany DFG

- Titanium dioxide (13463-67-7): **Carcinogens:** (Category 3A (could be carcinogenic for man, inhalable fraction with the exception of ultra small particles))
- Distillates (petroleum), hydrotreated light (64742-47-8): **Carcinogens:** (Category 3B (could be carcinogenic for man, isomers in technical mixtures)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)
- Quartz (14808-60-7): **Carcinogens:** (Category 1 (causes cancer in man, alveola fraction))

8.2 Exposure controls

Engineering Measures/Controls

- This adhesive is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Skin/Body

- Wear appropriate chemical resistant clothing. Wear appropriate gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties**9.1 Information on Physical and Chemical Properties**

Material Description			
Physical Form	Liquid	Appearance/Description	White paste with petroleum naphtha odor.
Color	White	Odor	Petroleum naphtha odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	268 F(131.1111 C)	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	1.42 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	2 mmHg (torr)	Vapor Density	3 Air=1
Evaporation Rate	< 1 n-Butyl Acetate = 1	VOC (Vol.)	250 g/L
Volatiles (Vol.)	20 %		
Flammability			
Flash Point	65 F(18.3333 C)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Flammable Liquid.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity**10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Keep away from heat, sparks, and flame.

10.5 Incompatible materials

- Strong oxidizing agents.

10.6 Hazardous decomposition products

- None known.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Bentonite (< 5%)	1302-78-9	Tumorigen / Carcinogen: Ingestion/Oral-Mouse TDLo • 12000 g/kg 28 Week(s)-Continuous; <i>Tumorigenic:</i> Equivocal tumorigenic agent by RTECS criteria; Liver:Tumors
Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) (< 5%)	64742-52-5	Irritation: Skin-Rabbit • 500 mg • Severe irritation
Titanium dioxide (< 5%)	13463-67-7	Irritation: Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation; Tumorigen / Carcinogen: Inhalation-Rat TCLo • 250 mg/m ³ 6 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:</i> Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Toxicity for Reproduction	EU/CLP • Toxic to Reproduction 2 OSHA HCS 2012 • Toxic to Reproduction 2
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2A

Route(s) of entry/exposure

- Inhalation, Skin, Eye, Ingestion

Potential Health Effects

Inhalation

Acute (Immediate)

- No data available

Chronic (Delayed)

- Repeated and prolonged exposure may cause Central Nervous System (CNS) effects.

Skin**Acute (Immediate)**

- Causes skin irritation.

Chronic (Delayed)

- No data available.

Eye**Acute (Immediate)**

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- No harmful effects expected in amounts likely to be ingested by accident.

Chronic (Delayed)

- No data available.

Carcinogenic Effects

- Although this material contains titanium dioxide, which may be a carcinogen, due to the paste form of this material, it is unlikely that exposure to titanium dioxide will occur while using this material under normal conditions.

Carcinogenic Effects		
	CAS	IARC
Titanium dioxide	13463-67-7	Group 2B-Possible Carcinogen

Reproductive Effects

- May cause adverse reproductive effects - such as birth defects, miscarriages or infertility based on animal data.

Key to abbreviations

MLD = Mild

SEV = Severe

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

- Not expected to be harmful to aquatic organisms.

12.2 Persistence and degradability

- No information available for the product.

12.3 Bioaccumulative potential

- No information available for the product.

12.4 Mobility in Soil

- No information available for the product.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or

Packaging waste

international regulations.

- Containers, even those that have been emptied, can contain explosive vapors. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives	3	II	NDA
TDG	UN1133	ADHESIVES	3	II	NDA
IMO/IMDG	UN1133	ADHESIVES	3	II	NDA
ADN	UN1133	ADHESIVES	3	II	NDA
ADR/RID	UN1133	Adhesives	3	II	NDA
IATA/ICAO	UN1133	Adhesives	3	II	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****SARA Hazard Classifications**

- Fire, Acute, Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Bentonite	1302-78-9	No	No	No
Calcium oxide	1305-78-8	Yes	Yes	Yes
Distillates (petroleum), hydrotreated light	64742-47-8	No	No	No
Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	No	No	No
Light aliphatic solvent naphtha	64742-89-8	No	No	No
Limestone	1317-65-3	Yes	Yes	Yes
Quartz	14808-60-7	Yes	Yes	Yes
Titanium dioxide	13463-67-7	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Bentonite	1302-78-9	Yes	No	Yes	No	Yes
Calcium oxide	1305-78-8	Yes	No	Yes	No	Yes
Distillates (petroleum), hydrotreated light	64742-47-8	Yes	No	Yes	No	Yes
Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Yes	No	Yes	No	Yes
Light aliphatic solvent naphtha	64742-89-8	Yes	No	Yes	No	Yes
Limestone	1317-65-3	No	Yes	Yes	No	Yes
Quartz	14808-60-7	Yes	No	Yes	No	Yes
Titanium dioxide	13463-67-7	Yes	No	Yes	No	Yes

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	E D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Titanium dioxide, mixture containing on Health Canada's WHMIS Division website.)
• Titanium dioxide	13463-67-7	
• Limestone	1317-65-3	D2A
• Light aliphatic solvent naphtha	64742-89-8	B2 D2A (In certain cases, this classification does not apply.)

• Quartz	14808-60-7	For more information, consult the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS Division website.)
• Bentonite	1302-78-9	D2A
Canada - WHMIS - Ingredient Disclosure List		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	1 %
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	1 %
• Bentonite	1302-78-9	Not Listed

Environment

Canada - 2004 NPRI (National Pollutant Release Inventory)

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Canada - 2005 NPRI (National Pollutant Release Inventory)

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Canada - CEPA - Greenhouse Gases Subject to Mandatory Reporting

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed

• Bentonite	1302-78-9	Not Listed
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Canada - CEPA - Priority Substances List

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Canada - DWQ (Drinking Water Quality) - IMACs

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Other**Canada - Accelerated Reduction/Elimination of Toxics (ARET)**

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Canada New Brunswick**Environment****Canada - New Brunswick - Ozone Depleting Substances - Schedule A**

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• Distillates (petroleum), hydrotreated light	64742-47-8	Xn; R65
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Carc.Cat.2; R45
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Distillates (petroleum), hydrotreated light	64742-47-8	Xn R:65 S:(2)-23-24-62
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	T R:45 S:53-45
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	T R:45-46-65 S:53-45
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	L
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	P
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Distillates (petroleum), hydrotreated light	64742-47-8	S:(2)-23-24-62
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	S:53-45
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	S:53-45
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed

• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Environment**Germany - TA Luft - Types and Classes**

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed

• Bentonite	1302-78-9	Not Listed
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Germany - TA Luft - Emission Limits for Fibers

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed

• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	ID Number 1345, not considered hazardous to water
• Limestone	1317-65-3	ID Number 317, not considered hazardous to water
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	ID Number 849, not considered hazardous to water
• Bentonite	1302-78-9	Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Distillates (petroleum), hydrotreated light	64742-47-8	ID Number 5350, hazard class 1 - low hazard to waters
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	ID Number 322, hazard class 1 - low hazard to waters
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	ID Number 27, hazard class 1 - low hazard to waters
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Germany - Water Classification (VwVwS) - Annex 3

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	ID Number 849, not considered hazardous to water
• Bentonite	1302-78-9	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
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• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed

• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	carcinogen, initial date 9/2/11 (airborne, unbound particles of respirable size)
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed

• Quartz	14808-60-7	carcinogen, initial date 10/1/88 (airborne particles of respirable size)
• Bentonite	1302-78-9	Not Listed
U.S. - California - Proposition 65 - Developmental Toxicity		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed
U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed
U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed

• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Calcium oxide	1305-78-8	Not Listed
• Titanium dioxide	13463-67-7	Not Listed
• Limestone	1317-65-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Quartz	14808-60-7	Not Listed
• Bentonite	1302-78-9	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H304 - May be fatal if swallowed and enters airways
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage
H340 - May cause genetic defects.
H350 - May cause cancer.
H351 - Suspected of causing cancer.
H372 - Causes damage to organs through prolonged or repeated exposure.
H373 - May cause damage to organs through prolonged or repeated exposure.

H411 - Toxic to aquatic life with long lasting effects

R34 - Causes burns.

R40 - Limited evidence of a carcinogenic effect.

R45 - May cause cancer.

R46 - May cause heritable genetic damage.

R48 - Danger of serious damage to health by prolonged exposure.

R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R51 - Toxic to aquatic organisms.

R53 - May cause long-term adverse effects in the aquatic environment.

R65 - Harmful: may cause lung damage if swallowed.

Last Revision Date

- 16/June/2014

Preparation Date

- 11/January/2012

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

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SECTION 1: PRODUCT IDENTIFICATION

Product Name:	EcoWhite™ EPDM Splice Adhesive
Chemical Name / Synonym:	Butyl Rubber Adhesive
Chemical Family:	Mixture
24-Hour Emergency Phone:	(800) 424-9300 CHEMTREC
Manufacturer's Name:	Firestone Building Products Company
Manufacturer's Address:	250 West 96 th Street, Indianapolis, IN 46260
NFPA Hazard Rating:	Health 2, Flammability 3, Reactivity 0
HMIS Hazard Rating:	Health 2, Flammability 3, Reactivity 0

SECTION 2: CHEMICAL COMPOSITION

Chemical Name:	Common Name:	CAS #:	% (by wt)	Exposure Limits:
Toluene	Toluol	108-88-3	52	PEL 200 ppm OSHA CEIL 300 ppm TLV 20 ppm
n-Hexane	Hexane	110-54-3	14	PEL 500 ppm TLV 50 ppm (skin)
Xylene	Xylol	1330-20-7	5	PEL 100 ppm TLV 100 ppm ACGIH STEL 150 ppm
Polyisocyanate	None	28182-81-2	1.8	None Established
Nonhazardous as per 29 CFR 1910.1200.	None	None	27.2	None Established

SECTION 3: HAZARD IDENTIFICATION

Primary Route of Exposure:	Skin, Inhalation
Signs and Symptoms of Exposure:	Eye contact may cause severe eye irritation, redness, tearing and blurred vision. Prolonged or repeated skin contact may cause irritation, dermatitis and drying of the skin. Absorption through intact skin may contribute to an individual's overall exposure. Inhalation may cause respiratory system irritation and central nervous system depression (narcosis) characterized by headache, dizziness, muscular weakness and fatigue. Inhalation of toluene vapors above 200 ppm may result in impairment of coordination, increased reaction time and a bad taste in the mouth. May cause unconsciousness if exposure is excessive. Toluene LC ₅₀ : 8,000 ppm/4hr, rat; Polyisocyanate LC ₅₀ : <1,150 mg/m ³ , rat; Xylene LC ₅₀ : 5,000 ppm/4hr, rat; Toluene LD ₅₀ : 5 g/kg, rat; HDI LD ₅₀ : 10 g/kg, rat; Xylene LD ₅₀ : 4.3 g/kg, rat.
Medical Conditions Aggravated by Exposure:	Exposure to this product may aggravate pre-existing skin and respiratory diseases. Individuals with neurological diseases

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	should avoid exposure to hexane. Individuals, who are sensitized to isocyanates, and those with pre-existing lung diseases or conditions, including non-specific bronchial hyperactivity or asthma, must avoid all exposure to isocyanates. Toluene exposures have caused birth defects in laboratory animals when exposures were at concentrations that harmed the pregnant animal. The relevance of these findings to humans is uncertain.
Chronic Effects:	May cause kidney, liver, spleen and central nervous system damage. Acute or chronic overexposure to isocyanates may cause sensitization in some individuals, resulting allergic symptoms of the lower respiratory tract (asthma-like), including wheezing, shortness of breath and difficulty breathing. May cause brain cell and neuromuscular damage based upon animal studies.
Carcinogenicity:	None

SECTION 4: FIRST AID MEASURES

First Aid Procedures:	If this material contacts the eyes, hold eyelids open and flush immediately with a gentle stream of water for at least 15 minutes, preferably at an eyewash fountain. Get medical attention. In case of skin contact, clean with rubbing alcohol first, followed immediately by washing affected area with soap and water. In case of inhalation, remove to fresh uncontaminated air. Administer oxygen if breathing is labored. Give artificial respiration if breathing has stopped. Get medical attention immediately if oxygen or artificial respiration are administered. In case of accidental ingestion, do not induce vomiting. Get medical attention and advise the physician of the nature of the material.
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SECTION 5: FIRE FIGHTING PROCEDURES

Suitable Extinguishing Media:	Foam, water spray, (fog), carbon dioxide, dry chemical, and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this product. Water may be ineffective, but should be used to keep fire-exposed containers cool. If a leak or spill has ignited, use water to disperse the vapors and to protect men attempting to stop a leak. Water spray may be used to flush spills away from exposures.
Hazardous Combustion Products:	Carbon dioxide, carbon monoxide, aldehydes, trace amounts of cyanides, acid smoke and irritating fumes.
Recommended Fire Fighting Procedures:	Wear impermeable protective clothing and self-contained breathing apparatus. Toxic fumes and vapors may be evolved. Minimize the breathing of gases, vapors, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.
Unusual Fire and Explosion Hazards:	This product is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

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SECTION 6: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled:	Shut off and eliminate all ignition sources. Keep people away. Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Keep product clear of sewers, water, or extensive land areas. Assure conformity with applicable government regulations. Continue to observe precautions for volatile, flammable vapors from absorbed material.
Precautions to Be Taken in Handling and Storing:	Keep away from heat, sparks, and open flames. Keep containers closed. Vapors of this material are heavier than air and will collect in low or confined areas. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground all transfer containers and equipment.

SECTION 7: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation:	Use with ventilation sufficient to prevent exceeding recommended exposure limits or build up of explosive concentrations of vapor in air.
Respiratory Protection:	If personal exposure concentrations cannot be maintained below the appropriate exposure limits using engineering controls, a NIOSH approved respirator may be appropriate based on employer-determined exposure levels.
Eye Protection:	The use of safety glasses with side shields when pouring or applying this product may be warranted.
Skin Protection:	The use of polyvinyl alcohol, nitrile rubber, or neoprene glove when handling this product to avoid prolonged skin contact may be warranted.
Other:	Not required.
Work / Hygienic Practices:	Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Wash contaminated clothing prior to reuse.

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Tan liquid with characteristic odor		
Flash Point:	-15° F	Lower Explosive Limit:	1.2%
Method Used:	Tagliabue closed tester	Upper Explosive Limit:	7.4%
Evaporation Rate:	Unknown (Ether=1)	Boiling Point:	156° F
pH (undiluted product):	Unknown	Melting Point:	Unknown
Solubility in Water:	Difficult to mix	Specific Gravity:	.88 (Water=1)
Vapor Density:	Unknown (Air=1)	Percent Volatile:	71%
Vapor Pressure:	120 mm Hg @ 20°C		

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SECTION 9: STABILITY AND REACTIVITY

Thermal Stability:	Stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Avoid flames, sparks or other sources of ignition. Incompatible with acids, alkalies and strong oxidizing agents.

SECTION 10: TRANSPORTATION

Regulatory Agency:	U.S.A., DOT
Proper Shipping Name:	Adhesives, containing a flammable liquid
Hazard Classification:	3
Identification Number:	UN1133
Packing Group:	II
Labels Required:	Flammable
Other Requirements:	None known

SECTION 11: MISCELLANEOUS INFORMATION

Additional Comments:	None
Date of Previous MSDS:	August 4, 2010
Changes Since Previous MSDS:	None. Review only.
Telephone Number for Additional Information:	(317) 575-7190

DISCLAIMER

The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, a subsidiary of Firestone Diversified Products, LLC, assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Firestone Building Products Company

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SECTION 1: PRODUCT IDENTIFICATION

Product Name:	EcoWhite™ EPDM Splice Adhesive
Chemical Name / Synonym:	Butyl Rubber Adhesive
Chemical Family:	Mixture
24-Hour Emergency Phone:	(800) 424-9300 CHEMTREC
Manufacturer's Name:	Firestone Building Products Company
Manufacturer's Address:	250 West 96 th Street, Indianapolis, IN 46260
NFPA Hazard Rating:	Health 2, Flammability 3, Reactivity 0
HMIS Hazard Rating:	Health 2, Flammability 3, Reactivity 0

SECTION 2: CHEMICAL COMPOSITION

Chemical Name:	Common Name:	CAS #:	% (by wt)	Exposure Limits:
Toluene	Toluol	108-88-3	52	PEL 200 ppm OSHA CEIL 300 ppm TLV 20 ppm
n-Hexane	Hexane	110-54-3	14	PEL 500 ppm TLV 50 ppm (skin)
Xylene	Xylol	1330-20-7	5	PEL 100 ppm TLV 100 ppm ACGIH STEL 150 ppm
Polyisocyanate	None	28182-81-2	1.8	None Established
Nonhazardous as per 29 CFR 1910.1200.	None	None	27.2	None Established

SECTION 3: HAZARD IDENTIFICATION

Primary Route of Exposure:	Skin, Inhalation
Signs and Symptoms of Exposure:	Eye contact may cause severe eye irritation, redness, tearing and blurred vision. Prolonged or repeated skin contact may cause irritation, dermatitis and drying of the skin. Absorption through intact skin may contribute to an individual's overall exposure. Inhalation may cause respiratory system irritation and central nervous system depression (narcosis) characterized by headache, dizziness, muscular weakness and fatigue. Inhalation of toluene vapors above 200 ppm may result in impairment of coordination, increased reaction time and a bad taste in the mouth. May cause unconsciousness if exposure is excessive. Toluene LC ₅₀ : 8,000 ppm/4hr, rat; Polyisocyanate LC ₅₀ : <1,150 mg/m ³ , rat; Xylene LC ₅₀ : 5,000 ppm/4hr, rat; Toluene LD ₅₀ : 5 g/kg, rat; HDI LD ₅₀ : 10 g/kg, rat; Xylene LD ₅₀ : 4.3 g/kg, rat.
Medical Conditions Aggravated by Exposure:	Exposure to this product may aggravate pre-existing skin and respiratory diseases. Individuals with neurological diseases

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	should avoid exposure to hexane. Individuals, who are sensitized to isocyanates, and those with pre-existing lung diseases or conditions, including non-specific bronchial hyperactivity or asthma, must avoid all exposure to isocyanates. Toluene exposures have caused birth defects in laboratory animals when exposures were at concentrations that harmed the pregnant animal. The relevance of these findings to humans is uncertain.
Chronic Effects:	May cause kidney, liver, spleen and central nervous system damage. Acute or chronic overexposure to isocyanates may cause sensitization in some individuals, resulting allergic symptoms of the lower respiratory tract (asthma-like), including wheezing, shortness of breath and difficulty breathing. May cause brain cell and neuromuscular damage based upon animal studies.
Carcinogenicity:	None

SECTION 4: FIRST AID MEASURES

First Aid Procedures:	If this material contacts the eyes, hold eyelids open and flush immediately with a gentle stream of water for at least 15 minutes, preferably at an eyewash fountain. Get medical attention. In case of skin contact, clean with rubbing alcohol first, followed immediately by washing affected area with soap and water. In case of inhalation, remove to fresh uncontaminated air. Administer oxygen if breathing is labored. Give artificial respiration if breathing has stopped. Get medical attention immediately if oxygen or artificial respiration are administered. In case of accidental ingestion, do not induce vomiting. Get medical attention and advise the physician of the nature of the material.
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SECTION 5: FIRE FIGHTING PROCEDURES

Suitable Extinguishing Media:	Foam, water spray, (fog), carbon dioxide, dry chemical, and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this product. Water may be ineffective, but should be used to keep fire-exposed containers cool. If a leak or spill has ignited, use water to disperse the vapors and to protect men attempting to stop a leak. Water spray may be used to flush spills away from exposures.
Hazardous Combustion Products:	Carbon dioxide, carbon monoxide, aldehydes, trace amounts of cyanides, acid smoke and irritating fumes.
Recommended Fire Fighting Procedures:	Wear impermeable protective clothing and self-contained breathing apparatus. Toxic fumes and vapors may be evolved. Minimize the breathing of gases, vapors, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.
Unusual Fire and Explosion Hazards:	This product is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

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SECTION 6: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled:	Shut off and eliminate all ignition sources. Keep people away. Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Keep product clear of sewers, water, or extensive land areas. Assure conformity with applicable government regulations. Continue to observe precautions for volatile, flammable vapors from absorbed material.
Precautions to Be Taken in Handling and Storing:	Keep away from heat, sparks, and open flames. Keep containers closed. Vapors of this material are heavier than air and will collect in low or confined areas. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground all transfer containers and equipment.

SECTION 7: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation:	Use with ventilation sufficient to prevent exceeding recommended exposure limits or build up of explosive concentrations of vapor in air.
Respiratory Protection:	If personal exposure concentrations cannot be maintained below the appropriate exposure limits using engineering controls, a NIOSH approved respirator may be appropriate based on employer-determined exposure levels.
Eye Protection:	The use of safety glasses with side shields when pouring or applying this product may be warranted.
Skin Protection:	The use of polyvinyl alcohol, nitrile rubber, or neoprene glove when handling this product to avoid prolonged skin contact may be warranted.
Other:	Not required.
Work / Hygienic Practices:	Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Wash contaminated clothing prior to reuse.

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Tan liquid with characteristic odor		
Flash Point:	-15° F	Lower Explosive Limit:	1.2%
Method Used:	Tagliabue closed tester	Upper Explosive Limit:	7.4%
Evaporation Rate:	Unknown (Ether=1)	Boiling Point:	156° F
pH (undiluted product):	Unknown	Melting Point:	Unknown
Solubility in Water:	Difficult to mix	Specific Gravity:	.88 (Water=1)
Vapor Density:	Unknown (Air=1)	Percent Volatile:	71%
Vapor Pressure:	120 mm Hg @ 20°C		

Firestone Building Products Company

Material Safety Data Sheet

July 17, 2013

Page: 4

SECTION 9: STABILITY AND REACTIVITY

Thermal Stability:	Stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Avoid flames, sparks or other sources of ignition. Incompatible with acids, alkalies and strong oxidizing agents.

SECTION 10: TRANSPORTATION

Regulatory Agency:	U.S.A., DOT
Proper Shipping Name:	Adhesives, containing a flammable liquid
Hazard Classification:	3
Identification Number:	UN1133
Packing Group:	II
Labels Required:	Flammable
Other Requirements:	None known

SECTION 11: MISCELLANEOUS INFORMATION

Additional Comments:	None
Date of Previous MSDS:	August 4, 2010
Changes Since Previous MSDS:	None. Review only.
Telephone Number for Additional Information:	(317) 575-7190

DISCLAIMER

The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, a subsidiary of Firestone Diversified Products, LLC, assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name

- **EcoWhite™ QuickSeam™ Accessories**

Synonyms

- EcoWhite™ QuickSeam™ Corner Flashing; EcoWhite™ QuickSeam™ Corner Flashing P; EcoWhite™ QuickSeam™ Curb Flashing; EcoWhite™ QuickSeam™ Curb Flashing P; EcoWhite™ QuickSeam™ Flashing P; EcoWhite™ QuickSeam™ Flashing; EcoWhite™ QuickSeam™ Joint Cover; EcoWhite™ QuickSeam™ Joint Cover P; EcoWhite™ QuickSeam™ Penetration Pocket Kit; EcoWhite™ QuickSeam™ Penetration Pocket Kit P; EcoWhite™ QuickSeam™ Pipe Flashing; EcoWhite™ QuickSeam™ Pipe Flashing P; EcoWhite™ QuickSeam™ SA Flashing; EcoWhite™ QuickSeam™ SA Flashing P; EcoWhite™ QuickSeam™ SA Patch for Conduit Flashing; EcoWhite™ QuickSeam™ SA Patch for Conduit Flashing P; EcoWhite™ QuickSeam™ SA Pipe Boot Patch; EcoWhite™ QuickSeam™ SA Pipe Boot Patch P; EcoWhite™ QuickSeam™ Splice Tape; EcoWhite™ QuickSeam™ Splice Tape P; EcoWhite™ QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)
- Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP

- Not classified

DSD/DPD

- Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

- CLP** • This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
- DSD/DPD** • Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012** • Not classified

2.2 Label elements

- OSHA HCS 2012**
- Hazard statements** • No label elements(s) required

2.3 Other hazards

- OSHA HCS 2012** • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

- WHMIS** • Not classified

2.2 Label elements

- WHMIS** • No label element(s) required

2.3 Other hazards

- WHMIS** • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments

Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA
-------------------------	-----	------	-----	---	-----

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under

ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	White solid (EPDM) laminated to tape. No odor.
Color	White	Odor	Slight rubber odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Not relevant	Explosive Properties	Not relevant.

Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

- Other Material Information**
- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Reproductive Effects

- No reproductive effects expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information

Revision Date

- 17/January/2018

Preparation Date

- 11/July/2013

Other Information

- Changes to this revision: Product name modification; Additional product names added to section 1.1. Reclassified product to an article that affected most sections of the SDS since no hazard anticipated. Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company, LLC assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name** • **FillGard™ M Pourable Sealer Part A****1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified use(s)** • Construction**1.3 Details of the supplier of the safety data sheet****Manufacturer** • Firestone Building Products Company200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442**1.4 Emergency telephone number****Manufacturer** • (800) 424-9300 - CHEMTREC**Manufacturer** • (703) 527-3887 - CHEMTREC - International**Section 2: Hazards Identification****EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

- | | |
|----------------|---|
| CLP | <ul style="list-style-type: none">• Skin Irritation 2 - H315• Skin Sensitization 1 - H317• Eye Irritation 2 - H319• Acute Toxicity Inhalation 4 - H332• Respiratory Sensitization 1 - H334• Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335• Carcinogenicity 2 - H351• Specific Target Organ Toxicity Repeated Exposure 2 - H373 |
| DSD/DPD | <ul style="list-style-type: none">• Harmful (Xn)• Irritant (Xi)• Carcinogenic Substances - Category 3• R20, R36/37/38, R40, R42/43, R48/20 |

2.2 Label Elements**CLP****DANGER**

- Hazard statements •**
- H315 - Causes skin irritation
 - H317 - May cause an allergic skin reaction
 - H319 - Causes serious eye irritation
 - H332 - Harmful if inhaled
 - H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 - H335 - May cause respiratory irritation
 - H351 - Suspected of causing cancer.
 - H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention •**
- P201 - Obtain special instructions before use.
 - P202 - Do not handle until all safety precautions have been read and understood.
 - P260 - Do not breathe mist/vapours/spray.
 - P264 - Wash thoroughly after handling.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P272 - Contaminated work clothing should not be allowed out of the workplace.
 - P280 - Wear protective gloves, clothing, and eye/face protection, .
 - P281 - Use personal protective equipment as required.
 - P285 - In case of inadequate ventilation wear respiratory protection.
- Response •**
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
 - P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 - P321 - Specific treatment, see supplemental first aid information.
 - P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 - P362 - Take off contaminated clothing and wash before reuse.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337+P313 - If eye irritation persists: Get medical advice/attention.
 - P308+P313 - IF exposed or concerned: Get medical advice/attention.
 - P314 - Get medical advice/attention if you feel unwell.

- Storage/Disposal •**
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed. Keep away from moisture.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information •** 59 percent of this product consists of an ingredient of unknown toxicity.

DSD/DPD



- Risk phrases •**
- R20 - Harmful by inhalation.
 - R36/37/38 - Irritating to eyes, respiratory system and skin.
 - R40 - Limited evidence of a carcinogenic effect.
 - R42/43 - May cause sensitisation by inhalation and skin contact.
 - R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.

- Safety phrases •**
- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - S36 - Wear suitable protective clothing.
 - S37 - Wear suitable gloves.
 - S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 - S53 - Avoid exposure - obtain special instructions before use.

2.3 Other Hazards

CLP

- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD

- According to European Directive 1999/45/EC this preparation is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Skin Irritation 2
- Skin Sensitization 1A
- Eye Irritation 2
- Respiratory Sensitization 1A
- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
- Specific Target Organ Toxicity Repeated Exposure 1

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements •**
- Causes skin irritation
 - May cause an allergic skin reaction
 - Causes serious eye irritation
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 - May cause respiratory irritation
 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention •**
- Do not breathe mist/vapours/spray.
 - Wash thoroughly after handling.
 - Do not eat, drink or smoke when using this product.
 - Use only outdoors or in a well-ventilated area.
 - Contaminated work clothing should not be allowed out of the workplace.
 - Wear protective gloves, clothing, and eye/face protection, .
 - In case of inadequate ventilation wear respiratory protection.
- Response •**
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
 - If on skin: Wash with plenty of water .
 - Specific treatment, see supplemental first aid information.
 - If skin irritation or rash occurs: Get medical advice/attention.
 - Take off contaminated clothing and wash before reuse.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - If eye irritation persists: Get medical advice/attention.
 - Get medical advice/attention if you feel unwell.
- Storage/Disposal •**
- Store in a well-ventilated place. Keep container tightly closed.
 - Keep away from moisture.
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Very Toxic - D1A
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.2 Label elements**WHMIS****WHMIS**

- Very Toxic - D1A
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.3 Other hazards**WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Isocyanic acid, methylenedi-p-phenylene ester	CAS: 101-68-8 EC Number: 202-966-0 EU Index: 615-005-00-9	20% TO 40%	Ingestion/Oral-Rat LD50 • 9200 mg/kg Inhalation-Rat LC50 • 178 mg/m ³	EU DSD/DPD: Annex VI, Table 3.2: Carc. Cat. 3; R40; Xn R20-48/20; Xi R36/37/38 R42/43 EU CLP: Annex VI, Table 3.1: Carc. 2, H351; Acute Tox. 4, H332; STOT RE 2, H373; Eye Irrit. 2, H319; Skin Irrit. 2, H315; STOT SE 3, H335; Resp. Sens. 1, H334; Skin Sens. 1, H317 OSHA HCS 2012: Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1A; STOT SE 3: Resp. Irrit.; Resp. Sens. 1A; STOT RE 1 (Lungs);	NDA
Siloxanes and Silicones, di-Me, reaction products with silica	CAS: 67762-90-7	1% TO 5%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Propane, 1,2-epoxy-	CAS: 75-56-9 EC Number: 200-879-2 EU Index: 603-055-00-4	< 0.1%	Ingestion/Oral-Rat LD50 • 380 mg/kg Inhalation-Rat LC50 • 4000 ppm 4 Hour(s) Skin-Rabbit LD50 • 1500 µL/kg	EU CLP: Community workplace exposure limit OSHA HCS 2012: Exposure limits	NDA
Furan	CAS: 110-00-9 EC Number: 203-727-3 EU Index: 603-105-00-5	< 0.1%	NDA	EU CLP: Community workplace exposure limit OSHA HCS 2012: Exposure limits	NDA
	CAS: 7440-48-4				

Cobalt	EC Number:231-158-0 EU Index:027-001-00-9	< 0.1%	Ingestion/Oral-Rat LD50 • 6171 mg/kg	EU CLP: Community workplace exposure limit OSHA HCS 2012: Exposure limits	NDA
Acetaldehyde	CAS:75-07-0 EC Number:200-836-8 EU Index:605-003-00-6	< 0.1%	Ingestion/Oral-Rat LD50 • 661 mg/kg Inhalation-Rat LC50 • 13300 ppm 4 Hour(s) Skin-Rabbit LD50 • 3540 mg/kg	EU CLP: Community workplace exposure limit OSHA HCS 2012: Exposure limits	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention immediately.

Skin

- Remove contaminated clothing and shoes. Wash immediately with soap and water for at least 15 minutes. Discard contaminated shoes and clothing. If irritation develops and persists, get medical attention.

Eye

- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.

Ingestion

- Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Carbon Dioxide, Dry Chemical, Foam.

Unsuitable Extinguishing Media • Do not use water.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- Reacts with water and emits carbon dioxide gas. Exposure to water will initiate reaction, which may be violent.
The product is not flammable. However, it will burn if strongly heated and when involved in fire.

Hazardous Combustion Products

- Carbon oxides. Nitrogen oxides. Hydrocarbons. Isocyanates.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Wear positive pressure self-contained breathing apparatus (SCBA).
Move containers from fire area if you can do it without risk.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stay upwind. Keep out of low areas. Keep unauthorized personnel away. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
LARGE SPILLS: Dike far ahead of spill for later disposal.
Never return spills in original containers for re-use.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only in well ventilated areas. Use good safety and industrial hygiene practices. Wear appropriate personal protective equipment, avoid direct contact. Do not breath mist/vapours/spray. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a cool, dry, well-ventilated place. Keep away from incompatible materials.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick
Acetaldehyde (75-07-0)	Ceilings	25 ppm Ceiling	25 ppm Ceiling; 45 mg/m3 Ceiling	25 ppm Ceiling	25 ppm Ceiling	25 ppm Ceiling; 45 mg/m3 Ceiling
Propane, 1,2-epoxy - (75-56-9)	TWAs	2 ppm TWA	2 ppm TWA; 4.7 mg/m3 TWA	2 ppm TWA	2 ppm TWA	20 ppm TWA; 48 mg/m3 TWA
Cobalt (7440-48-4)	TWAs	0.02 mg/m3 TWA	0.02 mg/m3 TWA	0.02 mg/m3 TWA	0.02 mg/m3 TWA	0.02 mg/m3 TWA

Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)	TWAs	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA; 0.05 mg/m3 TWA	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.051 mg/m3 TWA (listed under Methylene bisphenyl isocyanate)
	Ceilings	Not established	Not established	0.01 ppm Ceiling (listed under Methylene bisphenyl isocyanate (MDI))	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec
Acetaldehyde (75-07-0)	STELs	150 ppm STEL; 270 mg/m3 STEL	Not established	150 ppm STEL; 270 mg/m3 STEL	Not established	Not established
	TWAs	100 ppm TWA; 180 mg/m3 TWA	Not established	100 ppm TWA; 180 mg/m3 TWA	Not established	Not established
	Ceilings	Not established	25 ppm Ceiling	Not established	25 ppm Ceiling	25 ppm Ceiling; 45 mg/m3 Ceiling
Propane, 1,2-epoxy (75-56-9)	STELs	30 ppm STEL; 71 mg/m3 STEL	Not established	30 ppm STEL; 71 mg/m3 STEL	Not established	Not established
	TWAs	20 ppm TWA; 47 mg/m3 TWA	2 ppm TWA	20 ppm TWA; 47 mg/m3 TWA	2 ppm TWA	20 ppm TWA EV; 48 mg/m3 TWA EV
Cobalt (7440-48-4)	STELs	0.3 mg/m3 STEL (dust and fume)	Not established	0.3 mg/m3 STEL (dust and fume)	Not established	Not established
	TWAs	0.1 mg/m3 TWA (dust and fume)	0.02 mg/m3 TWA	0.1 mg/m3 TWA (metal, dust and fume)	0.02 mg/m3 TWA	0.02 mg/m3 TWA EV
Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)	TWAs	Not established	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	Not established	0.005 ppm TWA (designated substances regulation, listed under Isocyanates, organic compounds (Methylene bisphenyl isocyanate (MDI))); 0.005 ppm TWA (applies to workplaces to which the designated substances regulation does not apply, listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA EV; 0.051 mg/m3 TWA EV
	Ceilings	Not established	Not established	Not established	0.02 ppm Ceiling (designated substances regulation, listed under Isocyanates, organic compounds (Methylene bisphenyl isocyanate (MDI)))	Not established

Exposure Limits/Guidelines (Con't.)					
	Result	Canada Saskatchewan	Canada Yukon	NIOSH	OSHA
Acetaldehyde (75-07-0)	STELs	Not established	150 ppm STEL; 270 mg/m ³ STEL	Not established	Not established
	TWAs	Not established	100 ppm TWA; 180 mg/m ³ TWA	Not established	200 ppm TWA; 360 mg/m ³ TWA
Propane, 1,2-epoxy- (75-56-9)	TWAs	2 ppm TWA	100 ppm TWA; 240 mg/m ³ TWA	Not established	100 ppm TWA; 240 mg/m ³ TWA
	STELs	Not established	150 ppm STEL; 360 mg/m ³ STEL	Not established	Not established
Cobalt (7440-48-4)	TWAs	0.02 mg/m ³ TWA	0.05 mg/m ³ TWA (dust and fume)	0.05 mg/m ³ TWA (dust and fume)	0.1 mg/m ³ TWA (dust and fume)
	STELs	Not established	0.15 mg/m ³ STEL (dust and fume)	Not established	Not established
Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)	TWAs	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	Not established	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.05 mg/m ³ TWA	Not established
	Ceilings	Not established	0.02 ppm Ceiling (Methylene bisphenyl isocyanate (MDI)); 0.2 mg/m ³ Ceiling (Methylene bisphenyl isocyanate (MDI))	0.020 ppm Ceiling (10 min); 0.2 mg/m ³ Ceiling (10 min)	0.02 ppm Ceiling; 0.2 mg/m ³ Ceiling

Exposure Control Notations

Canada Ontario

• Isocyanic acid, methylenedi-p-phenylene ester (101-68-8): **Designated Substances:** (0.005 ppm TWA (listed under Isocyanates, organic compounds (Methylene bisphenyl isocyanate (MDI))); 0.02 ppm Ceiling (listed under Isocyanates, organic compounds (Methylene bisphenyl isocyanate (MDI))))

Canada Quebec

- Acetaldehyde (75-07-0): **Carcinogens:** (C3 carcinogen - effect detected in animals)
- Cobalt (7440-48-4): **Carcinogens:** (C3 carcinogen - effect detected in animals)
- Propane, 1,2-epoxy- (75-56-9): **Carcinogens:** (C2 carcinogen - effect suspected in humans)

ACGIH

- Acetaldehyde (75-07-0): **Carcinogens:** (A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans)
- Cobalt (7440-48-4): **Carcinogens:** (A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans)
- Propane, 1,2-epoxy- (75-56-9): **Carcinogens:** (A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans) | **Sensitizers:** (Sensitizer)

Exposure Limits Supplemental

ACGIH

- Isocyanic acid, methylenedi-p-phenylene ester (101-68-8): **TLV Basis - Critical Effects:** (respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI)))
- Acetaldehyde (75-07-0): **TLV Basis - Critical Effects:** (eye and upper respiratory tract irritation) | **Notice of Intended Changes (TLVs):** (25 ppm Ceiling; A2 - suspected human carcinogen; TLV basis: eye and upper respiratory tract irritation)
- Cobalt (7440-48-4): **BEIs:** (15 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Cobalt (background); 1 µg/L Medium: blood Time: end of shift at end of workweek Parameter: Cobalt (background, semi-quantitative)) | **TLV Basis - Critical Effects:** (asthma; myocardial effects; pulmonary function)
- Propane, 1,2-epoxy- (75-56-9): **TLV Basis - Critical Effects:** (eye and upper respiratory tract irritation) | **Notice of Intended Changes (TLVs):** (Proposed update of SEN notation to DSEN to indicate dermal sensitizer)

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If

applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles. Use face shield in case of splash risk.

Skin/Body

- Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

STEL = Short Term Exposure Limits are based on 15-minute exposures

BEI = Biological Exposure Indices

TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)

MSHA = Mine Safety and Health Administration

TWAEV = Time-Weighted Average Exposure Value

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Tan viscous liquid with faint aromatic odor.
Color	Tan	Odor	Faint Aromatic.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Not relevant
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 1.1 Water=1	Water Solubility	Exposure to water will initiate reaction, which may be violent.
Viscosity	6700 Centipoise (cPs, cP) or mPas @ 75 °F(23.8889 °C)	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Wt.)	< 0.15 %
Volatiles (Vol.)	< 0.15 %		
Flammability			
Flash Point	> 199.4 °F(> 93 °C) PMCC (Pensky-Martins Closed Cup)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- Exposure to water will initiate reaction, which may be violent. CO₂ gas is produced.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Keep away from heat, sparks and flame.

10.5 Incompatible materials

- Water. Alcohol. Alkaline metals. Acids. Bases.

10.6 Hazardous decomposition products

- None known.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Isocyanic acid, methylenedi-p-phenylene ester (20% TO 40%)	101-68-8	Acute Toxicity: Ingestion/Oral-Rat LD ₅₀ • 9200 mg/kg; Behavioral:Somnolence (general depressed activity); Behavioral:Ataxia; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Body temperature decrease; Inhalation-Rat TCLo • 2.4 mg/m ³ 6 Hour(s); Lungs, Thorax, or Respiration:Structural or functional change in trachea or bronchi; Lungs, Thorax, or Respiration:Other changes; Biochemical:Metabolism (intermediary):Other proteins; Irritation: Eye-Rabbit • 100 mg • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s)
Siloxanes and Silicones, di-Me, reaction products with silica (1% TO 5%)	67762-90-7	Multi-dose Toxicity: Inhalation-Rat TCLo • 30 mg/kg 6 Hour(s) 4 Week(s)-Intermittent; Lungs, Thorax, or Respiration:Other changes; Blood:Hemorrhage; Related to Chronic Data:Death in the Other Multiple Dose data type field

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Inhalation 4 - ATE _{mix} (inhl) = 1.537 mg/L OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2
Skin sensitization	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1A

Respiratory sensitization	EU/CLP • Respiratory Sensitizer 1 OSHA HCS 2012 • Respiratory Sensitizer 1A
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Carcinogenicity 2 OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1

Potential Health Effects

Inhalation

Acute (Immediate)

- Harmful if inhaled. May cause respiratory irritation.

Chronic (Delayed)

- Vapors can induce respiratory allergic sensitization with asthma-like symptoms. Symptoms include chronic cough, tightness of chest with difficulty in breathing. These symptoms may be immediate or delayed up to several hours after exposure.

Skin

Acute (Immediate)

- Causes skin irritation. May cause skin sensitization. Symptoms include redness, and skin rash.

Chronic (Delayed)

- No data available

Eye

Acute (Immediate)

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- Ingestion may cause vomiting, nausea, diarrhea, or other systemic effects.

Chronic (Delayed)

- No data available.

Other

Chronic (Delayed)

- Long-term effect of Isocyanic acid, methylenedi-p-phenylene ester on the respiratory system of 318 workers suggests that such workers may develop fibrosis. Long-term exposure tends to restrict pulmonary function and cause decrease in CO single breath transfer factor.

Carcinogenic Effects

- Repeated and prolonged exposure may cause cancer.

Carcinogenic Effects			
	CAS	IARC	NTP
Acetaldehyde	75-07-0	Group 1-Carcinogenic	Reasonably Anticipated to be Human Carcinogen
Cobalt	7440-48-4	Group 2B-Possible Carcinogen	Not Listed
Furan	110-00-9	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen
Propane, 1,2-epoxy-	75-56-9	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen

Key to abbreviations

LD = Lethal Dose

TC = Toxic Concentration

Section 12 - Ecological Information

12.1 Toxicity

	CAS	
FillGard™ M Pourable Sealer Part A	NDA	<p>Aquatic Toxicity-Fish: 96 Hour(s) LC50 200 mg/L Comments: Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-</p> <p>96 Hour(s) LC50 >100 mg/L Comments: 2(2-Hydroxy-3,5-diteramylphenyl) benzotriazole</p> <p>96 Hour(s) LC50 0.97 mg/L Comments: Bis(1-2,2,5,6-pentamethyl-4-piperdiny)decanoate</p> <p>Aquatic Toxicity-Crustacea: 24 Hour(s) EC50 <i>Daphnia</i> 20 mg/L Comments: Bis(1-2,2,5,6-pentamethyl-4-piperdiny)decanoate</p> <p>24 Hour(s) EC50 <i>Daphnia</i> >100 mg/L Comments: 2(2-Hydroxy-3,5-diteramylphenyl) benzotriazole</p> <p>48 Hour(s) EC50 <i>Daphnia</i> 90 mg/L Comments: Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-</p> <p>Aquatic Toxicity-Algae and Other Aquatic Plant(s): 96 Hour(s) EC50 Algae 11 mg/L Comments: Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-</p> <p>72 Hour(s) IC50 Algae >10 mg/L Comments: 2(2-Hydroxy-3,5-diteramylphenyl) benzotriazole</p> <p>Aquatic Toxicity-Other: 3 Hour(s) EC50 <i>Bacteria</i> >100 mg/L Comments: Bis(1-2,2,5,6-pentamethyl-4-piperdiny)decanoate</p>

- The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

12.2 Persistence and degradability

- Expected to be persistent.

12.3 Bioaccumulative potential

- Not expected to bioaccumulate.

12.4 Mobility in Soil

- Water reactive material.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA

ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Acetaldehyde	75-07-0	Yes	Yes	Yes
Cobalt	7440-48-4	Yes	Yes	Yes
Furan	110-00-9	Yes	Yes	Yes
Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	No	No	Yes
Propane, 1,2-epoxy -	75-56-9	Yes	Yes	Yes
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Acetaldehyde	75-07-0	Yes	No	Yes	No	Yes
Cobalt	7440-48-4	Yes	No	Yes	No	Yes
Furan	110-00-9	Yes	No	Yes	No	Yes
Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Yes	No	Yes	No	Yes
Propane, 1,2-epoxy -	75-56-9	Yes	No	Yes	No	Yes
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Yes	No	No	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

- | | | |
|-----------------------|----------|-------------------|
| • Propane, 1,2-epoxy- | 75-56-9 | B2, D1B, D2A, D2B |
| • Furan | 110-00-9 | B2, D1A, D2A |

• Acetaldehyde	75-07-0	B2, D2A
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	D1A, D2A, D2B
• Cobalt	7440-48-4	D2A, D2B
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Propane, 1,2-epoxy-	75-56-9	1 %
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	1 %
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	0.1 %
• Cobalt	7440-48-4	0.1 %
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Environment**Canada - CEPA - Priority Substances List**

• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Priority Substance List 2 (substance considered toxic)
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Propane, 1,2-epoxy-	75-56-9	F+; R12 Xn; R20/21/22 Xi; R36/37/38 Carc.Cat.2; R45 Muta.Cat.2; R46
• Furan	110-00-9	F+; R12 R19 Xn; R20/22-48/22 Xi; R38 Carc.Cat.2; R45 R52- 53 Muta.Cat.3; R68
• Acetaldehyde	75-07-0	F+; R12 Xi; R36/37 Carc.Cat.3; R40
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Xn; R20-48/20 Xi; R36/37/38 Carc.Cat.3; R40 R42/43
• Cobalt	7440-48-4	R42/43 R53
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	5%≤C: Xi; R:36/37/38 0.1% ≤C: R:42
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Propane, 1,2-epoxy-	75-56-9	F+ T R:45-46-12-20/21/22- 36/37/38 S:53-45
• Furan	110-00-9	F+ T R:45-12-19-20/22-38- 48/22-68-52/53 S:53-45-61
• Acetaldehyde	75-07-0	F+ Xn R:12-36/37-40 S:(2)-16- 33-36/37

• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Xn R:20-36/37/38-40-42/43-48/20 S:(1/2)-23-36/37-45
• Cobalt	7440-48-4	Xn R:42/43-53 S:(2)-22-24-37-61
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Propane, 1,2-epoxy-	75-56-9	E
• Furan	110-00-9	E
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	C, 2
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Propane, 1,2-epoxy-	75-56-9	S:53-45
• Furan	110-00-9	S:53-45-61
• Acetaldehyde	75-07-0	S:(2)-16-33-36/37
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	S:(1/2)-23-36/37-45
• Cobalt	7440-48-4	S:(2)-22-24-37-61
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	500 lb TQ
• Acetaldehyde	75-07-0	2500 lb TQ
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Propane, 1,2-epoxy-	75-56-9	
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	(listed under Methylene diphenyl diisocyanate)
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Propane, 1,2-epoxy-	75-56-9	100 lb final RQ; 45.4 kg final RQ
• Furan	110-00-9	100 lb final RQ; 45.4 kg final RQ

• Acetaldehyde	75-07-0	1000 lb final RQ; 454 kg final RQ
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	5000 lb final RQ; 2270 kg final RQ
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Propane, 1,2-epoxy-	75-56-9	100 lb EPCRA RQ
• Furan	110-00-9	100 lb EPCRA RQ
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Propane, 1,2-epoxy-	75-56-9	10000 lb TPQ
• Furan	110-00-9	500 lb TPQ
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Propane, 1,2-epoxy-	75-56-9	0.1 % de minimis concentration
• Furan	110-00-9	0.1 % de minimis concentration
• Acetaldehyde	75-07-0	0.1 % de minimis concentration
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)
• Cobalt	7440-48-4	0.1 % de minimis concentration
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring

• Propane, 1,2-epoxy-	75-56-9	Not Listed
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• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	(total)
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	(total)
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring

• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	(total)
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	waste number U124 (Ignitable waste)
• Acetaldehyde	75-07-0	waste number U001 (Ignitable waste)
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Propane, 1,2-epoxy-	75-56-9	carcinogen, initial date 10/1/88
• Furan	110-00-9	carcinogen, initial date 10/1/93
• Acetaldehyde	75-07-0	carcinogen, initial date 4/1/88
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	carcinogen, initial date 7/1/92 (powder)
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed

• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)		
• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	90 µg/day NSRL (inhalation)
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Propane, 1,2-epoxy-	75-56-9	Not Listed
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Propane, 1,2-epoxy-	75-56-9	
• Furan	110-00-9	
• Acetaldehyde	75-07-0	
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	
• Cobalt	7440-48-4	
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Propane, 1,2-epoxy-	75-56-9	
• Furan	110-00-9	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Cobalt	7440-48-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- **WARNING:** This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date	<ul style="list-style-type: none"> 24/January/2018
Preparation Date	<ul style="list-style-type: none"> 18/October/2011
Other Information	<ul style="list-style-type: none"> Changes to this revision: Updated mailing address.
Disclaimer/Statement of Liability	<ul style="list-style-type: none"> The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **FillGard™ M Pourable Sealer Part B**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.

DSD/DPD • This product is not considered dangerous under the European Directive 1999/45/EC

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Not classified

2.2 Label elements**OSHA HCS 2012**

Hazard statements • No label element(s) required

2.3 Other hazards**OSHA HCS 2012**

- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Canada

According to: **WHMIS**

2.1 Classification of the substance or mixture**WHMIS**

- Other Toxic Effects - D2B

2.2 Label elements**WHMIS**

- Other Toxic Effects - D2B

WHMIS**2.3 Other hazards****WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Polypropylene glycol	CAS:25322-69-4	30% TO 60%	Ingestion/Oral-Rat LD50 • >2 g/kg	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Siloxanes and Silicones, di-Me, reaction products with silica	CAS:67762-90-7	1% TO 5%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Castor oil	CAS:8001-79-4 EC Number:232-293-8	1% TO 5%	NDA	EU DSD/DPD: Self Classified: Xi; R38 EU CLP: Self Classified: Skin Irrit. 2, H315 OSHA HCS 2012: Eye Irrit. 2; Skin Irrit. 2	NDA

Carbon Black	CAS:1333-86-4 EC Number:215-609-9	1% TO 3%	Ingestion/Oral-Rat LD50 • >15400 mg/kg Skin-Rabbit LD50 • >3 g/kg	EU DSD/DPD: Self Classified: Carc. Cat. 3; R40 EU CLP: Self Classified: Carc. 2, H351 OSHA HCS 2012: Carc. 2	NDA
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See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- Wash skin with soap and water. If irritation develops and persists, get medical attention.

Eye

- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.

Ingestion

- Obtain medical attention immediately if ingested.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media

- LARGE FIRE: Water spray, fog or regular foam.
SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

Unsuitable Extinguishing Media

- No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- None known.

Hazardous Combustion Products

- Carbon oxides. Nitrogen oxides. Hydrocarbons.

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA). Exposure to water will initiate reaction, which may be violent.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE) Avoid contact with skin and eyes. Avoid breathing mist, vapours, spray.

Emergency Procedures

- Keep unauthorized personnel away. Stay upwind.

6.2 Environmental precautions

- Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices. Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Avoid breathing mist, vapours, spray. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Keep away from incompatible materials. Store in a cool, dry place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Australia	Belgium	Canada Alberta	Canada British Columbia
Carbon Black (1333-86-4)	TWAs	3 mg/m3 TWA (inhalable fraction)	3 mg/m3 TWA	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3 mg/m3 TWA (inhalable)
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut
Carbon Black (1333-86-4)	TWAs	3 mg/m3 TWA (inhalable fraction)	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3 mg/m3 TWA (inhalable fraction)	3.5 mg/m3 TWA
	STELs	Not established	Not established	7 mg/m3 STEL	Not established	7 mg/m3 STEL
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Ontario	Canada Quebec	Canada Saskatchewan	Canada Yukon	China
Carbon Black (1333-86-4)	STELs	Not established	Not established	Not established	7 mg/m3 STEL	8 mg/m3 STEL (total dust)
	TWAs	3 mg/m3 TWA (inhalable)	3.5 mg/m3 TWAEV	3.5 mg/m3 TWA	3.5 mg/m3 TWA	4 mg/m3 TWA (total dust)
Exposure Limits/Guidelines (Con't.)						
	Result	Denmark		NIOSH		OSHA
				3.5 mg/m3 TWA; 0.1 mg/m3 TWA		

Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWA	(Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)	3.5 mg/m3 TWA
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Exposure Control Notations

ACGIH

- Carbon Black (1333-86-4): **Carcinogens:** (A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans)

Germany DFG

- Carbon Black (1333-86-4): **Carcinogens:** (Category 3B (could be carcinogenic for man, inhalable fraction))

Exposure Limits Supplemental

ACGIH

- Carbon Black (1333-86-4): **TLV Basis - Critical Effects:** (bronchitis)

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Black viscous liquid with negligible odor.
Color	Black	Odor	Negligible
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Not relevant
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 1.02 Water=1	Water Solubility	Data lacking
Viscosity	10000 Centipoise (cPs, cP) or mPas @ 75 °F(23.8889 °C)	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking

Evaporation Rate	Data lacking	Volatiles (Wt.)	< 0.15 %
Volatiles (Vol.)	< 0.15 %		
Flammability			
Flash Point	> 350 °F(> 176.6667 °C) PMCC (Pensky-Martins Closed Cup)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- Exposure to water will initiate reaction, which may be violent.

Section 10: Stability and Reactivity

10.1 Reactivity

- Exposure to water will initiate reaction, which may be violent.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Excess heat. Incompatible materials. Moisture .

10.5 Incompatible materials

- Water, alcohols, amines, bases and acids.

10.6 Hazardous decomposition products

- None known.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Polypropylene glycol (30% TO 60%)	25322-69-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • 20 g/kg; Skin-Rabbit LD50 • 20800 mg/kg; Irritation: Eye-Rabbit • 100 mg • Mild irritation; Skin-Human • 10 %
Castor oil (1% TO 5%)	8001-79-4	Irritation: Eye-Rabbit • 500 mg • Mild irritation; Skin-Rabbit • 100 mg 24 Hour(s) • Severe irritation; Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 675 g/kg 90 Day(s)-Intermittent; Liver:Changes in liver weight
Siloxanes and Silicones, di-Me, reaction products with silica (1% TO 5%)	67762-90-7	Multi-dose Toxicity: Inhalation-Rat TCLo • 30 mg/kg 6 Hour(s) 4 Week(s)-Intermittent; Lungs, Thorax, or Respiration:Other changes; Blood:Hemorrhage; Related to Chronic Data:Death in the Other Multiple Dose data type field
Carbon Black (1% TO 3%)	1333-86-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • >15400 mg/kg; Behavioral:Somnolence (general depressed activity); Skin-Rabbit LD50 • >3 g/kg; Tumorigen / Carcinogen: Inhalation-Rat TCLo • 11600 µg/m³ 18 Hour(s) 2 Year(s)-Intermittent; Tumorigenic:Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors

GHS Properties	Classification
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Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
- Chronic (Delayed)** • No data available.

Skin

- Acute (Immediate)** • May cause mild irritation.
- Chronic (Delayed)** • No data available.

Eye

- Acute (Immediate)** • May cause irritation.
- Chronic (Delayed)** • No data available.

Ingestion

- Acute (Immediate)** • No harmful effects expected in amounts likely to be ingested by accident.
- Chronic (Delayed)** • No data available.

Carcinogenic Effects

- This product contains carbon black (encapsulated)(1333-86-4). According to IARC "No significant exposure to carbon black is thought to occur during the use of products in which carbon black is bound to other materials, such as rubber, printing ink or paint."

Carcinogenic Effects		
	CAS	IARC
Carbon Black	1333-86-4	Group 2B-Possible Carcinogen

Key to abbreviations

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or

mixture**SARA Hazard Classifications • None**

State Right To Know				
Component	CAS	MA	NJ	PA
Carbon Black	1333-86-4	Yes	Yes	Yes
Castor oil	8001-79-4	No	No	No
Polypropylene glycol	25322-69-4	No	No	No
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Carbon Black	1333-86-4	Yes	No	Yes	Yes	Yes
Castor oil	8001-79-4	Yes	No	Yes	Yes	No
Polypropylene glycol	25322-69-4	Yes	No	Yes	No	No
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Yes	No	Yes	No	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
Carbon Black	1333-86-4	Yes	Yes	Yes
Castor oil	8001-79-4	No	Yes	Yes
Polypropylene glycol	25322-69-4	Yes	Yes	Yes
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Yes	Yes	Yes

Australia**Labor****Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring**

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Australia - High Volume Industrial Chemicals List

• Carbon Black	1333-86-4	
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Australia - List of Designated Hazardous Substances - Classification

• Carbon Black	1333-86-4	Self classification required
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Environment**Australia - National Pollutant Inventory (NPI) Substance List**

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Australia - Priority Existing Chemical Program

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Belgium**Labor****Belgium - Substances and Preparations - Carcinogens and Mutagens**

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Bulgaria**Environment****Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour**

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Canada**Labor****Canada - WHMIS - Classifications of Substances**

D2A (In certain cases, this classification does not apply.)

• Carbon Black	1333-86-4	For more information, consult the section Substance Specific Issues - Carbon Black, non-respirable on Health Canada's WHMIS Division website.)
• Castor oil	8001-79-4	Uncontrolled product according to WHMIS classification criteria
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
Canada - WHMIS - Ingredient Disclosure List		
• Carbon Black	1333-86-4	1 %
• Castor oil	8001-79-4	1 %
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Environment**Canada - CEPA - Priority Substances List**

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

China**Other****China - Annex I & II - Controlled Chemicals Lists**

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Denmark**Environment****Denmark - List of Undesirable Substances - Product Groups/Function**

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Environment**Germany - TA Luft - Types and Classes**

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed

• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
Germany - TA Luft - Emission Limits for Fibers		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Dusts		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Gases		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
Germany - TA Luft - Emission Limits for Organic Substances		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
• Carbon Black	1333-86-4	ID Number 1742, not considered hazardous to water
• Castor oil	8001-79-4	ID Number 760, not considered hazardous to water
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	ID Number 849, not considered hazardous to water
• Polypropylene glycol	25322-69-4	Not Listed
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	ID Number 6988, hazard class 1 - low hazard to waters
Germany - Water Classification (VwVwS) - Annex 3		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

• Polypropylene glycol	25322-69-4	Not Listed
U.S. - OSHA - Specifically Regulated Chemicals		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Carbon Black	1333-86-4	carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size)
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
U.S. - California - Proposition 65 - Developmental Toxicity		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Carbon Black	1333-86-4	Not Listed
• Castor oil	8001-79-4	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H315 - Causes skin irritation
- H351 - Suspected of causing cancer.
- R38 - Irritating to skin.
- R40 - Limited evidence of a carcinogenic effect.

Revision Date

- 24/January/2018

Preparation Date

- 18/October/2011

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **Modular Water Based Bonding Adhesive WBA 3781**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction: Adhesive

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

- CLP** • Eye Irritation 2 - H319
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
- DSD/DPD** • Irritant (Xi)
R36/37

2.2 Label Elements

CLP

WARNING

Hazard statements • H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

Precautionary statements

- Prevention** • P261 - Avoid breathing dust, fume, gas, mist, vapours and/or spray.
P271 - Use only outdoors or in a well-ventilated area.
P264 - Wash thoroughly after handling.
P280 - Wear eye/face protection , .

- Response** • P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 - Call a POISON CENTER/doctor/ if you feel unwell.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.

- Storage/Disposal** • P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD

- Risk phrases** • R36/37 - Irritating to eyes and respiratory system.

- Safety phrases** • S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

- DSD/DPD** • According to European Directive 1999/45/EC this preparation is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012** • Eye Irritation 2A
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

2.2 Label elements

OSHA HCS 2012

WARNING

- Hazard statements** • Causes serious eye irritation
May cause respiratory irritation

Precautionary statements

- Prevention** • Avoid breathing dust, fume, gas, mist, vapours and/or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear eye/face protection , .

- Response** • IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

- OSHA HCS 2012** • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS

- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Butadiene Styrene Copolymer	NDA	40% TO 50%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Propylene glycol	CAS:57-55-6 EC Number:200-338-0	< 1%		EU DSD/DPD: Not Classified - Criteria Not Met EU CLP: Not Classified - Criteria Not Met OSHA HCS 2012: Eye Irrit. 2B	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures**4.1 Description of first aid measures****Inhalation**

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water. Take off contaminated clothing and wash before reuse. If irritation develops and persists, get medical attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Do NOT induce vomiting. Do not use mouth-to-mouth method if victim ingested the

substance. Get medical attention and advise the physician of the nature of the material. If ingested, monitor for acidosis and central nervous system changes. Those with kidney history of dysfunction may require special treatment.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Material is non-flammable. Use media appropriate for surrounding materials (e.g., water spray, alcohol foam, or carbon dioxide).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • None known.

Hazardous Combustion Products • Oxides of carbon.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Use only with adequate ventilation. Wear respiratory protection. Wear appropriate protective clothing.

Emergency Procedures • As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stay upwind. Keep out of low areas. Keep unauthorized personnel away. Ventilate closed spaces before entering.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Stop leak if you can do it without risk.
Absorb liquid on inert material. Transfer to secured container for proper disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Do not breathe vapors, dust, or spray mist. Use only with adequate ventilation. Avoid contact with eyes. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Do not allow product to freeze. Keep container/package tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines		
	Result	Canada Ontario
Propylene glycol (57-55-6)	TWAs	10 mg/m ³ TWA (for assessing the visibility in a work environment where 1,2-Propylene glycol aerosol is present, aerosol only); 50 ppm TWA (aerosol and vapor); 155 mg/m ³ TWA (aerosol and vapor)

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear splash goggles.

Skin/Body

- Use protective gloves, Nitrile Gloves BT>360m, .54mm. The actual work situation is not known. Glove recommendation based upon normal product use and incidental contact only. Contact glove supplier for help with glove selection.

General Industrial Hygiene Considerations

- Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Wash contaminated clothing prior to reuse.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	White liquid with slight odor.
Color	White	Odor	Slight
Odor Threshold	Data lacking		
General Properties			
Boiling Point	212 °F(100 °C)	Melting Point/Freezing Point	0 °C(32 °F)

Decomposition Temperature	Data lacking	pH	7.5 to 9
Specific Gravity/Relative Density	= 1 Water=1	Density	Data lacking
Water Solubility	Soluble	Solvent Solubility	Data lacking
Viscosity	Data lacking	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	> 1 Air=1
Evaporation Rate	Data lacking		
Flammability			
Flash Point	> 100 °C(> 212 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Do not allow this product to freeze. Avoid contact with water sensitive materials and strong oxidizers.

10.5 Incompatible materials

- Incompatible Materials: Water sensitive materials

10.6 Hazardous decomposition products

- Burning will produce smoke, carbon monoxide, and carbon dioxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Propylene glycol (< 1%)	57-55-6	Acute Toxicity: Ingestion/Oral-Rat LD50 • 20 g/kg; Skin-Rabbit LD50 • 20800 mg/kg; Irritation: Eye-Rabbit • 100 mg • Mild irritation; Skin-Human • 500 mg 7 Day(s) • Mild irritation; Skin-Human • 104 mg 3 Day(s)-Intermittent • Moderate irritation

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2A
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Route(s) of entry/exposure

- Inhalation, Skin, Eye, Ingestion/Oral

Medical Conditions Aggravated by Exposure

- Kidney disorders (via accidental ingestion). Pre-existing skin conditions.

Potential Health Effects**Inhalation****Acute (Immediate)**

- May cause respiratory irritation.

Chronic (Delayed)

- No data available.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Prolonged or repeated skin contact may cause irritation.

Eye**Acute (Immediate)**

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- May cause gastrointestinal irritation and central nervous system depression if accidentally ingested.

Chronic (Delayed)

- Lactic acidosis, stupor and seizures from chronic ingestion only.

Carcinogenic Effects

- The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

Key to abbreviations

LD = Lethal Dose

MLD = Mild

MOD = Moderate

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not regulated	NDA	NDA	NDA
TDG	NDA	Not regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

State Right To Know				
Component	CAS	MA	NJ	PA
Propylene glycol	57-55-6	No	Yes	Yes
Water	7732-18-5	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Propylene glycol	57-55-6	Yes	No	Yes	No	Yes
Water	7732-18-5	Yes	No	Yes	No	Yes

Canada**Labor****Canada - WHMIS - Classifications of Substances**

• Propylene glycol	57-55-6	Uncontrolled product according to WHMIS classification criteria
• Water	7732-18-5	Uncontrolled product according to WHMIS classification criteria

Canada - WHMIS - Ingredient Disclosure List

• Propylene glycol	57-55-6	1 %
• Water	7732-18-5	Not Listed

Environment**Canada - CEPA - Priority Substances List**

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Propylene glycol	57-55-6	Not Listed
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• Water	7732-18-5	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date	• 19/January/2018
Preparation Date	• 09/February/2009
Other Information	• Changes to this revision: Updated mailing address.
Disclaimer/Statement of Liability	• The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Նշանակություններ և հիմնական տվյալներ

Կառուցման համակարգ

Արժեք

Հիմն

Կառուցման համակարգ

Նշանակություններ և հիմնական տվյալներ

Նշանակություններ և հիմնական տվյալներ

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Նշանակություններ և հիմնական տվյալներ

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Կառուցման համակարգ

Նշանակություններ և հիմնական տվյալներ

Կառուցման համակարգ

ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ

ԱՌՈՐՈՇՈՒՄՆԵՐԻ ԿՈՅՆՏԱԿՈՒՄՆԵՐԻ ԱՌՈՐՈՇՈՒՄ

1.2. ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ

ԿՐԻՏԵՐԻԱԿԱՆ

- ձեռնարկի մեջ ներկայացված են հիմնականում հայտնի և արժեքավոր

1.3. ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄԻ ՆԱԽԴՐԱԿԱՆ ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ

ԱՌՈՐՈՇՈՒՄ

- Արժեքավոր և արժեքավոր հիմնականում հայտնի և արժեքավոր

1.4. ԱՌՈՐՈՇՈՒՄԻ ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ

- ձեռնարկի մեջ ներկայացված են հիմնականում հայտնի և արժեքավոր

ԱՌՈՐՈՇՈՒՄՆԵՐԻ ԿՈՅՆՏԱԿՈՒՄՆԵՐԻ ԱՌՈՐՈՇՈՒՄ

1.5. ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄԻ ՆԱԽԴՐԱԿԱՆ ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ

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- ձեռնարկի մեջ ներկայացված են հիմնականում հայտնի և արժեքավոր

1.6. ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄԻ ՆԱԽԴՐԱԿԱՆ ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ

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- ձեռնարկի մեջ ներկայացված են հիմնականում հայտնի և արժեքավոր

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- ձեռնարկի մեջ ներկայացված են հիմնականում հայտնի և արժեքավոր

ԿՐԻՏԵՐԻԱԿԱՆ

- ձեռնարկի մեջ ներկայացված են հիմնականում հայտնի և արժեքավոր

ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ

- ձեռնարկի մեջ ներկայացված են հիմնականում հայտնի և արժեքավոր

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ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ

ԱՌՈՐՈՇՈՒՄՆԵՐԻ ԿՈՅՆՏԱԿՈՒՄՆԵՐԻ ԱՌՈՐՈՇՈՒՄ

1.7. ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄԻ ՆԱԽԴՐԱԿԱՆ ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ

ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ

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ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ	ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ	ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ	ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ
ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ	ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ	ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ	ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ
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ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ	ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ	ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ	ԿՐԻՏԵՐԻԱԿԱՆ ՏՈՒՆՈՒՄ
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[illegible]

3. **АКТИВНОСТЬ**

- ИП оНгласИДсЕИwрхK\$

- $\text{IP} \in \text{H}_{\text{L}} \cap \text{H}_{\text{H}} \cap \text{H}_{\text{S}} \cap \text{H}_{\text{D}} \cap \text{H}_{\text{E}} \cap \text{H}_{\text{W}} \cap \text{H}_{\text{K}} \cap \text{H}_{\text{S}}$

- ԻՄ օժիտման համար՝ ԻՄ ԵԻ արժեք

- $\text{IP} \in \text{H}_{\text{L}} \cap \text{H}_{\text{R}} \cap \text{H}_{\text{D}} \cap \text{H}_{\text{E}} \cap \text{H}_{\text{W}} \cap \text{H}_{\text{X}} \cap \text{H}_{\text{K}} \cap \text{H}_{\text{S}}$

[illegible]

Format: EU CLP/REACH Language: English (US)
WHMIS, EU CLP, EU DSD/DPD, OSHA HCS 2012

[illegible][illegible][illegible][illegible]

[illegible][illegible]

- Դժբերություններ հղիության ընթացքում

1. Ինչ Բօհեթյո՞ճ ԿԻՊօ
 2. Ինչ Լիլի ԿԻՊօ
 3. Կը ինչ Բօհեթյո՞ճ ԿԻՊօ
 4. Լիլի ԿԻՊօ

- Ինչ Բօհեթյո՞ճ ԿԻՊօ
- Ինչ Լիլի ԿԻՊօ
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- Լիլի ԿԻՊօ

C

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • Polymer Fasteners Batten Strips

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

CLP • This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

DSD/DPD • Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200(c) - Hazard Communication Standard), the product(s) listed above are exempt as article(s) under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required.

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- As an article this material does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

- There are no hazardous ingredients as defined by 29 CFR 1910.1200.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.

Eye

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If

signs/symptoms develop, get medical attention.

Ingestion

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Under normal conditions of use, no health effects are expected.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- No specific actions or treatments recommended related to exposure to this material.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Unsuitable Extinguishing Media • No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Molded parts generally burn slowly with a low smoke density and flaming drips. Under certain conditions can burn with a high smoke density.

Hazardous Combustion Products • No data available

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Carefully shovel or sweep up spilled material and place in suitable container.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage • Store in a cool, dry place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory • No respiratory protection is required under normal conditions of use.

Eye/Face • Under normal conditions of use, eye protection is not required.

Skin/Body • No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Polyester resin solid with essentially no odor.
Color	Data lacking	Odor	Odorless
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	482 to 500 °F(250 to 260 °C)
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	1.33 to 1.4 Water=1	Water Solubility	Negligible
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available.

10.5 Incompatible materials

- Strong oxidizing agents.

10.6 Hazardous decomposition products

- No data available.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin

Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Ecological problems are not known or expected under normal use.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods**Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 29/June/2011

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

1. Identification

Product identifier Firestone QuickPrime™ Plus

Other means of identification W56RAC1695, W563587041, W563587044

Recommended use Construction. Adhesive.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name Firestone Building Products Company, LLC
200 4th Avenue South
Nashville, TN 37201 USA

Email firestonemsds@bfdp.com

Telephone Number 1-800-428-4442

Contact Person SDS request

Emergency Telephone Number CHEMTREC: 1-800-424-9300

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2

Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2B
Sensitization, respiratory Category 1
Sensitization, skin Category 1
Carcinogenicity Category 2
Reproductive toxicity Category 2
Specific target organ toxicity, single exposure Category 3 narcotic effects
Specific target organ toxicity, repeated exposure Category 2 (central nervous system)
Aspiration hazard Category 1

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 1
Hazardous to the aquatic environment, long-term hazard Category 1

OSHA defined hazards Not classified.

Label elements



Signal word

Danger

Hazard statement

Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs (central nervous system) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist/vapors. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.

Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If experiencing respiratory symptoms: Call a poison center/doctor. Take off contaminated clothing and wash it before reuse. In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. Collect spillage.

Storage

Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Heptane	142-82-5	0 - 50*
Naphtha (petroleum), hydrotreated light	64742-49-0	0 - 50*
Toluene	108-88-3	40 - 50
Polymethylene polyphenylene isocyanate	9016-87-9	0.1 - <1
Methylene diphenyl diisocyanate	101-68-8	0.1 - <1
Nonylphenol	84852-15-3	0.1 - <1

Composition comments

*Product contains CAS 142-82-5 or CAS 64742-49-0.

All concentrations are in percent by weight. Components not listed are either non-hazardous or are below reportable limits.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a poison center or doctor/physician.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.
5. Fire-fighting measures	
Suitable extinguishing media	Foam. Dry chemical powder. Carbon dioxide (CO ₂). Water fog. Larger fires: Water spray.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed such as: Carbon oxides (CO _x). Hydrogen Bromide (HBr). Hydrocarbons. Nitrogen Oxides (NO _x).
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. A vapor-suppressing foam may be used to reduce vapors. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
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**Conditions for safe storage,
including any incompatibilities**

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Heptane (CAS 142-82-5)	PEL	2000 mg/m3 500 ppm
Methylene diphenyl diisocyanate (CAS 101-68-8)	Ceiling	0.2 mg/m3 0.02 ppm
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	PEL	400 mg/m3 100 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
Methylene diphenyl diisocyanate (CAS 101-68-8)	TWA	0.005 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Heptane (CAS 142-82-5)	Ceiling	1800 mg/m3 440 ppm
	TWA	350 mg/m3 85 ppm
Methylene diphenyl diisocyanate (CAS 101-68-8)	Ceiling	0.2 mg/m3 0.02 ppm
	TWA	0.05 mg/m3 0.005 ppm
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	400 mg/m3 100 ppm
Toluene (CAS 108-88-3)	STEL	560 mg/m3 150 ppm
	TWA	375 mg/m3 100 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Toluene (CAS 108-88-3)

Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3)

Skin designation applies.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Face shield is recommended.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Examples of preferred glove barrier materials include: Fluoroelastomer (FKM). Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol (PVA). Suitable gloves can be recommended by the glove supplier.

Skin protection

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state

Liquid.

Form

Liquid.

Color

Black.

Odor

Characteristic.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

208.4 °F (98 °C)

Flash point

24.8 °F (-4.0 °C) Closed Cup

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

1.1

Flammability limit - upper (%)

7

Vapor pressure	36 mmHg (68 °F (20 °C)) 48 hPa (68 °F (20 °C))
Vapor density	Not available.
Relative density	0.791 (68 °F (20 °C))
Solubility(ies)	
Solubility (water)	Insoluble (in water).
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not self-igniting.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	Ignition temperature: 215 °C (419 °F) Organic solvents: 83% Solids content: 17%
Density	6.58 lbs/gal
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
VOC	5.42 - 5.51 lb/gal 650 - 660 g/l

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.
---	--

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Heptane (CAS 142-82-5)		
Acute		
Inhalation		
Vapor		
LC50	Rat	> 29.29 mg/l, 4 Hours
Oral		
LD50	Rat	15000 mg/kg

Components	Species	Test Results
Methylene diphenyl diisocyanate (CAS 101-68-8)		
Acute		
Inhalation		
LC50	Rat	> 2.24 mg/l, 1 Hours
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)		
Acute		
Dermal		
LD50	Rat	> 2920 mg/kg
Inhalation		
LC50	Rat	> 23300 mg/m³
Oral		
LD50	Rat	> 5840 mg/kg
Nonylphenol (CAS 84852-15-3)		
Acute		
Dermal		
LD50	Rabbit	2031 mg/kg
Oral		
LD50	Rat	1200 mg/kg
Polymethylene polyphenylene isocyanate (CAS 9016-87-9)		
Acute		
Dermal		
LD50	Rabbit	> 10000 mg/kg
Inhalation		
<i>Mist</i>		
LC50	Rat	> 490 mg/m3, 4 Hours
Oral		
LD50	Rat	> 10000 mg/kg
Toluene (CAS 108-88-3)		
Acute		
Dermal		
LD50	Rabbit	12200 mg/kg
Inhalation		
<i>Vapor</i>		
LC50	Rat	28.1 mg/l, 4 Hours
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Suspected of causing cancer.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Methylene diphenyl diisocyanate (CAS 101-68-8)	3 Not classifiable as to carcinogenicity to humans.	
Polymethylene polyphenylene isocyanate (CAS 9016-87-9)	3 Not classifiable as to carcinogenicity to humans.	
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.	
NTP Report on Carcinogens		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		

Reproductive toxicity	Possible reproductive hazard. Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	May cause damage to organs (central nervous system) through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Components		Species	Test Results
Nonylphenol (CAS 84852-15-3)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Scenedesmus subspicatus	1.3 mg/l, 72 Hours
Crustacea	EC50	Daphnia magna	0.085 mg/l, 48 Hours
Fish	LC50	Pimephales promelas	0.128 mg/l, 96 Hours
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	24 µg/l, 21 days
Fish	NOEC	Pimephales promelas	0.0074 mg/l, 33 days
Toluene (CAS 108-88-3)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia magna	11.5 mg/l, 48 hours
Fish	LC50	Oncorhynchus kisutch	5.5 mg/l, 96 hours
<i>Chronic</i>			
Crustacea	NOEC	Ceriodaphnia dubia	0.74 mg/l, 7 days
Fish	NOEC	Oncorhynchus kisutch	1.4 mg/l, 40 days

Persistence and degradability There are no data on the degradability of this product.

Bioaccumulative potential No data available for this product.

Partition coefficient n-octanol / water (log Kow)

Heptane (CAS 142-82-5)	4.66
Nonylphenol (CAS 84852-15-3)	5.71
Toluene (CAS 108-88-3)	2.73

Mobility in soil No data available.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Environmental hazards	
Marine pollutant	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	149, B52, IB2, T4, TP1, TP8
Packaging exceptions	150
Packaging non bulk	173
Packaging bulk	242

IATA

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	Yes
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1133
UN proper shipping name	ADHESIVES
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	Yes
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to
Annex II of MARPOL 73/78 and
the IBC Code

Not established.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Nonylphenol (CAS 84852-15-3) 1.0 % One-Time Export Notification only.

TSCA Chemical Action Plans, Chemicals of Concern

Methylene diphenyl diisocyanate (CAS 101-68-8)	Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action Plan [RIN 2070-ZA15]
Nonylphenol (CAS 84852-15-3)	Nonylphenol (NP) and Nonylphenol Ethoxylates (NPEs) Action Plan
Polymethylene polyphenylene isocyanate (CAS 9016-87-9)	Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action Plan [RIN 2070-ZA15]

CERCLA Hazardous Substance List (40 CFR 302.4)

Heptane (CAS 142-82-5)	Listed.
Methylene diphenyl diisocyanate (CAS 101-68-8)	Listed.
Toluene (CAS 108-88-3)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Toxic Substances Control Act (TSCA)

All components of the mixture on the TSCA 8(b) inventory are designated "active".

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories

Flammable (gases, aerosols, liquids, or solids)
 Skin corrosion or irritation
 Serious eye damage or eye irritation
 Respiratory or skin sensitization
 Carcinogenicity
 Reproductive toxicity
 Specific target organ toxicity (single or repeated exposure)
 Aspiration hazard

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Toluene	108-88-3	40 - 50

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Methylene diphenyl diisocyanate (CAS 101-68-8)
 Toluene (CAS 108-88-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Toluene (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Toluene (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Toluene (CAS 108-88-3) 594

US state regulations**US. Massachusetts RTK - Substance List**

Heptane (CAS 142-82-5)
 Methylene diphenyl diisocyanate (CAS 101-68-8)
 Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
 Toluene (CAS 108-88-3)

US. New Jersey Worker and Community Right-to-Know Act

Heptane (CAS 142-82-5)
 Methylene diphenyl diisocyanate (CAS 101-68-8)
 Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
 Nonylphenol (CAS 84852-15-3)
 Polymethylene polyphenylene isocyanate (CAS 9016-87-9)
 Toluene (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Heptane (CAS 142-82-5)
 Methylene diphenyl diisocyanate (CAS 101-68-8)
 Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
 Toluene (CAS 108-88-3)

US. Rhode Island RTK

Heptane (CAS 142-82-5)
 Methylene diphenyl diisocyanate (CAS 101-68-8)
 Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
 Toluene (CAS 108-88-3)

California Proposition 65

WARNING: This product can expose you to Carbon black, which is known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Carbon black (CAS 1333-86-4)	Listed: February 21, 2003
Ethylbenzene (CAS 100-41-4)	Listed: June 11, 2004
Formaldehyde (CAS 50-00-0)	Listed: January 1, 1988

California Proposition 65 - CRT: Listed date/Developmental toxin

Toluene (CAS 108-88-3)	Listed: January 1, 1991
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US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Heptane (CAS 142-82-5)
 Methylene diphenyl diisocyanate (CAS 101-68-8)
 Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
 Nonylphenol (CAS 84852-15-3)
 Polymethylene polyphenylene isocyanate (CAS 9016-87-9)
 Toluene (CAS 108-88-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 21-May-2020

Revision date -

Version # 01

HMIS® ratings
 Health: 3*
 Flammability: 3
 Physical hazard: 0

Disclaimer Firestone Building Products cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name** • QuickPrime™ Plus LVOC**1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified use(s)** • Construction**1.3 Details of the supplier of the safety data sheet****Manufacturer** • Firestone Building Products Company200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442**1.4 Emergency telephone number****Manufacturer** • (800) 424-9300 - CHEMTREC**Manufacturer** • (703) 527-3887 - CHEMTREC - International**Section 2: Hazards Identification****EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Flammable Liquids 2 - H225
- Aspiration 1 - H304
- Skin Irritation 2 - H315
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- Reproductive Toxicity 2 - H361d
- Specific Target Organ Toxicity Repeated Exposure 2 - H373

DSD/DPD

- Highly Flammable (F)
- Irritant (Xi)
- Harmful (Xn)
- Substances Toxic To Reproduction - Category 3
- R11, R38, R48/20, R63, R65, R67

2.2 Label Elements**CLP****DANGER****Hazard statements** • H225 - Highly flammable liquid and vapour

H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H336 - May cause drowsiness or dizziness
H361d - Suspected of damaging the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention •** P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground and/or bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe mists, vapours, and/or spray.
P264 - Wash thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves and eye/face protection , .
P281 - Use personal protective equipment as required.
- Response •** P370+P378 - In case of fire: Use appropriate media for extinction.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P314 - Get medical advice/attention if you feel unwell.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P321 - Specific treatment, see supplemental first aid information.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 - Do NOT induce vomiting.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
- Storage/Disposal •** P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P235 - Keep cool.
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases •** R11 - Highly flammable.
R38 - Irritating to skin.
R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R63 - Possible risk of harm to the unborn child.
R65 - Harmful: may cause lung damage if swallowed.
R67 - Vapours may cause drowsiness and dizziness.
- Safety phrases •** S9 - Keep container in a well ventilated place
S16 - Keep away from sources of ignition - No Smoking.
S37 - Wear suitable gloves.

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Flammable Liquids 2
- Aspiration 1
- Skin Irritation 2
- Eye Irritation 2
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
- Reproductive Toxicity 2
- Specific Target Organ Toxicity Repeated Exposure 2

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements •**
- Highly flammable liquid and vapour
 - May be fatal if swallowed and enters airways
 - Causes skin irritation
 - Causes serious eye irritation
 - May cause drowsiness or dizziness
 - Suspected of damaging fertility or the unborn child.
 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention •**
- Obtain special instructions before use.
 - Do not handle until all safety precautions have been read and understood.
 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 - Keep container tightly closed.
 - Ground and/or bond container and receiving equipment.
 - Use explosion-proof electrical/ventilating/lighting/equipment.
 - Use only non-sparking tools.
 - Take precautionary measures against static discharge.
 - Do not breathe mists, vapours, and/or spray.
 - Wash thoroughly after handling.
 - Use only outdoors or in a well-ventilated area.
 - Wear protective gloves and eye/face protection , .
- Response •**
- In case of fire: Use appropriate media for extinction.
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - Get medical advice/attention if you feel unwell.
 - If on skin: Wash with plenty of water .
 - Take off contaminated clothing and wash before reuse.
 - Specific treatment, see supplemental first aid information.
 - If skin irritation occurs: Get medical advice/attention.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - If eye irritation persists: Get medical advice/attention.
 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 - Do NOT induce vomiting.
 - IF exposed or concerned: Get medical advice/attention.
- Storage/Disposal •**
- Store in a well-ventilated place. Keep container tightly closed.
 - Keep cool.
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
1-Chloro-4-(trifluoromethyl) benzene	CAS:98-56-6 EC Number:202-681-1	50% TO 100%	Ingestion/Oral-Rat LD50 • 13 g/kg Inhalation-Rat LC50 • 22 g/m ³	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Toluene	CAS:108-88-3 EC Number:203-625-9 EU Index:601-021-00-3	5% TO 20%	Ingestion/Oral-Rat LD50 • 636 mg/kg Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s) Skin-Rabbit LD50 • 14100 µL/kg	EU DSD/DPD: Annex VI, Table 3.2: F; R11; Repr. 3; R63; Xn; R48/20-65; Xi; R38; R67 EU CLP: Annex VI, Table 3.1: Flam. Liq. 2, H225; Repr. 2, H361d; Asp. Tox. 1, H304; STOT RE 2*, H373; Skin Irrit. 2, H315; STOT SE 3: Narc., H336 OSHA HCS 2012: Flam. Liq. 2; Repr. 2; Acute Tox. 4 (orl); STOT SE 3: Narc.; Asp. Tox. 1; Eye Irrit. 2; Skin Irrit. 2	NDA

Section 4 - First Aid Measures**4.1 Description of first aid measures****Inhalation**

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention.

Skin

- Wash skin with soap and water. If irritation develops and persists, get medical attention.

- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion**
- Do NOT induce vomiting. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- Carbon dioxide, sand, extinguishing powder.

- Unsuitable Extinguishing Media**
- Do not use water.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- **HIGHLY FLAMMABLE:** Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Vapor explosion hazard indoors, outdoors or in sewers. Many liquids are lighter than water. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Runoff to sewer may create fire or explosion hazard. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.
- Hazardous Combustion Products**
- No data available

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk. **LARGE FIRES:** Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. **LARGE FIRES:** Cool containers with flooding quantities of water until well after fire is out. Stop leak if safe to do so. If leak cannot be stopped, and if there is no risk to the surrounding area, let the fire burn itself out.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not breathe mist/vapours/spray. Avoid contact with skin, eyes, and clothing.
- Emergency Procedures**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. **LARGE SPILL:** Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Use clean non-sparking tools to collect absorbed material.
A vapor suppressing foam may be used to reduce vapors.
All equipment used when handling the product must be grounded.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Keep away from heat, sparks and open flame. Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe mist/vapours/spray. Avoid contact with skin, eyes, and clothing. Do not ingest. Take precautionary measures against static charges. Bond and ground all transfer containers and equipment. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near container. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Protect from sunlight.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Australia	Belgium	Canada Alberta	Canada British Columbia
Toluene (108-88-3)	STELs	Not established	150 ppm STEL; 574 mg/m3 STEL	100 ppm STEL; 384 mg/m3 STEL	Not established	Not established
	TWAs	20 ppm TWA	50 ppm TWA; 191 mg/m3 TWA	22 ppm TWA; 77 mg/m3 TWA	50 ppm TWA; 188 mg/m3 TWA	20 ppm TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut
Toluene (108-88-3)	TWAs	20 ppm TWA	50 ppm TWA; 188 mg/m3 TWA	100 ppm TWA; 375 mg/m3 TWA	20 ppm TWA	100 ppm TWA; 375 mg/m3 TWA
	STELs	Not established	Not established	150 ppm STEL; 560 mg/m3 STEL	Not established	150 ppm STEL; 560 mg/m3 STEL

Exposure Limits/Guidelines (Con't.)						
	Result	Canada Ontario	Canada Quebec	Canada Saskatchewan	Canada Yukon	China
Toluene (108-88-3)	STELs	Not established	Not established	Not established	150 ppm STEL; 560 mg/m3 STEL	100 mg/m3 STEL
	TWAs	20 ppm TWA	50 ppm TWAEV; 188 mg/m3 TWAEV	50 ppm TWA	100 ppm TWA; 375 mg/m3 TWA	50 mg/m3 TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Cyprus	Denmark	Europe	Germany DFG	Germany TRGS
Toluene (108-88-3)	STELs	100 ppm STEL; 384 mg/m3 STEL	Not established	100 ppm STEL; 384 mg/m3 STEL	Not established	Not established
	TWAs	50 ppm TWA; 192 mg/m3 TWA	25 ppm TWA; 94 mg/m3 TWA	50 ppm TWA; 192 mg/m3 TWA	Not established	50 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4); 190 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4)
	Ceilings	Not established	Not established	Not established	200 ppm Peak; 760 mg/m3 Peak	Not established
	MAKs	Not established	Not established	Not established	50 ppm TWA MAK; 190 mg/m3 TWA MAK	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	NIOSH		OSHA		
Toluene (108-88-3)	Ceilings	Not established		300 ppm Ceiling		
	TWAs	100 ppm TWA; 375 mg/m3 TWA		200 ppm TWA		
	STELs	150 ppm STEL; 560 mg/m3 STEL		Not established		

Exposure Control Notations

China

- Toluene (108-88-3): **Skin:** (Skin notation)

Canada Quebec

- Toluene (108-88-3): **Skin:** (Skin designation)

Cyprus

- Toluene (108-88-3): **Skin:** (Skin-potential for cutaneous absorption)

ACGIH

- Toluene (108-88-3): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Germany TRGS

- Toluene (108-88-3): **Skin:** (skin notation)

Germany DFG

- Toluene (108-88-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)

Exposure Limits Supplemental

ACGIH

- Toluene (108-88-3): **BEIs:** (0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene; 0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene; 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)) | **TLV Basis -**

Critical Effects: (female reproductive; pregnancy loss; visual impairment)

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

BEI = Biological Exposure Indices

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description

Physical Form	Liquid	Appearance/Description	Black liquid with a characteristic odor.
Color	Black	Odor	Characteristic
Odor Threshold	Data lacking		

General Properties

Boiling Point	110 °C(230 °F)	Melting Point/Freezing Point	Not relevant
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 1.2 Water=1	Water Solubility	Not miscible or difficult to mix.
Viscosity	Data lacking	Explosive Properties	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Oxidizing Properties:	Data lacking		

Volatility

Vapor Pressure	29 hPa @ 20 °C(68 °F)	Vapor Density	Data lacking
Evaporation Rate	Data lacking	VOC (Wt.)	1.9 lbs/gal
VOC (Vol.)	224 g/L		

Flammability

Flash Point	4 °C(39.2 °F)	UEL	7 %
LEL	1.2 %	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		

Environmental

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Excess heat. Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- Strong oxidizers, acids, and bases.

10.6 Hazardous decomposition products

- Carbon monoxide, carbon dioxide, and hydrocarbons.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
1-Chloro-4-(trifluoromethyl)benzene (50% TO 100%)	98-56-6	Acute Toxicity: Ingestion/Oral-Rat LD50 • 13 g/kg; Inhalation-Rat LC50 • 22 g/m ³ ; Multi-dose Toxicity: Inhalation-Rat TCLo • 500 ppm 6 Hour(s) 4 Week(s)-Intermittent; <i>Blood:Changes in serum composition (e.g., TP, bilirubin cholesterol); Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Ca; Biochemical:Metabolism (intermediary):Other proteins</i>
Toluene (5% TO 20%)	108-88-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 636 mg/kg; Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s); Skin-Rabbit LD50 • 14100 µL/kg; Irritation: Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg • Moderate irritation; Mutagen: Sister chromatid exchange • Inhalation-Human • 252 µg/L 19 Year(s); Reproductive: Inhalation-Rat TCLo • 2000 ppm 6 Hour(s)(7-17D preg); <i>Reproductive Effects:Maternal Effects:Other effects; Reproductive Effects:Effects on Newborn:Physical</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Eye Irritation 2
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Aspiration 1 OSHA HCS 2012 • Aspiration 1
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Toxic to Reproduction 2 OSHA HCS 2012 • Toxic to Reproduction 2
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2

Target Organs

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Potential Health Effects**Inhalation****Acute (Immediate)**

- May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)

- No data available

Skin**Acute (Immediate)**

- Causes skin irritation.

Chronic (Delayed)

- No data available.

Eye**Acute (Immediate)**

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- Material may be aspirated into the lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical pneumonitis, pulmonary edema or death.
- No data available.

Chronic (Delayed)**Other****Chronic (Delayed)**

- May cause damage to organs through prolonged or repeated exposure.

Reproductive Effects

- May cause adverse reproductive effects - such as birth defects, miscarriages or infertility based on animal data.

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives	NDA	II	NDA
TDG	UN1133	ADHESIVES	NDA	II	NDA
IMO/IMDG	UN1133	ADHESIVES	NDA	II	NDA
ADN	UN1133	ADHESIVES	NDA	II	NDA
ADR/RID	UN1133	ADHESIVES	NDA	II	NDA
IATA/ICAO	UN1133	Adhesives	NDA	II	NDA

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- Acute, Chronic, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
1-Chloro-4-(trifluoromethyl) benzene	98-56-6	No	No	No
Toluene	108-88-3	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Yes	No	Yes	Yes	No
Toluene	108-88-3	Yes	No	Yes	Yes	No
Inventory (Con't.)						
Component	CAS	Japan ENCS		Korea KECL	TSCA	
1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Yes		Yes	Yes	
Toluene	108-88-3	Yes		Yes	Yes	

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Australia - High Volume Industrial Chemicals List

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	

Australia - List of Designated Hazardous Substances - Classification

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	F, Xn, Xi Repr.Cat.3 R11, R63, R48/20, R65, R38, R67

Environment

Australia - National Pollutant Inventory (NPI) Substance List

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	10 tonne/yr Threshold category 1

Australia - Ozone Protection Act - Scheduled Substances

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Australia - Priority Existing Chemical Program

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Candidate chemical

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	0.25 mg/m3 MAHCL

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Canada**Labor****Canada - WHMIS - Classifications of Substances**

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	B2, D2A, D2B

Canada - WHMIS - Ingredient Disclosure List

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	1 %

Environment**Canada - CEPA - Priority Substances List**

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)

Other**Canada - Accelerated Reduction/Elimination of Toxics (ARET)**

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

China**Other****China - Annex I & II - Controlled Chemicals Lists**

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Denmark**Environment****Denmark - List of Undesirable Substances - Product Groups/Function**

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Solvents in a wide range of products including paints, coatings and cooling lubricants (listed under Organic solvents)

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	S:(2)-36/37-46-62

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Environment**Germany - TA Luft - Types and Classes**

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	ID Number 1112, hazard class 2 - hazard to waters
• Toluene	108-88-3	ID Number 194, hazard class 2 - hazard to waters

Germany - Water Classification (VwVwS) - Annex 3

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	1.0 % de minimis concentration

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed
U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII		
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151
U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring		
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	
U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261		
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	waste number U220
U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents		
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	
U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards		
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	0.080 mg/L (wastewater); 10 mg/kg (nonwastewater)
U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring		
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	
U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics		
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	waste number U220

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	developmental toxicity, initial date 1/1/91

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	7000 µg/day MADL (level represents absorbed dose)

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Toluene	108-88-3	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Section 16 - Other Information

Revision Date	• 29/January/2018
Preparation Date	• 29/December/2014
Other Information	• Changes to this revision: Updated mailing address.
Disclaimer/Statement of Liability	• The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

- Other Material Information**
- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

- Other Material Information**
- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

- Other Material Information**
- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

- Other Material Information**
- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **QuickSeam™ EPDM Accessories**

Synonyms

- 18" QuickSeam™ SA Flashing; QuickSeam™ Batten Cover; QuickSeam™ Conduit Flashing; QuickSeam™ Corner Flashing; QuickSeam™ Curb Flashing; QuickSeam™ Flashing; QuickSeam™ FormFlash Flashing; QuickSeam™ Geomembrane Patch; QuickSeam™ Joint Cover; QuickSeam™ Penetration Pocket Kit, QS6 & QS10; QuickSeam™ Pipe Flashing; QuickSeam™ R.M.A. Strip; QuickSeam™ Reinforced Perimeter Fastening Strip (RPF); QuickSeam™ SA Patch for Conduit Flashing; QuickSeam™ SA Patch for Pipe Flashing; QuickSeam™ Universal Pipe Flashing; QuickSeam™ Walkway Pad

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)**
- Construction: sealing compound

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture**CLP**

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop,

- get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

- Exposure Limits/Guidelines** • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

- Engineering Measures/Controls** • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

- Respiratory** • No respiratory protection is required under normal conditions of use.

- Eye/Face** • Under normal conditions of use, eye protection is not required.

- Skin/Body** • No skin protection is ordinarily required under normal conditions of use.

- Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. Tape has a paper cover. No odor.
Color	Black	Odor	None
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	0.7 %
Flammability			
Flash Point	> 200 °C(> 392 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

- Other Material Information**
- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

STOT-RE

EU/CLP • Not relevant

OSHA HCS 2012 • Not relevant

Potential Health Effects**Inhalation****Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards

DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 18/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • RubberGard™ EPDM Series: RubberGard™ Fire Retardant (FR) EPDM Membrane, Modular Bilaminate EPDM (White) Membrane, Fastening Strip (RPF), RubberGard™ EPDM Pipe Flashing, RubberGard™ EPDM FormFlash™ Flashing, RubberGard™ MAX Reinforced EPDM Membrane, RubberGard™ EPDM Platinum™ Membrane, RubberGard™ EcoWhite™ EPDM Membrane, RubberGard™ Low Slope Fire Retardant (LSFR) EPDM Membrane

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

Telephone (General) • firestonemsds@bfdp.com
800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP
Hazard statements • No label element(s) required

DSD/DPD
Risk phrases • No label element(s) required

2.3 Other Hazards

- CLP**
 - This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
- DSD/DPD**
 - Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
 - Not classified

2.2 Label elements

- OSHA HCS 2012**
 - Hazard statements**
 - No label elements(s) required

2.3 Other hazards

- OSHA HCS 2012**
 - Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

- WHMIS**
 - Not classified

2.2 Label elements

- WHMIS**
 - No label element(s) required

2.3 Other hazards

- WHMIS**
 - Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
				EU DSD/DPD: None	

Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA
-------------------------	-----	------	-----	-------------------------------------	-----

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|--|
| Suitable Extinguishing Media | <ul style="list-style-type: none"> Water, foam, dry chemical, carbon dioxide (CO2). |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"> None known. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none"> Does not present any special fire or explosive hazards. |
| Hazardous Combustion Products | <ul style="list-style-type: none"> Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes. |

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|---|
| Personal Precautions | <ul style="list-style-type: none"> No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. |
| Emergency Procedures | <ul style="list-style-type: none"> No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures. |

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black or white solid with slight rubber odor.
Color	Black or white.	Odor	Slight rubber odor.
Odor Threshold	Data lacking		

General Properties

Boiling Point	Not relevant	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		

Volatility

Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		

Flammability

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant.		

Environmental

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

- Reproductive Effects** • No reproductive effects expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information

Last Revision Date

- 06/May/2013

Preparation Date

- 16/August/2012

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • RubberGard™ EPDM Series: RubberGard™ Fire Retardant (FR) EPDM Membrane, Modular Bilaminate EPDM (White) Membrane, Fastening Strip (RPF), RubberGard™ EPDM Pipe Flashing, RubberGard™ EPDM FormFlash™ Flashing, RubberGard™ MAX Reinforced EPDM Membrane, RubberGard™ EPDM Platinum™ Membrane, RubberGard™ EcoWhite™ EPDM Membrane, RubberGard™ Low Slope Fire Retardant (LSFR) EPDM Membrane

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

Telephone (General) • firestonemsds@bfdp.com
800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP
Hazard statements • No label element(s) required

DSD/DPD
Risk phrases • No label element(s) required

2.3 Other Hazards

- CLP**
- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
- DSD/DPD**
- Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Not classified

2.2 Label elements

- OSHA HCS 2012**
- Hazard statements**
- No label elements(s) required

2.3 Other hazards

- OSHA HCS 2012**
- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

- WHMIS**
- Not classified

2.2 Label elements

- WHMIS**
- No label element(s) required

2.3 Other hazards

- WHMIS**
- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
				EU DSD/DPD: None	

Nonhazardous Components	NDA	100%	NDA	EU CLP: None OSHA HCS 2012: None	NDA
-------------------------	-----	------	-----	-------------------------------------	-----

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none"> First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|--|
| Suitable Extinguishing Media | <ul style="list-style-type: none"> Water, foam, dry chemical, carbon dioxide (CO2). |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"> None known. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none"> Does not present any special fire or explosive hazards. |
| Hazardous Combustion Products | <ul style="list-style-type: none"> Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes. |

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|---|
| Personal Precautions | <ul style="list-style-type: none"> No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. |
| Emergency Procedures | <ul style="list-style-type: none"> No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures. |

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description

Physical Form	Solid	Appearance/Description	Black or white solid with slight rubber odor.
Color	Black or white.	Odor	Slight rubber odor.
Odor Threshold	Data lacking		

General Properties

Boiling Point	Not relevant	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		

Volatility

Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		

Flammability

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant.		

Environmental

Octanol/Water Partition coefficient	Data lacking		
-------------------------------------	--------------	--	--

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

- Reproductive Effects** • No reproductive effects expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information

Last Revision Date

- 06/May/2013

Preparation Date

- 16/August/2012

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Firestone Building Products Company, LLC

Material Safety Data Sheet

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SECTION 1: PRODUCT IDENTIFICATION

Product Name:	EPDM Pipe Flashings
Chemical Name / Synonym:	EPDM Pipe Flashings, 1" to 6" ID
Chemical Family:	Mixture
24-Hour Emergency Phone:	(800) 424-9300 CHEMTREC
Manufacturer's Name:	Firestone Building Products Company, LLC
Manufacturer's Address:	250 West 96 th Street, Indianapolis, IN 46260
NFPA Hazard Rating:	Health 1, Flammability 1, Reactivity 0
HMIS Hazard Rating:	Health 0, Flammability 1, Reactivity 0

SECTION 2: CHEMICAL COMPOSITION

Chemical Name:	Common Name:	CAS #:	% (by wt)	Exposure Limits:
Nonhazardous as per 29 CFR 1910.1200.	None	None	100	None Established

SECTION 3: HAZARD IDENTIFICATION

Primary Route of Exposure:	None
Signs and Symptoms of Exposure:	No known adverse effects.
Medical Conditions Aggravated by Exposure:	Sensitive individuals may exhibit eye, nose, throat or dermal irritation with prolonged exposure to processing fumes or vapors.
Chronic Effects:	No known adverse effects.
Carcinogenicity:	None

SECTION 4: FIRST AID MEASURES

First Aid Procedures:	No special action necessary.
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SECTION 5: FIRE FIGHTING PROCEDURES

Suitable Extinguishing Media:	Carbon dioxide, foam, sand/earth, or dry chemicals.
Hazardous Combustion Products:	Carbon dioxide and carbon monoxide, oxides of nitrogen, sulfur dioxide, partially burned carbon.
Recommended Fire Fighting Procedures:	Wear impermeable protective clothing and self-contained breathing apparatus. Toxic fumes and vapors may be evolved.
Unusual Fire and Explosion Hazards:	Oil 'bleeds' from material when burning.

SECTION 6: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled:	Not Applicable
Precautions to Be Taken in Handling and Storing:	Keep away from heat, sparks, and open flames. Store in a dry area. Storage area should be well ventilated.

Firestone Building Products Company, LLC

Material Safety Data Sheet

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SECTION 7: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation:	Store and use in well ventilated areas.
Respiratory Protection:	None required.
Eye Protection:	None required.
Skin Protection:	None required.
Other:	None.
Work / Hygienic Practices:	Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Wash contaminated clothing prior to reuse.

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Black, conical solid with slight rubber odor.		
Flash Point:	Not Applicable	Lower Explosive Limit:	None
Method Used:	Not Applicable	Upper Explosive Limit:	None
Evaporation Rate:	Not Applicable	Boiling Point:	None
pH (undiluted product):	Not Applicable	Melting Point:	Unknown
Solubility in Water:	Insoluble	Specific Gravity:	1.135
Vapor Density:	Not Applicable	Percent Volatile:	Unknown
Vapor Pressure:	Not Applicable		

SECTION 9: STABILITY AND REACTIVITY

Thermal Stability:	Stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Heat, sparks, and open flames.

SECTION 10: TRANSPORTATION

Regulatory Agency:	Not Regulated
Proper Shipping Name:	Not Applicable
Hazard Classification:	Not Applicable
Identification Number:	Not Applicable
Labels Required:	Not Applicable
Other Requirements:	Not Applicable

SECTION 11: MISCELLANEOUS INFORMATION

Additional Comments:	This product is considered to be a finished article as per 29 CFR 1910.1200 (C) and is, therefore, exempt from the requirements of the Hazard Communication standard.
Date of Previous MSDS:	February 9, 2009
Changes Since Previous MSDS:	Review only.
Telephone Number for Additional Information:	(317) 575-7190

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Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **Single-Ply LVOC Bonding Adhesive 1168**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

genflexmsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

- CLP**
- Flammable Liquids 2 - H225
 - Skin Irritation 2 - H315
 - Eye Irritation 2 - H319
 - Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
 - Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
 - Reproductive Toxicity 2 - H361d
 - EUH066
- DSD/DPD**
- Highly Flammable (F)
 - Irritant (Xi)
 - Substances Toxic To Reproduction - Category 3
 - R11, R36/37/38, R63, R66, R67

2.2 Label Elements

CLP

DANGER



- Hazard statements •** H225 - Highly flammable liquid and vapour
 H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation
 H336 - May cause drowsiness or dizziness
 H361d - Suspected of damaging the unborn child.
 EUH066 - Repeated exposure may cause skin dryness or cracking.

Precautionary statements

- Prevention •** P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground and/or bond container and receiving equipment.
 P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P261 - Avoid breathing mist/vapours/spray.
 P264 - Wash thoroughly after handling.
 P271 - Use only outdoors or in a well-ventilated area.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P281 - Use personal protective equipment as required.
- Response •** P370+P378 - In case of fire: Use appropriate media for extinction.
 P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P321 - Specific treatment, see supplemental first aid information.
 P332+P313 - If skin irritation occurs: Get medical advice/attention.
 P362 - Take off contaminated clothing and wash before reuse.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P308+P313 - IF exposed or concerned: Get medical advice/attention.
- Storage/Disposal •** P233 - Keep container tightly closed.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases •** R11 - Highly flammable.
 R36/37/38 - Irritating to eyes, respiratory system and skin.
 R63 - Possible risk of harm to the unborn child.
 R66 - Repeated exposure may cause skin dryness or cracking.
 R67 - Vapours may cause drowsiness and dizziness.

- Safety phrases •** S9 - Keep container in a well ventilated place
 S16 - Keep away from sources of ignition - No Smoking.
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S37 - Wear suitable gloves.

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

- DSD/DPD**
- According to European Directive 1999/45/EC this preparation is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Flammable Liquids 2
- Skin Irritation 2
- Eye Irritation 2A
- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
- Reproductive Toxicity 2

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements •**
- Highly flammable liquid and vapour
 - Causes skin irritation
 - Causes serious eye irritation
 - May cause respiratory irritation
 - May cause drowsiness or dizziness
 - Suspected of damaging fertility or the unborn child.

Precautionary statements

- Prevention •**
- Obtain special instructions before use.
 - Do not handle until all safety precautions have been read and understood.
 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 - Keep container tightly closed.
 - Ground and/or bond container and receiving equipment.
 - Use explosion-proof electrical/ventilating/lighting/equipment.
 - Use only non-sparking tools.
 - Take precautionary measures against static discharge.
 - Avoid breathing mist/vapours/spray.
 - Wash thoroughly after handling.
 - Use only outdoors or in a well-ventilated area.
 - Wear protective gloves/protective clothing/eye protection/face protection.
 - Use personal protective equipment as required.
- Response •**
- In case of fire: Use appropriate media for extinction.
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - Specific treatment, see supplemental first aid information.
 - If skin irritation occurs: Get medical advice/attention.
 - Take off contaminated clothing and wash before reuse.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - If eye irritation persists: Get medical advice/attention.
 - IF exposed or concerned: Get medical advice/attention.
- Storage/Disposal •**
- Keep container tightly closed.
 - Store in a well-ventilated place. Keep cool.
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Acetone	CAS:67-64-1 EC Number:200-662-2	10% TO 40%	Inhalation-Rat LC50 • 50100 mg/m ³ 8 Hour (s) Ingestion/Oral-Rat LD50 • 5800 mg/kg	EU DSD/DPD: EU CLP, Annex VI, Table 3.2: F, R11; Xi, R36; R66; R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3: Narc., H336; EUH066 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3: Narc.	NDA
1-Chloro-4-(trifluoromethyl) benzene	CAS:98-56-6 EC Number:202-681-1	30% TO 60%	Ingestion/Oral-Rat LD50 • 13 g/kg Inhalation-Rat LC50 • 22 g/m ³	EU DSD/DPD: Self Classified: Xi, R36/37/38 EU CLP: Self Classified: Eye Irrit. 2, H319; Skin Irrit. 2, H315; STOT SE 3 - Resp. Irrit., H335 OSHA HCS 2012: Eye Irrit. 2A; Skin Irrit. 2; STOT SE 3: Resp. Irrit.	NDA
Toluene	CAS:108-88-3 EC Number:203-625-9	1% TO 7%	Ingestion/Oral-Rat LD50 • 636 mg/kg Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s) Skin-Rabbit LD50 • 14100 µL/kg	EU DSD/DPD: EU CLP, Annex VI, Table 3.2: F, R11; Repr.Cat.3, R63; Xn, R48/20, R65; Xi, R38; R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Repr. 2, H361d; Asp. Tox. 1, H304; STOT RE 2, H373; Skin Irrit. 2, H315; STOT SE 3: Narc., H336 OSHA HCS 2012: Flam. Liq. 2; Repr. 2; Acute Tox. 4 (Oral); STOT SE 3: Narc.; Asp. Tox. 1; Eye Irrit. 2B	NDA

Acetic acid, methyl ester	CAS: 79-20-9 EC Number: 201-185-2	1% TO 15%	Ingestion/Oral-Rat LD50 • >5 g/kg Skin-Rabbit LD50 • >5 g/kg	EU DSD/DPD: EU CLP, Annex VI, Table 3.2: F, R11; Xi, R36; R66; R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3: Narc., H336; EUH066 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2; Skin Irrit. 2; STOT RE 3: Narc. & Resp. Irrit.	NDA
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See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation**
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.
- Skin**
- IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion**
- If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- CAUTION: For mixtures containing a high percentage of an alcohol or polar solvent, alcohol-resistant foam may be more effective.
LARGE FIRES: Water spray, fog or alcohol-resistant foam.
SMALL FIRES: Dry chemical, CO₂, water spray or alcohol-resistant foam.

- Unsuitable Extinguishing Media**
- None known.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Vapor explosion hazard indoors, outdoors or in sewers. Many liquids are lighter than water. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Runoff to sewer may create fire or explosion hazard. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Dried solids can burn and release toxic fumes and vapors.

- Hazardous Combustion Products**
- Carbon dioxide, carbon monoxide, oxides of nitrogen, hydrogen chloride, various hydrocarbons, phenols, acrid smoke and irritating fumes.

5.3 Advice for firefighters

- No action shall be taken involving any personal risk or without suitable training.

Move containers from fire area if you can do it without risk.
 Structural firefighters' protective clothing will only provide limited protection.
 Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
 Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|---|
| Personal Precautions | <ul style="list-style-type: none"> Ventilate enclosed areas. Wear appropriate protective clothing. Do not touch or walk through spilled material. |
| Emergency Procedures | <ul style="list-style-type: none"> ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) Keep out of low areas. Stay upwind. Keep unauthorized personnel away. Ventilate closed spaces before entering. |

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

- | | |
|--------------------------------------|--|
| Containment/Clean-up Measures | <ul style="list-style-type: none"> Stop leak if you can do it without risk.
 A vapor suppressing foam may be used to reduce vapors.
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Use clean non-sparking tools to collect absorbed material.
 All equipment used when handling the product must be grounded. |
|--------------------------------------|--|

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

- | | |
|-----------------|---|
| Handling | <ul style="list-style-type: none"> Keep away from fire. Keep away from heat and sparks. Do not eat, drink or smoke when using this product. After handling wash hands thoroughly. Prevent formation of aerosols. All equipment used when handling the product must be grounded. Bond and ground all transfer containers and equipment. Take precautionary measures against static charges. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near container. |
|-----------------|---|

7.2 Conditions for safe storage, including any incompatibilities

- | | |
|----------------|---|
| Storage | <ul style="list-style-type: none"> Store in a cool, dry place. Store in a well-ventilated place. Keep container tightly closed. Keep away from fire. |
|----------------|---|

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick

Toluene (108-88-3)	TWAs	20 ppm TWA	50 ppm TWA; 188 mg/m3 TWA	20 ppm TWA	20 ppm TWA	50 ppm TWA; 188 mg/m3 TWA
Acetic acid, methyl ester (79-20-9)	STELs	250 ppm STEL	250 ppm STEL; 757 mg/m3 STEL	250 ppm STEL	250 ppm STEL	250 ppm STEL; 757 mg/m3 STEL
	TWAs	200 ppm TWA	200 ppm TWA; 606 mg/m3 TWA	200 ppm TWA	200 ppm TWA	200 ppm TWA; 606 mg/m3 TWA
Acetone (67-64-1)	STELs	750 ppm STEL	750 ppm STEL; 1800 mg/m3 STEL	500 ppm STEL	750 ppm STEL	750 ppm STEL; 1782 mg/m3 STEL
	TWAs	500 ppm TWA	500 ppm TWA; 1200 mg/m3 TWA	250 ppm TWA	500 ppm TWA	500 ppm TWA; 1188 mg/m3 TWA

Exposure Limits/Guidelines (Con't.)

	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec
Toluene (108-88-3)	STELs	150 ppm STEL; 560 mg/m3 STEL	Not established	150 ppm STEL; 560 mg/m3 STEL	Not established	Not established
	TWAs	100 ppm TWA; 375 mg/m3 TWA	20 ppm TWA	100 ppm TWA; 375 mg/m3 TWA	20 ppm TWA	50 ppm TWA EV; 188 mg/m3 TWA EV
Acetic acid, methyl ester (79-20-9)	STELs	250 ppm STEL; 760 mg/m3 STEL	250 ppm STEL	250 ppm STEL; 760 mg/m3 STEL	250 ppm STEL	250 ppm STEV; 757 mg/m3 STEV
	TWAs	200 ppm TWA; 605 mg/m3 TWA	200 ppm TWA	200 ppm TWA; 605 mg/m3 TWA	200 ppm TWA	200 ppm TWA EV; 606 mg/m3 TWA EV
Acetone (67-64-1)	STELs	1250 ppm STEL; 2970 mg/m3 STEL	750 ppm STEL	1250 ppm STEL; 2970 mg/m3 STEL	750 ppm STEL	1000 ppm STEV; 2380 mg/m3 STEV
	TWAs	1000 ppm TWA; 2370 mg/m3 TWA	500 ppm TWA	1000 ppm TWA; 2370 mg/m3 TWA	500 ppm TWA	500 ppm TWA EV; 1190 mg/m3 TWA EV

Exposure Limits/Guidelines (Con't.)

	Result	Canada Saskatchewan	Canada Yukon	Denmark	Europe	Germany DFG
Toluene (108-88-3)	STELs	Not established	150 ppm STEL; 560 mg/m3 STEL	Not established	100 ppm STEL; 384 mg/m3 STEL	Not established
	TWAs	50 ppm TWA	100 ppm TWA; 375 mg/m3 TWA	25 ppm TWA; 94 mg/m3 TWA	50 ppm TWA; 192 mg/m3 TWA	Not established
	Ceilings	Not established	Not established	Not established	Not established	200 ppm Peak; 760 mg/m3 Peak
	MAKs	Not established	Not established	Not established	Not established	50 ppm TWA MAK; 190 mg/m3 TWA MAK
Acetic acid, methyl ester (79-20-9)	TWAs	200 ppm TWA	200 ppm TWA; 610 mg/m3 TWA	150 ppm TWA; 455 mg/m3 TWA	Not established	Not established
	STELs	Not established	250 ppm STEL; 760 mg/m3 STEL	Not established	Not established	Not established
	Ceilings	Not established	Not established	Not established	Not established	400 ppm Peak; 1240 mg/m3 Peak
	MAKs	Not established	Not established	Not established	Not established	100 ppm TWA MAK; 310 mg/m3 TWA MAK
Acetone	TWAs	500 ppm TWA	1000 ppm TWA; 2400 mg/m3 TWA	250 ppm TWA; 600 mg/m3 TWA	Not established	Not established
	STELs	Not established	1250 ppm STEL; 3000 mg/m3 STEL	Not established	Not established	Not established

(67-64-1)	Ceilings	Not established	Not established	Not established	Not established	1000 ppm Peak; 2400 mg/m3 Peak
	MAKs	Not established	Not established	Not established	Not established	500 ppm TWA MAK; 1200 mg/m3 TWA MAK

Exposure Limits/Guidelines (Con't.)

	Result	NIOSH	OSHA
Toluene (108-88-3)	Ceilings	Not established	300 ppm Ceiling
	TWAs	100 ppm TWA; 375 mg/m3 TWA	200 ppm TWA
	STELs	150 ppm STEL; 560 mg/m3 STEL	Not established
Acetic acid, methyl ester (79-20-9)	TWAs	200 ppm TWA; 610 mg/m3 TWA	200 ppm TWA; 610 mg/m3 TWA
	STELs	250 ppm STEL; 760 mg/m3 STEL	Not established
Acetone (67-64-1)	TWAs	250 ppm TWA; 590 mg/m3 TWA	1000 ppm TWA; 2400 mg/m3 TWA

Exposure Control Notations

Germany TRGS

- Toluene (108-88-3): **Skin:** (skin notation)

Germany DFG

- Acetone (67-64-1): **Pregnancy:** (classification not yet possible)
- Toluene (108-88-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)
- Acetic acid, methyl ester (79-20-9): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear splash goggles.

Skin/Body

- Wear clothing and footwear that cannot be penetrated by chemicals or oil.

General Industrial Hygiene Considerations

- Avoid contact with skin, eyes or clothing. Keep away from food, drink and animal feeding stuffs. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Amber liquid with characteristic odor.
Color	Amber	Odor	Characteristic
Odor Threshold	Data lacking		
General Properties			
Boiling Point	55 °C(131 °F)	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 1.14 Water=1	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	233 hPa	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	-19 °C(-2.2 °F)	UEL	13 %
LEL	2.6 %	Autoignition	Data lacking
Flammability (solid, gas)	Flammable Liquid.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- Acids, alkalies, strong oxidizers.

10.6 Hazardous decomposition products

- Carbon monoxide, carbon dioxide, hydrocarbon, hydrogen chloride and other acid products of combustion.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components	
	Acute Toxicity: Ingestion/Oral-Rat LD50 • 5800 mg/kg; <i>Behavioral:</i> Altered sleep time (including change in

Acetone (10% TO 40%)	67-64-1	righting reflex); <i>Behavioral</i> : Tremor ; Inhalation-Rat LC50 • 50100 mg/m ³ 8 Hour(s); Irritation : Eye-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Mutagen : Sex chromosome loss & nondisjunction • Inhalation-Mouse • 12 g/L; Reproductive : Ingestion/Oral-Rat TDLo • 273 g/kg (13W male); <i>Reproductive Effects</i> : Paternal Effects:Spermatogenesis ; Inhalation-Rat TCLo • 11000 ppm (6-19D preg); <i>Reproductive Effects</i> : Specific Developmental Abnormalities:Other developmental abnormalities
1-Chloro-4-(trifluoromethyl) benzene (30% TO 60%)	98-56-6	Acute Toxicity : Ingestion/Oral-Rat LD50 • 13 g/kg
Toluene (1% TO 7%)	108-88-3	Acute Toxicity : Ingestion/Oral-Rat LD50 • 636 mg/kg; Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s); Skin-Rabbit LD50 • 14100 µL/kg; Irritation : Eye-Rabbit • 100 mg 30 Second(s)-Rinse • Mild irritation; Skin-Rabbit • 435 mg • Mild irritation; Reproductive : Inhalation-Rat TCLo • 1500 ppm (7-20D preg); <i>Reproductive Effects</i> : Specific Developmental Abnormalities:Central nervous system ; <i>Reproductive Effects</i> : Effects on Newborn:Growth statistics (e.g., reduced weight gain) ; <i>Reproductive Effects</i> : Effects on Newborn:Biochemical and metabolic
Acetic acid, methyl ester (1% TO 15%)	79-20-9	Acute Toxicity : Ingestion/Oral-Rat LD50 • >5 g/kg; Skin-Rabbit LD50 • >5 g/kg; Irritation : Eye-Rabbit • 100 mg 24 Hour(s) • Moderate irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2A
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Toxic to Reproduction 2 OSHA HCS 2012 • Toxic to Reproduction 2
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Route(s) of entry/exposure • Inhalation, Skin, and Eye

Potential Health Effects

Inhalation

Acute (Immediate)

- May cause respiratory irritation. May affect the central nervous system. Symptoms

- may include dizziness, drowsiness, lethargy, coma and death.
- No data available
- Chronic (Delayed)**
- Skin**
- Causes skin irritation.
- Acute (Immediate)**
- Repeated exposure may cause skin dryness or cracking.
- Chronic (Delayed)**
- Eye**
- Causes serious eye irritation.
- Acute (Immediate)**
- No data available.
- Chronic (Delayed)**
- Ingestion**
- Although swallowing this product is an unlikely means of exposure, irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.
- Acute (Immediate)**
- No data available.
- Chronic (Delayed)**
- Carcinogenic Effects**
- The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.
- Reproductive Effects**
- Repeated or prolonged exposure to toluene may cause reproductive effects.

Key to abbreviations

LC = Lethal Concentration

MOD = Moderate

LD = Lethal Dose

TC = Toxic Concentration

MLD = Mild

Section 12 - Ecological Information

12.1 Toxicity

	CAS	
Single-Ply LVOC Bonding Adhesive 1168	NDA	Aquatic Toxicity-Crustacea: 48 Hour(s) EC50 <i>Daphnia Magna</i> 6.8 mg/L Comments: Data for Toluene 48 Hour(s) NOEC <i>Daphnia Magna</i> 28 mg/L Comments: Data for Toluene

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

12.7 Other Information

- Water hazard class 2 (Self-assessment): hazardous to water. Do not allow product to reach sewage system. Disposal must be made according to official regulations.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives	3	II	NDA
TDG	UN1133	ADHESIVES	3	II	NDA
IMO/IMDG	UN1133	ADHESIVES	3	II	NDA
ADN	UN1133	ADHESIVES	3	II	NDA
ADR/RID	UN1133	ADHESIVES	3	II	NDA
IATA/ICAO	UN1133	Adhesives	3	II	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

14.8 Other information

- DOT** • Acetone has a reportable quantity of 5000 lbs (2270 kg) as listed in Appendix A to 49 CFR 172.101. Toluene has a reportable quantity of 1000 lbs (454 kg) as listed in Appendix A to 49 CFR 172.101.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**SARA Hazard Classifications** • Acute, Chronic, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
1-Chloro-4-(trifluoromethyl) benzene	98-56-6	No	No	No
Acetic acid, methyl ester	79-20-9	Yes	Yes	Yes
Acetone	67-64-1	Yes	Yes	Yes
Toluene	108-88-3	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Yes	No	Yes	No	Yes
Acetic acid, methyl ester	79-20-9	Yes	No	Yes	No	Yes
Acetone	67-64-1	Yes	No	Yes	No	Yes

Toluene	108-88-3	Yes	No	Yes	No	Yes
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Canada

Labor

Canada - WHMIS - Classifications of Substances

• Acetic acid, methyl ester	79-20-9	B2, D2B
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	B2, D2B
• Toluene	108-88-3	B2, D2A, D2B

Canada - WHMIS - Ingredient Disclosure List

• Acetic acid, methyl ester	79-20-9	1 %
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	1 %
• Toluene	108-88-3	1 %

Environment

Canada - CEPA - Priority Substances List

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Solvents in a wide range of products including paints, coatings and cooling lubricants

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• Acetic acid, methyl ester	79-20-9	F; R11 Xi; R36 R66 R67
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	F; R11 Xi; R36 R66 R67
• Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Acetic acid, methyl ester	79-20-9	F Xi R:11-36-66-67 S:(2)-16-26-29-33
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• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	F Xi R:11-36-66-67 S:(2)-9-16-26
• Toluene	108-88-3	F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Acetic acid, methyl ester	79-20-9	S:(2)-16-26-29-33
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	S:(2)-9-16-26
• Toluene	108-88-3	S:(2)-36/37-46-62

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	5000 lb final RQ; 2270 kg final RQ
• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Acetic acid, methyl ester	79-20-9	Not Listed
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• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs		
• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
U.S. - CERCLA/SARA - Section 313 - Emission Reporting		
• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	1.0 % de minimis concentration
U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing		
• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII		
• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Included in waste stream: F039
• Toluene	108-88-3	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151
U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring		
• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	
• Toluene	108-88-3	
U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261		
• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	waste number U220
U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents		
• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	
• Toluene	108-88-3	
U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards		
• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	0.28 mg/L (wastewater); 160 mg/kg (nonwastewater)

• Toluene	108-88-3	0.080 mg/L (wastewater); 10 mg/kg (nonwastewater)
U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring		
• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	
• Toluene	108-88-3	
U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics		
• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	waste number U002 (Ignitable waste)
• Toluene	108-88-3	waste number U220

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	developmental toxicity, initial date 1/1/91

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	7000 µg/day MADL (level represents absorbed dose)

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed

• Toluene	108-88-3	Not Listed
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United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	
• Toluene	108-88-3	

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Acetic acid, methyl ester	79-20-9	Not Listed
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

United States - Rhode Island

Labor

U.S. - Rhode Island - Hazardous Substance List

• Acetic acid, methyl ester	79-20-9	Toxic; Flammable
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Acetone	67-64-1	Toxic; Flammable
• Toluene	108-88-3	Toxic (skin); Flammable (skin)

15.2 Chemical Safety Assessment

- No data available

Section 16 - Other Information

Relevant Phrases (code & full text)

- H304 - May be fatal if swallowed and enters airways
- H373 - May cause damage to organs through prolonged or repeated exposure.
- R36 - Irritating to eyes.
- R38 - Irritating to skin.
- R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R65 - Harmful: may cause lung damage if swallowed.

Revision Date

- 28/February/2018

Preparation Date

- 11/November/2009

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **Single-Ply LVOC Bonding Adhesive**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

250 West 96th Street
Indianapolis, IN 46260
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to EU Directive 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Flammable Liquids 2 - H225
- Skin Irritation 2 - H315
- Eye Irritation 2 - H319
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- Reproductive Toxicity 2 - H361d
- Specific Target Organ Toxicity Repeated Exposure 2 - H373
- EUH066

DSD/DPD

- Highly Flammable (F)
- Irritant (Xi)
- Harmful (Xn)
- Substances Toxic To Reproduction - Category 3
- R11, R36, R48/20, R63, R66, R67

2.2 Label Elements**CLP**

DANGER



- Hazard statements**
- H225 - Highly flammable liquid and vapour
 - H315 - Causes skin irritation
 - H319 - Causes serious eye irritation
 - H336 - May cause drowsiness or dizziness
 - H361d - Suspected of damaging the unborn child.
 - H373 - May cause damage to organs through prolonged or repeated exposure.
 - EUH066 - Repeated exposure may cause skin dryness or cracking.

Precautionary statements

- Prevention**
- P201 - Obtain special instructions before use.
 - P202 - Do not handle until all safety precautions have been read and understood.
 - P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 - P233 - Keep container tightly closed.
 - P240 - Ground and/or bond container and receiving equipment.
 - P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 - P242 - Use only non-sparking tools.
 - P243 - Take precautionary measures against static discharge.
 - P260 - Do not breathe mist/vapours/spray.
 - P264 - Wash thoroughly after handling.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 - P281 - Use personal protective equipment as required.
- Response**
- P370+P378 - In case of fire: Use appropriate media for extinction.
 - P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - P321 - Specific treatment, see supplemental first aid information.
 - P332+P313 - If skin irritation occurs: Get medical advice/attention.
 - P362 - Take off contaminated clothing and wash before reuse.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337+P313 - If eye irritation persists: Get medical advice/attention.
 - P308+P313 - IF exposed or concerned: Get medical advice/attention.
- Storage/Disposal**
- P233 - Keep container tightly closed.
 - P403+P235 - Store in a well-ventilated place. Keep cool.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases**
- R11 - Highly flammable.
 - R36 - Irritating to eyes.
 - R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 - R63 - Possible risk of harm to the unborn child.
 - R66 - Repeated exposure may cause skin dryness or cracking.
 - R67 - Vapours may cause drowsiness and dizziness.
- Safety phrases**
- S9 - Keep container in a well ventilated place
 - S16 - Keep away from sources of ignition - No Smoking.
 - S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - S37 - Wear suitable gloves.

2.3 Other Hazards

CLP

- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered

DSD/DPD

hazardous.

- According to European Directive 1999/45/EC this preparation is considered dangerous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture**OSHA HCS 2012**

- Flammable Liquids 2 - H225
Skin Irritation 2 - H315
Eye Irritation 2A - H319
Acute Toxicity Inhalation 4 - H332
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
Reproductive Toxicity 2 - H361

2.2 Label elements**OSHA HCS 2012****DANGER**

- Hazard statements**
- Highly flammable liquid and vapour - H225
 - Causes skin irritation - H315
 - Causes serious eye irritation - H319
 - Harmful if inhaled - H332
 - May cause respiratory irritation - H335
 - May cause drowsiness or dizziness - H336
 - Suspected of damaging fertility or the unborn child. - H361

Precautionary statements

- Prevention**
- Obtain special instructions before use. - P201
 - Do not handle until all safety precautions have been read and understood. - P202
 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. - P210
 - Keep container tightly closed. - P233
 - Ground and/or bond container and receiving equipment. - P240
 - Use explosion-proof electrical/ventilating/lighting/equipment. - P241
 - Use only non-sparking tools. - P242
 - Take precautionary measures against static discharge. - P243
 - Do not breathe mist/vapours/spray. - P260
 - Wash thoroughly after handling. - P264
 - Use only outdoors or in a well-ventilated area. - P271
 - Wear protective gloves/protective clothing/eye protection/face protection. - P280
- Response**
- In case of fire: Use appropriate media for extinction. - P370+P378
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
 - Call a POISON CENTER or doctor/physician if you feel unwell. - P312
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353
 - Specific treatment, see supplemental first aid information. - P321
 - If skin irritation occurs: Get medical advice/attention. - P332+P313
 - Take off contaminated clothing and wash before reuse. - P362
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
 - If eye irritation persists: Get medical advice/attention. - P337+P313
 - IF exposed or concerned: Get medical advice/attention. - P308+P313
- Storage/Disposal**
- Keep container tightly closed. - P233
 - Store in a well-ventilated place. Keep cool. - P403+P235
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



- Flammable Liquids - B2
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Acetic acid, tert-butyl ester	CAS: 540-88-5 EC Number: 208-760-7	25% TO 50%	Ingestion/Oral-Rat LD50 • 4100 mg/kg Inhalation-Rat LC50 • >2230 mg/m ³ 4 Hour(s) Skin-Rabbit LD50 • >2 g/kg	EU DSD/DPD: Annex I: F; R11; R66 EU CLP: Annex VI: Flam. Liq. 2; H225; EUH066 OSHA HCS 2012: Flam. Liq. 2; Acute Tox . 3 (Inhl.)	NDA
Acetic acid, methyl ester	CAS: 79-20-9 EC Number: 201-185-2	25% TO 50%	Ingestion/Oral-Rat LD50 • >5 g/kg Skin-Rabbit LD50 • >5 g/kg	EU DSD/DPD: Annex I: F; R11; Xi; R36; R66; R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3: Narc., H336; EUH066 OSHA HCS 2012:	NDA

Toluene	CAS:108-88-3 EC Number:203-625-9	2.5% TO 10%	Ingestion-Oral-Rat LD50 • 636 mg/kg Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s) Skin-Rabbit LD50 • 14100 µL/kg	EU DSD/DPD: Annex I: F; R11; Repr. 3; R63; Xn; R48/20-65; Xi; R38; R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Repr. 2, H361d; Asp. Tox. 1, H304; STOT RE 2, H373; Skin Irrit. 2, H315; STOT SE 3: Narc., H336 OSHA HCS 2012: Flam. Liq. 2; Repr. 2; Acute Tox. 4 (Oral); STOT SE 3: Narc.; Asp. Tox. 1; Eye Irrit. 2B	NDA
Phenolic Resin	NDA	2.5% TO 10%	NDA	EU DSD/DPD: Data Lacking EU CLP: Data Lacking OSHA HCS 2012: Data Lacking	NDA

See Section 16 for full text of H-statements and R-phrases. See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Rinse mouth. Drink 1 - 2 glasses of water. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media

- LARGE FIRES: Water spray, fog or alcohol-resistant foam.
SMALL FIRES: Dry chemical, CO₂, water spray or alcohol-resistant foam.

Unsuitable Extinguishing Media

- Do not use a direct stream of water.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Vapor explosion hazard indoors, outdoors or in sewers. Many liquids are lighter than water. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Runoff to sewer may create fire or explosion hazard. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Dried solids can burn and release toxic fumes and vapors.

Hazardous Combustion Products

- No data available

5.3 Advice for firefighters

- No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if you can do it without risk. Structural firefighters' protective clothing will only provide limited protection. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Ventilate enclosed areas. Wear appropriate protective clothing. Do not touch or walk through spilled material.

Emergency Procedures

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area) As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) Keep out of low areas. Stay upwind. Keep unauthorized personnel away. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use clean non-sparking tools to collect absorbed material. All equipment used when handling the product must be grounded.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Keep away from fire. Keep away from heat and sparks. Do not eat, drink or smoke when using this product. After handling wash hands thoroughly. Prevent formation of aerosols. All equipment used when handling the product must be grounded. Bond and ground all transfer containers and equipment. Take precautionary measures against static charges. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near container.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep containers properly sealed in a cool, dry, well-ventilated area between 65-85F (18.3-29.4C). Do not store in open, unlabeled or mislabeled containers. Do not reuse empty container without commercial cleaning or reconditioning.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick
Toluene (108-88-3)	TWAs	20 ppm TWA	50 ppm TWA; 188 mg/m ³ TWA	20 ppm TWA	20 ppm TWA	50 ppm TWA; 188 mg/m ³ TWA
Acetic acid, methyl ester (79-20-9)	STELs	250 ppm STEL	250 ppm STEL; 757 mg/m ³ STEL	250 ppm STEL	250 ppm STEL	250 ppm STEL; 757 mg/m ³ STEL
	TWAs	200 ppm TWA	200 ppm TWA; 606 mg/m ³ TWA	200 ppm TWA	200 ppm TWA	200 ppm TWA; 606 mg/m ³ TWA
Acetic acid, tert-butyl ester (540-88-5)	TWAs	200 ppm TWA	200 ppm TWA; 950 mg/m ³ TWA	200 ppm TWA	200 ppm TWA	200 ppm TWA; 950 mg/m ³ TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec
Toluene (108-88-3)	STELs	150 ppm STEL; 560 mg/m ³ STEL	Not established	150 ppm STEL; 560 mg/m ³ STEL	Not established	Not established
	TWAs	100 ppm TWA; 375 mg/m ³ TWA	20 ppm TWA	100 ppm TWA; 375 mg/m ³ TWA	20 ppm TWA	50 ppm TWAEV; 188 mg/m ³ TWAEV
Acetic acid, methyl ester (79-20-9)	STELs	250 ppm STEL; 760 mg/m ³ STEL	250 ppm STEL	250 ppm STEL; 760 mg/m ³ STEL	250 ppm STEL	250 ppm STEV; 757 mg/m ³ STEV
	TWAs	200 ppm TWA; 605 mg/m ³ TWA	200 ppm TWA	200 ppm TWA; 605 mg/m ³ TWA	200 ppm TWA	200 ppm TWAEV; 606 mg/m ³ TWAEV
Acetic acid, tert-butyl ester (540-88-5)	STELs	250 ppm STEL; 1187 mg/m ³ STEL	Not established	250 ppm STEL; 1187 mg/m ³ STEL	Not established	Not established
	TWAs	200 ppm TWA; 950 mg/m ³ TWA	200 ppm TWA	200 ppm TWA; 950 mg/m ³ TWA	200 ppm TWA	200 ppm TWAEV; 950 mg/m ³ TWAEV
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Saskatchewan	Canada Yukon	Europe	NIOSH	OSHA
Toluene (108-88-3)	STELs	Not established	150 ppm STEL; 560 mg/m ³ STEL	100 ppm STEL; 384 mg/m ³ STEL	150 ppm STEL; 560 mg/m ³ STEL	Not established
	TWAs	50 ppm TWA	100 ppm TWA; 375 mg/m ³ TWA	50 ppm TWA; 192 mg/m ³ TWA	100 ppm TWA; 375 mg/m ³ TWA	200 ppm TWA
	Ceilings	Not established	Not established	Not established	Not established	300 ppm Ceiling
Acetic acid, methyl ester (79-20-9)	TWAs	200 ppm TWA	200 ppm TWA; 610 mg/m ³ TWA	Not established	200 ppm TWA; 610 mg/m ³ TWA	200 ppm TWA; 610 mg/m ³ TWA
	STELs	Not established	250 ppm STEL; 760 mg/m ³ STEL	Not established	250 ppm STEL; 760 mg/m ³ STEL	Not established
Acetic acid, tert-butyl ester (540-88-5)	TWAs	200 ppm TWA	200 ppm TWA; 950 mg/m ³ TWA	Not established	200 ppm TWA; 950 mg/m ³ TWA	200 ppm TWA; 950 mg/m ³ TWA
	STELs	Not established	250 ppm STEL; 1180 mg/m ³ STEL	Not established	Not established	Not established

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face**Skin/Body****General Industrial Hygiene Considerations**

- Wear clothing and footwear that cannot be penetrated by chemicals or oil.
- Avoid contact with skin, eyes or clothing. Keep away from food, drink and animal feeding stuffs. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties**9.1 Information on Physical and Chemical Properties**

Material Description			
Physical Form	Liquid	Appearance/Description	Light liquid with a characteristic odor.
Color	Light	Odor	Characteristic
Odor Threshold	Data lacking		
General Properties			
Boiling Point	57 C(134.6 F)	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Immiscible
Viscosity	Data lacking	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	-10 C(14 F)	UEL	16 %
LEL	3.1 %	Autoignition	455 C(851 F)
Flammability (solid, gas)	Flammable Liquid.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- Oxidizing agents.

10.6 Hazardous decomposition products

- Carbon monoxide, carbon dioxide, and hydrocarbons.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Component Name	CAS	Data
Toluene (2.5% TO 10%)	108-88-3	Acute Toxicity: orl-rat LD50:636 mg/kg; ihl-rat LC50:49 gm/m3/4H; skn-rbt LD50:14100 uL/kg; Irritation: eye-rbt 100 mg/30S rinse MLD; skn-rbt 435 mg MLD; Reproductive: ihl-rat TCLo:1500 ppm (7-20D preg)
Acetic acid, methyl ester (25% TO 50%)	79-20-9	Acute Toxicity: orl-rat LD50:>5 gm/kg; skn-rbt LD50:>5 gm/kg; Irritation: eye-rbt 100 mg/24H MOD; skn-rbt 20 mg/24H MOD
Acetic acid, tert-butyl ester (25% TO 50%)	540-88-5	Acute Toxicity: orl-rat LD50:4500 mg/kg; ihl-rat LC50:>2230 mg/m3/4H; skn-rbt LD50:>2 gm/kg; Irritation: skn-rbt 500 uL/24H MLD

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Acute Toxicity 4 (Inhalation) - ATEmix(Inhalation)=2.676mg/L
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Classification criteria not met
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

Toxicity for Reproduction	EU/CLP • Toxic to Reproduction 2 OSHA HCS 2012 • Toxic to Reproduction 2
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2A

Route(s) of entry/exposure

- Inhalation, Skin, Eye, Ingestion

Potential Health Effects**Inhalation****Acute (Immediate)**

- Harmful if inhaled. May cause respiratory irritation. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)

- No data available

Skin**Acute (Immediate)**

- Causes skin irritation.

Chronic (Delayed)

- Repeated exposure may cause skin dryness or cracking.

Eye**Acute (Immediate)**

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- Although swallowing this product is an unlikely means of exposure, irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.

Chronic (Delayed)

- No data available.

Other**Chronic (Delayed)**

- May cause damage to organs through prolonged or repeated exposure.

Carcinogenic Effects

- The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

Reproductive Effects

- Repeated or prolonged exposure to toluene may cause reproductive effects.

Key to abbreviations

LC = Lethal Concentration

MOD = Moderate

LD = Lethal Dose

TC = Toxic Concentration

MLD = Mild

Section 12 - Ecological Information

12.1 Toxicity

Single-Ply LVOC Bonding Adhesive					
Dosage	Species	Duration	Results	Exposure Conditions	Comments
= 6.8 mg/L	Water Flea: Daphnia magna	48 Hour(s)	EC50	NDA	Toluene
= 28 mg/L	Water Flea: Daphnia magna	48 Hour(s)	NOEC	NDA	Toluene

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

12.7 Other Information

- Water hazard class 2 (Self-assessment): hazardous to water. Do not allow product to reach sewage system. Disposal must be made according to official regulations.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives	3	II	NDA
TDG	UN1133	ADHESIVES	3	II	NDA
IMO/IMDG	UN1133	ADHESIVES	3	II	NDA
ADN	UN1133	ADHESIVES	3	II	NDA
ADR/RID	UN1133	ADHESIVES	3	II	NDA
IATA/ICAO	UN1133	Adhesives	3	II	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- Acute, Chronic, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
Toluene	108-88-3	Yes	Yes	Yes
Acetic acid, methyl ester	79-20-9	Yes	Yes	Yes
Acetic acid, tert-butyl ester	540-88-5	Yes	Yes	Yes

Phenolic Resin	NDA	No	No	No
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Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Toluene	108-88-3	Yes	No	Yes	No	Yes
Acetic acid, methyl ester	79-20-9	Yes	No	Yes	No	Yes
Acetic acid, tert-butyl ester	540-88-5	Yes	No	Yes	No	Yes
Phenolic Resin	NDA	No	No	No	No	No

Canada

Labor

Canada - WHMIS - Classifications of Substances

- Acetic acid, methyl ester 79-20-9 B2, D2B
- Acetic acid, tert-butyl ester 540-88-5 B2
- Toluene 108-88-3 B2, D2A, D2B

Canada - WHMIS - Ingredient Disclosure List

- Acetic acid, methyl ester 79-20-9 1 %
- Acetic acid, tert-butyl ester 540-88-5 1 %
- Toluene 108-88-3 1 %

Environment

Canada - CEPA - Priority Substances List

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Priority Substance List 1 (substance not considered toxic)

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

- Acetic acid, methyl ester 79-20-9 F; R11 Xi; R36 R66 R67
- Acetic acid, tert-butyl ester 540-88-5 F; R11 R66
- Toluene 108-88-3 F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

- Acetic acid, methyl ester 79-20-9 F Xi R:11-36-66-67 S:(2)-16-26-29-33
- Acetic acid, tert-butyl ester 540-88-5 F R:11-66 S:(2)-16-23-25-29-33
- Toluene 108-88-3 F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 C
- Toluene 108-88-3 Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

- Acetic acid, methyl ester 79-20-9 S:(2)-16-26-29-33
- Acetic acid, tert-butyl ester 540-88-5 S:(2)-16-23-25-29-33
- Toluene 108-88-3 S:(2)-36/37-46-62

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 5000 lb final RQ (listed under Butyl acetate); 2270 kg final RQ (listed under Butyl acetate)
- Toluene 108-88-3 1000 lb final RQ; 454 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 1.0 % de minimis concentration

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151

U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 waste number U220

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 0.080 mg/L (wastewater); 10 mg/kg (nonwastewater)

U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 waste number U220

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 developmental toxicity, initial date 1/1/91

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 7000 µg/day MADL (level represents absorbed dose)

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

- Acetic acid, methyl ester 79-20-9 Not Listed

- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 female reproductive toxicity, initial date 8/7/09

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5
- Toluene 108-88-3

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

- Acetic acid, methyl ester 79-20-9 Not Listed
- Acetic acid, tert-butyl ester 540-88-5 Not Listed
- Toluene 108-88-3 Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Section 16 - Other Information**Relevant Phrases (code & full text)**

- H304 - May be fatal if swallowed and enters airways
- R38 - Irritating to skin.
- R65 - Harmful: may cause lung damage if swallowed.

Last Revision Date

- 21/June/2013

Preparation Date

- 21/June/2013

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name** • **Single-Ply LVOC Primer****1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified use(s)** • Construction**1.3 Details of the supplier of the safety data sheet****Manufacturer** • Firestone Building Products Company200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442**1.4 Emergency telephone number****Manufacturer** • (800) 424-9300 - CHEMTREC**Manufacturer** • (703) 527-3887 - CHEMTREC - International**Section 2: Hazards Identification****EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Flammable Liquids 2 - H225
- Aspiration 1 - H304
- Skin Irritation 2 - H315
- Eye Irritation 2 - H319
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- EUH066

DSD/DPD

- Highly Flammable (F)
- Irritant (Xi)
- Harmful (Xn)
- R11, R36/38, R65, R66, R67

2.2 Label Elements**CLP****DANGER****Hazard statements** • H225 - Highly flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H336 - May cause drowsiness or dizziness
 EUH066 - Repeated exposure may cause skin dryness or cracking.

Precautionary statements

- Prevention •** P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground and/or bond container and receiving equipment.
 P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 P242 - Use only non-sparking tools.
 P261 - Avoid breathing mist/vapours/spray.
 P264 - Wash thoroughly after handling.
 P243 - Take precautionary measures against static discharge.
 P271 - Use only outdoors or in a well-ventilated area.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response •** P370+P378 - In case of fire: Use to extinguish.
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312 - Call a POISON CENTER/doctor if you feel unwell.
 P302+P352 - IF ON SKIN: Wash with plenty of water.
 P321 - Specific treatment, see supplemental first aid information.
 P332+P313 - If skin irritation occurs: Get medical advice/attention.
 P362+P364 - Take off contaminated clothing and wash it before reuse.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 P331 - Do NOT induce vomiting.
- Storage/Disposal •** P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 P235 - Keep cool.
 P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases •** R11 - Highly flammable.
 R36/38 - Irritating to eyes and skin.
 R65 - Harmful: may cause lung damage if swallowed.
 R66 - Repeated exposure may cause skin dryness or cracking.
 R67 - Vapours may cause drowsiness and dizziness.
- Safety phrases •** S9 - Keep container in a well ventilated place
 S16 - Keep away from sources of ignition - No Smoking.
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Flammable Liquids 2
Aspiration 1

Skin Irritation 2
 Eye Irritation 2
 Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
 Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements •** Highly flammable liquid and vapour
 May be fatal if swallowed and enters airways
 Causes skin irritation
 Causes serious eye irritation
 May cause respiratory irritation
 May cause drowsiness or dizziness

Precautionary statements

- Prevention •** Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 Keep container tightly closed.
 Ground and/or bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting/equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Avoid breathing mist/vapours/spray.
 Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
- Response •** In case of fire: Use to extinguish.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER/doctor if you feel unwell.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 Specific treatment, see supplemental first aid information.
 Take off contaminated clothing and wash before reuse.
 If skin irritation occurs: Get medical advice/attention.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 Do NOT induce vomiting.
- Storage/Disposal •** Store in a well-ventilated place. Keep container tightly closed.
 Keep cool.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS**WHMIS**

- Flammable Liquids - B2
- Other Toxic Effects - D2B

2.3 Other hazards**WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
1-Chloro-4-(trifluoromethyl) benzene	CAS: 98-56-6 EINECS: 202-681-1	30% TO 60%	Ingestion/Oral- Rat LD50 • 13 g/kg Inhalation-Rat LC50 • 22 g/m ³	EU DSD/DPD: Self Classified: R10, Xi, R36/38 EU CLP: Self Classified: Flam. Liq. 3, H226; Skin Irrit. 2, H315; Eye Irrit. 2, H319 OSHA HCS 2012: Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2	NDA
Naphtha (petroleum), hydrotreated light	CAS: 64742-49-0 EINECS: 265-151-9	10% TO 40%	NDA	EU DSD/DPD: EU CLP, Annex VI, Table 3.2: Carc.Cat.2, R45; Muta.Cat.2, R46; Xn, R65 EU CLP: Annex VI: Carc. 1B, H350; Muta. 1B, H340; Asp. Tox. 1, H304 OSHA HCS 2012: Asp. Tox. 1	Component contains less than 0.1% benzene. Carcinogen and mutagen classifications do not apply for EU agencies.
Acetone	CAS: 67-64-1 EINECS: 200-662-2	10% TO 40%		EU DSD/DPD: EU CLP, Annex VI, Table 3.2: F, R11; Xi, R36; R66; R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3: Narc., H336; EUH066 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2; STOT SE 3: Resp. Irrit.; STOT SE 3: Narc.	NDA

See Section 11 for Toxicological Information. See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures**Inhalation**

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

- Skin**
 - In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.
- Eye**
 - In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion**
 - Do NOT induce vomiting. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
 - All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
 - LARGE FIRES: Water spray, fog or alcohol-resistant foam.
 - SMALL FIRES: Dry chemical, CO₂, water spray or alcohol-resistant foam.
- Unsuitable Extinguishing Media**
 - Do not use a direct stream of water.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
 - HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Vapor explosion hazard indoors, outdoors or in sewers. Many liquids are lighter than water. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Runoff to sewer may create fire or explosion hazard. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Dried solids can burn and release toxic fumes and vapors.
- Hazardous Combustion Products**
 - No data available

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Cool fire exposed containers with water. Move containers from fire area if you can do it without risk.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
 - Ventilate enclosed areas. Wear appropriate protective clothing. Do not touch or walk through spilled material.
- Emergency Procedures**
 - ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) Keep out of low areas. Stay upwind. Keep unauthorized personnel away. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
A vapor suppressing foam may be used to reduce vapors.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use clean non-sparking tools to collect absorbed material.
All equipment used when handling the product must be grounded.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Keep away from fire. Keep away from heat and sparks. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist/vapours/spray. Avoid contact with skin, eyes, and clothing. Use only in well ventilated areas. All equipment used when handling the product must be grounded. Bond and ground all transfer containers and equipment. Take precautionary measures against static charges. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near container. Do not eat, drink or smoke when using this product. After handling wash hands thoroughly.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Keep container tightly closed. Keep away from incompatible materials.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick
Acetone (67-64-1)	STELs	750 ppm STEL	750 ppm STEL; 1800 mg/m ³ STEL	500 ppm STEL	750 ppm STEL	750 ppm STEL; 1782 mg/m ³ STEL
	TWAs	500 ppm TWA	500 ppm TWA; 1200 mg/m ³ TWA	250 ppm TWA	500 ppm TWA	500 ppm TWA; 1188 mg/m ³ TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec
Acetone (67-64-1)	STELs	1250 ppm STEL; 2970 mg/m ³ STEL	750 ppm STEL	1250 ppm STEL; 2970 mg/m ³ STEL	750 ppm STEL	1000 ppm STEV; 2380 mg/m ³ STEV
	TWAs	1000 ppm TWA; 2370 mg/m ³ TWA	500 ppm TWA	1000 ppm TWA; 2370 mg/m ³ TWA	500 ppm TWA	500 ppm TWA _{AEV} ; 1190 mg/m ³ TWA _{AEV}
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Saskatchewan	Canada Yukon	NIOSH	OSHA	
Acetone	TWAs	500 ppm TWA	1000 ppm TWA; 2400 mg/m ³ TWA	250 ppm TWA; 590 mg/m ³ TWA	1000 ppm TWA; 2400 mg/m ³ TWA	

(67-64-1)	STELs	Not established	1250 ppm STEL; 3000 mg/m ³ STEL	Not established	Not established
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8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear appropriate eye/face protection for the job/activity.

Skin/Body

- Use protective gloves, Laminate Film BT>480m, .06mm. The actual work situation is not known. Glove recommendation based upon normal product use and incidental contact only. Contact glove supplier for help with glove selection.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Amber liquid with characteristic odor.
Color	Amber	Odor	Characteristic
Odor Threshold	Data lacking		
General Properties			
Boiling Point	133 °F(56.1111 °C)	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 1.01 Water=1	Density	8.42 lbs/gal
Water Solubility	Insoluble	Viscosity	Data lacking
Explosive Properties	Not explosive.	Oxidizing Properties:	Not an oxidizer.
Volatility			
Vapor Pressure	175 mmHg (torr) @ 20 °C(68 °F)	Vapor Density	Data lacking
Evaporation Rate	Data lacking	VOC (Vol.)	88.1 %
Flammability			
Flash Point	-4 °F(-20 °C)	UEL	13 %
LEL	2.6 %	Autoignition	Data lacking
Flammability (solid, gas)	Flammable Liquid.		
Environmental			

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available

10.6 Hazardous decomposition products

- Carbon monoxide, carbon dioxide, hydrocarbon, hydrogen chloride and other acid products of combustion.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
1-Chloro-4-(trifluoromethyl) benzene (30% TO 60%)	98-56-6	Acute Toxicity: Ingestion/Oral-Rat LD50 • 13 g/kg; Inhalation-Rat LC50 • 22 g/m ³ ; Multi-dose Toxicity: Inhalation-Rat TCLo • 500 ppm 6 Hour(s) 4 Week(s)-Intermittent; <i>Blood:Changes in serum composition (e.g., TP, bilirubin cholesterol); Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Ca; Biochemical:Metabolism (intermediary):Other proteins</i>
Acetone (10% TO 40%)	67-64-1	Acute Toxicity: Ingestion/Oral-Rat LD50 • 5800 mg/kg; <i>Behavioral:Altered sleep time (including change in righting reflex); Behavioral:Tremor</i> ; Inhalation-Rat LC50 • 50100 mg/m ³ 8 Hour(s); Irritation: Eye-Rabbit • 20 mg • Severe irritation; Skin-Rabbit • 395 mg-Open • Mild irritation; Reproductive: Inhalation-Rat TCLo • 11000 ppm (6-19D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Aspiration 1 OSHA HCS 2012 • Aspiration 1
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Route(s) of entry/exposure • Inhalation, Skin, Eye, Ingestion

Potential Health Effects

Inhalation

- Acute (Immediate)** • May cause respiratory irritation. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.
- Chronic (Delayed)** • No data available

Skin

- Acute (Immediate)** • Causes skin irritation.
- Chronic (Delayed)** • Repeated exposure may cause skin dryness or cracking.

Eye

- Acute (Immediate)** • Causes serious eye irritation.
- Chronic (Delayed)** • No data available.

Ingestion

- Acute (Immediate)** • Material may be aspirated into the lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical pneumonitis, pulmonary edema or death.
- Chronic (Delayed)** • No data available.

Key to abbreviations

LC = Lethal Concentration TC = Toxic Concentration
LD = Lethal Dose SEV = Severe
MLD = Mild

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives	3	III	NDA
TDG	UN1133	ADHESIVES	3	III	Potential Marine Pollutant
IMO/IMDG	UN1133	ADHESIVES	3	III	NDA
ADN	UN1133	ADHESIVES	3	III	NDA
ADR/RID	UN1133	ADHESIVES	3	III	NDA
IATA/ICAO	UN1133	Adhesives	3	III	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- Acute, Chronic, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
1-Chloro-4-(trifluoromethyl) benzene	98-56-6	No	No	No
Acetone	67-64-1	Yes	Yes	Yes
Naphtha (petroleum), hydrotreated light	64742-49-0	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Yes	No	Yes	No	Yes
Acetone	67-64-1	Yes	No	Yes	No	Yes
Naphtha (petroleum), hydrotreated light	64742-49-0	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	B2, D2B

Canada - WHMIS - Ingredient Disclosure List

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	1 %

Environment

Canada - 2004 NPRI (National Pollutant Release Inventory)

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

Canada - 2005 NPRI (National Pollutant Release Inventory)

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

Canada - CEPA - Greenhouse Gases Subject to Mandatory Reporting

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

Canada - CEPA - Priority Substances List

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

Canada - DWQ (Drinking Water Quality) - IMACs

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

Other

Canada - Accelerated Reduction/Elimination of Toxics (ARET)

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

Canada New Brunswick

Environment

Canada - New Brunswick - Ozone Depleting Substances - Schedule A

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65
• Acetone	67-64-1	F; R11 Xi; R36 R66 R67

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	T R:45-46-65 S:53-45
• Acetone	67-64-1	F Xi R:11-36-66-67 S:(2)-9-16-26

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	P
• Acetone	67-64-1	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	S:53-45
• Acetone	67-64-1	S:(2)-9-16-26

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	5000 lb final RQ; 2270 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Included in waste stream: F039

U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed

• Acetone	67-64-1	0.28 mg/L (wastewater); 160 mg/kg (nonwastewater)
U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring		
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	
U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics		
• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	waste number U002 (Ignitable waste)

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• 1-Chloro-4-(trifluoromethyl) benzene	98-56-6	Not Listed
• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H226 - Flammable liquid and vapour
- H340 - May cause genetic defects.
- H350 - May cause cancer.
- R10 - Flammable.
- R36 - Irritating to eyes.
- R45 - May cause cancer.
- R46 - May cause heritable genetic damage.

Revision Date

- 28/February/2018

Preparation Date

- 11/January/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **Single-Ply LVOC Splice Wash Cleaner**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Flammable Liquids 2 - H225
Aspiration 1 - H304
Eye Irritation 2 - H319
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
EUH066

DSD/DPD

- Highly Flammable (F)
Irritant (Xi)
Harmful (Xn)
R11, R36, R65, R66, R67

2.2 Label Elements**CLP****DANGER**

Hazard statements • H225 - Highly flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness
 EUH066 - Repeated exposure may cause skin dryness or cracking.

Precautionary statements

- Prevention** • P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground and/or bond container and receiving equipment.
 P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P261 - Avoid breathing mists, vapours, and/or spray.
 P264 - Wash thoroughly after handling.
 P271 - Use only outdoors or in a well-ventilated area.
 P280 - Wear protective gloves and eye/face protection , .
- Response** • P370+P378 - In case of fire: Use appropriate media for extinction.
 P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P331 - Do NOT induce vomiting.
- Storage/Disposal** • P233 - Keep container tightly closed.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases** • R11 - Highly flammable.
 R36 - Irritating to eyes.
 R65 - Harmful: may cause lung damage if swallowed.
 R66 - Repeated exposure may cause skin dryness or cracking.
 R67 - Vapours may cause drowsiness and dizziness.
- Safety phrases** • S9 - Keep container in a well ventilated place
 S16 - Keep away from sources of ignition - No Smoking.
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD** • According to European Directive 1999/45/EC this preparation is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012** • Flammable Liquids 2
 Aspiration 1
 Eye Irritation 2A
 Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements •** Highly flammable liquid and vapour
May be fatal if swallowed and enters airways
Causes serious eye irritation
May cause drowsiness or dizziness

Precautionary statements

- Prevention •** Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
Keep container tightly closed.
Ground and/or bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing mists, vapours, and/or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves and eye/face protection , .
- Response •** In case of fire: Use appropriate media for extinction.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Do NOT induce vomiting.

- Storage/Disposal •** Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Acetone	CAS:67-64-1 EC Number:200-662-2 EU Index:606-001-00-8	50% TO 100%	Inhalation-Rat LC50 • 50100 mg/m ³ 8 Hour (s) Ingestion/Oral-Rat LD50 • 5800 mg/kg	EU DSD/DPD: Annex VI, Table 3.2: F; R11; Xi; R36; R66; R67 EU CLP: Annex VI Table 3.1: Flam. Liq 2, H225; Eye Irrit. 2, H319; STOT SE 3: Narc., H336; EUH066; OSHA HCS 2012: Eye Irrit. 2A; STOT SE 3: Narc; Flam. Liq. 2;	NDA
Distillates (petroleum), hydrotreated light	CAS:64742-47-8 EC Number:265-149-8 EU Index:649-422-00-2	25% TO 50%	NDA	EU DSD/DPD: Annex VI, Table 3.2: Xn; R65 EU CLP: Annex VI, Table 3.1: Asp. Tox. 1, H304 OSHA HCS 2012: Flam. Liq. 4; Asp. Tox. 1	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Move victim to fresh air. If signs/symptoms continue, get medical attention.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing and shoes. Wash skin with soap and water. If irritation develops and persists, get medical attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Do NOT induce vomiting. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Carbon dioxide, dry chemical, alcohol foam, sand, or water fog.

Unsuitable Extinguishing Media • Do not use water.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Vapor explosion hazard indoors, outdoors or in sewers. Many liquids are lighter than water. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Runoff to sewer may create fire or explosion hazard. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products • No data available

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk. LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Wear appropriate personal protective equipment. Do not walk through spilled material. Do not breathe mist/vapours/spray. Avoid contact with skin and eyes.

Emergency Procedures • As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Stop leak if you can do it without risk. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. A vapor suppressing foam may be used to reduce vapors. All equipment used when handling the product must be grounded. LARGE SPILLS: Dike far ahead of liquid spill for later disposal. LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Keep away from heat, sparks, and flame. All equipment used when handling the product must be grounded. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near container. Do not use in areas without adequate ventilation. Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. After handling wash hands thoroughly. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place. Store in a tightly closed container.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Australia	Belgium	Canada Alberta	Canada British Columbia
Distillates (petroleum), hydrotreated light (64742-47-8)	TWAs	Not established	Not established	Not established	Not established	200 mg/m ³ TWA (application restricted to conditions in which there are negligible aerosol exposures, as total Hydrocarbon vapour)
Acetone (67-64-1)	STELs	750 ppm STEL	1000 ppm STEL; 2375 mg/m ³ STEL	1000 ppm STEL; 2420 mg/m ³ STEL	750 ppm STEL; 1800 mg/m ³ STEL	500 ppm STEL
	TWAs	500 ppm TWA	500 ppm TWA; 1185 mg/m ³ TWA	500 ppm TWA; 1210 mg/m ³ TWA	500 ppm TWA; 1200 mg/m ³ TWA	250 ppm TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut
Acetone (67-64-1)	STELs	750 ppm STEL	750 ppm STEL; 1782 mg/m ³ STEL	1250 ppm STEL; 2970 mg/m ³ STEL	750 ppm STEL	1250 ppm STEL; 2970 mg/m ³ STEL
	TWAs	500 ppm TWA	500 ppm TWA; 1188 mg/m ³ TWA	1000 ppm TWA; 2370 mg/m ³ TWA	500 ppm TWA	1000 ppm TWA; 2370 mg/m ³ TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Ontario	Canada Quebec	Canada Saskatchewan	Canada Yukon	China
Acetone (67-64-1)	STELs	750 ppm STEL	1000 ppm STEV; 2380 mg/m ³ STEV	Not established	1250 ppm STEL; 3000 mg/m ³ STEL	450 mg/m ³ STEL
	TWAs	500 ppm TWA	500 ppm TWA; 1190 mg/m ³ TWA	500 ppm TWA	1000 ppm TWA; 2400 mg/m ³ TWA	300 mg/m ³ TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Cyprus	Denmark	Germany DFG	Germany TRGS	NIOSH
Distillates (petroleum), hydrotreated light (64742-47-8)	Ceilings	Not established	Not established	40 ppm Peak; 280 mg/m ³ Peak	Not established	Not established
	MAKs	Not established	Not established	20 ppm TWA MAK; 140 mg/m ³ TWA MAK	Not established	Not established

Acetone (67-64-1)	TWAs	500 ppm TWA; 1210 mg/m3 TWA	250 ppm TWA; 600 mg/m3 TWA	Not established	500 ppm TWA AGW (exposure factor 2); 1200 mg/m3 TWA AGW (exposure factor 2)	250 ppm TWA; 590 mg/m3 TWA
	Ceilings	Not established	Not established	1000 ppm Peak; 2400 mg/m3 Peak	Not established	Not established
	MAKs	Not established	Not established	500 ppm TWA MAK; 1200 mg/m3 TWA MAK	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
			Result	OSHA		
Acetone (67-64-1)			TWAs	1000 ppm TWA; 2400 mg/m3 TWA		

Exposure Control Notations

Cyprus

- Acetone (67-64-1): **Skin:** (Skin-potential for cutaneous absorption)

ACGIH

- Acetone (67-64-1): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Germany DFG

- Acetone (67-64-1): **Pregnancy:** (risk to embryo/fetus probable by exposure at exposure limit level)
- Distillates (petroleum), hydrotreated light (64742-47-8): **Carcinogens:** (Category 3B (could be carcinogenic for man, isomers in technical mixtures)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

Exposure Limits Supplemental

ACGIH

- Acetone (67-64-1): **BEIs:** (50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)) | **TLV Basis - Critical Effects:** (CNS impairment; eye and upper respiratory tract irritation; hematologic effects) | **Notice of Intended Changes (BEIs):** (20 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)) | **Notice of Intended Changes (TLVs):** (200 ppm TWA; 500 ppm STEL; BEI; TLV basis: CNS impairment, upper respiratory tract irritation)

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Clear liquid with characteristic odor.
Color	Clear	Odor	Characteristic
Odor Threshold	Data lacking		
General Properties			
Boiling Point	55 °C(131 °F)	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.79 @ 20 °C(68 °F) Water=1	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	233 hPa @ 20 °C(68 °F)	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	-19 °C(-2.2 °F)	UEL	13 %
LEL	0.5 %	Autoignition	Data lacking
Flammability (solid, gas)	Flammable Liquid.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- Oxidizing agents.

10.6 Hazardous decomposition products

- Carbon Dioxide, Carbon Monoxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Acetone (50% TO 100%)	67-64-1	Acute Toxicity: Ingestion/Oral-Rat LD50 • 5800 mg/kg; Inhalation-Rat LC50 • 50100 mg/m ³ 8 Hour(s); Irritation: Eye-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Mutagen: Sex chromosome loss & nondisjunction • Inhalation-Mouse • 12 g/L; Cytogenetic analysis • Unreported Route-Hamster • Fibroblast (Somatic cell) • 40 g/L; Reproductive: Ingestion/Oral-Rat TDLo • 273 g/kg (13W male); <i>Reproductive Effects:Paternal Effects:Spermatogenesis</i> ; Inhalation-Rat TCLo • 11000 ppm (6-19D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2A
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Aspiration 1 OSHA HCS 2012 • Aspiration 1
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

Acute (Immediate)

- May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)

- No data available.

Skin

Acute (Immediate)

- May cause mild irritation.

Chronic (Delayed)

- Repeated exposure may cause skin dryness or cracking.

Eye

Acute (Immediate)

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- May be fatal if swallowed and enters airways. Material may be aspirated into the lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical pneumonitis, pulmonary edema or death.

Chronic (Delayed)

- No data available.

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1993	Flammable liquids, n.o.s. (Acetone)	3	II	NDA
TDG	UN1993	FLAMMABLE LIQUIDS, N.O.S. (Acetone)	3	II	NDA
IMO/IMDG	UN1993	FLAMMABLE LIQUIDS, N.O.S. (Acetone)	3	II	NDA
ADN	UN1993	FLAMMABLE LIQUIDS, N.O.S. (Acetone)	3	II	NDA

ADR/RID	UN1993	FLAMMABLE LIQUIDS, N.O.S. (Acetone)	3	II	NDA
IATA/ICAO	UN1993	Flammable liquids, n.o.s. (Acetone)	3	II	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

14.8 Other information

DOT • Acetone has a reportable quantity of 5000 lbs (2270 kg) as listed in Appendix A to 49 CFR 172.101. Marine pollutant classification applies when shipping bulk or vessel transport.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Fire, Acute

State Right To Know				
Component	CAS	MA	NJ	PA
Acetone	67-64-1	Yes	Yes	Yes
Distillates (petroleum), hydrotreated light	64742-47-8	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Acetone	67-64-1	Yes	No	Yes	Yes	No
Distillates (petroleum), hydrotreated light	64742-47-8	Yes	No	Yes	Yes	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
Acetone	67-64-1	Yes	Yes	Yes
Distillates (petroleum), hydrotreated light	64742-47-8	Yes	Yes	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

- | | | |
|---|------------|------------|
| • Distillates (petroleum), hydrotreated light | 64742-47-8 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |

Australia - High Volume Industrial Chemicals List

- | | |
|---|------------|
| • Distillates (petroleum), hydrotreated light | 64742-47-8 |
| • Acetone | 67-64-1 |

Australia - List of Designated Hazardous Substances - Classification

- | | | |
|---|------------|--------|
| • Distillates (petroleum), hydrotreated light | 64742-47-8 | Xn R65 |
|---|------------|--------|

• Acetone	67-64-1	F, Xi R11, R36, R66, R67
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Environment

Australia - National Pollutant Inventory (NPI) Substance List

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	10 tonne/yr Threshold category 1

Australia - Ozone Protection Act - Scheduled Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

Australia - Priority Existing Chemical Program

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	0.35 mg/m3 MAHCL

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	0.35 mg/m3 MAHCL

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	B2, D2B

Canada - WHMIS - Ingredient Disclosure List

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	1 %

Environment

Canada - CEPA - Priority Substances List

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

China

Other**China - Annex I & II - Controlled Chemicals Lists**

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

Denmark**Environment****Denmark - List of Undesirable Substances - Product Groups/Function**

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Distillates (petroleum), hydrotreated light	64742-47-8	Xn; R65
• Acetone	67-64-1	F; R11 Xi; R36 R66 R67

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Distillates (petroleum), hydrotreated light	64742-47-8	Xn R:65 S:(2)-23-24-62
• Acetone	67-64-1	F Xi R:11-36-66-67 S:(2)-9-16-26

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Distillates (petroleum), hydrotreated light	64742-47-8	S:(2)-23-24-62
• Acetone	67-64-1	S:(2)-9-16-26

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

Environment**Germany - TA Luft - Types and Classes**

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed
Germany - TA Luft - Emission Limits for Carcinogenic Substances		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed
Germany - TA Luft - Emission Limits for Fibers		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Dusts		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Gases		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed
Germany - TA Luft - Emission Limits for Organic Substances		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
• Distillates (petroleum), hydrotreated light	64742-47-8	ID Number 5350, hazard class 1 - low hazard to waters
• Acetone	67-64-1	ID Number 6, hazard class 1 - low hazard to waters
Germany - Water Classification (VwVwS) - Annex 3		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	5000 lb final RQ; 2270 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Included in waste stream: F039

U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	0.28 mg/L (wastewater); 160 mg/kg (nonwastewater)

U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	waste number U002 (Ignitable waste)

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
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• Acetone	67-64-1	Not Listed
U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed
U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetone	67-64-1	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date	• 28/February/2018
Preparation Date	• 17/August/2012
Other Information	• Changes to this revision: Updated mailing address.
Disclaimer/Statement of Liability	• The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **Splice Adhesive SA-1065**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Roof Application - Adhesive

Use(s) advised against • Anything other than roof application.

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Flammable Liquids 2 - H225
- Skin Irritation 2 - H315
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- Reproductive Toxicity 2 - H361fd
- Specific Target Organ Toxicity Repeated Exposure 2 - H373
- Hazardous to the aquatic environment Chronic 3 - H412

DSD/DPD

- Highly Flammable (F)
- Irritant (Xi)
- Harmful (Xn)
- Substances Toxic To Reproduction - Category 3
- R11, R38, R48/20, R62, R63, R67, R52, R53

2.2 Label Elements**CLP**

DANGER



- Hazard statements •**
- H225 - Highly flammable liquid and vapour
 - H315 - Causes skin irritation
 - H336 - May cause drowsiness or dizziness
 - H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.
 - H373 - May cause damage to organs Central Nervous System and Nervous System through prolonged or repeated exposure
 - H412 - Harmful to aquatic life with long lasting effects

Precautionary statements

- Prevention •**
- P201 - Obtain special instructions before use.
 - P202 - Do not handle until all safety precautions have been read and understood.
 - P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P233 - Keep container tightly closed.
 - P240 - Ground and/or bond container and receiving equipment.
 - P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 - P242 - Use only non-sparking tools.
 - P243 - Take precautionary measures against static discharge.
 - P260 - Do not breathe mist/vapours/spray.
 - P264 - Wash thoroughly after handling.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P273 - Avoid release to the environment.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response •**
- P370+P378 - In case of fire: Use appropriate media to extinguish.
 - P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 - P312 - Call a POISON CENTER/doctor if you feel unwell.
 - P302+P352 - IF ON SKIN: Wash with plenty of water.
 - P332+P313 - If skin irritation occurs: Get medical advice/attention.
 - P321 - Specific treatment, see supplemental first aid information.
 - P362+P364 - Take off contaminated clothing and wash it before reuse.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337+P313 - If eye irritation persists: Get medical advice/attention.
 - P308+P313 - IF exposed or concerned: Get medical advice/attention.
 - P314 - Get medical advice/attention if you feel unwell.

- Storage/Disposal •**
- P235 - Keep cool.
 - P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information •** 25-35 percent of this product consists of an ingredient of unknown toxicity.

DSD/DPD



- Risk phrases •**
- R11 - Highly flammable.
 - R38 - Irritating to skin.
 - R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 - R62 - Possible risk of impaired fertility.
 - R63 - Possible risk of harm to the unborn child.
 - R67 - Vapours may cause drowsiness and dizziness.
 - R52 - Harmful to aquatic organisms.
 - R53 - May cause long-term adverse effects in the aquatic environment.

- Safety phrases •**
- S9 - Keep container in a well ventilated place
 - S16 - Keep away from sources of ignition - No Smoking.
 - S37 - Wear suitable gloves.

2.3 Other Hazards

- | | |
|----------------|---|
| CLP | • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous. |
| DSD/DPD | • According to European Directive 1999/45/EC this preparation is considered dangerous. |

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- | | |
|----------------------|---|
| OSHA HCS 2012 | • Flammable Liquids 2
Acute Toxicity Oral 4
Skin Irritation 2
Eye Irritation 2A
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Reproductive Toxicity 2
Specific Target Organ Toxicity Repeated Exposure 2 |
|----------------------|---|

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • Highly flammable liquid and vapour
Harmful if swallowed
Causes skin irritation
Causes serious eye irritation
May cause drowsiness or dizziness
Suspected of damaging fertility or the unborn child.
May cause damage to organs Central Nervous System and Nervous System through prolonged or repeated exposure

Precautionary statements

- Prevention** • Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
Keep container tightly closed.
Ground and/or bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe mist/vapours/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • In case of fire: Use appropriate media for extinction.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
IF ON SKIN (or hair):
Rinse skin with water/shower.
If skin irritation occurs: Get medical advice/attention.
Specific treatment, see supplemental first aid information.
Take off contaminated clothing and wash before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.
IF exposed or concerned: Get medical advice/attention.

- Storage/Disposal**
- Keep cool.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information • 25-35 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
Other Toxic Effects - D2A
Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS

- Flammable Liquids - B2
Other Toxic Effects - D2A
Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

- 20-25 percent of this product consists of an ingredient of unknown toxicity.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
				EU DSD/DPD: Annex I - F; R11 Repr. Cat. 3; R63	

Toluene	CAS: 108-88-3 EC Number: 203-625-9 UN: UN1294	20% TO 50%		Xn; R48/20-65 R67 Xi; R38 EU CLP: Annex VI - Flam. Liq. 2, H226; Repr. 2, H361d; Asp. Tox. 1, H304; STOT RE 2 * H373; Skin Irrit. 2, H315; STOT SE 3, H336 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2A; Skin Irrit. 2; Repr. 2; Acute Tox. 4 (oral); STOT SE 3: Narc.; Asp. Tox. 1	NDA
Xylene	CAS: 1330-20-7 EC Number: 215-535-7 UN: UN1307	2.5% TO 10%		EU DSD/DPD: Annex I - R10 Xn; R20/21 Xi; R38 EU CLP: Annex VI - Flam. Liq. 3, H226; Acute Tox. 4 * H312; Acute Tox. 4 * H332; Skin Irrit. 2, H315 OSHA HCS 2012: Flam. Liq. 3; Acute Tox. 4 (skin); Eye Irrit. 2A; Skin Irrit. 2, Repr. 2 (inhalation)	NDA
Hexane	CAS: 110-54-3 EC Number: 203-777-6	5% TO 20%		EU DSD/DPD: Annex I - F; R11; Repr. 3; R62; Xn; R65-48/20; Xi; R38; R67; N; R51-53 EU CLP: Annex VI - Flam. Liq. 2, H225; Repr. 2, H361f; Asp. Tox. 1, H304; STOT RE 2*, H373; Skin Irrit. 2, H315; STOT SE 3: Narc., H336; Aquatic Chronic 2, H411 OSHA HCS 2012: Flam. Liq. 2; Repr. 2; STOT RE 2 - CNS & Nervous System; Skin Irrit. 2; Eye Irrit. 2B; STOT SE 3: Narc. & Resp. Irrit.; Asp. Tox. 1	NDA
1,6-Diisocyanatohexane homopolymer	CAS: 28182-81-2 EC Number: 500-060-2	< 2.5%	Inhalation-Rat LC50 • 18500 mg/m ³ 1 Hour(s)	EU DSD/DPD: Self Classified - Xi, R36/38 EU CLP: Self Classified - Eye Irrit. 2A, Skin Irrit. 2 OSHA HCS 2012: Eye Irrit. 2A, Skin Irrit. 2	NDA
Isobutylene-Isoprene polymer	CAS: 9010-85-9	20% TO 30%	NDA	EU DSD/DPD: Data Lacking EU CLP: Data Lacking OSHA HCS 2012: Data Lacking	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention immediately if symptoms occur.

Skin

- Rinse skin with rubbing alcohol first, followed immediately by washing affected area with soap and water. Remove and isolate contaminated clothing and shoes. If skin irritation occurs: Get medical advice/attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- If swallowed, rinse mouth with water (only if the person is conscious) Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Get medical attention immediately if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • LARGE FIRE: Water spray, fog or regular foam.
SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.

Unsuitable Extinguishing Media • No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Heat builds up pressure in closed containers. Cool with water stream.
Toxic fumes and vapors may be produced.

Hazardous Combustion Products • Carbon dioxide, carbon monoxide, acrid smoke, irritating fumes.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear positive pressure self-contained breathing apparatus (SCBA).
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Runoff from fire control may cause pollution.
LARGE FIRES: Dike fire-control water for later disposal.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • CAUTION: Victim may be a source of contamination. Do not touch or walk through spilled material.

Emergency Procedures • As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Stop leak if you can do it without risk.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Use clean non-sparking tools to collect absorbed material.
A vapor suppressing foam may be used to reduce vapors.
All equipment used when handling the product must be grounded.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Do not use in areas without adequate ventilation. Handle and open container with care. Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities**Storage**

- Keep away from fire. Store in a well-ventilated place. Keep container tightly closed.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection**8.1 Control parameters**

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Ontario	Canada Quebec	China	Europe
Xylene (1330-20-7)	STELs	150 ppm STEL	150 ppm STEL	150 ppm STEV; 651 mg/m3 STEV	100 mg/m3 STEL	Not established
	TWAs	100 ppm TWA	100 ppm TWA	100 ppm TWAEV; 434 mg/m3 TWAEV	50 mg/m3 TWA	Not established
Hexane (110-54-3)	TWAs	50 ppm TWA	50 ppm TWA	50 ppm TWAEV; 176 mg/m3 TWAEV	100 mg/m3 TWA	20 ppm TWA; 72 mg/m3 TWA
	STELs	Not established	Not established	Not established	180 mg/m3 STEL	Not established
Toluene (108-88-3)	STELs	Not established	Not established	Not established	100 mg/m3 STEL	100 ppm STEL; 384 mg/m3 STEL
	TWAs	20 ppm TWA	20 ppm TWA	50 ppm TWAEV; 188 mg/m3 TWAEV	50 mg/m3 TWA	50 ppm TWA; 192 mg/m3 TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Germany DFG	Germany TRGS	NIOSH	OSHA	
Xylene (1330-20-7)	TWAs	Not established	100 ppm TWA AGW (all isomers, exposure factor 2); 440 mg/m3 TWA AGW (all isomers, exposure factor 2)	Not established	100 ppm TWA; 435 mg/m3 TWA	
	Ceilings	200 ppm Peak (all isomers); 880 mg/m3 Peak (all isomers)	Not established	Not established	Not established	
	MAKs	100 ppm TWA MAK; 440 mg/m3 TWA MAK	Not established	Not established	Not established	
Hexane (110-54-3)	TWAs	Not established	50 ppm TWA AGW (exposure factor 8); 180 mg/m3 TWA AGW (exposure factor 8)	50 ppm TWA; 180 mg/m3 TWA	500 ppm TWA; 1800 mg/m3 TWA	
	Ceilings	400 ppm Peak; 1440 mg/m3 Peak	Not established	Not established	Not established	
	MAKs	50 ppm TWA MAK; 180 mg/m3 TWA MAK	Not established	Not established	Not established	
	Ceilings	200 ppm Peak; 760 mg/m3 Peak	Not established	Not established	300 ppm Ceiling	
			50 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are			

Toluene (108-88-3)	TWAs	Not established	observed, exposure factor 4); 190 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4)	100 ppm TWA; 375 mg/m ³ TWA	200 ppm TWA
	STELs	Not established	Not established	150 ppm STEL; 560 mg/m ³ STEL	Not established
	MAKs	50 ppm TWA MAK; 190 mg/m ³ TWA MAK	Not established	Not established	Not established

Exposure Control Notations

China

- Toluene (108-88-3): **Skin:** (Skin notation)
- Hexane (110-54-3): **Skin:** (Skin notation)

Canada Ontario

- Hexane (110-54-3): **Skin:** (Absorption through skin, eyes, or mucous membranes)

Canada Quebec

- Toluene (108-88-3): **Skin:** (Skin designation)
- Hexane (110-54-3): **Skin:** (Skin designation)

ACGIH

- Toluene (108-88-3): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Xylene (1330-20-7): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Hexane (110-54-3): **Skin:** (Skin - potential significant contribution to overall exposure by the cutaneous route)

Germany TRGS

- Toluene (108-88-3): **Skin:** (skin notation)
- Xylene (1330-20-7): **Skin:** (skin notation (all isomers))

Germany DFG

- Toluene (108-88-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)
- Xylene (1330-20-7): **Pregnancy:** (classification not yet possible (all isomers)) | **Skin:** (skin notation (all isomers))
- Hexane (110-54-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

Exposure Limits Supplemental

ACGIH

- Toluene (108-88-3): **BEIs:** (0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene; 0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene; 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)) | **TLV Basis - Critical Effects:** (female reproductive; pregnancy loss; visual impairment)
- Xylene (1330-20-7): **BEIs:** (1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids) | **TLV Basis - Critical Effects:** (CNS impairment; eye and upper respiratory tract irritation)
- Hexane (110-54-3): **BEIs:** (0.4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2,5-Hexanedione without hydrolysis) | **TLV Basis - Critical Effects:** (CNS impairment; eye irritation; peripheral neuropathy)

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description

Physical Form	Liquid	Appearance/Description	Black viscous liquid with aromatic odor.
Color	Black	Odor	Aromatic
Odor Threshold	Data lacking		

General Properties

Boiling Point	217 °F(102.7778 °C)	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	Heat of Decomposition	Data lacking
pH	Data lacking	Specific Gravity/Relative Density	= 0.86 Water=1
Water Solubility	Negligible < 0.1 %	Viscosity	Not relevant
Explosive Properties	Explosion hazard.	Oxidizing Properties:	Static hazard.

Volatility

Vapor Pressure	120 mmHg (torr) @ 20 °C(68 °F)	Vapor Density	> 3.7 Air=1
Evaporation Rate	1.9 to 9.5 n-Butyl Acetate = 1	Volatiles (Wt.)	71.4 %

Flammability

Flash Point	1 °F(-17.2222 °C) TCC (Tagliabue Closed Cup)	UEL	7.4 %
LEL	1.2 %	Autoignition	Product is not self-igniting.
Flammability (solid, gas)	Not relevant.		

Environmental

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, and other sources of ignition. Avoid contact with combustible materials. Avoid contact with incompatible materials.

10.5 Incompatible materials

- Acids, bases, combustible materials, oxidizing materials.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Toluene (20% TO 50%)	108- 88-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 636 mg/kg; Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s); Skin-Rabbit LD50 • 14100 µL/kg; Irritation: Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; Reproductive: Inhalation-Rat TClO • 800 mg/m ³ 6 Hour(s)(14-20D preg); <i>Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Effects on Newborn:Behavioral</i>
Xylene (2.5% TO 10%)	1330- 20-7	Acute Toxicity: Ingestion/Oral-Rat LD50 • 4300 mg/kg; Liver:Other changes; Kidney, Ureter, and Bladder: Other changes; Inhalation-Rat LC50 • 5000 ppm 4 Hour(s); Skin-Rabbit LD50 • >1700 mg/kg; Irritation: Eye-Rabbit • 5 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation; Reproductive: Inhalation-Rat TClO • 50 mg/m ³ 6 Hour(s)(1-21D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system; Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities; Reproductive Effects:Effects on Newborn:Growth statistics (e.g., reduced weight gain)</i>
Hexane (5% TO 20%)	110- 54-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 25 g/kg; Inhalation-Rat LC50 • 48000 ppm 4 Hour(s); Irritation: Eye-Rabbit • 10 mg • Mild irritation; Reproductive: Inhalation-Rat TClO • 5000 ppm (6-19D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system; Reproductive Effects:Specific Developmental Abnormalities:Urogenital system</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Acute Toxicity - Oral 4
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Eye Irritation 2A
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Toxic to Reproduction 2 OSHA HCS 2012 • Toxic to Reproduction 2
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2

Route(s) of entry/exposure • Skin, Eye

Potential Health Effects

Inhalation**Acute (Immediate)**

- May be harmful. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)

- Repeated and prolonged exposure may cause Central Nervous System (CNS) effects.

Skin**Acute (Immediate)**

- Causes skin irritation.

Chronic (Delayed)

- No data available.

Eye**Acute (Immediate)**

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- May be harmful.

Chronic (Delayed)

- No data available.

Reproductive Effects

- Repeated and prolonged exposure may cause reproductive effects.

Section 12 - Ecological Information**12.1 Toxicity**

- This material may be toxic to aquatic organisms and cause long-term adverse effects in the aquatic environment.

12.2 Persistence and degradability

- No information available for the product.

12.3 Bioaccumulative potential

- No information available for the product.

12.4 Mobility in Soil

- No information available for the product.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives	3	II	NDA

TDG	UN1133	ADHESIVES	3	II	NDA
IMO/IMDG	UN1133	ADHESIVES	3	II	NDA
ADN	UN1133	ADHESIVES	3	II	NDA
ADR/RID	UN1133	Adhesives	3	II	NDA
IATA/ICAO	UN1133	Adhesives	3	II	NDA

14.6 Special precautions for user • None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Not relevant.

14.8 Other information

DOT • Toluene has a reportable quantity of 1000 lbs (454 kg) as listed in Appendix A to 49 CFR 172.101. Xylene has a reportable quantity of 1000 lbs (454 kg) as listed in Appendix A to 49 CFR 172.101. Hexane has a reportable quantity of 5000 lbs (2270 kg) as listed in Appendix A to 49 CFR 172.101.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Chronic, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
1,6-Diisocyanatohexane homopolymer	28182-81-2	No	No	No
Hexane	110-54-3	Yes	Yes	Yes
Isobutylene-Isoprene polymer	9010-85-9	No	No	No
Toluene	108-88-3	Yes	Yes	Yes
Xylene	1330-20-7	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
1,6-Diisocyanatohexane homopolymer	28182-81-2	Yes	No	Yes	No	No
Hexane	110-54-3	Yes	No	Yes	Yes	No
Isobutylene-Isoprene polymer	9010-85-9	Yes	No	Yes	No	No
Toluene	108-88-3	Yes	No	Yes	Yes	No
Xylene	1330-20-7	Yes	No	Yes	Yes	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
1,6-Diisocyanatohexane homopolymer	28182-81-2	Yes	Yes	Yes
Hexane	110-54-3	Yes	Yes	Yes

Isobutylene-Isoprene polymer	9010-85-9	Yes	Yes	Yes
Toluene	108-88-3	Yes	Yes	Yes
Xylene	1330-20-7	Yes	Yes	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Australia - High Volume Industrial Chemicals List

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Hexane	110-54-3	
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Australia - List of Designated Hazardous Substances - Classification

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	F, Xn, Xi Repr.Cat.3 R11, R63, R48/20, R65, R38, R67
• Xylene	1330-20-7	Xn, Xi R10, R20/21, R38
• Hexane	110-54-3	F, Xn, Xi, N Repr.Cat.3 R11, R62, R48/20, R65, R38, R67, R51, R53
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Environment

Australia - National Pollutant Inventory (NPI) Substance List

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	10 tonne/yr Threshold category 1
• Xylene	1330-20-7	10 tonne/yr Threshold category 1 (including individual or mixed isomers)
• Hexane	110-54-3	10 tonne/yr Threshold category 1
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Australia - Priority Existing Chemical Program

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Candidate chemical
• Xylene	1330-20-7	Candidate chemical
• Hexane	110-54-3	Not Listed

• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed
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Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	0.25 mg/m3 MAHCL
• Xylene	1330-20-7	0.1 mg/m3 MAHCL
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	B2, D2A, D2B
• Xylene	1330-20-7	B2, D2A, D2B
• Hexane	110-54-3	B2, D2A, D2B
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	1 %
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	1 %
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)
• Xylene	1330-20-7	Priority Substance List 1 (substance not considered toxic)
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67
• Xylene	1330-20-7	R10 Xn; R20/21 Xi; R38
• Hexane	110-54-3	F; R11 Xi; R38 N; R51-53 Repr.Cat.3; R62 Xn; R65-48/20 R67
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
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• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	12.5%≤C: Xn; R20/21
• Hexane	110-54-3	5%≤C: Xn; R48/20
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62
• Xylene	1330-20-7	Xn R:10-20/21-38 S:(2)-25 F Xn N R:11-38-48/20-62-65- 67-51/53 S:(2)-9-16-29-33- 36/37-61-62
• Hexane	110-54-3	
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	C
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	S:(2)-36/37-46-62
• Xylene	1330-20-7	S:(2)-25
• Hexane	110-54-3	S:(2)-9-16-29-33-36/37-61-62
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Mexico**Other****Mexico - Hazard Classifications**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Hazard Class = 3 PG = II UN1294
• Xylene	1330-20-7	Hazard Class = 3 PG = II UN1307; Hazard Class = 3 PG = III UN1307
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Mexico - Regulated Substances

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	UN1294
• Xylene	1330-20-7	UN1307; UN1307
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed

• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed
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U.S. - OSHA - Specifically Regulated Chemicals

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	(isomers and mixtures)
• Hexane	110-54-3	
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
• Xylene	1330-20-7	100 lb final RQ; 45.4 kg final RQ
• Hexane	110-54-3	5000 lb final RQ; 2270 kg final RQ
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	1.0 % de minimis concentration
• Xylene	1330-20-7	1.0 % de minimis concentration
• Hexane	110-54-3	1.0 % de minimis concentration
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed

• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	waste number U220
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	developmental toxicity, initial date 1/1/91
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	

• Xylene	1330-20-7	
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

United States - Rhode Island**Labor****U.S. - Rhode Island - Hazardous Substance List**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Toxic (skin); Flammable (skin)
• Xylene	1330-20-7	Toxic (skin); Flammable (skin)
• Hexane	110-54-3	Toxic; Flammable
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date	• 28/February/2018
Preparation Date	• 11/January/2012
Other Information	• Changes to this revision: Updated mailing address.
Disclaimer/Statement of Liability	• The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **Splice Adhesive SA-1065**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Roof Application - Adhesive

Use(s) advised against • Anything other than roof application.

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Flammable Liquids 2 - H225
- Skin Irritation 2 - H315
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- Reproductive Toxicity 2 - H361fd
- Specific Target Organ Toxicity Repeated Exposure 2 - H373
- Hazardous to the aquatic environment Chronic 3 - H412

DSD/DPD

- Highly Flammable (F)
- Irritant (Xi)
- Harmful (Xn)
- Substances Toxic To Reproduction - Category 3
- R11, R38, R48/20, R62, R63, R67, R52, R53

2.2 Label Elements**CLP**

DANGER



- Hazard statements •**
- H225 - Highly flammable liquid and vapour
 - H315 - Causes skin irritation
 - H336 - May cause drowsiness or dizziness
 - H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.
 - H373 - May cause damage to organs Central Nervous System and Nervous System through prolonged or repeated exposure
 - H412 - Harmful to aquatic life with long lasting effects

Precautionary statements

- Prevention •**
- P201 - Obtain special instructions before use.
 - P202 - Do not handle until all safety precautions have been read and understood.
 - P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P233 - Keep container tightly closed.
 - P240 - Ground and/or bond container and receiving equipment.
 - P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 - P242 - Use only non-sparking tools.
 - P243 - Take precautionary measures against static discharge.
 - P260 - Do not breathe mist/vapours/spray.
 - P264 - Wash thoroughly after handling.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P273 - Avoid release to the environment.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response •**
- P370+P378 - In case of fire: Use appropriate media to extinguish.
 - P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 - P312 - Call a POISON CENTER/doctor if you feel unwell.
 - P302+P352 - IF ON SKIN: Wash with plenty of water.
 - P332+P313 - If skin irritation occurs: Get medical advice/attention.
 - P321 - Specific treatment, see supplemental first aid information.
 - P362+P364 - Take off contaminated clothing and wash it before reuse.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337+P313 - If eye irritation persists: Get medical advice/attention.
 - P308+P313 - IF exposed or concerned: Get medical advice/attention.
 - P314 - Get medical advice/attention if you feel unwell.

- Storage/Disposal •**
- P235 - Keep cool.
 - P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information •** 25-35 percent of this product consists of an ingredient of unknown toxicity.

DSD/DPD



- Risk phrases •**
- R11 - Highly flammable.
 - R38 - Irritating to skin.
 - R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 - R62 - Possible risk of impaired fertility.
 - R63 - Possible risk of harm to the unborn child.
 - R67 - Vapours may cause drowsiness and dizziness.
 - R52 - Harmful to aquatic organisms.
 - R53 - May cause long-term adverse effects in the aquatic environment.

- Safety phrases •**
- S9 - Keep container in a well ventilated place
 - S16 - Keep away from sources of ignition - No Smoking.
 - S37 - Wear suitable gloves.

2.3 Other Hazards

- | | |
|----------------|---|
| CLP | • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous. |
| DSD/DPD | • According to European Directive 1999/45/EC this preparation is considered dangerous. |

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- | | |
|----------------------|---|
| OSHA HCS 2012 | • Flammable Liquids 2
Acute Toxicity Oral 4
Skin Irritation 2
Eye Irritation 2A
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Reproductive Toxicity 2
Specific Target Organ Toxicity Repeated Exposure 2 |
|----------------------|---|

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • Highly flammable liquid and vapour
Harmful if swallowed
Causes skin irritation
Causes serious eye irritation
May cause drowsiness or dizziness
Suspected of damaging fertility or the unborn child.
May cause damage to organs Central Nervous System and Nervous System through prolonged or repeated exposure

Precautionary statements

- Prevention** • Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
Keep container tightly closed.
Ground and/or bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe mist/vapours/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • In case of fire: Use appropriate media for extinction.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
IF ON SKIN (or hair):
Rinse skin with water/shower.
If skin irritation occurs: Get medical advice/attention.
Specific treatment, see supplemental first aid information.
Take off contaminated clothing and wash before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.
IF exposed or concerned: Get medical advice/attention.

- Storage/Disposal**
- Keep cool.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information • 25-35 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
Other Toxic Effects - D2A
Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS

- Flammable Liquids - B2
Other Toxic Effects - D2A
Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

- 20-25 percent of this product consists of an ingredient of unknown toxicity.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
				EU DSD/DPD: Annex I - F; R11 Repr. Cat. 3; R63	

Toluene	CAS: 108-88-3 EC Number: 203-625-9 UN: UN1294	20% TO 50%		Xn; R48/20-65 R67 Xi; R38 EU CLP: Annex VI - Flam. Liq. 2, H226; Repr. 2, H361d; Asp. Tox. 1, H304; STOT RE 2 * H373; Skin Irrit. 2, H315; STOT SE 3, H336 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2A; Skin Irrit. 2; Repr. 2; Acute Tox. 4 (oral); STOT SE 3: Narc.; Asp. Tox. 1	NDA
Xylene	CAS: 1330-20-7 EC Number: 215-535-7 UN: UN1307	2.5% TO 10%		EU DSD/DPD: Annex I - R10 Xn; R20/21 Xi; R38 EU CLP: Annex VI - Flam. Liq. 3, H226; Acute Tox. 4 * H312; Acute Tox. 4 * H332; Skin Irrit. 2, H315 OSHA HCS 2012: Flam. Liq. 3; Acute Tox. 4 (skin); Eye Irrit. 2A; Skin Irrit. 2, Repr. 2 (inhalation)	NDA
Hexane	CAS: 110-54-3 EC Number: 203-777-6	5% TO 20%		EU DSD/DPD: Annex I - F; R11; Repr. 3; R62; Xn; R65-48/20; Xi; R38; R67; N; R51-53 EU CLP: Annex VI - Flam. Liq. 2, H225; Repr. 2, H361f; Asp. Tox. 1, H304; STOT RE 2*, H373; Skin Irrit. 2, H315; STOT SE 3: Narc., H336; Aquatic Chronic 2, H411 OSHA HCS 2012: Flam. Liq. 2; Repr. 2; STOT RE 2 - CNS & Nervous System; Skin Irrit. 2; Eye Irrit. 2B; STOT SE 3: Narc. & Resp. Irrit.; Asp. Tox. 1	NDA
1,6-Diisocyanatohexane homopolymer	CAS: 28182-81-2 EC Number: 500-060-2	< 2.5%	Inhalation-Rat LC50 • 18500 mg/m ³ 1 Hour(s)	EU DSD/DPD: Self Classified - Xi, R36/38 EU CLP: Self Classified - Eye Irrit. 2A, Skin Irrit 2 OSHA HCS 2012: Eye Irrit. 2A, Skin Irrit 2	NDA
Isobutylene-Isoprene polymer	CAS: 9010-85-9	20% TO 30%	NDA	EU DSD/DPD: Data Lacking EU CLP: Data Lacking OSHA HCS 2012: Data Lacking	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention immediately if symptoms occur.

Skin

- Rinse skin with rubbing alcohol first, followed immediately by washing affected area with soap and water. Remove and isolate contaminated clothing and shoes. If skin irritation occurs: Get medical advice/attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- If swallowed, rinse mouth with water (only if the person is conscious) Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Get medical attention immediately if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • LARGE FIRE: Water spray, fog or regular foam.
SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.

Unsuitable Extinguishing Media • No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Heat builds up pressure in closed containers. Cool with water stream.
Toxic fumes and vapors may be produced.

Hazardous Combustion Products • Carbon dioxide, carbon monoxide, acrid smoke, irritating fumes.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear positive pressure self-contained breathing apparatus (SCBA).
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Runoff from fire control may cause pollution.
LARGE FIRES: Dike fire-control water for later disposal.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • CAUTION: Victim may be a source of contamination. Do not touch or walk through spilled material.

Emergency Procedures • As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Stop leak if you can do it without risk.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Use clean non-sparking tools to collect absorbed material.
A vapor suppressing foam may be used to reduce vapors.
All equipment used when handling the product must be grounded.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Do not use in areas without adequate ventilation. Handle and open container with care. Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities**Storage**

- Keep away from fire. Store in a well-ventilated place. Keep container tightly closed.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection**8.1 Control parameters**

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Ontario	Canada Quebec	China	Europe
Xylene (1330-20-7)	STELs	150 ppm STEL	150 ppm STEL	150 ppm STEV; 651 mg/m3 STEV	100 mg/m3 STEL	Not established
	TWAs	100 ppm TWA	100 ppm TWA	100 ppm TWAEV; 434 mg/m3 TWAEV	50 mg/m3 TWA	Not established
Hexane (110-54-3)	TWAs	50 ppm TWA	50 ppm TWA	50 ppm TWAEV; 176 mg/m3 TWAEV	100 mg/m3 TWA	20 ppm TWA; 72 mg/m3 TWA
	STELs	Not established	Not established	Not established	180 mg/m3 STEL	Not established
Toluene (108-88-3)	STELs	Not established	Not established	Not established	100 mg/m3 STEL	100 ppm STEL; 384 mg/m3 STEL
	TWAs	20 ppm TWA	20 ppm TWA	50 ppm TWAEV; 188 mg/m3 TWAEV	50 mg/m3 TWA	50 ppm TWA; 192 mg/m3 TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Germany DFG	Germany TRGS	NIOSH	OSHA	
Xylene (1330-20-7)	TWAs	Not established	100 ppm TWA AGW (all isomers, exposure factor 2); 440 mg/m3 TWA AGW (all isomers, exposure factor 2)	Not established	100 ppm TWA; 435 mg/m3 TWA	
	Ceilings	200 ppm Peak (all isomers); 880 mg/m3 Peak (all isomers)	Not established	Not established	Not established	
	MAKs	100 ppm TWA MAK; 440 mg/m3 TWA MAK	Not established	Not established	Not established	
Hexane (110-54-3)	TWAs	Not established	50 ppm TWA AGW (exposure factor 8); 180 mg/m3 TWA AGW (exposure factor 8)	50 ppm TWA; 180 mg/m3 TWA	500 ppm TWA; 1800 mg/m3 TWA	
	Ceilings	400 ppm Peak; 1440 mg/m3 Peak	Not established	Not established	Not established	
	MAKs	50 ppm TWA MAK; 180 mg/m3 TWA MAK	Not established	Not established	Not established	
	Ceilings	200 ppm Peak; 760 mg/m3 Peak	Not established	Not established	300 ppm Ceiling	
			50 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are			

Toluene (108-88-3)	TWAs	Not established	observed, exposure factor 4); 190 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4)	100 ppm TWA; 375 mg/m ³ TWA	200 ppm TWA
	STELs	Not established	Not established	150 ppm STEL; 560 mg/m ³ STEL	Not established
	MAKs	50 ppm TWA MAK; 190 mg/m ³ TWA MAK	Not established	Not established	Not established

Exposure Control Notations

China

- Toluene (108-88-3): **Skin:** (Skin notation)
- Hexane (110-54-3): **Skin:** (Skin notation)

Canada Ontario

- Hexane (110-54-3): **Skin:** (Absorption through skin, eyes, or mucous membranes)

Canada Quebec

- Toluene (108-88-3): **Skin:** (Skin designation)
- Hexane (110-54-3): **Skin:** (Skin designation)

ACGIH

- Toluene (108-88-3): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Xylene (1330-20-7): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Hexane (110-54-3): **Skin:** (Skin - potential significant contribution to overall exposure by the cutaneous route)

Germany TRGS

- Toluene (108-88-3): **Skin:** (skin notation)
- Xylene (1330-20-7): **Skin:** (skin notation (all isomers))

Germany DFG

- Toluene (108-88-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)
- Xylene (1330-20-7): **Pregnancy:** (classification not yet possible (all isomers)) | **Skin:** (skin notation (all isomers))
- Hexane (110-54-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

Exposure Limits Supplemental

ACGIH

- Toluene (108-88-3): **BEIs:** (0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene; 0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene; 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)) | **TLV Basis - Critical Effects:** (female reproductive; pregnancy loss; visual impairment)
- Xylene (1330-20-7): **BEIs:** (1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids) | **TLV Basis - Critical Effects:** (CNS impairment; eye and upper respiratory tract irritation)
- Hexane (110-54-3): **BEIs:** (0.4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2,5-Hexanedione without hydrolysis) | **TLV Basis - Critical Effects:** (CNS impairment; eye irritation; peripheral neuropathy)

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description

Physical Form	Liquid	Appearance/Description	Black viscous liquid with aromatic odor.
Color	Black	Odor	Aromatic
Odor Threshold	Data lacking		

General Properties

Boiling Point	217 °F(102.7778 °C)	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	Heat of Decomposition	Data lacking
pH	Data lacking	Specific Gravity/Relative Density	= 0.86 Water=1
Water Solubility	Negligible < 0.1 %	Viscosity	Not relevant
Explosive Properties	Explosion hazard.	Oxidizing Properties:	Static hazard.

Volatility

Vapor Pressure	120 mmHg (torr) @ 20 °C(68 °F)	Vapor Density	> 3.7 Air=1
Evaporation Rate	1.9 to 9.5 n-Butyl Acetate = 1	Volatiles (Wt.)	71.4 %

Flammability

Flash Point	1 °F(-17.2222 °C) TCC (Tagliabue Closed Cup)	UEL	7.4 %
LEL	1.2 %	Autoignition	Product is not self-igniting.
Flammability (solid, gas)	Not relevant.		

Environmental

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, and other sources of ignition. Avoid contact with combustible materials. Avoid contact with incompatible materials.

10.5 Incompatible materials

- Acids, bases, combustible materials, oxidizing materials.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Toluene (20% TO 50%)	108- 88-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 636 mg/kg; Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s); Skin-Rabbit LD50 • 14100 µL/kg; Irritation: Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; Reproductive: Inhalation-Rat TClO • 800 mg/m ³ 6 Hour(s)(14-20D preg); <i>Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Effects on Newborn:Behavioral</i>
Xylene (2.5% TO 10%)	1330- 20-7	Acute Toxicity: Ingestion/Oral-Rat LD50 • 4300 mg/kg; Liver:Other changes; Kidney, Ureter, and Bladder:Other changes; Inhalation-Rat LC50 • 5000 ppm 4 Hour(s); Skin-Rabbit LD50 • >1700 mg/kg; Irritation: Eye-Rabbit • 5 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation; Reproductive: Inhalation-Rat TClO • 50 mg/m ³ 6 Hour(s)(1-21D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system; Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities; Reproductive Effects:Effects on Newborn:Growth statistics (e.g., reduced weight gain)</i>
Hexane (5% TO 20%)	110- 54-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 25 g/kg; Inhalation-Rat LC50 • 48000 ppm 4 Hour(s); Irritation: Eye-Rabbit • 10 mg • Mild irritation; Reproductive: Inhalation-Rat TClO • 5000 ppm (6-19D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system; Reproductive Effects:Specific Developmental Abnormalities:Urogenital system</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Acute Toxicity - Oral 4
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Eye Irritation 2A
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Toxic to Reproduction 2 OSHA HCS 2012 • Toxic to Reproduction 2
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2

Route(s) of entry/exposure • Skin, Eye

Potential Health Effects

Inhalation**Acute (Immediate)**

- May be harmful. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)

- Repeated and prolonged exposure may cause Central Nervous System (CNS) effects.

Skin**Acute (Immediate)**

- Causes skin irritation.

Chronic (Delayed)

- No data available.

Eye**Acute (Immediate)**

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- May be harmful.

Chronic (Delayed)

- No data available.

Reproductive Effects

- Repeated and prolonged exposure may cause reproductive effects.

Section 12 - Ecological Information**12.1 Toxicity**

- This material may be toxic to aquatic organisms and cause long-term adverse effects in the aquatic environment.

12.2 Persistence and degradability

- No information available for the product.

12.3 Bioaccumulative potential

- No information available for the product.

12.4 Mobility in Soil

- No information available for the product.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives	3	II	NDA

TDG	UN1133	ADHESIVES	3	II	NDA
IMO/IMDG	UN1133	ADHESIVES	3	II	NDA
ADN	UN1133	ADHESIVES	3	II	NDA
ADR/RID	UN1133	Adhesives	3	II	NDA
IATA/ICAO	UN1133	Adhesives	3	II	NDA

14.6 Special precautions for user • None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Not relevant.

14.8 Other information

DOT • Toluene has a reportable quantity of 1000 lbs (454 kg) as listed in Appendix A to 49 CFR 172.101. Xylene has a reportable quantity of 1000 lbs (454 kg) as listed in Appendix A to 49 CFR 172.101. Hexane has a reportable quantity of 5000 lbs (2270 kg) as listed in Appendix A to 49 CFR 172.101.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Chronic, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
1,6-Diisocyanatohexane homopolymer	28182-81-2	No	No	No
Hexane	110-54-3	Yes	Yes	Yes
Isobutylene-Isoprene polymer	9010-85-9	No	No	No
Toluene	108-88-3	Yes	Yes	Yes
Xylene	1330-20-7	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
1,6-Diisocyanatohexane homopolymer	28182-81-2	Yes	No	Yes	No	No
Hexane	110-54-3	Yes	No	Yes	Yes	No
Isobutylene-Isoprene polymer	9010-85-9	Yes	No	Yes	No	No
Toluene	108-88-3	Yes	No	Yes	Yes	No
Xylene	1330-20-7	Yes	No	Yes	Yes	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
1,6-Diisocyanatohexane homopolymer	28182-81-2	Yes	Yes	Yes
Hexane	110-54-3	Yes	Yes	Yes

Isobutylene-Isoprene polymer	9010-85-9	Yes	Yes	Yes
Toluene	108-88-3	Yes	Yes	Yes
Xylene	1330-20-7	Yes	Yes	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Australia - High Volume Industrial Chemicals List

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Hexane	110-54-3	
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Australia - List of Designated Hazardous Substances - Classification

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	F, Xn, Xi Repr.Cat.3 R11, R63, R48/20, R65, R38, R67
• Xylene	1330-20-7	Xn, Xi R10, R20/21, R38
• Hexane	110-54-3	F, Xn, Xi, N Repr.Cat.3 R11, R62, R48/20, R65, R38, R67, R51, R53
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Environment

Australia - National Pollutant Inventory (NPI) Substance List

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	10 tonne/yr Threshold category 1
• Xylene	1330-20-7	10 tonne/yr Threshold category 1 (including individual or mixed isomers)
• Hexane	110-54-3	10 tonne/yr Threshold category 1
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Australia - Priority Existing Chemical Program

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Candidate chemical
• Xylene	1330-20-7	Candidate chemical
• Hexane	110-54-3	Not Listed

• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed
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Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	0.25 mg/m3 MAHCL
• Xylene	1330-20-7	0.1 mg/m3 MAHCL
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	B2, D2A, D2B
• Xylene	1330-20-7	B2, D2A, D2B
• Hexane	110-54-3	B2, D2A, D2B
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	1 %
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	1 %
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)
• Xylene	1330-20-7	Priority Substance List 1 (substance not considered toxic)
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67
• Xylene	1330-20-7	R10 Xn; R20/21 Xi; R38
• Hexane	110-54-3	F; R11 Xi; R38 N; R51-53 Repr.Cat.3; R62 Xn; R65-48/20 R67
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
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• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	12.5%≤C: Xn; R20/21
• Hexane	110-54-3	5%≤C: Xn; R48/20
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62
• Xylene	1330-20-7	Xn R:10-20/21-38 S:(2)-25 F Xn N R:11-38-48/20-62-65- 67-51/53 S:(2)-9-16-29-33- 36/37-61-62
• Hexane	110-54-3	
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	C
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	S:(2)-36/37-46-62
• Xylene	1330-20-7	S:(2)-25
• Hexane	110-54-3	S:(2)-9-16-29-33-36/37-61-62
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Mexico**Other****Mexico - Hazard Classifications**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Hazard Class = 3 PG = II UN1294
• Xylene	1330-20-7	Hazard Class = 3 PG = II UN1307; Hazard Class = 3 PG = III UN1307
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Mexico - Regulated Substances

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	UN1294
• Xylene	1330-20-7	UN1307; UN1307
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed

• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed
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U.S. - OSHA - Specifically Regulated Chemicals

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	(isomers and mixtures)
• Hexane	110-54-3	
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
• Xylene	1330-20-7	100 lb final RQ; 45.4 kg final RQ
• Hexane	110-54-3	5000 lb final RQ; 2270 kg final RQ
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	1.0 % de minimis concentration
• Xylene	1330-20-7	1.0 % de minimis concentration
• Hexane	110-54-3	1.0 % de minimis concentration
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed

• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	waste number U220
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	developmental toxicity, initial date 1/1/91
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	

• Xylene	1330-20-7	
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Hexane	110-54-3	Not Listed
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

United States - Rhode Island**Labor****U.S. - Rhode Island - Hazardous Substance List**

• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Toluene	108-88-3	Toxic (skin); Flammable (skin)
• Xylene	1330-20-7	Toxic (skin); Flammable (skin)
• Hexane	110-54-3	Toxic; Flammable
• 1,6-Diisocyanatohexane homopolymer	28182-81-2	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date	• 28/February/2018
Preparation Date	• 11/January/2012
Other Information	• Changes to this revision: Updated mailing address.
Disclaimer/Statement of Liability	• The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name	• Splice Wash SW-100 Cleaner
Synonyms	• Light Aliphatic; Solvent Naptha (Petroleum)
CAS Number	• 64742-89-8
EC Number	• 265-192-2
REACH Pre-Registration Number	• 05-2115991350-46-0000
Product Description	• Thin, light colored liquid, hydrocarbon odor.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s)	• Splice Wash SW-100 is designed to clean and prepare Firestone single ply membranes to receive adhesives as specified by Firestone Specifications and Details.
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1.3 Details of the supplier of the safety data sheet

Manufacturer	• Firestone Building Products Company 250 West 96th Street Indianapolis, IN 46260 United States firestonemsds@bfdp.com
Telephone (General)	• 800-428-4442

1.4 Emergency telephone number

Manufacturer	• (800) 424-9300 - CHEMTREC
Manufacturer	• (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]
According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP	• Flammable Liquids 2 - H225 Aspiration 1 - H304 Skin Irritation 2 - H315 Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335 Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336 Hazardous to the aquatic environment Chronic 2 - H411
DSD/DPD	• Flammable Irritant (Xi) Harmful (Xn) Dangerous to the Environment (N) R38, R65, R67, R11, R51/53

2.2 Label Elements

CLP**DANGER**

- Hazard statements •**
- H225 - Highly flammable liquid and vapour
 - H304 - May be fatal if swallowed and enters airways
 - H315 - Causes skin irritation
 - H335 - May cause respiratory irritation
 - H336 - May cause drowsiness or dizziness
 - H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

- Prevention •**
- P261 - Avoid breathing dust, fume, gas, mist, vapours and/or spray.
 - P264 - Wash thoroughly after handling.
 - P273 - Avoid release to the environment.
 - P240 - Ground and/or bond container and receiving equipment.
 - P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.

- Response •**
- P321 - Specific treatment, see supplemental first aid information.
 - P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - P362 - Take off contaminated clothing and wash before reuse.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- Storage/Disposal •**
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD

- Risk phrases •**
- R38 - Irritating to skin.
 - R65 - Harmful: may cause lung damage if swallowed.
 - R67 - Vapours may cause drowsiness and dizziness.
 - R11 - Highly flammable.
 - R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.3 Other Hazards**CLP**

- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD

- This product is considered dangerous according to the European Directive 67/548/EEC.

UN GHS

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

2.1 Classification of the substance or mixture**UN GHS**

- Flammable Liquids 2
- Skin Irritation 2
- Eye Irritation 2A
- Aspiration 1
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

Hazardous to the aquatic environment Chronic 2

2.2 Label elements

UN GHS

DANGER



- Hazard statements**
- Highly flammable liquid and vapour
 - Causes skin irritation
 - Causes serious eye irritation
 - May be fatal if swallowed and enters airways
 - May cause respiratory irritation and drowsiness or dizziness
 - Toxic to aquatic life with long lasting effects

Precautionary statements

- Prevention**
- Avoid breathing dust, fume, gas, mist, vapours and/or spray.
 - Keep container tightly closed.
 - Use only outdoors or in a well-ventilated area.
 - Wash : thoroughly after handling.
 - Wear protective gloves and eye/face protection , .
- Response**
- Specific treatment, see supplemental first aid information.
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - If skin irritation occurs: Get medical advice/attention.
 - Wash with plenty of soap and water.
 - Take off contaminated clothing and wash before reuse.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - If eye irritation persists: Get medical advice/attention.
- Storage/Disposal**
- Store in a well-ventilated place. Keep container tightly closed.
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

UN GHS

- According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 1994

- Flammable Liquid
- Flammable/Combustible Class IB
- Irritant

2.2 Label elements

OSHA HCS 1994

- Not required

2.3 Other hazards

OSHA HCS 1994

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



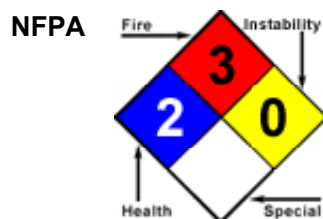
- Flammable Liquids - B2
- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information



See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Light aliphatic solvent naphtha	CAS:64742-89-8 EC Number:265-192-2 EINECS:265-192-2	100%	NDA	UN GHS: Eye Irrit 2A, Skin Irrit 2, Asp Tox. 1, STOT SE 3: Narc, STOT SE 3: Resp. Irrit, Flam Liq. 3 EU DSD/DPD: Self Classified Xi R38, Xn R67, R65, N; R51/53, F R11 EU CLP: Self Classified Skin Irrit 2, Asp Tox. 1, STOT SE 3: Narc, Aquatic Chronic 2, Flam Liq. 3	NDA

3.2 Mixtures

- Material does not meet the criteria of a mixture according to United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Material does not meet the criteria of a mixture in accordance with Regulation (EC) No 1272/2008.

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other

proper respiratory medical device. Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention if artificial oxygen is administered.

- Skin**
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. For minor skin contact, avoid spreading material on unaffected skin. Remove and isolate contaminated clothing and shoes. Call 911 or emergency medical service.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.
- Ingestion**
- Do NOT induce vomiting. Do not use mouth-to-mouth method if victim ingested the substance. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- If material is ingested and aspirated into the lungs it may cause chemical pneumonitis. Treat appropriately.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- LARGE FIRE: Water spray, fog or regular foam.
SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.

- Unsuitable Extinguishing Media**
- No data available.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Heat builds up pressure in closed containers. Cool with water stream. Toxic fumes and vapors may be produced.
- Hazardous Combustion Products**
- Carbon dioxide, carbon monoxide, acrid smoke, irritating fumes.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear positive pressure self-contained breathing apparatus (SCBA).
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Runoff from fire control may cause pollution.
LARGE FIRES: Dike fire-control water for later disposal.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate enclosed areas.
- Emergency Procedures**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stay upwind. Keep out of low areas. Keep unauthorized personnel away. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- **SMALL SPILLS:** Take up with sand or other non-combustible absorbent material and place into containers for later disposal. Use clean non-sparking tools to collect absorbed material. All equipment used when handling the product must be grounded.
- **LARGE SPILLS:** Dike far ahead of spill for later disposal. A vapor suppressing foam may be used to reduce vapors.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Keep away from heat, sparks, and flame – No Smoking. Keep containers closed. Vapors of this material are heavier than air and will collect in low or confined areas. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near container. Static electricity may accumulate and create a fire hazard. Take precautionary measures against static charges. Bond and ground all transfer containers and equipment. Use only with adequate ventilation. Do not breathe (dust, vapor or spray mist) Ground fixed equipment.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Store locked up. Keep container closed when not in use. Keep away from incompatible materials.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- This adhesive is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety glasses.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Thin, light colored liquid, hydrocarbon odor.
Color	Light color.	Odor	Hydrocarbon
Taste	No data available	Particulate Type	No data available
Particulate Size	No data available	Aerosol Type	No data available
Odor Threshold	No data available	Physical and Chemical Properties	No data available
General Properties			
Boiling Point	247 to 282 °F(119.4444 to 138.8889 °C)	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	Heat of Decomposition	No data available
pH	No data available	Specific Gravity/Relative Density	0.715 to 0.791 Water=1
Density	No data available	Bulk Density	No data available
Water Solubility	No data available	Solvent Solubility	Negligible
Viscosity	No data available	Explosive Properties	No data available
Oxidizing Properties:	No data available		
Volatility			
Vapor Pressure	26 mmHg (torr) @ 100 °F(37.7778 °C)	Vapor Density	3.8 Air=1
Evaporation Rate	1.2 n-Butyl Acetate = 1	VOC (Wt.)	No data available
VOC (Vol.)	No data available	Volatiles (Wt.)	100 %
Volatiles (Vol.)	No data available		
Flammability			
Flash Point	12 °C(53.6 °F) TCC (Tagliabue Closed Cup)	UEL	7 %
LEL	1 %	Autoignition	No data available
Self-Accelerating Decomposition Temperature (SADT)	No data available	Heat of Combustion (ΔHc)	No data available
Burning Time	No data available	Flame Height	No data available
Flame Extension	No data available	Ignition Distance	No data available
Flame Duration	No data available	Flammability (solid, gas)	No data available
Environmental			
Half-Life	No data available	Octanol/Water Partition coefficient	No data available
Coefficient of water/oil distribution	No data available	Bioaccumulation Factor	No data available
Bioconcentration Factor	No data available	Biochemical Oxygen Demand BOD/BOD5	No data available
Chemical Oxygen Demand	No data available	Persistence	No data available
Degradation	No data available		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition. Excess heat. Incompatible materials.

10.5 Incompatible materials

- Acids, alkalies, strong oxidizers.

10.6 Hazardous decomposition products

- Hazardous decomposition will not occur.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

	CAS	
Splice Wash SW-100 Cleaner	64742-89-8	Acute Toxicity: Ingestion/Oral-Rat LD50 • >8 g/kg; Inhalation-Rat LC50 • 3400 ppm 4 Hour(s)

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking UN GHS • Data lacking
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 UN GHS • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Classification criteria not met UN GHS • Eye Irritation 2A
Skin sensitization	EU/CLP • Data lacking UN GHS • Data lacking
Respiratory sensitization	EU/CLP • Data lacking UN GHS • Data lacking
Aspiration Hazard	EU/CLP • Aspiration 1 UN GHS • Aspiration 1
Carcinogenicity	EU/CLP • Classification criteria not met UN GHS • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Data lacking UN GHS • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking UN GHS • Data lacking
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects UN GHS • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP • Data lacking UN GHS • Data lacking

Potential Health Effects

Inhalation

Acute (Immediate)

- May cause respiratory irritation. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)

- No data available.

Skin

- Acute (Immediate)** • Causes skin irritation.
- Chronic (Delayed)** • No data available.

Eye

- Acute (Immediate)** • Causes serious eye irritation.
- Chronic (Delayed)** • No data available.

Ingestion

- Acute (Immediate)** • Material may be aspirated into the lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical pneumonitis, pulmonary edema or death.
- Chronic (Delayed)** • No data available.

Section 12 - Ecological Information**12.1 Toxicity**

	CAS	
Splice Wash SW-100 Cleaner	64742-89-8	Aquatic Toxicity-Crustacea: 21 Day(s) NOEC <i>Daphnia magna</i> 3.8 mg/L

12.2 Persistence and degradability

- No data available

12.3 Bioaccumulative potential

- No data available.

12.4 Mobility in Soil

- No data available.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted by the manufacturer.

12.6 Other adverse effects**Potential Environmental Effects**

- May cause long lasting harmful effects to aquatic life.

Section 13 - Disposal Considerations**13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Containers, even those that have been emptied, can contain explosive vapors. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1268	Petroleum distillates, n.o.s. or Petroleum products, n.o.s.	3	II	NDA

TDG	UN1268	PETROLEUM DISTILLATES, N.O.S.; or PETROLEUM PRODUCTS, N.O.S.	3	II	Potential Marine Pollutant
IMO/IMDG	UN1268	Petroleum Distillates, N.O.S	3	II	NDA
ADN	UN1268	PETROLEUM DISTILLATES, N.O.S.	3	II	NDA
ADR/RID	UN1268	PETROLEUM DISTILLATES, N.O.S.	3	II	NDA
IATA/ICAO	UN1268	Petroleum Distillates, N.O.S	3	II	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • This product is provided only in non-bulk containers.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

State Right To Know				
Component	CAS	MA	NJ	PA
Light aliphatic solvent naphtha	64742-89-8	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Light aliphatic solvent naphtha	64742-89-8	Yes	No	Yes	Yes	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
Light aliphatic solvent naphtha	64742-89-8	No	Yes	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Light aliphatic solvent naphtha 64742-89-8 B2

Canada - WHMIS - Ingredient Disclosure List

• Light aliphatic solvent naphtha 64742-89-8 Not Listed

Environment

Canada - CEPA - Priority Substances List

• Light aliphatic solvent naphtha 64742-89-8 Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

• Light aliphatic solvent naphtha 64742-89-8 Not Listed

Europe

Other**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Light aliphatic solvent naphtha	64742-89-8	Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65
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EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Light aliphatic solvent naphtha	64742-89-8	T R:45-46-65 S:53-45
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EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Light aliphatic solvent naphtha	64742-89-8	H, P
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EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Light aliphatic solvent naphtha	64742-89-8	S:53-45
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Mexico**Other****Mexico - Hazard Classifications**

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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Mexico - Regulated Substances

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - OSHA - Specifically Regulated Chemicals

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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United States - California

Environment**U.S. - California - Proposition 65 - Carcinogens List**

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - California - Proposition 65 - Developmental Toxicity

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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United States - Rhode Island**Labor****U.S. - Rhode Island - Hazardous Substance List**

• Light aliphatic solvent naphtha	64742-89-8	Not Listed
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15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16 - Other Information**Revision Date**

- 31/March/2016

Preparation Date

- 17/July/2008

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products, a subsidiary of Firestone Diversified Products, LLC, assumes no responsibility for injury to the buyer, the buyer employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of the material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • **Modular Water Based Bonding Adhesive WBA 3781**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction: Adhesive

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

- | | |
|----------------|--|
| CLP | • Eye Irritation 2 - H319
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335 |
| DSD/DPD | • Irritant (Xi)
R36/37 |

2.2 Label Elements

CLP

WARNING

Hazard statements • H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

Precautionary statements

- Prevention** • P261 - Avoid breathing dust, fume, gas, mist, vapours and/or spray.
P271 - Use only outdoors or in a well-ventilated area.
P264 - Wash thoroughly after handling.
P280 - Wear eye/face protection , .

- Response** • P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 - Call a POISON CENTER/doctor/ if you feel unwell.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.

- Storage/Disposal** • P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD

- Risk phrases** • R36/37 - Irritating to eyes and respiratory system.

- Safety phrases** • S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

- DSD/DPD** • According to European Directive 1999/45/EC this preparation is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012** • Eye Irritation 2A
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

2.2 Label elements

OSHA HCS 2012

WARNING

- Hazard statements** • Causes serious eye irritation
May cause respiratory irritation

Precautionary statements

- Prevention** • Avoid breathing dust, fume, gas, mist, vapours and/or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear eye/face protection , .

- Response** • IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

- OSHA HCS 2012** • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS

- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Butadiene Styrene Copolymer	NDA	40% TO 50%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Propylene glycol	CAS:57-55-6 EC Number:200-338-0	< 1%		EU DSD/DPD: Not Classified - Criteria Not Met EU CLP: Not Classified - Criteria Not Met OSHA HCS 2012: Eye Irrit. 2B	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures**4.1 Description of first aid measures****Inhalation**

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water. Take off contaminated clothing and wash before reuse. If irritation develops and persists, get medical attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Do NOT induce vomiting. Do not use mouth-to-mouth method if victim ingested the

substance. Get medical attention and advise the physician of the nature of the material. If ingested, monitor for acidosis and central nervous system changes. Those with kidney history of dysfunction may require special treatment.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Material is non-flammable. Use media appropriate for surrounding materials (e.g., water spray, alcohol foam, or carbon dioxide).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • None known.

Hazardous Combustion Products • Oxides of carbon.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Use only with adequate ventilation. Wear respiratory protection. Wear appropriate protective clothing.

Emergency Procedures • As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stay upwind. Keep out of low areas. Keep unauthorized personnel away. Ventilate closed spaces before entering.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Stop leak if you can do it without risk.
Absorb liquid on inert material. Transfer to secured container for proper disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Do not breathe vapors, dust, or spray mist. Use only with adequate ventilation. Avoid contact with eyes. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Do not allow product to freeze. Keep container/package tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines		
	Result	Canada Ontario
Propylene glycol (57-55-6)	TWAs	10 mg/m ³ TWA (for assessing the visibility in a work environment where 1,2-Propylene glycol aerosol is present, aerosol only); 50 ppm TWA (aerosol and vapor); 155 mg/m ³ TWA (aerosol and vapor)

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear splash goggles.

Skin/Body

- Use protective gloves, Nitrile Gloves BT>360m, .54mm. The actual work situation is not known. Glove recommendation based upon normal product use and incidental contact only. Contact glove supplier for help with glove selection.

General Industrial Hygiene Considerations

- Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Wash contaminated clothing prior to reuse.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	White liquid with slight odor.
Color	White	Odor	Slight
Odor Threshold	Data lacking		
General Properties			
Boiling Point	212 °F(100 °C)	Melting Point/Freezing Point	0 °C(32 °F)

Decomposition Temperature	Data lacking	pH	7.5 to 9
Specific Gravity/Relative Density	= 1 Water=1	Density	Data lacking
Water Solubility	Soluble	Solvent Solubility	Data lacking
Viscosity	Data lacking	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	> 1 Air=1
Evaporation Rate	Data lacking		
Flammability			
Flash Point	> 100 °C(> 212 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Do not allow this product to freeze. Avoid contact with water sensitive materials and strong oxidizers.

10.5 Incompatible materials

- Incompatible Materials: Water sensitive materials

10.6 Hazardous decomposition products

- Burning will produce smoke, carbon monoxide, and carbon dioxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Propylene glycol (< 1%)	57-55-6	Acute Toxicity: Ingestion/Oral-Rat LD50 • 20 g/kg; Skin-Rabbit LD50 • 20800 mg/kg; Irritation: Eye-Rabbit • 100 mg • Mild irritation; Skin-Human • 500 mg 7 Day(s) • Mild irritation; Skin-Human • 104 mg 3 Day(s)-Intermittent • Moderate irritation

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2A
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Route(s) of entry/exposure

- Inhalation, Skin, Eye, Ingestion/Oral

Medical Conditions Aggravated by Exposure

- Kidney disorders (via accidental ingestion). Pre-existing skin conditions.

Potential Health Effects**Inhalation****Acute (Immediate)**

- May cause respiratory irritation.

Chronic (Delayed)

- No data available.

Skin**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Prolonged or repeated skin contact may cause irritation.

Eye**Acute (Immediate)**

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- May cause gastrointestinal irritation and central nervous system depression if accidentally ingested.

Chronic (Delayed)

- Lactic acidosis, stupor and seizures from chronic ingestion only.

Carcinogenic Effects

- The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

Key to abbreviations

LD = Lethal Dose

MLD = Mild

MOD = Moderate

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not regulated	NDA	NDA	NDA
TDG	NDA	Not regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

State Right To Know				
Component	CAS	MA	NJ	PA
Propylene glycol	57-55-6	No	Yes	Yes
Water	7732-18-5	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Propylene glycol	57-55-6	Yes	No	Yes	No	Yes
Water	7732-18-5	Yes	No	Yes	No	Yes

Canada**Labor****Canada - WHMIS - Classifications of Substances**

• Propylene glycol	57-55-6	Uncontrolled product according to WHMIS classification criteria
• Water	7732-18-5	Uncontrolled product according to WHMIS classification criteria

Canada - WHMIS - Ingredient Disclosure List

• Propylene glycol	57-55-6	1 %
• Water	7732-18-5	Not Listed

Environment**Canada - CEPA - Priority Substances List**

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Propylene glycol	57-55-6	Not Listed
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• Water	7732-18-5	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Propylene glycol	57-55-6	Not Listed
• Water	7732-18-5	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date	• 19/January/2018
Preparation Date	• 09/February/2009
Other Information	• Changes to this revision: Updated mailing address.
Disclaimer/Statement of Liability	• The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

TECHNICAL INFORMATION SHEET

UltraPly™ TPO XR 135 Membrane

Item Description

UltraPly TPO XR 135 (80 mil)

White Membrane: 10' x 50' (3.0 x 15.2 m) - 80 mil
Tan Membrane: 10' x 50' (3.0 x 15.2 m) - 80 mil
Gray Membrane: 10' x 50' (3.0 x 15.2 m) - 80 mil

Item Number

W56TXR3Y99
W56TXR3T99
W56TXR3G99

Meets or exceeds ASTM D 6878

Product Information

Description:

Firestone UltraPly TPO XR 135 Membrane is a flexible Thermoplastic Polyolefin (TPO) roofing membrane that is produced with polyester weft-inserted reinforcement and an 8-ounce polyester fleece backing. UltraPly TPO XR 135 Membrane meets or exceeds all requirements for ASTM D 6878 Specification. This is a heat weldable UltraPly TPO membrane with a thickness of 80 mil (2.03 mm). This membrane is ideal for a variety of new or re-roofing applications.

Method of Application:

1. Substrates must be clean, dry, smooth, and free of sharp edges, fins, loose or foreign materials, oil, grease, and other materials that may damage the membrane.
2. All rough surfaces that can damage the membrane shall be repaired as specified to offer a smooth substrate.
3. All surface voids greater than ¼" (6.4 mm) wide shall be properly filled with an acceptable fill material.
4. UltraPly TPO XR membrane may be fully adhered using Firestone XR Bonding Adhesive, I.S.O.Spray™ R Insulation Adhesive or hot asphalt; adhered in adhesive beads using XR Stick™ Adhesive; or adhered in adhesive beads or spatter pattern using Twin Jet. UltraPly TPO XR 135 Membrane can also be mechanically attached.

Storage:

- Store away from sources of punctures and physical damage.
- Assure that structural decking will support the loads incurred by material when stored on rooftop. The deck load limitations should be specified by the project designer.
- Store away from ignition sources as membrane will burn when exposed to open flame.

Precautions:

- Review Safety Data Sheets (SDS) for safety information.
- Exercise caution when lifting, moving, transporting, storing or handling membrane rolls to avoid sources of punctures and possible physical damage.
- Contact your Firestone Technical Services Advisor at 1-800-428-4511 for specific recommendations regarding chemical or waste product compatibility with Firestone UltraPly TPO XR Membrane.

LEED® Information:

Post-Consumer Recycled Content: 0%
Post Industrial Recycled Content: 15%
Manufacturing Location: Tuscumbia, AL

NOTE: LEED® is a registered trademark of the U.S. Green Building Council

TECHNICAL INFORMATION SHEET

UltraPly™ TPO XR 135 Membrane



ESR-2831

Product Sizes

Membrane Thickness: 0.080" (2.03 mm)	Membrane Weight: 0.42 lb/ft ² (2.1 kg/m ²)
Available Sizes	Available Sizes
10' x 50' (3.0 x 15.2 m)	10' x 50' (3.0 x 15.2 m)

Typical Properties

Property	ASTM Standard	Performance Minimum	Typical Performance-80 mil
Overall Thickness	0.039" (1.0 mm)	0.039" (1.0 mm)	0.080" (2.03 mm) ± 10%
Coating over Scrim	0.015" (0.381 mm)	0.015" (0.381 mm)	0.033" (0.84 mm)
Breaking Strength	220 lbf (979 N)	220 lbf (979 N)	460 lbf (2,046 N)
Elongation of Reinforcement Break	15%	15%	25%
Tearing Strength	55 lbf (245 N)	55 lbf (245 N)	120 lbf (534 N)
Brittleness Point	-40 °F (-40 °C)	-40 °F (-40 °C)	Pass
Ozone Resistance, No Cracks	Pass	Pass	Pass
Properties After Heat Aging (Retained Values) ASTM D 573-5376 h (224 days or 32 weeks) at 240 °F (116 °C)			
Breaking Strength	D 751, Grab Method	90% Minimum	> 90%
Elongation at Break	D 751, Grab Method	90% Minimum	> 90%
Tearing Strength	D 751	60% Minimum	> 60%
Weight of Change	----	± 1% Maximum	< 1%
Linear Dimension Change	D 1204, 6 h at 158 °F (70 °C)	± 1% Maximum	< 1%
Water Absorption	D 471	± 3% Maximum	< 3%
Weather Resistance, 176 °F (80 °C) Black Panel, no cracking, crazing when wrapped around a 3" (76.2 mm) mandrel and inspected at 7X magnification	G 155	> 60,000 kJ/m ²	> 60,000 kJ/m ²
Puncture Resistance	FTM 101C, Method 2031	----	450 lbf (2,002 N)
Dynamic Puncture Resistance MD	D 5635	----	Pass (60 J)
Dynamic Puncture Resistance CD	D 5635	----	Pass (60 J)
Static Puncture Resistance	D 5602	----	Pass (25 kg)
Air Permeance (Material)	E 2178*	< 0.004 ft ³ /ft ² (0.02 L/(s*m ²))	Pass

*1. The ASTM 2178 values listed above are for the air permeance of the UltraPly TPO Membrane component only.

2. When system design includes an air barrier, please consult your Firestone Technical Services Advisor for additional roof system securement enhancements.

3. Consult the Designer / Architect, Code Agency or Authority having Jurisdiction (AHJ) for requirements regarding the selection and use of an appropriate air barrier material, and its installation into the building envelope.

TECHNICAL INFORMATION SHEET

UltraPly™ TPO XR 135 Membrane

Radiative Properties

Cool Roof Rating Council (CRRC): Initial / 3 yr	White	Tan	Gray
Solar Reflectance	0.79 / 0.69	0.61 / 0.55	0.34 / 0.34
Thermal Emittance	0.85 / 0.83	0.81 / 0.84	0.89 / 0.88
Solar Reflectance Index (SRI)	98 / 83	71 / 63	37 / 36
Rated Product ID	0008	0015	0032
Licensed Manufacturer ID	0608	0608	0608
Classification	Production Line	Production Line	Production Line
LEED®	White	Tan	Gray
Initial Solar Reflectance Index (SRI)	Pass (98)	---	---
3 yr Aged Solar Reflectance Index (SRI)	Pass (83)		

Please contact Firestone Technical Services Department at 1-800-428-4511 for further information.

This sheet is meant to highlight Firestone products and specifications and is subject to change without notice. Firestone takes responsibility for furnishing quality materials which meet published Firestone product specifications or other technical documents, subject to normal roof manufacturing tolerances. Neither Firestone nor its representatives practice architecture. Firestone offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Firestone accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Firestone representative is authorized to vary this disclaimer.

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name

UltraPly™ TPO Membrane & Flashing Series
UltraPly™ TPO 18" Curb Flashing, UltraPly™ TPO Custom Accessories, UltraPly™ TPO Reinforced Split Pipe Boot, UltraPly™ TPO Walkway Pad, UltraPly™ TPO T - Joint Cover; UltraPly™ TPO Inside/Outside Molded Corner, UltraPly™ TPO Universal Pipe Flashing, UltraPly™ TPO Large Pipe Flashing, UltraPly™ TPO Unsupported Flashing, UltraPly™ TPO Coated Metal; UltraPly™ TPO Membrane, UltraPly™ TPO XR T Membrane, UltraPly™ TPO Platinum™ Membrane, UltraPly™ TPO Reinforced Cover Strip, UltraPly™ TPO Reinforced Curb Corner

Product no.

-

REACH registration number

Not applicable

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture

Roofing

Uses advised against

-

The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company and address

Firestone Building Products Europe
Ikaroslaan 75
1930 Zaventem
Belgium
Tel. : +32 2 711 44 50

Contact person

-

E-mail

firestonemsds@bfdp.com

SDS date

2018-06-01

SDS Version

1.0

1.4. Emergency telephone number

In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department or the NHS enquiry service or contact CHEMTREC.

+1 (703) 527-3887 - CHEMTREC
+1 (800) 424-9300 - CHEMTREC (USA)

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture is classified according to Regulation (EC) No. 1272/2008 (CLP) as:
It is not required to classify the product according to CLP, since it is an article as defined in REACH and CLP.

2.2. Label elements

Label elements according to Regulation (EC) No. 1272/2008 (CLP):
There is no requirement for hazard labeling, since it is an article.

Hazard pictogram(s)

Not applicable

Signal word

-

Hazard statement(s)

Not applicable-

Safety statement(s)

General -
Prevention -
Response -
Storage -
Disposal -

Identity of the substances primarily responsible for the major health hazards

Not applicable

2.3. Other hazards

This material is an article and there is no legal requirement for an SDS.

Additional labelling

Not applicable

Additional warnings

Not applicable

VOC

Not applicable

SECTION 3: Composition/information on ingredients

3.1/3.2. Substances/Mixtures

Does not contain any substances required to report

This is an article. There is no information about all the substances that are used in the article since there are only requirements for the information of substances included on the candidate list for authorization.

(*) See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

-

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

The product is an article and is unlikely to be of any chemical risk.

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Exposure is not likely due to the physical state of the product (article).

Skin contact

Exposure is not likely due to the physical state of the product (article).

Eye contact

Exposure is not likely due to the physical state of the product (article).

Ingestion

Exposure is not likely due to the physical state of the product (article).

Burns

Not applicable

4.2. Most important symptoms and effects, both acute and delayed

Nothing special

4.3. Indication of any immediate medical attention and special treatment needed

Nothing special

Information to medics

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Nothing special

5.3. Advice for firefighters

No specific requirements.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Nothing special (article).

6.2. Environmental precautions

No specific requirements.

6.3. Methods and material for containment and cleaning up

Not applicable due to the physical state of the product (article).

6.4. Reference to other sections

See section on "Disposal considerations" in regard of handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

See section on 'Exposure controls/personal protection' for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Nothing special (article).

Storage temperature

No data available.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL

No substances are listed in The Control of Substances Hazardous to Health Regulations with an occupational exposure limit.

DNEL / PNEC

No data available

8.2. Exposure controls

Control is unnecessary if the product is used as intended.

General recommendations

Smoking, eating and drinking are not allowed in the work premises

Exposure scenarios

In the event exposure scenarios are appended to the safety data sheet, the operational conditions and risk management measures in these shall be complied with.

Exposure limits

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

Apply standard precautions during use of the product. Avoid inhalation of gas or dust.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Nothing special when used as intended.

Individual protection measures, such as personal protective equipment

Not applicable

Generally

Use only CE marked protective equipment.

Respiratory Equipment

No specific requirements.

Skin protection

No specific requirements.

Hand protection

No specific requirements.

Eye protection

No specific requirements.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Article
Colour	Various colours
Odour	None
Odour threshold (ppm)	No data available.
pH	No data available.
Viscosity (40°C)	No data available.
Density (g/cm³)	0,94

Phase changes

Melting point (°C)	No data available.
Boiling point (°C)	No data available.
Vapour pressure	No data available.
Decomposition temperature (°C)	No data available.
Evaporation rate (n-butylacetate = 100)	No data available.

Data on fire and explosion hazards

Flash point (°C)	No data available.
Ignition (°C)	No data available.
Auto flammability (°C)	No data available.
Explosion limits (% v/v)	No data available.
Explosive properties	No data available.

Solubility

Solubility in water	Insoluble
n-octanol/water coefficient	No data available.

9.2. Other information

Solubility in fat (g/L)	No data available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in the section "Handling and storage".

10.3. Possibility of hazardous reactions

Nothing special

10.4. Conditions to avoid

Nothing special

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

No data available.

Skin corrosion/irritation

No data available.

Serious eye damage/irritation

No data available.

Respiratory or skin sensitisation

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Long term effects

Nothing special

SECTION 12: Ecological information

12.1. Toxicity

No data available.

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
No data available.			

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
No data available.			

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects

Nothing special

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is not covered by regulations on dangerous waste.

Waste

EWC code

-

Specific labelling

-

Contaminated packing

No specific requirements.

SECTION 14: Transport information

14.1 – 14.4

Not dangerous goods according to ADR, IATA and IMDG.

ADR/RID

14.1. UN number	-
14.2. UN proper shipping name	-
14.3. Transport hazard class(es)	-
14.4. Packing group	-
Notes	-
Tunnel restriction code	-

IMDG

UN-no.	-
Proper Shipping Name	-
Class	-
PG*	-
EmS	-
MP**	-
Hazardous constituent	-

IATA/ICAO

UN-no.	-
Proper Shipping Name	-
Class	-
PG*	-

14.5. Environmental hazards

-

14.6. Special precautions for user

-

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

(*) Packing group

(**) Marine pollutant

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Restrictions for application

-

Demands for specific education

-

Additional information

This material is an article and there is no legal requirement for an SDS.

Seveso

-

Sources

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP).
EC regulation 1907/2006 (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

-

The full text of identified uses as mentioned in section 1

-

Additional label elements

Not applicable

Other

In accordance with Article 31 of REACH a safety data sheet is not required for this product. This safety data sheet has been created on a voluntary basis.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The safety data sheet is validated by

AW /CHYMEIA

Date of last essential change (First cipher in SDS version)

-

Date of last minor change (Last cipher in SDS version)

-

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • UltraPly™ TPO SA Membrane

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction:Roofing Material

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

CLP • This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

DSD/DPD • Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label elements(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation • First aid is not expected to be necessary if material is used under ordinary conditions

and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

- Skin**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	White & gray, tan & gray, or gray & gray membranes with tacky bottom. No odor.
Color	White and gray, tan & gray, or gray & gray.	Odor	None
Odor Threshold	None		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	= 0.94 Water=1	Water Solubility	Insoluble
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		

Volatility

Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		

Flammability

Flash Point	> 392 °F(> 200 °C)	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		

Environmental

Octanol/Water Partition coefficient	Data lacking		
-------------------------------------	--------------	--	--

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity**10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information**11.1 Information on toxicological effects**

- Other Material Information**
- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

- Product waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Packaging waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany

Labor**Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor**U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information**Revision Date**

- 19/January/2018

Preparation Date

- 26/February/2015

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **UltraPly™ TPO Membrane & Flashing Series**

Synonyms

- UltraPly™ TPO 18" Curb Flashing, UltraPly™ TPO Custom Accessories, UltraPly™ TPO Reinforced Split Pipe Boot, UltraPly™ TPO Walkway Pad, UltraPly™ TPO T-Joint Cover; UltraPly™ TPO Inside/Outside Molded Corner, UltraPly™ TPO Universal Pipe Flashing, UltraPly™ TPO Large Pipe Flashing, UltraPly™ TPO Unsupported Flashing, UltraPly™ TPO Coated Metal; UltraPly™ TPO Membrane, UltraPly™ TPO XR T Membrane, UltraPly™ TPO Platinum™ Membrane, UltraPly™ TPO Reinforced Cover Strip, UltraPly™ TPO Reinforced Curb Corner

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction:Roofing Material

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

Telephone (General) • firestonemsds@bfpd.com
800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to EU Directive 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

- CLP** • Not classified
- DSD/DPD** • Not classified

2.2 Label Elements

- CLP**
- Hazard statements** • No label element(s) required
- DSD/DPD**
- Risk phrases** • No label element(s) required

2.3 Other Hazards

- CLP**
- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
- DSD/DPD**
- Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012
- Not classified

2.2 Label elements

- OSHA HCS 2012
- Hazard statements**
- No label elements(s) required

2.3 Other hazards

- OSHA HCS 2012
- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

- WHMIS
- Not classified

2.2 Label elements

- WHMIS
- No label element(s) required

2.3 Other hazards

- WHMIS
- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Non-Hazardous Components					
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.

Eye

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.

Ingestion

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO2).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures

- No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description

			Black and white sheet, white and gray sheet, tan and gray sheet,
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Physical Form	Solid	Appearance/Description	gray and gray sheet, white sheet with fleece back membrane, white sheet, grey sheet, or tan sheet. Essentially no odor.
Color	Black, white, gray, and tan.	Odor	None
Odor Threshold	None		
General Properties			
Boiling Point	Not relevant	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	0.94 Water=1	Water Solubility	Insoluble
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate) • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed) • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate) • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed) • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate) • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed) • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate) • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed) • Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

State Right To Know				
Component	CAS	MA	NJ	PA
Nonhazardous Components	NDA	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Nonhazardous Components	NDA	No	No	No	No	No

Inventory (Con't.)		
Component	CAS	TSCA
Nonhazardous Components	NDA	No

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information

Last Revision Date

- 07/May/2013

Preparation Date

- 15/August/2011

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **UltraPly™ TPO Membrane & Flashing Series**

Synonyms

- UltraPly™ TPO 18" Curb Flashing, UltraPly™ TPO Custom Accessories, UltraPly™ TPO Reinforced Split Pipe Boot, UltraPly™ TPO Walkway Pad, UltraPly™ TPO T-Joint Cover, UltraPly™ TPO Inside/Outside Molded Corner, UltraPly™ TPO Universal Pipe Flashing, UltraPly™ TPO Large Pipe Flashing, UltraPly™ TPO Unsupported Flashing, UltraPly™ TPO Coated Metal, UltraPly™ TPO Membrane, UltraPly™ TPO XR T Membrane, UltraPly™ TPO Platinum™ Membrane, UltraPly™ TPO Reinforced Cover Strip, UltraPly™ TPO Reinforced Curb Corner, X-Tred™ Walkway Pad, UltraPly™ TPO XR CP 54

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)** • Construction:Roofing Material

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Not classified

DSD/DPD

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in

DSD/DPD

REACH (1907/2006) and related ECHA guidance.

- Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label elements(s) required

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Not classified

2.2 Label elements

WHMIS

- No label element(s) required

2.3 Other hazards

WHMIS

- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none">All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description

Physical Form	Solid	Appearance/Description	Black and white sheet, white and gray sheet, tan and gray sheet, gray and gray sheet, white sheet with fleece back membrane, white sheet, grey sheet, or tan sheet. Essentially no odor.
---------------	-------	------------------------	--

Color	Black, white, gray, and tan.	Odor	None
Odor Threshold	None		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	= 0.94 Water=1	Water Solubility	Insoluble
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other**China - Annex I & II - Controlled Chemicals Lists**

Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment**

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania**Labor**

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information**Revision Date**

- 19/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **UltraPly™ TPO Membrane & Flashing Series**

Synonyms

- UltraPly™ TPO 18" Curb Flashing, UltraPly™ TPO Custom Accessories, UltraPly™ TPO Reinforced Split Pipe Boot, UltraPly™ TPO Walkway Pad, UltraPly™ TPO T-Joint Cover, UltraPly™ TPO Inside/Outside Molded Corner, UltraPly™ TPO Universal Pipe Flashing, UltraPly™ TPO Large Pipe Flashing, UltraPly™ TPO Unsupported Flashing, UltraPly™ TPO Coated Metal, UltraPly™ TPO Membrane, UltraPly™ TPO XR T Membrane, UltraPly™ TPO Platinum™ Membrane, UltraPly™ TPO Reinforced Cover Strip, UltraPly™ TPO Reinforced Curb Corner, X-Tred™ Walkway Pad, UltraPly™ TPO XR CP 54

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)** • Construction:Roofing Material

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Not classified

DSD/DPD

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in

DSD/DPD

REACH (1907/2006) and related ECHA guidance.

- Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label elements(s) required

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Not classified

2.2 Label elements

WHMIS

- No label element(s) required

2.3 Other hazards

WHMIS

- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none">All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|-------------------------------------|---|
| Suitable Extinguishing Media | <ul style="list-style-type: none">Water, foam, dry chemical, carbon dioxide (CO₂). |
|-------------------------------------|---|

- | | |
|---------------------------------------|---|
| Unsuitable Extinguishing Media | <ul style="list-style-type: none">None known. |
|---------------------------------------|---|

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none">Does not present any special fire or explosive hazards. |
| Hazardous Combustion Products | <ul style="list-style-type: none">Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes. |

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|--|
| Personal Precautions | <ul style="list-style-type: none">No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. |
| Emergency Procedures | <ul style="list-style-type: none">No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures. |

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description

Physical Form	Solid	Appearance/Description	Black and white sheet, white and gray sheet, tan and gray sheet, gray and gray sheet, white sheet with fleece back membrane, white sheet, grey sheet, or tan sheet. Essentially no odor.
---------------	-------	------------------------	--

Color	Black, white, gray, and tan.	Odor	None
Odor Threshold	None		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	= 0.94 Water=1	Water Solubility	Insoluble
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other**China - Annex I & II - Controlled Chemicals Lists**

Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment**

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania**Labor**

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information**Revision Date**

- 19/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **UltraPly™ TPO Membrane & Flashing Series**

Synonyms

- UltraPly™ TPO 18" Curb Flashing, UltraPly™ TPO Custom Accessories, UltraPly™ TPO Reinforced Split Pipe Boot, UltraPly™ TPO Walkway Pad, UltraPly™ TPO T-Joint Cover, UltraPly™ TPO Inside/Outside Molded Corner, UltraPly™ TPO Universal Pipe Flashing, UltraPly™ TPO Large Pipe Flashing, UltraPly™ TPO Unsupported Flashing, UltraPly™ TPO Coated Metal, UltraPly™ TPO Membrane, UltraPly™ TPO XR T Membrane, UltraPly™ TPO Platinum™ Membrane, UltraPly™ TPO Reinforced Cover Strip, UltraPly™ TPO Reinforced Curb Corner, X-Tred™ Walkway Pad, UltraPly™ TPO XR CP 54

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)** • Construction:Roofing Material

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Not classified

DSD/DPD

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in

DSD/DPD

REACH (1907/2006) and related ECHA guidance.

- Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label elements(s) required**2.3 Other hazards**

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Not classified

2.2 Label elements

WHMIS

- No label element(s) required

2.3 Other hazards

WHMIS

- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none">All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description

Physical Form	Solid	Appearance/Description	Black and white sheet, white and gray sheet, tan and gray sheet, gray and gray sheet, white sheet with fleece back membrane, white sheet, grey sheet, or tan sheet. Essentially no odor.
---------------	-------	------------------------	--

Color	Black, white, gray, and tan.	Odor	None
Odor Threshold	None		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	= 0.94 Water=1	Water Solubility	Insoluble
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other**China - Annex I & II - Controlled Chemicals Lists**

Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information**Revision Date**

- 19/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name

- **UltraPly™ TPO QuickSeam™ Accessories**

Synonyms

- UltraPly™ QuickSeam™ T-Joint Covers P; UltraPly™ TPO QuickSeam™ Flashing; UltraPly™ TPO QuickSeam™ Flashing P; UltraPly™ TPO QuickSeam™ Outside Corner; UltraPly™ TPO QuickSeam™ Outside Corner P; UltraPly™ TPO QuickSeam™ Pipe Boot; UltraPly™ TPO QuickSeam™ Pipe Boot P; UltraPly™ TPO QuickSeam™ RMA Strip; UltraPly™ TPO QuickSeam™ RMA Strip P; UltraPly™ TPO QuickSeam™ RPF Strip; UltraPly™ TPO QuickSeam™ RPF Strip P; UltraPly™ TPO QuickSeam™ T-Joint Patch

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)
- Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer

- Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP

- Not classified

DSD/DPD

- Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

CLP

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

DSD/DPD

- Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label elements(s) required**2.3 Other hazards**

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Not classified

2.2 Label elements

WHMIS

- No label element(s) required

2.3 Other hazards

WHMIS

- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none">All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|---|
| Suitable Extinguishing Media | <ul style="list-style-type: none">Water, foam, dry chemical, carbon dioxide (CO₂). |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none">None known. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none">Does not present any special fire or explosive hazards. |
| Hazardous Combustion Products | <ul style="list-style-type: none">Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes. |

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|--|
| Personal Precautions | <ul style="list-style-type: none">No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. |
| Emergency Procedures | <ul style="list-style-type: none">No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures. |

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage**7.1 Precautions for safe handling****Handling**

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities**Storage**

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection**8.1 Control parameters****Exposure Limits/Guidelines**

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls**Engineering Measures/Controls**

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment**Respiratory**

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties**9.1 Information on Basic Physical and Chemical Properties**

Material Description			
Physical Form	Solid	Appearance/Description	White solid (EPDM) laminated to tape. Slight rubber odor.
Color	White	Odor	Slight rubber odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and sulfur oxides and oxides of nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Reproductive Effects

- No reproductive effects expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information**Revision Date**

- 19/January/2018

Preparation Date

- 06/July/2013

Other Information

- Changes to this revision: Product name modification; Additional product names added to section 1.1. Reclassified product to an article that affected most sections of the SDS since no hazard anticipated. Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company, LLC assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **UltraPly™ TPO Membrane & Flashing Series**

Synonyms

- UltraPly™ TPO 18" Curb Flashing, UltraPly™ TPO Custom Accessories, UltraPly™ TPO Reinforced Split Pipe Boot, UltraPly™ TPO Walkway Pad, UltraPly™ TPO T-Joint Cover, UltraPly™ TPO Inside/Outside Molded Corner, UltraPly™ TPO Universal Pipe Flashing, UltraPly™ TPO Large Pipe Flashing, UltraPly™ TPO Unsupported Flashing, UltraPly™ TPO Coated Metal, UltraPly™ TPO Membrane, UltraPly™ TPO XR T Membrane, UltraPly™ TPO Platinum™ Membrane, UltraPly™ TPO Reinforced Cover Strip, UltraPly™ TPO Reinforced Curb Corner, X-Tred™ Walkway Pad, UltraPly™ TPO XR CP 54

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)** • Construction:Roofing Material

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Not classified

DSD/DPD

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in

DSD/DPD

REACH (1907/2006) and related ECHA guidance.

- Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label elements(s) required

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Not classified

2.2 Label elements

WHMIS

- No label element(s) required

2.3 Other hazards

WHMIS

- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none">All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|-------------------------------------|---|
| Suitable Extinguishing Media | <ul style="list-style-type: none">Water, foam, dry chemical, carbon dioxide (CO₂). |
|-------------------------------------|---|

- | | |
|---------------------------------------|---|
| Unsuitable Extinguishing Media | <ul style="list-style-type: none">None known. |
|---------------------------------------|---|

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none">Does not present any special fire or explosive hazards. |
| Hazardous Combustion Products | <ul style="list-style-type: none">Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes. |

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|--|
| Personal Precautions | <ul style="list-style-type: none">No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. |
| Emergency Procedures | <ul style="list-style-type: none">No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures. |

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description

Physical Form	Solid	Appearance/Description	Black and white sheet, white and gray sheet, tan and gray sheet, gray and gray sheet, white sheet with fleece back membrane, white sheet, grey sheet, or tan sheet. Essentially no odor.
---------------	-------	------------------------	--

Color	Black, white, gray, and tan.	Odor	None
Odor Threshold	None		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	= 0.94 Water=1	Water Solubility	Insoluble
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other**China - Annex I & II - Controlled Chemicals Lists**

Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information**Revision Date**

- 19/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **UltraPly™ TPO Membrane & Flashing Series**

Synonyms

- UltraPly™ TPO 18" Curb Flashing, UltraPly™ TPO Custom Accessories, UltraPly™ TPO Reinforced Split Pipe Boot, UltraPly™ TPO Walkway Pad, UltraPly™ TPO T-Joint Cover, UltraPly™ TPO Inside/Outside Molded Corner, UltraPly™ TPO Universal Pipe Flashing, UltraPly™ TPO Large Pipe Flashing, UltraPly™ TPO Unsupported Flashing, UltraPly™ TPO Coated Metal, UltraPly™ TPO Membrane, UltraPly™ TPO XR T Membrane, UltraPly™ TPO Platinum™ Membrane, UltraPly™ TPO Reinforced Cover Strip, UltraPly™ TPO Reinforced Curb Corner, X-Tred™ Walkway Pad, UltraPly™ TPO XR CP 54

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)** • Construction:Roofing Material

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Not classified

DSD/DPD

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in

DSD/DPD

REACH (1907/2006) and related ECHA guidance.

- Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label elements(s) required

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Not classified

2.2 Label elements

WHMIS

- No label element(s) required

2.3 Other hazards

WHMIS

- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none">All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description

Physical Form	Solid	Appearance/Description	Black and white sheet, white and gray sheet, tan and gray sheet, gray and gray sheet, white sheet with fleece back membrane, white sheet, grey sheet, or tan sheet. Essentially no odor.
---------------	-------	------------------------	--

Color	Black, white, gray, and tan.	Odor	None
Odor Threshold	None		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	= 0.94 Water=1	Water Solubility	Insoluble
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other**China - Annex I & II - Controlled Chemicals Lists**

Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information**Revision Date**

- 19/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **UltraPly™ TPO Membrane & Flashing Series**

Synonyms

- UltraPly™ TPO 18" Curb Flashing, UltraPly™ TPO Custom Accessories, UltraPly™ TPO Reinforced Split Pipe Boot, UltraPly™ TPO Walkway Pad, UltraPly™ TPO T-Joint Cover, UltraPly™ TPO Inside/Outside Molded Corner, UltraPly™ TPO Universal Pipe Flashing, UltraPly™ TPO Large Pipe Flashing, UltraPly™ TPO Unsupported Flashing, UltraPly™ TPO Coated Metal, UltraPly™ TPO Membrane, UltraPly™ TPO XR T Membrane, UltraPly™ TPO Platinum™ Membrane, UltraPly™ TPO Reinforced Cover Strip, UltraPly™ TPO Reinforced Curb Corner, X-Tred™ Walkway Pad, UltraPly™ TPO XR CP 54

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)** • Construction:Roofing Material

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Not classified

DSD/DPD

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in

DSD/DPD

REACH (1907/2006) and related ECHA guidance.

- Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label elements(s) required**2.3 Other hazards**

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Not classified

2.2 Label elements

WHMIS

- No label element(s) required

2.3 Other hazards

WHMIS

- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none">• First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none">• First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none">• First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none">• First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none">• All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|-------------------------------------|---|
| Suitable Extinguishing Media | <ul style="list-style-type: none">• Water, foam, dry chemical, carbon dioxide (CO₂). |
|-------------------------------------|---|

- | | |
|---------------------------------------|---|
| Unsuitable Extinguishing Media | <ul style="list-style-type: none">• None known. |
|---------------------------------------|---|

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none">• Does not present any special fire or explosive hazards. |
| Hazardous Combustion Products | <ul style="list-style-type: none">• Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes. |

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|--|
| Personal Precautions | <ul style="list-style-type: none">• No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. |
| Emergency Procedures | <ul style="list-style-type: none">• No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures. |

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description

Physical Form	Solid	Appearance/Description	Black and white sheet, white and gray sheet, tan and gray sheet, gray and gray sheet, white sheet with fleece back membrane, white sheet, grey sheet, or tan sheet. Essentially no odor.
---------------	-------	------------------------	--

Color	Black, white, gray, and tan.	Odor	None
Odor Threshold	None		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	= 0.94 Water=1	Water Solubility	Insoluble
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other**China - Annex I & II - Controlled Chemicals Lists**

Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information**Revision Date**

- 19/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name**

- **UltraPly™ TPO Membrane & Flashing Series**

Synonyms

- UltraPly™ TPO 18" Curb Flashing, UltraPly™ TPO Custom Accessories, UltraPly™ TPO Reinforced Split Pipe Boot, UltraPly™ TPO Walkway Pad, UltraPly™ TPO T-Joint Cover, UltraPly™ TPO Inside/Outside Molded Corner, UltraPly™ TPO Universal Pipe Flashing, UltraPly™ TPO Large Pipe Flashing, UltraPly™ TPO Unsupported Flashing, UltraPly™ TPO Coated Metal, UltraPly™ TPO Membrane, UltraPly™ TPO XR T Membrane, UltraPly™ TPO Platinum™ Membrane, UltraPly™ TPO Reinforced Cover Strip, UltraPly™ TPO Reinforced Curb Corner, X-Tred™ Walkway Pad, UltraPly™ TPO XR CP 54

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)** • Construction:Roofing Material

1.3 Details of the supplier of the safety data sheet**Manufacturer**

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfpdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number**Manufacturer**

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Not classified

DSD/DPD

- Not classified

2.2 Label Elements**CLP**

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards**CLP**

- This material is exempt from CLP/REACH obligations as an article as specified in

DSD/DPD

REACH (1907/2006) and related ECHA guidance.

- Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label elements(s) required**2.3 Other hazards**

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Not classified

2.2 Label elements

WHMIS

- No label element(s) required

2.3 Other hazards

WHMIS

- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention. |
| Eye | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention. |
| Ingestion | <ul style="list-style-type: none">First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none">All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|-------------------------------------|---|
| Suitable Extinguishing Media | <ul style="list-style-type: none">Water, foam, dry chemical, carbon dioxide (CO₂). |
|-------------------------------------|---|

- | | |
|---------------------------------------|---|
| Unsuitable Extinguishing Media | <ul style="list-style-type: none">None known. |
|---------------------------------------|---|

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none">Does not present any special fire or explosive hazards. |
| Hazardous Combustion Products | <ul style="list-style-type: none">Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes. |

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|--|
| Personal Precautions | <ul style="list-style-type: none">No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. |
| Emergency Procedures | <ul style="list-style-type: none">No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures. |

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description

Physical Form	Solid	Appearance/Description	Black and white sheet, white and gray sheet, tan and gray sheet, gray and gray sheet, white sheet with fleece back membrane, white sheet, grey sheet, or tan sheet. Essentially no odor.
---------------	-------	------------------------	--

Color	Black, white, gray, and tan.	Odor	None
Odor Threshold	None		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	= 0.94 Water=1	Water Solubility	Insoluble
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other**China - Annex I & II - Controlled Chemicals Lists**

Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment**

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania**Labor**

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information**Revision Date**

- 19/January/2018

Preparation Date

- 16/August/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **XR Bonding Adhesive**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

Telephone (General) • firestonemsds@bfdp.com
800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

- CLP**
- Flammable Liquids 2 - H225
 - Eye Irritation 2 - H319
 - Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
 - EUH066
- DSD/DPD**
- Highly Flammable (F)
 - Irritant (Xi)
 - R11, R36, R66, R67

2.2 Label Elements

CLP

DANGER

Hazard statements • H225 - Highly flammable liquid and vapour
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

EUH066 - Repeated exposure may cause skin dryness or cracking.

Precautionary statements

- Prevention**
- P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 - P233 - Keep container tightly closed.
 - P240 - Ground and/or bond container and receiving equipment.
 - P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 - P242 - Use only non-sparking tools.
 - P243 - Take precautionary measures against static discharge.
 - P261 - Avoid breathing mist/vapours/spray.
 - P264 - Wash thoroughly after handling.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response**
- P370+P378 - In case of fire: Use appropriate media for extinction.
 - P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - P321 - Specific treatment, see supplemental first aid information.
 - P362 - Take off contaminated clothing and wash before reuse.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Storage/Disposal**
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 - P235 - Keep cool.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases**
- R11 - Highly flammable.
 - R36 - Irritating to eyes.
 - R66 - Repeated exposure may cause skin dryness or cracking.
 - R67 - Vapours may cause drowsiness and dizziness.
- Safety phrases**
- S9 - Keep container in a well ventilated place
 - S16 - Keep away from sources of ignition - No Smoking.
 - S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Flammable Liquids 2 - H225
 - Skin Irritation 2 - H315
 - Eye Irritation 2 - H319
 - Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
 - Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- Highly flammable liquid and vapour - H225
 - Causes skin irritation - H315
 - Causes serious eye irritation - H319
 - May cause respiratory irritation - H335
 - May cause drowsiness or dizziness - H336

Precautionary statements

- Prevention**
- Keep away from heat, sparks, open flames and/or hot surfaces. - P210
 - Keep container tightly closed. - P233
 - Ground and/or bond container and receiving equipment. - P240
 - Use explosion-proof electrical/ventilating/lighting/equipment. - P241
 - Use only non-sparking tools. - P242
 - Take precautionary measures against static discharge. - P243
 - Avoid breathing mist/vapours/spray. - P261
 - Wash thoroughly after handling. - P264
 - Use only outdoors or in a well-ventilated area. - P271
 - Wear protective gloves/protective clothing/eye protection/face protection. - P280
- Response**
- In case of fire: Use appropriate media for extinction. - P370+P378
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
 - Call a POISON CENTER or doctor/physician if you feel unwell. - P312
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353
 - Specific treatment, see supplemental first aid information. - P321
 - Take off contaminated clothing and wash before reuse. - P362
 - If skin irritation occurs: Get medical advice/attention. - P332+P313
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
 - If eye irritation persists: Get medical advice/attention. - P337+P313
- Storage/Disposal**
- Store in a well-ventilated place. Keep container tightly closed. - P403+P233
 - Keep cool. - P235
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



- Flammable Liquids - B2
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Acetone	CAS:67-64-1 EINECS:200-662-2	50% TO 100%	Inhalation-Rat LC50 • 50100 mg/m ³ 8 Hour(s) Ingestion/Oral-Rat LD50 • 5800 mg/kg	EU DSD/DPD: Annex VI, Table 3.2: F; R11 Xi; R36 R66 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit 2A; STOT SE 3: Resp. Irrit. & Narc.	NDA
4-Heptanone, 2,6-dimethyl-	CAS:108-83-8 EINECS:203-620-1	2.5% TO 10%	Ingestion/Oral-Rat LD50 • 5750 mg/kg Skin-Rabbit LD50 • 16120 mg/kg	EU DSD/DPD: Annex VI, Table 3.2: R10 Xi; R37 EU CLP: Annex VI: Flam. Liq. 3, H226; STOT SE 3, H335 OSHA HCS 2012: Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2	NDA
Zinc oxide	CAS:1314-13-2 EINECS:215-222-5	<= 2.5%	NDA	EU DSD/DPD: Annex VI, Table 3.2: N; R50-53 EU CLP: Annex VI: Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Not Classified	NDA

See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Rinse mouth. Drink 1 - 2 glasses of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the

patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • LARGE FIRES: Water spray, fog or alcohol-resistant foam.
SMALL FIRES: Dry chemical, CO₂, water spray or alcohol-resistant foam.

Unsuitable Extinguishing Media • Do not use a direct stream of water.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Vapor explosion hazard indoors, outdoors or in sewers. Many liquids are lighter than water. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Runoff to sewer may create fire or explosion hazard. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Dried solids can burn and release toxic fumes and vapors.

Hazardous Combustion Products • No data available

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Cool fire exposed containers with water. Move containers from fire area if you can do it without risk.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Ventilate enclosed areas. Wear appropriate protective clothing. Do not touch or walk through spilled material.

Emergency Procedures • ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) Keep out of low areas. Stay upwind. Keep unauthorized personnel away. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use clean non-sparking tools to collect absorbed material. All equipment used when handling the product must be grounded.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Keep away from fire. Keep away from heat and sparks. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist/vapours/spray. Avoid contact with skin, eyes, and clothing. Use only in well ventilated areas. All equipment used when handling the product must be grounded. Bond and ground all transfer containers and equipment. Take precautionary measures against static charges. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near container. Do not eat, drink or smoke when using this product. After handling wash hands thoroughly.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Keep container tightly closed. Keep away from incompatible materials.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (respirable)	10 mg/m3 STEL (respirable)	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)
	TWAs	2 mg/m3 TWA (respirable fraction)	2 mg/m3 TWA (respirable)	2 mg/m3 TWA (respirable)	2 mg/m3 TWA (respirable fraction)	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, dust); 5 mg/m3 TWA (fume)
4-Heptanone, 2,6-dimethyl- (108-83-8)	TWAs	25 ppm TWA	25 ppm TWA; 145 mg/m3 TWA	25 ppm TWA	25 ppm TWA	25 ppm TWA; 145 mg/m3 TWA
Acetone (67-64-1)	STELs	750 ppm STEL	750 ppm STEL; 1800 mg/m3 STEL	500 ppm STEL	750 ppm STEL	750 ppm STEL; 1782 mg/m3 STEL
	TWAs	500 ppm TWA	500 ppm TWA; 1200 mg/m3 TWA	250 ppm TWA	500 ppm TWA	500 ppm TWA; 1188 mg/m3 TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable)	10 mg/m3 STEV (fume)
	TWAs	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable fraction)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable)	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)
4-Heptanone, 2,6-	STELs	38 ppm STEL; 220 mg/m3 STEL	Not established	38 ppm STEL; 220 mg/m3 STEL	Not established	Not established

dimethyl- (108-83-8)	TWAs	25 ppm TWA; 145 mg/m3 TWA	25 ppm TWA	25 ppm TWA; 145 mg/m3 TWA	25 ppm TWA	25 ppm TWAEV; 145 mg/m3 TWAEV
Acetone (67-64-1)	STELs	1250 ppm STEL; 2970 mg/m3 STEL	750 ppm STEL	1250 ppm STEL; 2970 mg/m3 STEL	750 ppm STEL	1000 ppm STEV; 2380 mg/m3 STEV
	TWAs	1000 ppm TWA; 2370 mg/m3 TWA	500 ppm TWA	1000 ppm TWA; 2370 mg/m3 TWA	500 ppm TWA	500 ppm TWAEV; 1190 mg/m3 TWAEV

Exposure Limits/Guidelines (Con't.)

	Result	Canada Saskatchewan	Canada Yukon	NIOSH	OSHA
Zinc oxide (1314-13-2)	TWAs	2 mg/m3 TWA (dust and fume, respirable fraction)	5 mg/m3 TWA (fume); 30 mppcf TWA (dust); 10 mg/m3 TWA (dust)	5 mg/m3 TWA (dust and fume)	5 mg/m3 TWA (fume); 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
	STELs	Not established	10 mg/m3 STEL (fume); 20 mg/m3 STEL (dust)	10 mg/m3 STEL (fume)	Not established
	Ceilings	Not established	Not established	15 mg/m3 Ceiling (dust)	Not established
4-Heptanone, 2,6-dimethyl- (108-83-8)	TWAs	25 ppm TWA	25 ppm TWA; 150 mg/m3 TWA	25 ppm TWA; 150 mg/m3 TWA	50 ppm TWA; 290 mg/m3 TWA
	STELs	Not established	25 ppm STEL; 150 mg/m3 STEL	Not established	Not established
Acetone (67-64-1)	TWAs	500 ppm TWA	1000 ppm TWA; 2400 mg/m3 TWA	250 ppm TWA; 590 mg/m3 TWA	1000 ppm TWA; 2400 mg/m3 TWA
	STELs	Not established	1250 ppm STEL; 3000 mg/m3 STEL	Not established	Not established

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear appropriate eye/face protection for the job/activity.

Skin/Body

- Wear appropriate gloves for the job/activity.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Brown liquid with a characteristic odor.
Color	Brown	Odor	Characteristic odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	131 F(55 C)	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	0.882 Water=1	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	175 mmHg (torr) @ 68 F(20 C)	Vapor Density	Data lacking
Evaporation Rate	Data lacking	Volatiles (Vol.)	64 %
Flammability			
Flash Point	-2 F(-18.8889 C)	UEL	13 %
LEL	2.6 %	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- Strong oxidizers, acids, and bases.

10.6 Hazardous decomposition products

- Oxides of carbon and nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Component Name	CAS	Data
Acetone (50% TO 100%)	67-64-1	Acute Toxicity: orl-rat LD50:5800 mg/kg; ihl-rat LC50:50100 mg/m3/8H; Irritation: eye-rbt 20 mg SEV; skn-rbt 395 mg open MLD;

		Reproductive: ihl-rat TCLo:11000 ppm (6-19D preg)
4-Heptanone, 2,6-dimethyl- (2.5% TO 10%)	108-83-8	Acute Toxicity: orl-rat LD50:5750 mg/kg; skn-rbt LD50:16120 mg/kg; Irritation: eye-rbt 500 mg MLD; skn-rbt 500 mg open MLD
Zinc oxide (<= 2.5%)	1314-13-2	Irritation: eye-rbt 500 mg/24H MLD; skn-rbt 500 mg/24H MLD; Reproductive: orl-rat TDLo:6846 mg/kg (1-22D preg)
GHS Properties		Classification
Acute toxicity		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation		EU/CLP • Classification criteria not met OSHA HCS 2012 • Skin Irritation 2
Skin sensitization		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-SE		EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Toxicity for Reproduction		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation		EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2

Route(s) of entry/exposure

- Inhalation, Skin, Eye, Ingestion

Potential Health Effects**Inhalation****Acute (Immediate)**

- May cause respiratory irritation. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)

- No data available

Skin**Acute (Immediate)**

- Causes skin irritation.

Chronic (Delayed)

- Repeated exposure may cause skin dryness or cracking.

Eye**Acute (Immediate)**

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- No data available

Chronic (Delayed)

- No data available.

Key to abbreviations

LC = Lethal Concentration TC = Toxic Concentration
 LD = Lethal Dose SEV = Severe
 MLD = Mild

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives	3	II	NDA
TDG	UN1133	ADHESIVES	3	II	Potential Marine Pollutant
IMO/IMDG	UN1133	ADHESIVES	3	II	NDA
ADN	UN1133	ADHESIVES	3	II	NDA
ADR/RID	UN1133	ADHESIVES	3	II	NDA
IATA/ICAO	UN1133	Adhesives	3	II	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
4-Heptanone, 2,6-dimethyl-	108-83-8	Yes	Yes	Yes
Acetone	67-64-1	Yes	Yes	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
4-Heptanone, 2,6-dimethyl-	108-83-8	Yes	No	Yes	No	Yes
Acetone	67-64-1	Yes	No	Yes	No	Yes
Zinc oxide	1314-13-2	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• 4-Heptanone, 2,6-dimethyl-	108-83-8	B3
• Acetone	67-64-1	B2, D2B
• Zinc oxide	1314-13-2	Uncontrolled product according to WHMIS classification criteria
• Zinc oxide as Zinc compounds		Not Listed

Canada - WHMIS - Ingredient Disclosure List

• 4-Heptanone, 2,6-dimethyl-	108-83-8	1 %
• Acetone	67-64-1	1 %
• Zinc oxide	1314-13-2	1 %
• Zinc oxide as Zinc compounds		Not Listed

Environment

Canada - CEPA - Priority Substances List

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

Other

Canada - Accelerated Reduction/Elimination of Toxics (ARET)

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

Canada New Brunswick

Environment

Canada - New Brunswick - Ozone Depleting Substances - Schedule A

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• 4-Heptanone, 2,6-dimethyl-	108-83-8	R10 Xi; R37
• Acetone	67-64-1	F; R11 Xi; R36 R66 R67
• Zinc oxide	1314-13-2	N; R50-53
• Zinc oxide as Zinc compounds		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• 4-Heptanone, 2,6-dimethyl-	108-83-8	10%≤C: Xi; R:37
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Xi R:10-37 S:(2)-24
• Acetone	67-64-1	F Xi R:11-36-66-67 S:(2)-9-16-26
• Zinc oxide	1314-13-2	N R:50/53 S:60-61
• Zinc oxide as Zinc compounds		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• 4-Heptanone, 2,6-dimethyl-	108-83-8	S:(2)-24
• Acetone	67-64-1	S:(2)-9-16-26
• Zinc oxide	1314-13-2	S:60-61
• Zinc oxide as Zinc compounds		Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed

- | | | |
|--------------------------------|--|------------|
| • Zinc oxide as Zinc compounds | | Not Listed |
|--------------------------------|--|------------|

U.S. - OSHA - Specifically Regulated Chemicals

- | | | |
|--------------------------------|-----------|------------|
| • 4-Heptanone, 2,6-dimethyl- | 108-83-8 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Zinc oxide | 1314-13-2 | Not Listed |
| • Zinc oxide as Zinc compounds | | Not Listed |

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

- | | | |
|--------------------------------|-----------|------------|
| • 4-Heptanone, 2,6-dimethyl- | 108-83-8 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Zinc oxide | 1314-13-2 | Not Listed |
| • Zinc oxide as Zinc compounds | | Not Listed |

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

- | | | |
|--------------------------------|-----------|------------------------------------|
| • 4-Heptanone, 2,6-dimethyl- | 108-83-8 | Not Listed |
| • Acetone | 67-64-1 | 5000 lb final RQ; 2270 kg final RQ |
| • Zinc oxide | 1314-13-2 | Not Listed |
| • Zinc oxide as Zinc compounds | | Not Listed |

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

- | | | |
|--------------------------------|-----------|------------|
| • 4-Heptanone, 2,6-dimethyl- | 108-83-8 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Zinc oxide | 1314-13-2 | Not Listed |
| • Zinc oxide as Zinc compounds | | Not Listed |

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

- | | | |
|--------------------------------|-----------|------------|
| • 4-Heptanone, 2,6-dimethyl- | 108-83-8 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Zinc oxide | 1314-13-2 | Not Listed |
| • Zinc oxide as Zinc compounds | | Not Listed |

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

- | | | |
|--------------------------------|-----------|------------|
| • 4-Heptanone, 2,6-dimethyl- | 108-83-8 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Zinc oxide | 1314-13-2 | Not Listed |
| • Zinc oxide as Zinc compounds | | Not Listed |

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

- | | | |
|--------------------------------|-----------|---|
| • 4-Heptanone, 2,6-dimethyl- | 108-83-8 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Zinc oxide | 1314-13-2 | Not Listed |
| • Zinc oxide as Zinc compounds | | 1.0 % de minimis concentration (Chemical Category N982) |

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

- | | | |
|--------------------------------|-----------|------------|
| • 4-Heptanone, 2,6-dimethyl- | 108-83-8 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Zinc oxide | 1314-13-2 | Not Listed |
| • Zinc oxide as Zinc compounds | | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Included in waste stream: F039
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring		
• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents		
• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards		
• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	0.28 mg/L (wastewater); 160 mg/kg (nonwastewater)
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring		
• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics		
• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	waste number U002 (Ignitable waste)
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	
• Zinc oxide	1314-13-2	(fume)
• Zinc oxide as Zinc compounds		

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• 4-Heptanone, 2,6-dimethyl-	108-83-8	Not Listed
• Acetone	67-64-1	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information**Relevant Phrases (code & full text)**

- H226 - Flammable liquid and vapour
- H335 - May cause respiratory irritation
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- R10 - Flammable.
- R37 - Irritating to respiratory system.
- R50 - Very toxic to aquatic organisms.
- R53 - May cause long-term adverse effects in the aquatic environment.

Last Revision Date

- 11/March/2014

Preparation Date

- 11/January/2012

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **XR Stick™ Adhesive Part 1**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

- CLP**
- Skin Irritation 2 - H315
 - Skin Sensitization 1 - H317
 - Eye Irritation 2 - H319
 - Acute Toxicity Inhalation 3 - H331
 - Respiratory Sensitization 1 - H334
 - Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
 - Carcinogenicity 2 - H351
 - Specific Target Organ Toxicity Repeated Exposure 2 - H373
- DSD/DPD**
- Harmful (Xn)
 - Irritant (Xi)
 - Carcinogenic Substances - Category 3
 - R20, R36/37/38, R40, R42/43, R48/20

2.2 Label Elements

CLP

DANGER



- Hazard statements •**
- H315 - Causes skin irritation
 - H317 - May cause an allergic skin reaction
 - H319 - Causes serious eye irritation
 - H331 - Toxic if inhaled
 - H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 - H335 - May cause respiratory irritation
 - H351 - Suspected of causing cancer.
 - H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention •**
- P201 - Obtain special instructions before use.
 - P202 - Do not handle until all safety precautions have been read and understood.
 - P260 - Do not breathe mist/vapours/spray.
 - P264 - Wash thoroughly after handling.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P272 - Contaminated work clothing should not be allowed out of the workplace.
 - P281 - Use personal protective equipment as required.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 - P285 - In case of inadequate ventilation wear respiratory protection.
- Response •**
- P304+P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
 - P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 - P362 - Take off contaminated clothing and wash before reuse.
 - P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 - P321 - Specific treatment, see supplemental first aid information.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337+P313 - If eye irritation persists: Get medical advice/attention.
 - P308+P313 - IF exposed or concerned: Get medical advice/attention.
 - P314 - Get medical advice/attention if you feel unwell.
- Storage/Disposal •**
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases •**
- R20 - Harmful by inhalation.
 - R36/37/38 - Irritating to eyes, respiratory system and skin.
 - R40 - Limited evidence of a carcinogenic effect.
 - R42/43 - May cause sensitisation by inhalation and skin contact.
 - R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- Safety phrases •**
- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - S36 - Wear suitable protective clothing.
 - S37 - Wear suitable gloves.
 - S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 - S53 - Avoid exposure - obtain special instructions before use.

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Skin Irritation 2
- Skin Sensitization 1A
- Eye Irritation 2
- Acute Toxicity Inhalation 2
- Respiratory Sensitization 1A
- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
- Specific Target Organ Toxicity Repeated Exposure 1

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- Causes skin irritation
 - May cause an allergic skin reaction
 - Causes serious eye irritation
 - Fatal if inhaled
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 - May cause respiratory irritation
 - Causes damage to organs - Lungs through prolonged or repeated exposure

Precautionary statements

- Prevention**
- Do not breathe mist/vapours/spray.
 - Wash thoroughly after handling.
 - Do not eat, drink or smoke when using this product.
 - Use only outdoors or in a well-ventilated area.
 - Contaminated work clothing should not be allowed out of the workplace.
 - Wear protective gloves/protective clothing/eye protection/face protection.
 - Wear respiratory protection.
 - In case of inadequate ventilation wear respiratory protection.
- Response**
- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - Immediately call a POISON CENTER or doctor/physician.
 - Specific treatment is urgent (see supplemental first aid instructions on this label).
 - If on skin: Wash with plenty of water .
 - Take off contaminated clothing and wash before reuse.
 - If skin irritation or rash occurs: Get medical advice/attention.
 - Specific treatment, see supplemental first aid information.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - If eye irritation persists: Get medical advice/attention.
 - Get medical advice/attention if you feel unwell.
- Storage/Disposal**
- Store in a well-ventilated place. Keep container tightly closed.
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information**
- 45.1 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Very Toxic - D1A
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.2 Label elements**WHMIS****WHMIS**

- Very Toxic - D1A
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.3 Other hazards**WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Polymethylene polyphenyl isocyanate	CAS:9016-87-9	< 55%	Ingestion/Oral-Rat LD50 • 49 g/kg Inhalation-Rat LC50 • 490 mg/m ³ 4 Hour(s) Skin-Rabbit LD50 • >9400 mg/kg	EU DSD/DPD: Self Classified: Xn R20-48/20 Xn R42/43 Xi, R36/37/38 Carc.Cat. 3 R40 EU CLP: Self Classified: STOT RE 2, H373; Eye Irrit. 2, H319; STOT SE 3: Resp. Irrit., H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; Carc. 2, H351; Acute Tox. 2, H330 OSHA HCS 2012: Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1A; STOT SE 3: Resp. Irrit.; Resp. Sens. 1A; STOT RE 1 (Lungs); Acute Tox. 2 (inhl)	NDA
Isocyanic acid, methylenedi-p-phenylene ester	CAS:101-68-8 EC Number:202-966-0 EU Index:615-005-00-9	38%	NDA	EU DSD/DPD: Annex VI, Table 3.2: Xn R20-48/20 Xi R36/37/38 Carc.Cat.3 R40 R42/43 EU CLP: Annex VI, Table 3.1: Carc. 2, H351; Acute Tox. 4, H332; STOT RE 2, H373; Eye Irrit. 2, H319; STOT SE 3: Resp. Irrit., H335; Skin Irrit. 2; H315; Resp. Sens. 1, H334; Skin Sens. 1, H317 OSHA HCS 2012: Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1; Resp. Sens. 1; STOT SE 3: Resp. Irrit.; STOT RE 1 (Lungs)	NDA
Diphenylmethane diisocyanate	CAS:26447-40-5 EC Number:247-714-0 EU Index:615-005-00-9	< 10%	NDA	EU DSD/DPD: Annex VI, Table 3.2: Xn R20-48/20 Xi R36/37/38 Carc.Cat.3 R40 R42/43 EU CLP: Annex VI, Table 3.1: Carc. 2, H351; Acute Tox. 4, H332; STOT RE 2, H373; Eye Irrit. 2, H319; STOT SE 3: Resp. Irrit., H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317 OSHA HCS 2012: Eye Irrit. 2; STOT SE 3: Resp. Irrit.; Skin Irrit. 2; Resp. Sens. 1A; Skin Sens. 1A; STOT RE 1	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | • Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention immediately. |
| Skin | • In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If irritation develops and persists, get medical attention. Wash contaminated clothing before reuse. |
| Eye | • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention. |
| Ingestion | • Do NOT induce vomiting. Obtain medical attention immediately if ingested. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | • All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|--|
| Suitable Extinguishing Media | • LARGE FIRE: Water spray, fog or regular foam.
SMALL FIRES: Dry chemical, CO ₂ , water spray or regular foam. |
| Unsuitable Extinguishing Media | • No data available. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|---|
| Unusual Fire and Explosion Hazards | • Some may burn but none ignite readily.
MDI reacts exothermically with water, which may create excessive pressure in containers.
Containers may explode when heated. |
| Hazardous Combustion Products | • Carbon Dioxide, Carbon Monoxide, Nitrogen Oxide, Isocyanate Vapors and Mist, Traces of HCN |

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk.
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|---|
| Personal Precautions | • Do not walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe mist/vapours/spray. Avoid contact with skin, eyes, and clothing. |
| Emergency Procedures | • Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. |

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
Never return spills in original containers for re-use.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only in well ventilated areas. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe vapors, dust, or spray mist, vapors, spray. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep material dry. Do not expose to moisture - reaction may result if exposed to moisture which may be violent. Keep container tightly closed.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Belgium	Canada Alberta	Canada British Columbia	Canada Manitoba
Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)	TWAs	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA; 0.052 mg/m3 TWA	0.005 ppm TWA; 0.05 mg/m3 TWA	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))
	Ceilings	Not established	Not established	Not established	0.01 ppm Ceiling (listed under Methylene bisphenyl isocyanate (MDI))	Not established
Polymethylene polyphenyl isocyanate (9016-87-9)	TWAs	Not established	Not established	0.005 ppm TWA; 0.07 mg/m3 TWA	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario
Diphenylmethane diisocyanate (26447-40-5)	Ceilings	Not established	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling	Not established	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling	Not established
						0.005 ppm TWA (designated substances regulation, listed

Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)	TWAs	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.051 mg/m ³ TWA (listed under Methylene bisphenyl isocyanate)	Not established	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	Not established	under Isocyanates, organic compounds (Methylene bisphenyl isocyanate (MDI)); 0.005 ppm TWA (applies to workplaces to which the designated substances regulation does not apply, listed under Methylene bisphenyl isocyanate (MDI))
	Ceilings	Not established	Not established	Not established	Not established	0.02 ppm Ceiling (designated substances regulation, listed under Isocyanates, organic compounds (Methylene bisphenyl isocyanate (MDI)))

Exposure Limits/Guidelines (Con't.)

	Result	Canada Quebec	Canada Saskatchewan	Canada Yukon	China	Denmark
Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)	STELs	Not established	Not established	Not established	0.1 mg/m ³ STEL	Not established
	TWAs	0.005 ppm TWAEV; 0.051 mg/m ³ TWAEV	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	Not established	0.05 mg/m ³ TWA	0.005 ppm TWA; 0.05 mg/m ³ TWA
	Ceilings	Not established	Not established	0.02 ppm Ceiling (Methylene bisphenyl isocyanate (MDI)); 0.2 mg/m ³ Ceiling (Methylene bisphenyl isocyanate (MDI))	Not established	Not established

Exposure Limits/Guidelines (Con't.)

	Result	Germany DFG	Germany TRGS	NIOSH	OSHA
Diphenylmethane diisocyanate (26447-40-5)	Ceilings	Not established	Not established	Not established	0.02 ppm Ceiling; 0.2 mg/m ³ Ceiling
Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)	Ceilings	0.05 mg/m ³ Peak (inhalable fraction)	Not established	0.020 ppm Ceiling (10 min); 0.2 mg/m ³ Ceiling (10 min)	0.02 ppm Ceiling; 0.2 mg/m ³ Ceiling
	TWAs	Not established	0.05 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, ceiling factor 2, exposure factor 1)	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.05 mg/m ³ TWA	Not established
	MAKs	0.05 mg/m ³ TWA MAK (see also polymeric MDI, inhalable fraction)	Not established	Not established	Not established
			0.05 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be		

Polymethylene polyphenyl isocyanate (9016-87-9)	TWAs	Not established	excluded when AGW and BGW values are observed, inhalable fraction, as MDI, exposure factor 1)	Not established	Not established
	Ceilings	0.05 mg/m ³ Peak (inhalable fraction)	Not established	Not established	Not established
	MAKs	0.05 mg/m ³ TWA MAK (inhalable fraction)	Not established	Not established	Not established

Exposure Control Notations

Germany TRGS

• Polymethylene polyphenyl isocyanate (9016-87-9): **Carcinogens:** (Category 3 (as inhalable aerosol, alveola fraction)) | **Developmental**

Toxins: (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveoli fraction)) | **Reproductive**

Toxins: (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveola fraction)) | **Germ Cell**

Mutagens: (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveola fraction)) | **Skin:** (skin notation (calculated as MDI))

• Isocyanic acid, methylenedi-p-phenylene ester (101-68-8): **Carcinogens:** (Category 3 (as inhalable aerosol, alveola fraction)) | **Developmental**

Toxins: (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveoli fraction)) | **Reproductive**

Toxins: (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveola fraction)) | **Germ Cell**

Mutagens: (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveola fraction))

Germany DFG

• Polymethylene polyphenyl isocyanate (9016-87-9): **Carcinogens:** (Category 4 (no significant contribution to human cancer)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to (inhalable fraction)) | **Sensitizers:** (respiratory and skin sensitizer (inhalable fraction)) | **Skin:** (skin notation)

• Isocyanic acid, methylenedi-p-phenylene ester (101-68-8): **Carcinogens:** (Category 4 (no significant contribution to human cancer)) |

Pregnancy: (no risk to embryo/fetus if exposure limits adhered to (inhalable fraction, see also polymeric MDI)) | **Sensitizers:** (respiratory and skin sensitizer (inhalable fraction)) | **Skin:** (skin notation)

8.2 Exposure controls

Engineering Measures/Controls

- This adhesive is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 certified respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- Wear appropriate gloves. Wear protective clothing

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Dark brown liquid with an aromatic odor.
Color	Dark brown.	Odor	Aromatic
Odor Threshold	Data lacking		
General Properties			
Boiling Point	>= 200 °F(>= 93.3333 °C)	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 1.22 Water=1	Density	10.16 lbs/gal
Water Solubility	Reacts	Viscosity	30 to 50 Centipoise (cPs, cP) or mPas
Explosive Properties	Data lacking	Oxidizing Properties:	Data lacking
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	VOC (Vol.)	11 g/L EPA Method 24 VOC
Flammability			
Flash Point	220 °C(428 °F) COC (Cleveland Open Cup)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Excess heat. Incompatible materials.

10.5 Incompatible materials

- Reacts with water, with the formation of carbon dioxide. Risk of bursting. Reacts with alcohols, acids, alkalis, and amines. Risk of exothermic reaction. Risk of violent reaction. Contact with certain rubbers and plastics can cause brittleness of the substance with subsequent loss in strength.

10.6 Hazardous decomposition products

- Carbon Dioxide, Carbon Monoxide, Nitrogen Oxide, Isocyanate Vapors and Mist, Traces of HCN

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Polymethylene polyphenyl isocyanate (< 55%)	9016-87-9	Acute Toxicity: Ingestion/Oral-Rat LD50 • 49 g/kg; Behavioral: Somnolence (general depressed activity); Gastrointestinal:Hypermotility, diarrhea; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Body temperature decrease; Inhalation-Rat LC50 • 490 mg/m ³ 4 Hour(s); Sense Organs and Special Senses:Eye:Other; Lungs, Thorax, or Respiration:Respiratory depression; Blood:Hemorrhage; Skin-Rabbit LD50 • >9400 mg/kg; Irritation: Eye-Rabbit • 100 mg • Mild irritation; Reproductive: Inhalation-Rat TCLo • 12 mg/m ³ 6 Hour(s)(6-15D preg); Reproductive Effects:Maternal Effects:Other effects; Reproductive Effects:Effects on Embryo or Fetus:Extra embryonic structures; Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system
Isocyanic acid, methylenedi-p-phenylene ester (38%)	101-68-8	Acute Toxicity: Ingestion/Oral-Rat LD50 • 9200 mg/kg; Behavioral: Somnolence (general depressed activity); Behavioral:Ataxia; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Body temperature decrease; Irritation: Eye-Rabbit • 100 mg • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s)

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Inhalation 3 - ATEmix(inhl) =0.703 mg/L OSHA HCS 2012 • Acute Toxicity - Inhalation 2 - ATEmix(inhl)=0.49 mg/L (mist)
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2
Skin sensitization	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1A
Respiratory sensitization	EU/CLP • Respiratory Sensitizer 1 OSHA HCS 2012 • Respiratory Sensitizer 1A
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Carcinogenicity 2 OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1

Potential Health Effects

Inhalation

Acute (Immediate)

- Toxic if inhaled. May cause respiratory irritation.

Chronic (Delayed)

- May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin

Acute (Immediate)

- Causes skin irritation. May cause skin sensitization. Symptoms include redness and skin rash.

Chronic (Delayed)	• No data available.
Eye	
Acute (Immediate)	• Causes serious eye irritation.
Chronic (Delayed)	• No data available.
Ingestion	
Acute (Immediate)	• Ingesting large amounts may cause gastrointestinal disturbances including diarrhea, nausea, and vomiting.
Chronic (Delayed)	• No data available.
Other	
Chronic (Delayed)	• Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols.
Carcinogenic Effects	• Repeated and prolonged exposure may cause cancer.

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste	• Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
Packaging waste	• Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
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DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Diphenylmethane diisocyanate	26447-40-5	Yes	Yes	No
Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	No	No	Yes
Polymethylene polyphenyl isocyanate	9016-87-9	No	Yes	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Diphenylmethane diisocyanate	26447-40-5	Yes	No	Yes	Yes	No
Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Yes	No	Yes	Yes	No
Polymethylene polyphenyl isocyanate	9016-87-9	Yes	No	Yes	No	No

Inventory (Con't.)		
Component	CAS	TSCA
Diphenylmethane diisocyanate	26447-40-5	Yes
Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Yes
Polymethylene polyphenyl isocyanate	9016-87-9	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Diphenylmethane diisocyanate 26447-40-5 Not Listed

• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Australia - High Volume Industrial Chemicals List

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	
• Polymethylene polyphenyl isocyanate	9016-87-9	

Australia - List of Designated Hazardous Substances - Classification

• Diphenylmethane diisocyanate	26447-40-5	Xn, Xi Carc.Cat.3 R40, R20, R48/20, R36/37/38, R42/43
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Xn, Xi Carc.Cat.3 R40, R20, R48/20, R36/37/38, R42/43
• Polymethylene polyphenyl isocyanate	9016-87-9	Xn, Xi R20, R36/37/38, R42

Environment**Australia - National Pollutant Inventory (NPI) Substance List**

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	10 tonne/yr Threshold category 1
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Australia - Priority Existing Chemical Program

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Candidate chemical
• Polymethylene polyphenyl isocyanate	9016-87-9	Candidate chemical

Belgium**Labor****Belgium - Substances and Preparations - Carcinogens and Mutagens**

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Bulgaria**Environment****Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour**

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	D1A, D2A, D2B
• Polymethylene polyphenyl isocyanate	9016-87-9	D1A, D2A, D2B

Canada - WHMIS - Ingredient Disclosure List

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	0.1 %
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Environment

Canada - 2004 NPRI (National Pollutant Release Inventory)

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Part 1, Group 1 Substance
• Polymethylene polyphenyl isocyanate	9016-87-9	Part 1, Group 1 Substance

Canada - 2005 NPRI (National Pollutant Release Inventory)

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Part 1, Group 1 Substance
• Polymethylene polyphenyl isocyanate	9016-87-9	Part 1, Group 1 Substance

Canada - CEPA - Greenhouse Gases Subject to Mandatory Reporting

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Canada - CEPA - Priority Substances List

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Canada - DWQ (Drinking Water Quality) - IMACs

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Other

Canada - Accelerated Reduction/Elimination of Toxics (ARET)

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Canada New Brunswick

Environment

Canada - New Brunswick - Ozone Depleting Substances - Schedule A

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
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• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

• Diphenylmethane diisocyanate	26447-40-5	Binders (listed under Certain isocyanates); Curing agents (listed under Certain isocyanates); Glues (listed under Certain isocyanates); Paints (listed under Certain isocyanates); Coatings (listed under Certain isocyanates); Molding compounds (listed under Certain isocyanates)
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Binders; Curing agents; Glues; Paints; Coatings; Molding compounds
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• Diphenylmethane diisocyanate	26447-40-5	Xn; R20-48/20 Xi; R36/37/38 Carc.Cat.3; R40 R42/43
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Xn; R20-48/20 Xi; R36/37/38 Carc.Cat.3; R40 R42/43
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Diphenylmethane diisocyanate	26447-40-5	5%≤C: Xi; R:36/37/38 0.1% ≤C: R:42
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	5%≤C: Xi; R:36/37/38 0.1% ≤C: R:42
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Diphenylmethane diisocyanate	26447-40-5	Xn R:20-36/37/38-40-42/43-48/20 S:(1/2)-23-36/37-45
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Xn R:20-36/37/38-40-42/43-48/20 S:(1/2)-23-36/37-45
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Diphenylmethane diisocyanate	26447-40-5	C, 2
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	C, 2
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Diphenylmethane diisocyanate	26447-40-5	S:(1/2)-23-36/37-45
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	S:(1/2)-23-36/37-45
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Environment**Germany - TA Luft - Types and Classes**

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	organic Substance: 5.2.5, Class I
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	0.10 kg/h Mass flow (Class I); 20 mg/m3 Mass concentration (Class I)
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	ID Number 635, hazard class 1 - low hazard to waters
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - Water Classification (VwVwS) - Annex 3

• Diphenylmethane diisocyanate	26447-40-5	ID Number 8322, hazard class 1 - low hazard to waters
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	(listed under Methylene diphenyl diisocyanate)
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	5000 lb final RQ; 2270 kg final RQ
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
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• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs		
• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
U.S. - CERCLA/SARA - Section 313 - Emission Reporting		
• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)
• Polymethylene polyphenyl isocyanate	9016-87-9	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)
U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing		
• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H330 - Fatal if inhaled
- H332 - Harmful if inhaled

Revision Date

- 19/January/2018

Preparation Date

- 17/February/2011

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company, LLC assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **XR Stick™ Adhesive Part 2**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Skin Irritation 2 - H315
Eye Irritation 2 - H319

DSD/DPD • Irritant (Xi)
R36/38

2.2 Label Elements

CLP

WARNING

Hazard statements • H315 - Causes skin irritation
H319 - Causes serious eye irritation

Precautionary statements

Prevention • P264 - Wash thoroughly after handling.
P280 - Wear eye/face protection , .
P280 - Wear protective gloves .

Response • P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P362 - Take off contaminated clothing and wash before reuse.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P321 - Specific treatment, see supplemental first aid information.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.

DSD/DPD

Risk phrases • R36/38 - Irritating to eyes and skin.

Safety phrases • S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Skin Irritation 2
Eye Irritation 2

2.2 Label elements

OSHA HCS 2012

WARNING

Hazard statements • Causes skin irritation
Causes serious eye irritation

Precautionary statements

- Prevention** • Wash thoroughly after handling.
Wear eye/face protection , .
Wear protective gloves .
- Response** • If on skin: Wash with plenty of water.
Take off contaminated clothing and wash before reuse.
If skin irritation occurs: Get medical advice/attention.
Specific treatment, see supplemental first aid information.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

- OSHA HCS 2012**
- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Toxic - D1B
Other Toxic Effects - D2B

2.2 Label elements**WHMIS****WHMIS**

- Toxic - D1B
Other Toxic Effects - D2B

2.3 Other hazards**WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients**3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Polyether triol	CAS:9082-00-2	< 40%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Diethylene glycol	CAS:111-46-6 EC Number:203-872-2 EU Index:603-140-00-6	< 20%	NDA	EU DSD/DPD: Annex VI, Table 3.2: Xn; R22 EU CLP: Annex VI, Table 3.1: Acute Tox. 4, H302 OSHA HCS 2012: Eye Irrit. 2	NDA
Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	CAS:6846-50-0 EC Number:229-934-9	< 15%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Polypropylene glycol	CAS:25322-69-4	< 15%	Ingestion/Oral-Rat LD50 • >2 g/kg	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Propanol, oxybis-	CAS:25265-71-8 EC Number:	< 10%	Ingestion/Oral-Rat LD50 • 16000 mg/kg	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA

Section 4 - First Aid Measures**4.1 Description of first aid measures****Inhalation**

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- Wash skin with soap and water. If irritation develops and persists, get medical attention.

- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion**
- Rinse mouth. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- Water, foam, dry chemical, carbon dioxide (CO₂).

- Unsuitable Extinguishing Media**
- Do not use a direct stream of water.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Decomposition products may cause a health hazard.

- Hazardous Combustion Products**
- Fumes, smoke, carbon monoxide and carbon dioxide may form when heated to decomposition.

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA).
SMALL FIRES: Move containers from fire area if you can do it without risk.
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Wear appropriate personal protective equipment. Know and prepare for spill response before using or handling this product. Do not walk through spilled material. Avoid contact with skin and eyes. Keep unauthorized personnel away.
- Emergency Procedures**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Keep out of low areas. Stay upwind.

6.2 Environmental precautions

- Prevent entry into waterways and sewers.

6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- SMALL SPILL: Dike area to contain spill. Recover spilled material on absorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal.
LARGE SPILL: Dike and contain spill with inert material (e.g. sand, earth). Transfer liquids to covered and labeled containers for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Wear appropriate personal protective equipment, avoid direct contact. Do not breathe vapors. Use only in well ventilated areas. Avoid contact with skin and eyes. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Prevent water or moist air from entering container. Empty containers must not be washed and re-used for any purpose.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place. Keep container tightly closed. Prevent water or moist air from entering container.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines				
	Result	Denmark	Germany DFG	Germany TRGS
Propanol, oxybis- (25265-71-8)	TWAs	Not established	Not established	100 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, inhalable fraction, exposure factor 2)
	Ceilings	Not established	200 mg/m ³ Peak (inhalable fraction)	Not established
	MAKs	Not established	100 mg/m ³ TWA MAK (inhalable fraction)	Not established
Diethylene glycol (111-46-6)	TWAs	2.5 ppm TWA; 11 mg/m ³ TWA	Not established	10 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4); 44 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4)
	Ceilings	Not established	40 ppm Peak; 176 mg/m ³ Peak	Not established
	MAKs	Not established	10 ppm TWA MAK; 44 mg/m ³ TWA MAK	Not established

Exposure Control Notations

Germany TRGS

- Propanol, oxybis- (25265-71-8): **Skin:** (skin notation)

Germany DFG

- Diethylene glycol (111-46-6): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)
- Propanol, oxybis- (25265-71-8): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation (inhalable fraction))

8.2 Exposure controls

Engineering Measures/Controls

- This adhesive is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure

limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate chemical resistant clothing and chemical resistant gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Red liquid with a mildly sweet odor.
Color	Red	Odor	Mild sweet.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 1.019 Water=1	Density	8.5 lbs/gal
Water Solubility	Data lacking	Viscosity	390 to 530 Centipoise (cPs, cP) or mPas
Explosive Properties	Data lacking	Oxidizing Properties:	Data lacking
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	VOC (Vol.)	11 g/L EPA Method 24 VOC
Flammability			
Flash Point	190.6 °C(375.08 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- High temperatures.

10.5 Incompatible materials

- Alkali or alkaline earth metals, strong acids, copper, brass, elastomers.

10.6 Hazardous decomposition products

- Decomposition will not occur if handled and stored properly. Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Polyether triol (< 40%)	9082-00-2	Acute Toxicity: Ingestion/Oral-Rat LD50 • >10 g/kg; Skin-Rabbit LD50 • >5 g/kg
Diethylene glycol (< 20%)	111-46-6	Acute Toxicity: Skin-Rabbit LD50 • 11890 mg/kg; Irritation: Eye-Rabbit • 50 mg • Mild irritation; Reproductive: Ingestion/Oral-Rat TDLo • 76420 mg/kg (6-15D preg); <i>Reproductive Effects: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus)</i>
Polypropylene glycol (< 15%)	25322-69-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • >2 g/kg; Irritation: Eye-Rabbit • 500 mg • Mild irritation
Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3- (< 15%)	6846-50-0	Irritation: Skin-Human • 1 % 3 Week(s)-Intermittent • Mild irritation
Propanol, oxybis- (< 10%)	25265-71-8	Acute Toxicity: Ingestion/Oral-Rat LD50 • 14850 mg/kg; Skin-Rabbit • >5000 mg/kg

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

- Acute (Immediate)** • May cause irritation.
- Chronic (Delayed)** • No data available

Skin

- Acute (Immediate)** • Causes skin irritation.
- Chronic (Delayed)** • No data available

Eye

- Acute (Immediate)** • Causes serious eye irritation.
- Chronic (Delayed)** • No data available

Ingestion

- Acute (Immediate)** • Although swallowing this product is an unlikely means of exposure, irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.
- Chronic (Delayed)** • No data available

Key to abbreviations

LD = Lethal Dose

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**SARA Hazard Classifications**

- Acute

State Right To Know				
Component	CAS	MA	NJ	PA
Diethylene glycol	111-46-6	No	No	Yes
Polyether triol	9082-00-2	No	No	No
Polypropylene glycol	25322-69-4	No	No	No
Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	No	No	No
Propanol, oxybis-	25265-71-8	No	No	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Diethylene glycol	111-46-6	Yes	No	Yes	No	Yes
Polyether triol	9082-00-2	Yes	No	No	No	Yes
Polypropylene glycol	25322-69-4	Yes	No	No	No	Yes
Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Yes	No	Yes	No	Yes

Propanol, oxybis-	25265-71-8	Yes	No	Yes	No	Yes
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Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	D1B
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
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• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Xn; R22
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Xn R:22 S:(2)-46
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	S:(2)-46
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany

Labor**Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Environment**Germany - TA Luft - Types and Classes**

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed

• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Gases		
• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
Germany - TA Luft - Emission Limits for Organic Substances		
• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	ID Number 79, hazard class 1 - low hazard to waters
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	ID Number 6988, hazard class 1 - low hazard to waters
• Polypropylene glycol	25322-69-4	ID Number 6988, hazard class 1 - low hazard to waters
Germany - Water Classification (VwVwS) - Annex 3		
• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	ID Number 5152, hazard class 1 - low hazard to waters
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	ID Number 3419, hazard class 1 - low hazard to waters
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed

• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

United States - California

Environment**U.S. - California - Proposition 65 - Carcinogens List**

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-	6846-50-0	Not Listed
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• Diethylene glycol	111-46-6	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Polyether triol	9082-00-2	Not Listed
• Polypropylene glycol	25322-69-4	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H302 - Harmful if swallowed
- R22 - Harmful if swallowed.

Revision Date

- 19/January/2018

Preparation Date

- 26/August/2014

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name** | **FiberTop™ Roof Insulation****Synonyms** | FiberTop™ Roof Insulation B, FiberTop™ Roof Insulation C, and FiberTop™ Roof Insulation E**1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified use(s)** | Construction**1.3 Details of the supplier of the safety data sheet****Manufacturer** | Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States**Telephone (General)** | firestonemsds@bfdp.com
800-428-4442**1.4 Emergency telephone number****Manufacturer** | (800) 424-9300 - CHEMTREC**Manufacturer** | (703) 527-3887 - CHEMTREC - International**Section 2: Hazards Identification****EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP** | Skin Irritation 2 - H315
Carcinogenicity 1A - H350
Specific Target Organ Toxicity Repeated Exposure 1 - H372
DSD/DPD | Carcinogenic Substances - Category 1
Toxic (T)
R45, R48/23**2.2 Label Elements****CLP****DANGER****Hazard statements** | H315 - Causes skin irritation
H350 - May cause cancer.

H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention | P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves .
P281 - Use personal protective equipment as required.

Response | P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P362 - Take off contaminated clothing and wash before reuse.
P321 - Specific treatment, see supplemental first aid information.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.

Storage/Disposal | P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



Risk phrases | R45 - May cause cancer.
R48/23 - Toxic: danger of serious damage to health by prolonged exposure through inhalation.

Safety phrases | S37 - Wear suitable gloves.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S53 - Avoid exposure - obtain special instructions before use.

2.3 Other Hazards

CLP | May form combustible dust concentrations in air.
According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD | May form combustible dust concentrations in air.
According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 | Skin Irritation 2 - H315
Carcinogenicity 1A - H350
Specific Target Organ Toxicity Repeated Exposure 1 - H372
Combustible Dust

2.2 Label elements

OSHA HCS 2012

DANGER



Hazard statements | Causes skin irritation - H315
May cause cancer. - H350
Causes damage to organs through prolonged or repeated exposure. - H372
May form combustible dust concentrations in air.

Precautionary statements

- Prevention** | Obtain special instructions before use. - P201
 Do not handle until all safety precautions have been read and understood. - P202
 Do not breathe dust. - P260
 Wash thoroughly after handling. - P264
 Do not eat, drink or smoke when using this product. - P270
 Wear protective gloves, clothing, and eye/face protection, - P280
 Use personal protective equipment as required. - P281
- Response** | If on skin: Wash with plenty of water.
 Take off contaminated clothing and wash before reuse. - P362
 Specific treatment, see supplemental first aid information. - P321
 If skin irritation occurs: Get medical advice/attention. - P332+P313
 IF exposed or concerned: Get medical advice/attention. - P308+P313
 Get medical advice/attention if you feel unwell. - P314
- Storage/Disposal** | Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

2.3 Other hazards

- OSHA HCS 2012** | Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

- WHMIS** | Other Toxic Effects - D2A
 Other Toxic Effects - D2B

2.2 Label elements

WHMIS



- | Other Toxic Effects - D2A
 Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- | May form combustible dust concentrations in air.
 In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- | Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments

Cellulose	CAS: 9004-34-6 EINECS: 232-674-9	75% TO 98%	Ingestion/Oral-Rat LD50 • >5 g/kg Inhalation-Rat LC50 • >5800 mg/m ³ 4 Hour(s) Skin-Rabbit LD50 • >2 g/kg	EU DSD/DPD: Self Classified: Carc. Cat. 1; R45; T; R48/23 EU CLP: Self Classified: Carc. 1A, H350; STOT RE 1, H372 OSHA HCS 2012: Carc. 1A; STOT RE 1 (Lungs); Comb. Dust	NDA
Asphalt	CAS: 8052-42-4 EINECS: 232-490-9	< 13%	Ingestion/Oral-Rat LD50 • >5000 mg/kg Inhalation-Rat LC50 • >94.4 mg/m ³	EU DSD/DPD: Self Classified: Xi; R38 EU CLP: Self Classified: Skin Irrit. 2, H315 OSHA HCS 2012: Skin Irrit. 2	NDA
Pitch	CAS: 68187-58-6 EINECS: 269-110-6	< 10%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation** | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- Skin** | Wash skin with soap and water. If irritation develops and persists, get medical attention.
- Eye** | In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion** | Do NOT induce vomiting. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- | Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician** | All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media** | In case of fire use media as appropriate for surrounding fire.

- Unsuitable Extinguishing Media** | None known.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards** | Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Smoldering materials may reignite. A fire watch should be maintained for extinguished materials.

- Hazardous Combustion Products** | Burning may produce irritating fumes and gases, black smoke, carbon dioxide, carbon monoxide, sulfur oxides and hydrogen sulfide.

5.3 Advice for firefighters

- | Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions** | Ventilate enclosed areas. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Emergency Procedures** | ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind.

6.2 Environmental precautions

- | Prevent entry into waterways and sewers.

6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures** | Avoid generating dust.
Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
Sweep up while carefully monitoring dust concentrations in the air or vacuum using vacuum equipped with a HEPA filter.

6.4 Reference to other sections

- | Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

- Handling** | Use only with adequate ventilation. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat, sparks, and flame. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe dust. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

- Storage** | Keep container closed. Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- | Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Australia	Belgium	Canada Alberta	Canada British Columbia
Asphalt (8052-42-4)	TWAs	0.5 mg/m ³ TWA (fume, inhalable fraction, as benzene soluble aerosol)	5 mg/m ³ TWA (fume)	5 mg/m ³ TWA (fume)	5 mg/m ³ TWA (Petroleum; Bitumen, fume)	0.5 mg/m ³ TWA (inhalable fume, as Benzene-soluble aerosol)
Cellulose (9004-34-6)	TWAs	10 mg/m ³ TWA	10 mg/m ³ TWA (containing no asbestos and <1% crystalline silica, inhalable dust)	10 mg/m ³ TWA	10 mg/m ³ TWA	10 mg/m ³ TWA (total dust); 3 mg/m ³ TWA (respirable fraction)

Exposure Limits/Guidelines (Con't.)						
	Result	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut
Asphalt (8052-42-4)	TWAs	0.5 mg/m3 TWA (fume, inhalable fraction, as Benzene soluble aerosol)	5 mg/m3 TWA (petroleum fumes)	5 mg/m3 TWA (Petroleum fumes)	0.5 mg/m3 TWA (fume, inhalable fraction, as Benzene soluble aerosol)	5 mg/m3 TWA (Petroleum fumes)
	STELs	Not established	Not established	10 mg/m3 STEL (Petroleum fumes)	Not established	10 mg/m3 STEL (Petroleum fumes)
Cellulose (9004-34-6)	TWAs	10 mg/m3 TWA	10 mg/m3 TWA	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	10 mg/m3 TWA	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Ontario	Canada Quebec	Canada Saskatchewan	Canada Yukon	China
Asphalt (8052-42-4)	STELs	Not established	Not established	Not established	10 mg/m3 STEL (fume)	12.5 mg/m3 STEL (fume, as Benzene soluble matter)
	TWAs	0.5 mg/m3 TWA (fume, inhalable, as Benzene-soluble aerosol)	5 mg/m3 TWAEV (fume)	0.5 mg/m3 TWA (fume and inhalable fraction, as Benzene soluble aerosol)	5 mg/m3 TWA (fume)	5 mg/m3 TWA (fume, as Benzene soluble matter)
Cellulose (9004-34-6)	STELs	Not established	Not established	Not established	20 mg/m3 STEL	20 mg/m3 STEL
	TWAs	10 mg/m3 TWA	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust)	10 mg/m3 TWA	30 mppcf TWA; 10 mg/m3 TWA	10 mg/m3 TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Denmark	NIOSH		OSHA	
Asphalt (8052-42-4)	TWAs	1 mg/m3 TWA (Cyclohexane fraction of total dust, fume)	Not established		Not established	
	Ceilings	Not established	5 mg/m3 Ceiling (fume, 15 min)		Not established	
Cellulose (9004-34-6)	TWAs	Not established	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)		15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	

Exposure Control Notations

ACGIH

•Asphalt (8052-42-4): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free))

Germany DFG

•Asphalt (8052-42-4): **Carcinogens:** (Category 2 (considered to be carcinogenic for man, aerosol and vapour)) | **Skin:** (skin notation (aerosol and vapour))

Exposure Limits Supplemental

ACGIH

•Cellulose (9004-34-6): **TLV Basis - Critical Effects:** (upper respiratory tract irritation)

•Asphalt (8052-42-4): **BEIs:** (Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)) |

TLV Basis - Critical Effects: (eye and upper respiratory tract irritation (fume))

8.2 Exposure controls

Engineering Measures/Controls

- | This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- | Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- | Wear appropriate gloves.

Environmental Exposure Controls

- | Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

OSHA = Occupational Safety and Health Administration

TWAEV = Time-Weighted Average Exposure Value

STEL = Short Term Exposure Limits are based on 15-minute exposures

BEI = Biological Exposure Indices

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Brown/black solid wood, rigid board with resinous wood odor.
Color	Brown/Black	Odor	Resinous wood.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	Variable	Water Solubility	Insoluble Weakens upon exposure to water
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	40 g/cm ³ for wood dust	Autoignition	399.2 to 500 F(204 to 260 C) for wood
Flammability (solid, gas)	Combustible		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

┆ No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

┆ No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

┆ Stable

10.3 Possibility of hazardous reactions

┆ Hazardous polymerization will not occur.

10.4 Conditions to avoid

┆ Avoid generating dust. Keep away from heat, sparks and flame.

10.5 Incompatible materials

┆ Solvents or solvent-based adhesives. Oxidizing agents and drying oils.

10.6 Hazardous decomposition products

┆ Burning can produce irritating and potentially toxic fumes and gases, black smoke, carbon dioxide, carbon monoxide, sulfur oxides and hydrogen sulfide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Cellulose (75% TO 98%)	9004-34-6	Acute Toxicity: Inhalation-Rat LC50 • >5800 mg/m ³ 4 Hour(s); Skin-Rabbit LD50 • >2 g/kg
Asphalt (< 13%)	8052-42-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5000 mg/kg; <i>Gastrointestinal:Hypermotility, diarrhea</i> ; Inhalation-Rat LC50 • >94.4 mg/m ³ ; Mutagen: Micronucleus test • Unreported Route-Rat • Other Cell Type • 57.8 µg/L; Tumorigen / Carcinogen: Skin-Mouse TDLo • 905 g/kg 2 Year(s)-Intermittent; <i>Tumorigenic:Neoplastic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors; Skin and Appendages:Other:Tumors</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Carcinogenicity 1A OSHA HCS 2012 • Carcinogenicity 1A
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 1 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

- Acute (Immediate)** | Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.
- Chronic (Delayed)** | Prolonged exposure to the dust may cause wheezing, chest tightness, productive cough nasal irritation and symptoms of chronic respiratory disease.

Skin

- Acute (Immediate)** | Causes skin irritation.
- Chronic (Delayed)** | No data available.

Eye

- Acute (Immediate)** | Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.
- Chronic (Delayed)** | No data available.

Ingestion

- Acute (Immediate)** | Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.
- Chronic (Delayed)** | No data available

Carcinogenic Effects

- | May cause cancer. This product contains petroleum asphalt. Asphalt fumes arise from hot asphalt. Asphalt fumes (CAS # 8052-42-4): In 1985/87, IARC (International Agency for Research on Cancer) concluded the following: (a) Bitumens are not classifiable as to their carcinogenicity to humans (Group 3). (b) Extracts of steam- and air-refined bitumens are possibly carcinogenic to humans (Group 2B). IARC found that evidence for carcinogenicity from animal studies was: inadequate for undiluted air-refined bitumens; limited for steam-refined and cracking residue bitumens; sufficient for extracts of steam-refined and air-refined bitumen. IARC found that human evidence for carcinogenicity of asphalt fumes was inadequate. Studies of roofers indicated an excess of cancers; however, IARC concluded that, since roofers may be exposed also to coal-tar pitches and other materials, "the excess cancer risk cannot be attributed specifically to bitumens." In 1994, a published review of 20 epidemiology studies of asphalt workers and roofers agreed with IARC, that current human evidence is inadequate for the carcinogenicity of asphalt fumes in humans. Trace amounts of polynuclear aromatic hydrocarbons (PAHs) may be present in some asphalts and can be released upon excessive heating, which results in thermal cracking of the asphalt compounds. Some of these PAHs have been identified as having the potential to induce carcinogenic and reproductive health effects.

Carcinogenic Effects		
	CAS	IARC
Asphalt	8052-42-4	Group 2B-Possible Carcinogen

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

| Material data lacking.

12.2 Persistence and degradability

| Material data lacking.

12.3 Bioaccumulative potential

| Material data lacking.

12.4 Mobility in Soil

| Material data lacking.

12.5 Results of PBT and vPvB assessment

| PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

| No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

| Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

| Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

| None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

| Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications | Acute, Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Asphalt	8052-42-4	Yes	Yes	Yes
Cellulose	9004-34-6	Yes	Yes	Yes
Pitch	68187-58-6	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Asphalt	8052-42-4	Yes	No	Yes	Yes	No
Cellulose	9004-34-6	Yes	No	Yes	Yes	No
Pitch	68187-58-6	Yes	No	Yes	Yes	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
Asphalt	8052-42-4	Yes	Yes	Yes
Cellulose	9004-34-6	Yes	Yes	Yes
Pitch	68187-58-6	Yes	Yes	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Australia - High Volume Industrial Chemicals List

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	
• Pitch	68187-58-6	Not Listed

Australia - List of Designated Hazardous Substances - Classification

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Self classification required (petroleum fumes)
• Pitch	68187-58-6	Not Listed

Environment

Australia - National Pollutant Inventory (NPI) Substance List

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Australia - Priority Existing Chemical Program

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Belgium**Labor****Belgium - Substances and Preparations - Carcinogens and Mutagens**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Bulgaria**Environment****Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Canada**Labor****Canada - WHMIS - Classifications of Substances**

• Cellulose	9004-34-6	Uncontrolled product according to WHMIS classification criteria (including microcrystalline and paper fibers)
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Environment**Canada - CEPA - Priority Substances List**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

China

Other**China - Annex I & II - Controlled Chemicals Lists**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Denmark**Environment****Denmark - List of Undesirable Substances - Product Groups/Function**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Environment**Germany - TA Luft - Types and Classes**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	ID Number 326, not considered hazardous to water
• Pitch	68187-58-6	Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - Water Classification (VwVwS) - Annex 3

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed

• Pitch	68187-58-6	Not Listed
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United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

15.2 Chemical Safety Assessment

| No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date | 23/December/2014

Preparation Date | 09/February/2009

Disclaimer/Statement of Liability | The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility

for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • HailGard™ Polyiso Insulation

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP**

- Skin Sensitization 1 - H317
- Respiratory Sensitization 1 - H334
- Carcinogenicity 1A - H350
- Specific Target Organ Toxicity Repeated Exposure 1 - H372

DSD/DPD

- Irritant (Xi)
- Toxic (T)
- Carcinogenic Substances - Category 1
- R42/43, R45, R48/23

2.2 Label Elements**CLP****DANGER**

Hazard statements • H317 - May cause an allergic skin reaction
• H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
• H350 - May cause cancer.
• H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention** • P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P260 - Do not breathe dust.
 P264 - Wash thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P272 - Contaminated work clothing should not be allowed out of the workplace.
 P281 - Use personal protective equipment as required.
 P285 - In case of inadequate ventilation wear respiratory protection.

- Response** • P304+P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P363 - Wash contaminated clothing before reuse.
 P321 - Specific treatment, see supplemental first aid information.
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P308+P313 - IF exposed or concerned: Get medical advice/attention.

- Storage/Disposal** • P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases** • R42/43 - May cause sensitisation by inhalation and skin contact.
 R45 - May cause cancer.
 R48/23 - Toxic: danger of serious damage to health by prolonged exposure through inhalation.

- Safety phrases** • S37 - Wear suitable gloves.
 S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S53 - Avoid exposure - obtain special instructions before use.

2.3 Other Hazards

- CLP**
- May form combustible dust concentrations in air.
According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- May form combustible dust concentrations in air.
According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Skin Sensitization 1
 - Respiratory Sensitization 1
 - Carcinogenicity 1A
 - Specific Target Organ Toxicity Repeated Exposure 1
 - Combustible Dust

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- May cause an allergic skin reaction
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 - May cause cancer.
 - Causes damage to organs through prolonged or repeated exposure.
 - May form combustible dust concentrations in air.

Precautionary statements

- Prevention**
- Obtain special instructions before use.
 - Do not handle until all safety precautions have been read and understood.
 - Do not breathe dust.
 - Wash thoroughly after handling.
 - Do not eat, drink or smoke when using this product.
 - Contaminated work clothing should not be allowed out of the workplace.
 - Wear protective gloves, clothing, and eye/face protection.
 - In case of inadequate ventilation wear respiratory protection.
- Response**
- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
 - If on skin: Wash with plenty of water.
 - Wash contaminated clothing before reuse.
 - Specific treatment, see supplemental first aid information.
 - If skin irritation or rash occurs: Get medical advice/attention.
 - IF exposed or concerned: Get medical advice/attention.
- Storage/Disposal**
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS

- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- May form combustible dust concentrations in air.
- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Wood	NDA	N/A	NDA	EU DSD/DPD: R42/43; Carc. Cat. 1; R45; T; R48/23; EU CLP: Carc. 1A, H350; STOT RE 1 (Lungs), H372; Resp. Sens. 1, H334; Skin Sens. 1, H317; OSHA HCS 2012: Comb. Dust; Carc. 1A; STOT RE 1 (Lungs); Resp. Sens. 1; Skin Sens. 1;	NDA
Polymethylene polyphenyl isocyanate	CAS: 9016-87-9	N/A	Ingestion/Oral-Rat LD50 • 49 g/kg Inhalation-Rat LC50 • 490 mg/m ³ 4 Hour(s) Skin-Rabbit LD50 • >9400 mg/kg	EU DSD/DPD: Xn; R20-48/20; Xn; R42/43; Xi; R36/37/38; Carc. Cat. 3; R40 EU CLP: STOT RE 2, H373; Eye Irrit. 2, H319; STOT SE 3: Resp. Irrit., H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; Carc. 2, H351; Acute Tox. 2 (inhl, mist), H330 OSHA HCS 2012: Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1A; STOT SE 3: Resp. Irrit; Resp. Sens. 1A; STOT RE 1 (Lungs); Acute Tox. 2 (inhl, mist)	NDA
Phenol, polymer with formaldehyde	CAS: 9003-35-4	N/A	Ingestion/Oral-Rat LD50 • >5 g/kg	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Paraffin	CAS: 8002-74-2 EC Number: 232-315-6	N/A	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Eye Irrit. 2	NDA
ISO 95+™ GL (Flat and Tapered), ISO 95+™ CAN	NDA	N/A	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Pentane [0.05% TO 5.5%]	CAS: 109-66-0 EC Number: 203-692-4 EU Index: 601-006-00-1	N/A	Inhalation-Rat LC50 • 364 g/m ³ 4 Hour(s) Ingestion/Oral-Rat LD50 • >2000 mg/kg	EU DSD/DPD: Annex VI, Table 3.2: F+; R12; N; R51-53; Xn; R65; R66; R67; EU CLP: Annex VI, Table 3.1: Flam. Liq. 2, H225; Asp. Tox. 1, H304; STOT SE 3: Narc., H336; Aquatic Chronic 2, H411; OSHA HCS 2012: Flam. Liq. 1; Asp. Tox. 1; Eye Irrit. 2; Skin Irrit. 2; STOT SE 3: Narc.;	NDA
Glass, oxide, chemicals [< 11%]	CAS: 65997-17-3 EC Number: 266-046-0	N/A	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
2-Propanol, 1-chloro-, 2,2',2"-phosphate [< 5%]	CAS: 13674-84-5 EC Number: 237-158-7	N/A	Ingestion/Oral-Rat LD50 • 1500 mg/kg	EU DSD/DPD: Xn; R22 EU CLP: Acute Tox. 4, H302; OSHA HCS 2012: Acute Tox. 4 (orl)	NDA
2-Methylbutane (In Liquid form) [4.5% TO 9.9%]	CAS: 78-78-4 EC Number: 201-142-8 EU Index: 601-085-00-2	N/A	Inhalation-Rat LC50 • 280000 mg/m ³ 4 Hour(s)	EU DSD/DPD: Annex VI, Table 3.2: R12; N; R51-53; Xn; R65; R66; R67 EU CLP: Annex VI, Table 3.1: Flam. Liq. 1, H224; Asp. Tox. 1, H304; STOT SE 3, H336; Aquatic Chronic 2, H411; EUH066 OSHA HCS 2012: Flam Liq 1; Eye Irrit 2, Skin Irrit 2, STOT SE 3: Resp. Irrit. & Narc., Asp. Tox. 1;	NDA

See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none"> • IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none"> • Wash skin with soap and water. If irritation develops and persists, get medical attention. |
| Eye | <ul style="list-style-type: none"> • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention. |
| Ingestion | <ul style="list-style-type: none"> • Do NOT induce vomiting. Get medical attention immediately. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> • All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|---|
| Suitable Extinguishing Media | <ul style="list-style-type: none"> • LARGE FIRE: Water spray, fog or regular foam. • SMALL FIRES: Dry chemical, CO2, water spray or regular foam. |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"> • None known. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|---|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none"> • Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Burning of this product will produce thick black smoke. Toxic fumes and vapors may be produced. |
| Hazardous Combustion Products | <ul style="list-style-type: none"> • Carbon dioxide and carbon monoxide, phosphorus oxides, and phosphoric acid. |

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|---|
| Personal Precautions | <ul style="list-style-type: none"> • Ventilate enclosed areas. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. |
| Emergency Procedures | <ul style="list-style-type: none"> • ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. |

6.2 Environmental precautions

- Prevent entry into waterways and sewers.

6.3 Methods and material for containment and cleaning up

- | | |
|--------------------------------------|--|
| Containment/Clean-up Measures | <ul style="list-style-type: none"> • Avoid generating dust. Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. |
|--------------------------------------|--|

Sweep up while carefully monitoring dust concentrations in the air or vacuum using vacuum equipped with a HEPA filter.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only with adequate ventilation. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat, sparks, and flame. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe dust. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container closed. Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Australia	Belgium	Canada Alberta	Canada British Columbia
Paraffin (8002-74-2)	TWAs	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)
Polymethylene polyphenyl isocyanate (9016-87-9)	TWAs	Not established	Not established	Not established	0.005 ppm TWA; 0.07 mg/m3 TWA	Not established
Pentane (109-66-0)	STELs	Not established	750 ppm STEL; 2210 mg/m3 STEL	750 ppm STEL; 2250 mg/m3 STEL	Not established	Not established
	TWAs	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1770 mg/m3 TWA	600 ppm TWA; 1800 mg/m3 TWA	600 ppm TWA; 1770 mg/m3 TWA	600 ppm TWA (listed under Pentane, all isomers)
2-Methylbutane (In Liquid form) (78-78-4)	STELs	Not established	Not established	750 ppm STEL (as Pentane); 2250 mg/m3 STEL (as Pentane)	Not established	Not established
	TWAs	600 ppm TWA (listed under Pentane, all isomers)	Not established	600 ppm TWA (as Pentane); 1800 mg/m3 TWA (as Pentane)	600 ppm TWA; 1770 mg/m3 TWA	600 ppm TWA (listed under Pentane, all isomers)
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut
Paraffin (8002-74-2)	TWAs	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)
	STELs	Not established	Not established	6 mg/m3 STEL (fume)	Not established	6 mg/m3 STEL (fume)

Pentane (109-66-0)	TWAs	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1770 mg/m3 TWA	600 ppm TWA; 1771 mg/m3 TWA	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1771 mg/m3 TWA
	STELs	Not established	750 ppm STEL; 2210 mg/m3 STEL	750 ppm STEL; 2213 mg/m3 STEL	Not established	750 ppm STEL; 2213 mg/m3 STEL
2-Methylbutane (In Liquid form) (78-78-4)	TWAs	600 ppm TWA (listed under Pentane, all isomers)	Not established	Not established	600 ppm TWA (listed under Pentane, all isomers)	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Ontario	Canada Quebec	Canada Saskatchewan	Canada Yukon	China
Paraffin (8002-74-2)	STELs	Not established	Not established	Not established	6 mg/m3 STEL (fume)	4 mg/m3 STEL (fume)
	TWAs	2 mg/m3 TWA (fume)	2 mg/m3 TWA EV (fume)	2 mg/m3 TWA	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)
Pentane (109-66-0)	STELs	Not established	Not established	Not established	750 ppm STEL; 2250 mg/m3 STEL	1000 mg/m3 STEL (listed under Pentane (all isomers))
	TWAs	600 ppm TWA	120 ppm TWA EV; 350 mg/m3 TWA EV	600 ppm TWA	600 ppm TWA; 1800 mg/m3 TWA	500 mg/m3 TWA (listed under Pentane (all isomers))
2-Methylbutane (In Liquid form) (78-78-4)	STELs	Not established	Not established	Not established	Not established	1000 mg/m3 STEL (listed under Pentane (all isomers))
	TWAs	600 ppm TWA (listed under Pentane, all isomers)	Not established	600 ppm TWA (listed under Pentane, all isomers)	Not established	500 mg/m3 TWA (listed under Pentane (all isomers))
Exposure Limits/Guidelines (Con't.)						
	Result	Cyprus	Denmark	Europe	Germany DFG	Germany TRGS
Paraffin (8002-74-2)	TWAs	Not established	2 mg/m3 TWA (fume)	Not established	Not established	Not established
Polymethylene polyphenyl isocyanate (9016-87-9)	TWAs	Not established	Not established	Not established	Not established	0.05 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, inhalable fraction, as MDI, exposure factor 1)
	Ceilings	Not established	Not established	Not established	0.05 mg/m3 Peak (inhalable fraction)	Not established
	MAKs	Not established	Not established	Not established	0.05 mg/m3 TWA MAK (inhalable fraction)	Not established
	TWAs	1000 ppm TWA; 3000 mg/m3 TWA	500 ppm TWA; 1500 mg/m3 TWA	1000 ppm TWA; 3000 mg/m3 TWA	Not established	1000 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 3000 mg/m3 TWA AGW

Pentane (109-66-0)						(The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2)
	Ceilings	Not established	Not established	Not established	2000 ppm Peak (listed under Pentane); 6000 mg/m3 Peak (listed under Pentane)	Not established
	MAKs	Not established	Not established	Not established	1000 ppm TWA MAK; 3000 mg/m3 TWA MAK	Not established
2-Methylbutane (In Liquid form) (78-78-4)	TWAs	1000 ppm TWA; 3000 mg/m3 TWA	500 ppm TWA; 1500 mg/m3 TWA	1000 ppm TWA; 3000 mg/m3 TWA	Not established	1000 ppm TWA AGW (exposure factor 2); 3000 mg/m3 TWA AGW (exposure factor 2)
	Ceilings	Not established	Not established	Not established	2000 ppm Peak (listed under Pentane); 6000 mg/m3 Peak (listed under Pentane)	Not established
	MAKs	Not established	Not established	Not established	1000 ppm TWA MAK; 3000 mg/m3 TWA MAK	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	NIOSH		OSHA		
Paraffin (8002-74-2)	TWAs	2 mg/m3 TWA (fume)		Not established		
Pentane (109-66-0)	TWAs	120 ppm TWA; 350 mg/m3 TWA		1000 ppm TWA; 2950 mg/m3 TWA		
	Ceilings	610 ppm Ceiling (15 min); 1800 mg/m3 Ceiling (15 min)		Not established		

Exposure Control Notations

Germany TRGS

- Phenol, polymer with formaldehyde (9003-35-4): **Sensitizers:** (Skin sensitizer (Not cured; May cause sensitization by skin contact; May cause an allergic skin reaction, listed under Substances or substance groups with sufficient scientific evidence showing sensitizing effects))
- Polymethylene polyphenyl isocyanate (9016-87-9): **Carcinogens:** (Category 3 (as inhalable aerosol, alveola fraction)) | **Developmental Toxins:** (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveoli fraction)) | **Reproductive Toxins:** (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveola fraction)) | **Germ Cell Mutagens:** (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveola fraction)) | **Skin:** (skin notation (calculated as MDI))

Germany DFG

- Polymethylene polyphenyl isocyanate (9016-87-9): **Carcinogens:** (Category 4 (no significant contribution to human cancer)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to (inhalable fraction)) | **Sensitizers:** (respiratory and skin sensitizer (inhalable fraction)) | **Skin:** (skin notation)
- Pentane (109-66-0): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)
- 2-Methylbutane (In Liquid form) (78-78-4): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

Exposure Limits Supplemental

ACGIH

- Paraffin (8002-74-2): **TLV Basis - Critical Effects:** (nausea (fume); upper respiratory tract irritation (fume))

- Pentane (109-66-0): **TLV Basis - Critical Effects:** (peripheral neuropathy (listed under Pentane, all isomers)) | **Notice of Intended Changes (TLVs):** (1000 ppm TWA; TLV basis: narcosis, respiratory tract irritation (listed under Pentane, all isomers))
- 2-Methylbutane (In Liquid form) (78-78-4): **TLV Basis - Critical Effects:** (peripheral neuropathy (listed under Pentane, all isomers)) | **Notice of Intended Changes (TLVs):** (1000 ppm TWA; TLV basis: narcosis, respiratory tract irritation (listed under Pentane, all isomers))

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Solid
Color	Data lacking	Odor	Data lacking
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Data lacking
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid generating dust. Keep away from heat, sparks and flame.

10.5 Incompatible materials

- Oxidizing agents.

10.6 Hazardous decomposition products

- Thermal decomposition (i.e. smoldering, burning) can release carbon monoxide, oxides of nitrogen, carbon dioxide, aliphatic aldehydes including formaldehyde, resin acids, terpenes and polycyclic aromatic hydrocarbons. Natural decomposition of organic materials such as wood may produce toxic gases and an oxygen deficient atmosphere in enclosed or poorly ventilated areas.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Phenol, polymer with formaldehyde (N/A)	9003-35-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5 g/kg; Skin-Rat LD50 • >2 g/kg
Polymethylene polyphenyl isocyanate (N/A)	9016-87-9	Acute Toxicity: Ingestion/Oral-Rat LD50 • 49 g/kg; Behavioral:Somnolence (general depressed activity); Gastrointestinal:Hypermotility, diarrhea; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Body temperature decrease; Inhalation-Rat LC50 • 490 mg/m ³ 4 Hour(s); Sense Organs and Special Senses:Eye:Other; Lungs, Thorax, or Respiration:Respiratory depression; Blood:Hemorrhage; Skin-Rabbit LD50 • >9400 mg/kg; Irritation: Eye-Rabbit • 100 mg • Mild irritation; Reproductive: Inhalation-Rat TCLo • 12 mg/m ³ 6 Hour(s)(6-15D preg); Reproductive Effects:Maternal Effects:Other effects; Reproductive Effects:Effects on Embryo or Fetus:Extra embryonic structures; Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system
Paraffin (N/A)	8002-74-2	Irritation: Eye-Rabbit • 100 mg 24 Hour(s) • Mild irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation
Pentane (N/A)	109-66-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • >2000 mg/kg; Inhalation-Rat LC50 • 364 g/m ³ 4 Hour(s)
2-Methylbutane (In Liquid form) (N/A)	78-78-4	Acute Toxicity: Inhalation-Rat LC50 • 280000 mg/m ³ 4 Hour(s)
2-Propanol, 1-chloro-, 2,2',2"-phosphate (N/A)	13674-84-5	Acute Toxicity: Ingestion/Oral-Rat LD50 • 1500 mg/kg; Behavioral:Tremor; Behavioral:Convulsions or effect on seizure threshold

GHS Properties

Classification

Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin sensitization	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1
Respiratory sensitization	EU/CLP • Respiratory Sensitizer 1 OSHA HCS 2012 • Respiratory Sensitizer 1
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Carcinogenicity 1A OSHA HCS 2012 • Carcinogenicity 1A
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 1 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1

Potential Health Effects

Inhalation

Acute (Immediate)

- Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

Chronic (Delayed)

- Prolonged exposure to the dust may cause wheezing, chest tightness, productive cough nasal irritation and symptoms of chronic respiratory disease. Wood dust, depending on the species, may cause respiratory sensitization with prolonged, repetitive contact or exposure to elevated dust levels.

Skin

Acute (Immediate)

- Exposure to dust may cause mechanical irritation. May cause skin sensitization. Symptoms include redness, and skin rash.

Chronic (Delayed)

- No data available.

Eye

Acute (Immediate)

- Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

Chronic (Delayed)

- No data available

Carcinogenic Effects

- May cause cancer. According to its Twelfth Report on Carcinogens NTP states, "many case reports and epidemiological studies (including cohort studies and case-control studies that specifically addressed nasal cancer) have found a strong association between exposure to wood dust and cancer of the nasal cavity. Strong and consistent associations with cancer of the nasal cavity and paranasal sinuses

were observed both in studies of people whose occupations were associated with wood-dust exposure and in studies that directly estimated wood dust exposure." IARC has most recently concluded that "there is sufficient evidence in humans for the carcinogenicity of wood dust. Wood dust causes cancer of the nasal cavity and paranasal sinuses and of the nasopharynx."

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for

- None specified.

user

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Chronic, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
2-Methylbutane (In Liquid form)	78-78-4	Yes	Yes	Yes
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	No	No	No
Glass, oxide, chemicals	65997-17-3	No	No	No
Paraffin	8002-74-2	Yes	Yes	Yes
Pentane	109-66-0	Yes	Yes	Yes
Phenol, polymer with formaldehyde	9003-35-4	No	No	No
Polymethylene polyphenyl isocyanate	9016-87-9	No	Yes	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
2-Methylbutane (In Liquid form)	78-78-4	Yes	No	Yes	Yes	No
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Yes	No	Yes	Yes	No
Glass, oxide, chemicals	65997-17-3	Yes	No	Yes	Yes	No
Paraffin	8002-74-2	Yes	No	Yes	Yes	No
Pentane	109-66-0	Yes	No	Yes	Yes	No
Phenol, polymer with formaldehyde	9003-35-4	Yes	No	Yes	No	No
Polymethylene polyphenyl isocyanate	9016-87-9	Yes	No	Yes	No	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
2-Methylbutane (In Liquid form)	78-78-4	Yes	Yes	Yes
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Yes	Yes	Yes
Glass, oxide, chemicals	65997-17-3	Yes	Yes	Yes

Paraffin	8002-74-2	Yes	Yes	Yes
Pentane	109-66-0	Yes	Yes	Yes
Phenol, polymer with formaldehyde	9003-35-4	Yes	Yes	Yes
Polymethylene polyphenyl isocyanate	9016-87-9	Yes	Yes	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Australia - High Volume Industrial Chemicals List

• Paraffin	8002-74-2	
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Australia - List of Designated Hazardous Substances - Classification

• Paraffin	8002-74-2	Self classification required (fume)
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Xn, Xi R20, R36/37/38, R42
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	F+, Xn, N R12, R65, R66, R67, R51, R53
• 2-Methylbutane (In Liquid form)	78-78-4	F+, Xn, N R12, R65, R66, R67, R51, R53
• Glass, oxide, chemicals	65997-17-3	Not Listed

Environment

Australia - National Pollutant Inventory (NPI) Substance List

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed

• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Australia - Priority Existing Chemical Program

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Candidate chemical
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Belgium**Labor****Belgium - Substances and Preparations - Carcinogens and Mutagens**

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Bulgaria**Environment****Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour**

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	25.0 mg/m3 MAHCL
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	100.0 mg/m3 MAHCL
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Paraffin	8002-74-2	Uncontrolled product according to WHMIS classification criteria
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	D1A, D2A, D2B
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	B2
• 2-Methylbutane (In Liquid form)	78-78-4	B2
• Glass, oxide, chemicals	65997-17-3	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	1 %
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Canada New Brunswick

Environment

Canada - New Brunswick - Ozone Depleting Substances - Schedule A

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

China

Other**China - Annex I & II - Controlled Chemicals Lists**

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Denmark**Environment****Denmark - List of Undesirable Substances - Product Groups/Function**

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Binders; Flame retardants; Insulation materials; Construction materials; Glues; Paints; Coatings; Raw materials; Foaming agents; Fillers
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	F+; R12 N; R51-53 Xn; R65 R66 R67
• 2-Methylbutane (In Liquid form)	78-78-4	F+; R12 N; R51-53 Xn; R65 R66 R67
• Glass, oxide, chemicals	65997-17-3	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed

• Pentane	109-66-0	F+ Xn N R:12-51/53-65-66-67 S:(2)-9-16-29-33-61-62
• 2-Methylbutane (In Liquid form)	78-78-4	F+ Xn N R:12-51/53-65-66-67 S:(2)-9-16-29-33-61-62
• Glass, oxide, chemicals	65997-17-3	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	C
• 2-Methylbutane (In Liquid form)	78-78-4	C
• Glass, oxide, chemicals	65997-17-3	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	S:(2)-9-16-29-33-61-62
• 2-Methylbutane (In Liquid form)	78-78-4	S:(2)-9-16-29-33-61-62
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Paraffin	8002-74-2	Not Listed
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• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Environment

Germany - TA Luft - Types and Classes

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• Paraffin	8002-74-2	ID Number 268, not considered hazardous to water
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	ID Number 452, hazard class 2 - hazard to waters
• 2-Methylbutane (In Liquid form)	78-78-4	ID Number 648, hazard class 2 - hazard to waters
• Glass, oxide, chemicals	65997-17-3	Not Listed

Germany - Water Classification (VwVwS) - Annex 3

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	ID Number 2013, hazard class 1 - low hazard to waters
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	ID Number 2408, hazard class 1 - low hazard to waters
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
		1.0 % de minimis

• Polymethylene polyphenyl isocyanate	9016-87-9	concentration (listed under Chemical Category N120, Diisocyanates)
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Paraffin	8002-74-2	Not Listed
• Phenol, polymer with formaldehyde	9003-35-4	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane (In Liquid form)	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information**Relevant Phrases (code & full text)**

- H224 - Extremely flammable liquid and vapour
- H225 - Highly flammable liquid and vapour
- H302 - Harmful if swallowed
- H304 - May be fatal if swallowed and enters airways
- H319 - Causes serious eye irritation
- H330 - Fatal if inhaled
- H335 - May cause respiratory irritation
- H336 - May cause drowsiness or dizziness
- H373 - May cause damage to organs through prolonged or repeated exposure.

H411 - Toxic to aquatic life with long lasting effects
EUH066 - Repeated exposure may cause skin dryness or cracking.
R12 - Extremely flammable.
R20 - Harmful by inhalation.
R22 - Harmful if swallowed.
R36/37/38 - Irritating to eyes, respiratory system and skin.
R40 - Limited evidence of a carcinogenic effect.
R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R51 - Toxic to aquatic organisms.
R53 - May cause long-term adverse effects in the aquatic environment.
R65 - Harmful: may cause lung damage if swallowed.
R66 - Repeated exposure may cause skin dryness or cracking.
R67 - Vapours may cause drowsiness and dizziness.

Revision Date

- 26/January/2018

Preparation Date

- 30/March/2015

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Firestone Building Products Company, LLC

Material Safety Data Sheet

April 19, 2011

Page: 1

SECTION 1: PRODUCT IDENTIFICATION

Product Name:	ISO 95+
Chemical Name / Synonym:	ISO 95+ Composite, ISO 95+ Nailbase, ISO 95+ Tapered, ISO 95+ GL, ISO 95+ CAN
Chemical Family:	Polyisocyanurate
24-Hour Emergency Phone:	(800) 424-9300 CHEMTREC
Manufacturer's Name:	Firestone Building Products Company, LLC
Manufacturer's Address:	250 West 96 th Street, Indianapolis, IN 46260
NFPA Hazard Rating:	Health 1, Flammability 1, Reactivity 0
HMIS Hazard Rating:	Health 1, Flammability 1, Reactivity 0

SECTION 2: CHEMICAL COMPOSITION

Chemical Name:	Common Name:	CAS #:	% (by wt)	Exposure Limits:
n-Pentane	n-Pentane	109-66-0	0.05-5.5	TLV 600 ppm PEL 1000 ppm
Ethylidimethylmethane	Isopentane	78-78-4	4.5-9.9	TLV 600 ppm PEL 1000 ppm
Tris (monochloropropyl) Phosphate	None	13674-84-5	<5	None Established
Fibrous Glass	Fiberglass	65997-17-3	<11	TLV 1 f/cc TLV 5 mg/m ³ (inhalable)
Nonhazardous as per 29 CFR 1910.1200.	None	None	>71	None Established

SECTION 3: HAZARD IDENTIFICATION

Primary Route of Exposure:	Inhalation
Signs and Symptoms of Exposure:	May cause irritation to the eyes, skin and respiratory tract. Inhalation of high vapor concentrations of pentanes used in this product may cause dizziness, headaches, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.
Medical Conditions Aggravated by Exposure:	The dust produced by reprocessing of this product may aggravate pre-existing respiratory diseases.
Chronic Effects:	This product contains tris(monochloropropyl) phosphate, which may cause skin sensitization.
Carcinogenicity:	Direct implantation of glass fibers into the lung tissue of laboratory animals has produced lung fibrosis and lung cancer. Human epidemiological studies of inhalation exposure have yielded negative results. Continuous filament glass fibers is listed by IARC as a class 3, <i>unclassifiable as to carcinogenicity in humans</i> .

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SECTION 4: FIRST AID MEASURES

First Aid Procedures:	For eyes, hold eyelids open and wash with gentle stream of water for at least 15 minutes preferably at eyewash fountain. For skin contact, wash affected area thoroughly with soap and water when time permits. For inhalation, remove to fresh uncontaminated air.
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SECTION 5: FIRE FIGHTING PROCEDURES

Suitable Extinguishing Media:	Water spray, Alcohol foam, Carbon Dioxide, or Dry chemical.
Hazardous Combustion Products:	Carbon dioxide and carbon monoxide, phosphorus oxides, and phosphoric acid.
Recommended Fire Fighting Procedures:	Wear impermeable protective clothing and self-contained breathing apparatus. Toxic fumes and vapors may be evolved.
Unusual Fire and Explosion Hazards:	Emits dense, black smoke when burned. Certain operations such as grinding or cutting may lead to a buildup of dust suspended in air which can cause a dust explosion if ignited. Provide adequate ventilation and appropriate dust handling systems. Isopentane and n-pentane, highly flammable materials, may be present within this product.

SECTION 6: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled:	None required
Precautions to Be Taken in Handling and Storing:	Keep away from heat, sparks, and open flames. Store in a cool, dry area. Applying to hot surfaces requires special precautions. Protect against dust that may be generated by reprocessing, altering or applying this product. Remove dust by vacuuming rather than blowing.

SECTION 7: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation:	Use in a well-ventilated location.
Respiratory Protection:	During reprocessing, altering, and/or applying this product, a NIOSH respirator may be required based upon the end user's airborne concentration evaluation.
Eye Protection:	Wear safety glasses with side shields when reprocessing, altering and/or applying this product.
Skin Protection:	Wear cotton or leather gloves when handling this product.
Other:	None required.
Work / Hygienic Practices:	Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Wash contaminated clothing prior to reuse.

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SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	White rigid cellular sheets/odorless.		
Flash Point:	Not Applicable	Lower Explosive Limit:	None
Method Used:	Not Applicable	Upper Explosive Limit:	None
Evaporation Rate:	Not Applicable	Boiling Point:	None
pH (undiluted product):	Not Applicable	Melting Point:	Unknown
Solubility in Water:	Insoluble	Specific Gravity:	Unknown
Vapor Density:	Not Applicable	Percent Volatile:	Unknown
Vapor Pressure:	Not Applicable		

SECTION 9: STABILITY AND REACTIVITY

Thermal Stability:	Stable
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	None known.

SECTION 10: TRANSPORTATION

Regulatory Agency:	Not Regulated
Proper Shipping Name:	Not Applicable
Hazard Classification:	Not Applicable
Identification Number:	Not Applicable
Labels Required:	Not Applicable
Other Requirements:	Not Applicable

SECTION 11: MISCELLANEOUS INFORMATION

Additional Comments:	Physiological effects given in Section 3 are for dust and fume that may be generated during the reprocessing, altering or application of this product. Facers of this product may be foil, kraft paper, fiberglass, perlite, wood, black felt, or a combination of these.
Date of Previous MSDS:	January 8, 2010
Changes Since Previous MSDS:	Inclusion of CAS No. for fiberglass in section 2.
Telephone Number for Additional Information:	(317) 575-7190

DISCLAIMER

The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company, LLC assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • **SBS Glass Series: SBS Glass, BASEGARD™ SA, SBS Base, SBS Premium Base, SBS Glass Torch Base**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

Telephone (General) • firestonemsds@bfdp.com
800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]
According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Specific Target Organ Toxicity Repeated Exposure 1 - H372
DSD/DPD • Harmful (Xn)
R20

2.2 Label Elements

CLP

DANGER



Hazard statements • H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention • P260 - Do not breathe dust, fume, gas, mist, vapours and/or spray.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.

Response • P314 - Get medical advice/attention if you feel unwell.

Storage/Disposal • P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



Risk phrases • R20 - Harmful by inhalation.

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD • According to European Directive 1999/45/EC this preparation is considered dangerous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1 - H372

2.2 Label elements

OSHA HCS 2012

DANGER



Hazard statements • Causes damage to organs through prolonged or repeated exposure. - H372

Precautionary statements

Prevention • Do not breathe dust, fume, gas, mist, vapours and/or spray. - P260
Wash thoroughly after handling. - P264
Do not eat, drink or smoke when using this product. - P270

Response • Get medical advice/attention if you feel unwell. - P314

Storage/Disposal • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS • Other Toxic Effects - D2B

2.2 Label elements

WHMIS



• Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

- The calcium carbonate is bound in an asphalt matrix, neither of which is expected to be released. The sand and granules are applied to the asphalt surface in such a manner that nominal release from the surface is anticipated.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Asphalt	CAS:8052-42-4 EINECS:232-490-9	40% TO 85%	Ingestion/Oral-Rat LD50 • >5000 mg/kg Inhalation-Rat LC50 • >94.4 mg/m ³	EU DSD/DPD: Self Classified: Carc. 3; R40 EU CLP: Self Classified: Carc. 2, H351 OSHA HCS 2012: Carc. 2	Bound in an asphalt matrix
Limestone	CAS:1317-65-3 EC Number:215-279-6	0% TO 35%	NDA	EU DSD/DPD: Self Classified: Xn R48/20 EU CLP: Self Classified: STOT RE 1 (Lungs), H372 OSHA HCS 2012: STOT RE 1 (Lungs)	NDA
Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	CAS:64742-52-5 EC Number:265-155-0	0% TO 10%	NDA	EU DSD/DPD: Annex I: Carc.Cat.2; R45 EU CLP: Annex VI: Carc. 1B, H350 OSHA HCS 2012: Skin Irrit. 2	NDA
Quartz	CAS:14808-60-7 EC Number:238-878-4	< 10%	NDA	EU DSD/DPD: Self Classified: Carc 1; R45 EU CLP: Self Classified: Carc. 1A, H350 OSHA HCS 2012: Carc. 1A	Only nominal amounts released
Fibrous Glass	NDA	2% TO 5%	NDA	EU DSD/DPD: Not Classified - Criteria not met EU CLP: Not Classified - Criteria not met OSHA HCS 2012: Not Classified - Criteria not met	Bound within the oxidized-asphalt matrix of this product

Talc	CAS:14807-96-6 EC Number:238-877-9	0% TO 1%	NDA	EU DSD/DPD: Self Classified: N R48/20 EU CLP: Self Classified: STOT RE 1, H372 OSHA HCS 2012: STOT RE 1 (Lungs)	Only nominal amounts released
Formaldehyde	CAS:50-00-0 EC Number:200-001-8	N/A	Ingestion/Oral-Rat LD50 • 100 mg/kg Inhalation-Rat LC50 • 203 mg/m³ Skin-Rabbit LD50 • 270 mg/kg	EU CLP: Community workplace exposure limit	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation**
- Remove to fresh air, apply artificial respiration and/or oxygen if necessary and get medical attention.
- Skin**
- Remove contaminated clothing and wash exposed skin with soap and water. If irritation develops or persists, seek medical attention.
- Eye**
- If foreign matter enters eyes, immediately flush with large amounts of water for at least 15 minutes or until irritation subsides. If irritation develops, or persists, seek medical attention.
- Ingestion**
- Consult a physician if unusual reaction is noted. Product is not intended nor is it likely to be ingested or eaten.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

See Section 2 for Potential Health Effects.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- Use water, foam, CO2 or dry chemical extinguishers to contain fire.
- Unsuitable Extinguishing Media**
- No data available.
- Firefighting Procedures**
- Fire fighters should avoid inhaling any combustion products.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Burning of this product will produce thick black smoke.
- Hazardous Combustion Products**
- If burned, the materials could release toxic fumes and smoke. Incomplete thermal oxidation can produce hydrogen cyanide, carbon monoxide, carbon dioxide, ammonia, formaldehyde and other low molecular weight hydrocarbons and oxides or sulfur, nitrogen, calcium and magnesium.

5.3 Advice for firefighters

- Firefighters should wear full-face, self contained breathing apparatus and impervious protective clothing to avoid smoke inhalation and lack of oxygen.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not touch damaged packages or spilled material.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up large pieces. Vacuum dust. If sweeping is necessary, use a dust suppressant such as water. These procedures will help to minimize potential exposures. Scoop up material and put into a suitable container for disposal as a non-hazardous waste.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Do not breathe dusts or fumes generated from cutting or heating this material. Use this product with adequate ventilation. Always wash work clothes separately from other clothing. Wash thoroughly after handling. Use personal protective equipment as described in Section 8.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store indoors in a cool, dry, well-ventilated area. Do not handle or store near an open flame, heat or other sources of ignition.

Special Packaging Materials

- No data available.

Incompatible Materials or Ignition Sources

- This product will react with strong oxidizing agents, reducing agents, strong acids and alkalis.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada British Columbia	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	1 ppm Ceiling	0.3 ppm Ceiling	Not established	2 ppm Ceiling; 2.4 mg/m ³ Ceiling
	TWAs	Not established	0.3 ppm TWA	Not established	0.5 ppm TWA	Not established
	STELs	Not established	Not established	Not established	1.5 ppm STEL	Not established

Talc (14807-96-6)	TWAs	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)
Limestone (1317-65-3)	STELs	Not established	20 mg/m3 STEL	Not established	Not established	Not established
	TWAs	Not established	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction)	Not established	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica)	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Quartz (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable fraction)	0.025 mg/m3 TWA (respirable)	0.025 mg/m3 TWA (respirable fraction)	0.1 mg/m3 TWA (respirable fraction)	0.1 mg/m3 TWA (respirable mass); 0.3 mg/m3 TWA (total mass)
Asphalt (8052-42-4)	TWAs	0.5 mg/m3 TWA (fume, inhalable fraction, as benzene soluble aerosol)	0.5 mg/m3 TWA (inhalable fume, as Benzene-soluble aerosol)	0.5 mg/m3 TWA (fume, inhalable fraction, as Benzene soluble aerosol)	5 mg/m3 TWA (petroleum fumes)	5 mg/m3 TWA (Petroleum fumes)
	STELs	Not established	Not established	Not established	Not established	10 mg/m3 STEL (Petroleum fumes)

Exposure Limits/Guidelines (Con't.)

	Result	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec	Canada Yukon
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	2 ppm Ceiling; 2.4 mg/m3 Ceiling	1.5 ppm Ceiling	2 ppm Ceiling; 3 mg/m3 Ceiling	2 ppm Ceiling; 3 mg/m3 Ceiling
	STELs	Not established	Not established	1.0 ppm STEL	Not established	Not established
Talc (14807-96-6)	TWAs	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (containing no Asbestos and <1% Crystalline silica, respirable)	3 mg/m3 TWAEV (respirable dust)	20 mppcf TWA
Limestone (1317-65-3)	TWAs	Not established	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	Not established	10 mg/m3 TWAEV (Limestone, containing no Asbestos and <1% Crystalline silica, total dust)	30 mppcf TWA; 10 mg/m3 TWA
	STELs	Not established	Not established	Not established	Not established	20 mg/m3 STEL
Quartz (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable fraction)	0.1 mg/m3 TWA (respirable mass); 0.3 mg/m3 TWA (total mass)	0.10 mg/m3 TWA (designated substance regulation, respirable)	0.1 mg/m3 TWAEV (respirable dust)	300 particle/mL TWA (listed under Silica)
Asphalt (8052-42-4)	TWAs	0.5 mg/m3 TWA (fume, inhalable fraction, as Benzene soluble aerosol)	5 mg/m3 TWA (Petroleum fumes)	0.5 mg/m3 TWA (fume, inhalable, as Benzene-soluble aerosol)	5 mg/m3 TWAEV (fume)	5 mg/m3 TWA (fume)
	STELs	Not established	10 mg/m3 STEL (Petroleum fumes)	Not established	Not established	10 mg/m3 STEL (fume)

Exposure Limits/Guidelines (Con't.)				
	Result	NIOSH	OSHA	United States - California
Formaldehyde (50-00-0)	STELs	Not established	2 ppm STEL (see 29 CFR 1910.1048)	2 ppm STEL
	TWAs	0.016 ppm TWA	0.75 ppm TWA	0.75 ppm PEL
	Ceilings	0.1 ppm Ceiling (15 min)	Not established	Not established
Talc (14807-96-6)	TWAs	2 mg/m3 TWA (containing no Asbestos and <1% Quartz, respirable dust)	Not established	2 mg/m3 PEL (respirable dust, containing no Asbestos fibers, <1% Crystalline silica)
Limestone (1317-65-3)	TWAs	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	Not established
Quartz (14808-60-7)	TWAs	0.05 mg/m3 TWA (respirable dust)	Not established	0.3 mg/m3 PEL (total dust); 0.1 mg/m3 PEL (respirable dust)
Asphalt (8052-42-4)	TWAs	Not established	Not established	5 mg/m3 PEL (fume)
	Ceilings	5 mg/m3 Ceiling (fume, 15 min)	Not established	Not established

Exposure Limits Supplemental OSHA

- Quartz (14808-60-7): **Mineral Dusts:** ((30)/(%SiO₂ + 2) mg/m3 TWA, total dust; (250)/(%SiO₂ + 5) mppcf TWA, respirable fraction; (10)/(%SiO₂ + 2) mg/m3 TWA, respirable fraction)
- Talc (14807-96-6): **Mineral Dusts:** (20 mppcf TWA (if 1% Quartz or more, use Quartz limit))

8.2 Exposure controls

Engineering Measures/Controls

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment

Respiratory

- Respiratory protection is not normally required. Use a NIOSH approved/certified respiratory when the exposure limits are exceeded. Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

Eye/Face

- Safety glasses with side shields should be worn at a minimum.

Hands

- Leather or cotton gloves may be worn to prevent skin contact and irritation.

Skin/Body

- Normal work clothing (long sleeved shirts and long pants) is recommended.

General Industrial Hygiene Considerations

- Use good industrial hygiene practices in handling this material. Availability of eye wash fountains are recommended.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA)

STEL = Short Term Exposure Limits are based on 15-minute exposures.

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black mat with sand, ceramic and/or plastic film covered surface and an asphalt odor.
Color	Black	Odor	Asphalt odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal conditions of use.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Keep away from heat, ignition sources and incompatible materials.

10.5 Incompatible materials

- This product will react with strong oxidizing agents, reducing agents, strong acids and alkalis.

10.6 Hazardous decomposition products

- Burning will produce smoke, carbon monoxide, and carbon dioxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Component Name	CAS	Data
Limestone (0% TO 35%)	1317-65-3	Multi-dose Toxicity: ihl-rat TCLo:250 mg/m3/2H/24W-I
Asphalt (40% TO 85%)	8052-42-4	Acute Toxicity: orl-rat LD50:>5000 mg/kg; ihl-rat LC50:>94.4 mg/m3; Mutagen: dna-mus-skn 600 mg/kg; Tumorigen/Carcinogen: skn-mus TDLo:130 gm/kg/81W-I
Quartz (< 10%)	14808-60-7	Acute Toxicity: ihl-rat TCLo:200 mg/kg; Tumorigen/Carcinogen: ihl-rat TCLo:50 mg/m3/6H/71W-I
Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) (0% TO 10%)	64742-52-5	Irritation: skn-rbt 500 mg SEV
Talc (0% TO 1%)	14807-96-6	Irritation: skn-hmn 300 ug/3D-I MLD; Tumorigen/Carcinogen: ihl-rat TC :11 mg/m3/1Y-I

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Oral - Classification criteria not met OSHA HCS 2012 • Acute Toxicity - Oral - Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 1 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Medical Conditions Aggravated by Exposure Potential Health Effects Inhalation

Acute (Immediate)

Chronic (Delayed)

- Pre-existing lung conditions which may be aggravated if fumes/dusts are inhaled.
- Temporary irritation of nose and throat may occur.
- This product contains crystalline silica which is listed by IARC as a suspect carcinogen. Silicosis (pulmonary fibrosis or severe lung scarring) may occur if exposed to high levels or repeated encounters with dust. Exposure to airborne particles that exceed the limits listed may cause lung cancer. This product also contains petroleum asphalt. If heated, there is limited evidence that derivatives of asphalt fumes may cause carcinogenic effects in animals. There is inadequate evidence to support that asphalt fumes alone are carcinogenic to humans.

Skin

- Acute (Immediate)**
 - Mechanical irritation of the skin/skin abrasion may occur characterized by itching or redness.
- Chronic (Delayed)**
 - No data available

Eye

- Acute (Immediate)**
 - Mechanical irritation of the eye may occur characterized by itching or redness.
- Chronic (Delayed)**
 - No data available.

Ingestion

- Acute (Immediate)**
 - Ingestion of this product unlikely.
- Chronic (Delayed)**
 - No data available.

Carcinogenic Effects

- When used under normal conditions, this product is not considered a carcinogen. Based upon the newly published IARC classifications for bitumen/asphalt fumes, it has been determined that the IARC carcinogen designation does not apply to this material as it does not contain material identified by IARC. This product contains crystalline silica. IARC Monographs on Evaluation of Carcinogenic Risk of Chemicals to Humans (Monograph 68, 1997) concludes that there is sufficient evidence for the carcinogenicity of crystalline silica to humans, IARC (Group I). Crystalline Silica is classified as a Known Carcinogen according to the NTP.

Carcinogenic Effects				
	CAS	OSHA	IARC	NTP
Formaldehyde	50-00-0	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen
Quartz	14808-60-7	Not Listed	Group 1-Carcinogenic	Known Human Carcinogen
Asphalt	8052-42-4	Not Listed	Group 2B-Possible Carcinogen	Not Listed

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

SEV = Severe

TC = Toxic Concentration

Section 12 - Ecological Information**12.1 Toxicity**

- No information available for the product.

12.2 Persistence and degradability

- No information available for the product.

12.3 Bioaccumulative potential

- No information available for the product.

12.4 Mobility in Soil

- No information available for the product.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects**Ecological Fate**

- No information available for the product.

12.7 Other Information

- This product has not been tested. Based on information related to all raw materials in the finished product it is not expected to harm ecosystems through its applied use.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- Chronic

State Right To Know					
Component	CAS	MA	MN	NJ	PA
Asphalt	8052-42-4	Yes	Yes	Yes	Yes
Formaldehyde	50-00-0	Yes	Yes	Yes	Yes
Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	No	No	No	No
Limestone	1317-65-3	Yes	Yes	Yes	Yes
Quartz	14808-60-7	Yes	Yes	Yes	Yes
Talc	14807-96-6	Yes	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Asphalt	8052-42-4	Yes	No	Yes	Yes	No
Formaldehyde	50-00-0	Yes	No	Yes	Yes	No
Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Yes	No	Yes	Yes	No
Limestone	1317-65-3	No	Yes	Yes	Yes	No
Quartz	14808-60-7	Yes	No	Yes	Yes	No
Talc	14807-96-6	Yes	No	Yes	Yes	No
Inventory (Con't.)						
Component	CAS		TSCA			
Asphalt	8052-42-4		Yes			
Formaldehyde	50-00-0		Yes			
Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5		Yes			
Limestone	1317-65-3		Yes			
Quartz	14808-60-7		Yes			
Talc	14807-96-6		Yes			

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Formaldehyde	50-00-0	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Demographic, medical and occupational history; Records of personal exposure; Standardised respiratory questionnaire to be completed; Standardised respiratory function test, for example, FEV1, FVC and FEV1/FVC; Chest X-ray full size PA view

Australia - High Volume Industrial Chemicals List

• Formaldehyde	50-00-0	
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	
• Asphalt	8052-42-4	
• Limestone	1317-65-3	Not Listed

• Quartz	14808-60-7	
Australia - List of Designated Hazardous Substances - Classification		
• Formaldehyde	50-00-0	T, C Carc.Cat.3 R40, R23/24/25, R34, R43
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Carc.Cat.2 R45
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Self classification required (containing no asbestos fibres)
• Asphalt	8052-42-4	Self classification required (petroleum fumes)
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Self classification required

Environment**Australia - National Pollutant Inventory (NPI) Substance List**

• Formaldehyde	50-00-0	10 tonne/yr Threshold category 1
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Formaldehyde	50-00-0	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Australia - Priority Existing Chemical Program

• Formaldehyde	50-00-0	Full assessment - report published December 2006
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Canada**Labor****Canada - WHMIS - Classifications of Substances**

• Formaldehyde	50-00-0	A, B1, D1A, D2A, D2B; B3, D1A, D2A, D2B, E (regulated)
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• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	under Formol) Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	D2A
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	D2A
		D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS Division website.)
• Quartz	14808-60-7	

Canada - WHMIS - Ingredient Disclosure List

• Formaldehyde	50-00-0	0.1 %
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	1 %

Environment**Canada - CEPA - Priority Substances List**

• Formaldehyde	50-00-0	Priority Substance List 2 (substance considered toxic)
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Formaldehyde	50-00-0	T; R23/24/25 C; R34 Carc.Cat.3; R40 R43
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Carc.Cat.2; R45
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Formaldehyde	50-00-0	0.2%≤C: R:43 25%≤C: T; R:23/24/25 5%≤C<25%: Xn; R:20/21/22 25%≤C: C; R:34
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• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	5%≤C<25%: Xi; R:36/37/38 Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Formaldehyde	50-00-0	T R:23/24/25-34-40-43 S: (1/2)-26-36/37/39-45-51
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	T R:45 S:53-45
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Formaldehyde	50-00-0	B, D
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	L
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Formaldehyde	50-00-0	S:(1/2)-26-36/37/39-45-51
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	S:53-45
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Mexico**Other****Mexico - Hazard Classifications**

• Formaldehyde	50-00-0	Hazard Class = 3 (8) PG = III UN1198; Hazard Class = 8 PG = III (with not <25% formaldehyde) UN2209
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Mexico - Regulated Substances

• Formaldehyde	50-00-0	UN1198; UN2209 (with not <25% formaldehyde)
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Formaldehyde	50-00-0	1000 lb TQ
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Formaldehyde	50-00-0	2 ppm STEL (Irritant and potential cancer hazard, See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level; 0.75 ppm TWA
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Formaldehyde	50-00-0	
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Formaldehyde	50-00-0	100 lb final RQ; 45.4 kg final RQ
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed

• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Formaldehyde	50-00-0	100 lb EPCRA RQ
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Formaldehyde	50-00-0	500 lb TPQ
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Formaldehyde	50-00-0	0.1 % de minimis concentration
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Formaldehyde	50-00-0	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CWA (Clean Water Act) - Hazardous Substances

• Formaldehyde	50-00-0	
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CWA (Clean Water Act) - Priority Pollutants

• Formaldehyde	50-00-0	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

• Formaldehyde	50-00-0	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Formaldehyde	50-00-0	carcinogen, initial date 1/1/88 (gas)
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	carcinogen, initial date 10/1/88 (airborne particles of respirable size)

United States - New Jersey**Environment****U.S. - New Jersey - Special Health Hazards Substances List**

• Formaldehyde	50-00-0	carcinogen; corrosive; flammable - fourth degree; mutagen
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	carcinogen
• Asphalt	8052-42-4	flammable - third degree
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	carcinogen

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Formaldehyde	50-00-0	
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

United States - Rhode Island

Labor

U.S. - Rhode Island - Hazardous Substance List

• Formaldehyde	50-00-0	Toxic; Flammable; Carcinogen
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Toxic (powder or fibrous)
• Asphalt	8052-42-4	Toxic; Flammable
• Limestone	1317-65-3	Toxic
• Quartz	14808-60-7	Toxic (dust and fiber)

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date

- 19/February/2014

Preparation Date

- 19/February/2014

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **ISOGARD™ HD Cover Board**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture

CLP • Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012

- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015

- Not classified

2.2 Label elements

WHMIS 2015

Hazard statements • No label element(s) required

Precautionary statements

2.3 Other hazards

WHMIS 2015

- In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Calcium monocarbonate	CAS:471-34-1 EC Number:207-439-9	26% TO 39%	Ingestion/Oral-Rat LD50 • 6450 mg/kg	EU CLP: Skin Irrit. 2 H315; Eye Irrit. 2, H319 OSHA HCS 2012: Skin Irrit. 2; Eye Irrit. 2 WHMIS 2015: Skin Irrit. 2; Eye Irrit. 2	NDA
Fibre glass	CAS:65997-17-3 EC Number:266-046-0	3% TO 13%	NDA	EU CLP: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	NDA
2-Propanol, 1-chloro-, 2,2',2"-phosphate	CAS:13674-84-5 EC Number:237-158-7	3% TO 4%	Ingestion/Oral-Rat LD50 • 1500 mg/kg	EU CLP: Acute Tox. 4, H302 OSHA HCS 2012: Acute Tox. 4 (orl) WHMIS 2015: Acute Tox. 4 (orl)	NDA
2-Methylbutane	CAS:78-78-4 EC Number:201-142-8 EU Index:601-085-00-2	0.4% TO 0.7%	Inhalation-Rat LC50 • 280000 mg/m³ 4 Hour (s)	EU CLP: Annex VI, Table 3.1: Flam. Liq. 1, H224; Asp. Tox. 1, H304; STOT SE 3: Narc., H336; Aquatic Chronic 2, H411 OSHA HCS 2012: Flam. Liq. 1; Eye Irrit. 2; Skin Irrit. 2; STOT SE 3: Resp. Irrit.; STOT SE 3: Narc.; Asp. Tox. 1 WHMIS 2015: Flam. Liq. 1; Eye Irrit. 2; Skin Irrit. 2; STOT SE 3: Resp. Irrit.; STOT SE 3: Narc.; Asp. Tox. 1	NDA

Pentane	CAS: 109-66-0 EC Number: 203-692-4 EU Index: 601-006-00-1	0.3% TO 0.6%	Ingestion/Oral-Rat LD50 • >2000 mg/kg Inhalation-Rat LC50 • 364 g/m ³ 4 Hour(s)	EU CLP: Annex VI, Table 3.1: Flam. Liq. 2, H225; STOT SE 3: Narc, H336 (Inhl); Asp. Tox. 1, H304; Aquatic Chronic 2, H411; EUH066 OSHA HCS 2012: Flam. Liq. 2; STOT SE 3: Narc. (Inhl); Asp. Tox. 1 WHMIS 2015: Flam. Liq. 2; STOT SE 3: Narc. (Inhl); Asp. Tox. 1	NDA
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See Section 16 for full text of H-statements.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation**
- Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Skin**
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.
- Ingestion**
- Rinse mouth. Do not give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- No specific actions or treatments recommended related to exposure to this material.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- LARGE FIRE: Water spray, fog or regular foam.
 - SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.
- Unsuitable Extinguishing Media**
- No data available.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Burning of this product will produce thick black smoke. Toxic fumes and vapors may be produced. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Isopentane and n-pentane, highly flammable materials, may be present within this product.
- Hazardous Combustion Products**
- Carbon dioxide and carbon monoxide, phosphorus oxides, and phosphoric acid.

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Not applicable.

Emergency Procedures • Not applicable.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Avoid generating dust.
Pick up large pieces. Sweep and scoop up material and put into a suitable container for disposal as a non-hazardous waste.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use only in well ventilated areas. Wear appropriate personal protective equipment. Protect against dust that may be generated by reprocessing, altering or applying this product. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage • Keep away from heat, sparks and flame. Store in a cool, dry place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick
Pentane (109-66-0)	TWAs	1000 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1770 mg/m3 TWA	600 ppm TWA (listed under Pentane, all isomers)	1000 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1770 mg/m3 TWA
	STELs	Not established	Not established	Not established	Not established	750 ppm STEL; 2210 mg/m3 STEL
2-Methylbutane (78-78-4)	TWAs	1000 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1770 mg/m3 TWA	600 ppm TWA (listed under Pentane, all isomers)	1000 ppm TWA (listed under Pentane, all isomers)	Not established
Fibre glass	TWAs	1 fiber/cm3 TWA (respirable fibers: length >5 µm, aspect ratio ≥3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination, listed under Synthetic	1 fibre/cm3 TWA <i>as Glass wool fiber</i>	1 fibre/cm3 TWA (fibres >5 µm, with an aspect ratio of ≥3:1, as determined by the membrane filter method at 400- 450 times magnification (4 mm objective), using phase-contrast illumination, listed under Synthetic	1 fiber/cm3 TWA (respirable fibers: length >5 µm, aspect ratio ≥3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination, listed under Synthetic	1 fibre/cm3 TWA (fibres >5 µm with a diameter <3 µm, aspect ratio >5:1) <i>as Glass wool fiber</i>

		vitreous fibers) <i>as Glass wool fiber</i>		vitreous fibres) <i>as Glass wool fiber</i>	vitreous fibers) <i>as Glass wool fiber</i>	
Calcium mon carbonate (471-34-1)	TWAs	Not established	10 mg/m3 TWA	Not established	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec
Pentane (109-66-0)	STELs	750 ppm STEL (listed under Pentane, all isomers)	Not established	750 ppm STEL (listed under Pentane, all isomers)	Not established	Not established
	TWAs	600 ppm TWA (listed under Pentane, all isomers)	1000 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA	120 ppm TWAEV; 350 mg/m3 TWAEV
2-Methylbutane (78-78-4)	STELs	750 ppm STEL (listed under Pentane, all isomers)	Not established	750 ppm STEL (listed under Pentane, all isomers)	Not established	Not established
	TWAs	600 ppm TWA (listed under Pentane, all isomers)	1000 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA (listed under Pentane, all isomers)	Not established
Fibre glass	STELs	3 fibre/cm3 STEL (respirable fibres, listed under Synthetic vitreous fibres) <i>as Glass wool fiber</i>	Not established	3 fibre/cm3 STEL (respirable fibres, listed under Synthetic vitreous fibres) <i>as Glass wool fiber</i>	Not established	Not established
	TWAs	1 fibre/cm3 TWA (respirable fibres, listed under Synthetic vitreous fibres) <i>as Glass wool fiber</i>	1 fiber/cm3 TWA (respirable fibers: length >5 µm, aspect ratio >=3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination, listed under Synthetic vitreous fibers) <i>as Glass wool fiber</i>	1 fibre/cm3 TWA (respirable fibres, listed under Synthetic vitreous fibres) <i>as Glass wool fiber</i>	1 fibre/cm3 TWA (fibres >5 µm in length and an aspect ratio >=3:1 as determined by the membrane filter method at 400-450 times magnification (4 -mm objective), using phase-contrast illumination, respirable, listed under Synthetic Vitreous Fibres (Man Made Mineral Fibres)) <i>as Glass wool fiber</i>	1 fibre/cm3 TWAEV (respirable, listed under Fibres - Artificial Vitreous Mineral Fibres) <i>as Glass wool fiber</i>
Calcium mon carbonate (471-34-1)	STELs	20 mg/m3 STEL (listed under Limestone)	Not established	20 mg/m3 STEL (listed under Limestone)	Not established	Not established
	TWAs	10 mg/m3 TWA (listed under Limestone)	Not established	10 mg/m3 TWA (listed under Limestone)	Not established	10 mg/m3 TWAEV (total dust)
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Saskatchewan	Canada Yukon	Europe	NIOSH	OSHA
	TWAs	600 ppm TWA	600 ppm TWA; 1800 mg/m3 TWA	1000 ppm TWA; 3000 mg/m3 TWA	120 ppm TWA; 350 mg/m3 TWA	1000 ppm TWA; 2950 mg/m3 TWA

Pentane (109-66-0)	STELs	Not established	750 ppm STEL; 2250 mg/m3 STEL	Not established	Not established	Not established
	Ceilings	Not established	Not established	Not established	610 ppm Ceiling (15 min); 1800 mg/m3 Ceiling (15 min)	Not established
2-Methylbutane (78-78-4)	TWAs	600 ppm TWA (listed under Pentane, all isomers)	Not established	1000 ppm TWA; 3000 mg/m3 TWA	Not established	Not established
Fibre glass (65997-17-3)	TWAs	1 fibre/cm3 TWA (respirable fibres, listed under Synthetic vitreous fibres) <i>as Glass wool fiber</i>	30 mppcf TWA (dust or fibrous); 10 mg/m3 TWA (dust or fibrous)	Not established	Not established	Not established
Calcium monocarbonate (471-34-1)	TWAs	10 mg/m3 TWA (listed under Limestone)	30 mppcf TWA; 10 mg/m3 TWA	Not established	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)	Not established
	STELs	Not established	20 mg/m3 STEL	Not established	Not established	Not established

8.2 Exposure controls

Engineering

Measures/Controls

- No special controls are expected to be needed.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Hands

- Wear appropriate gloves.

Skin/Body

- Wear long sleeves and/or protective coveralls if determined to be needed by the end-user.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	White rigid cellular sheets coated with white, cream-colored mat with no odor.
Color	White	Odor	Odorless
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking

Specific Gravity/Relative Density	Data lacking	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization not indicated.

10.4 Conditions to avoid

- None known.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- No data available.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Pentane (0.3% TO 0.6%)	109-66-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • >2000 mg/kg; Inhalation-Rat LC50 • 364 g/m ³ 4 Hour(s); Inhalation-Human TCLo • 130 mg/m ³ ; Brain and Coverings:Changes in surface EEG; Behavioral:Somnolence (general depressed activity); Behavioral:Headache; Inhalation-Mouse TCLo • 265000 mg/m ³ 5 Minute(s); Behavioral:General anesthetic; Multi-dose Toxicity: Inhalation-Rat TCLo • 116 mg/m ³ 117 Day(s)-Continuous; Brain and Coverings:Other degenerative changes; Vascular:BP lowering not characterized in autonomic section
2-Methylbutane (0.4% TO 0.7%)	78-78-4	Acute Toxicity: Inhalation-Rat LC50 • 280000 mg/m ³ 4 Hour(s)
2-Propanol, 1-chloro-, 2,2',2"-phosphate (3% TO 4%)	13674-84-5	Acute Toxicity: Ingestion/Oral-Rat LD50 • 1500 mg/kg; Behavioral:Tremor; Behavioral:Convulsions or effect on seizure threshold
Fibre glass (3% TO 13%)	65997-17-3	Tumorigen / Carcinogen: Inhalation-Rat TCLo • 5 mg/m ³ 7 Hour(s) 90 Week(s)-Intermittent; Tumorigenic:Carcinogenic by RTECS criteria; Blood:Leukemia

Calcium monocarbonate (26% TO 39%)	471-34 -1	Acute Toxicity: Ingestion/Oral-Rat LD50 • 6450 mg/kg; Irritation: Eye-Rabbit • 750 µg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation; Multi-dose Toxicity: Ingestion/Oral-Woman TDLo • 4.08 g/kg 30 Day(s)-Intermittent; <i>Vascular:BP elevation not characterized in autonomic section; Gastrointestinal:Changes in structure or function of endocrine pancreas; Biochemical:Metabolism (intermediary):Effect on inflammation or mediation of inflammation</i>
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GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met

Potential Health Effects

Inhalation

Acute (Immediate)

- Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

Chronic (Delayed)	<ul style="list-style-type: none"> No data available
Skin	
Acute (Immediate)	<ul style="list-style-type: none"> Exposure to dust may cause mechanical irritation.
Chronic (Delayed)	<ul style="list-style-type: none"> No data available
Eye	
Acute (Immediate)	<ul style="list-style-type: none"> Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.
Chronic (Delayed)	<ul style="list-style-type: none"> No data available
Ingestion	
Acute (Immediate)	<ul style="list-style-type: none"> Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.
Chronic (Delayed)	<ul style="list-style-type: none"> No data available
Carcinogenic Effects	<ul style="list-style-type: none"> Direct implantation of glass fibers into the lung tissue of laboratory animals has produced lung fibrosis and lung cancer. Human epidemiological studies of inhalation exposure have yielded negative results.

Carcinogenic Effects		
	CAS	NTP
Fibre glass as Glass wool fiber	NDA	Reasonably Anticipated to be Human Carcinogen

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

- | | |
|----------------------|--|
| Product waste | <ul style="list-style-type: none"> Dispose of content and/or container in accordance with local, regional, national, and/or |
|----------------------|--|

international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
TDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IMO/IMDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
ADN	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
ADR/RID	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
ATA/ICAO	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

State Right To Know				
Component	CAS	MA	NJ	PA
2-Methylbutane	78-78-4	Yes	Yes	Yes
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	No	No	No
Calcium mon carbonate	471-34-1	No	No	No
Fibre glass	65997-17-3	Yes	No	Yes
Pentane	109-66-0	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
2-Methylbutane	78-78-4	Yes	No	Yes	No	Yes
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Yes	No	Yes	No	Yes
Calcium mon carbonate	471-34-1	Yes	No	Yes	No	Yes
Fibre glass	65997-17-3	Yes	No	Yes	No	Yes
Pentane	109-66-0	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	B2
• 2-Methylbutane	78-78-4	B2
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Uncontrolled product according to WHMIS classification criteria (listed under Glass wool); D2A (listed under Mineral wool fiber)
• Calcium monocarbonate	471-34-1	Uncontrolled product according to WHMIS classification criteria

Canada - WHMIS - Ingredient Disclosure List

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	1 %
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

Environment

Canada - CEPA - Priority Substances List

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

Other

Canada - Accelerated Reduction/Elimination of Toxics (ARET)

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

Canada New Brunswick

Environment

Canada - New Brunswick - Ozone Depleting Substances - Schedule A

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
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• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	F+; R12 N; R51-53 Xn; R65 R66 R67
• 2-Methylbutane	78-78-4	F+; R12 N; R51-53 Xn; R65 R66 R67
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	F+ Xn N R:12-51/53-65-66-67 S:(2)-9-16-29-33-61-62
• 2-Methylbutane	78-78-4	F+ Xn N R:12-51/53-65-66-67 S:(2)-9-16-29-33-61-62
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	C
• 2-Methylbutane	78-78-4	C
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	S:(2)-9-16-29-33-61-62
• 2-Methylbutane	78-78-4	S:(2)-9-16-29-33-61-62
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

United States

Labor**U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
		(including mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers [or other mineral derived fibers] of average diameter 1 µm or less)
• Fibre glass as Glass wool fiber		
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		carcinogen, initial date 7/1/90 (inhalable and biopersistent)
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed

• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Fibre glass	65997-17-3	Not Listed
• Fibre glass as Glass wool fiber		Not Listed
• Calcium monocarbonate	471-34-1	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information**Relevant Phrases (code & full text)**

- H224 - Extremely flammable liquid and vapour
- H225 - Highly flammable liquid and vapour
- H302 - Harmful if swallowed
- H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H411 - Toxic to aquatic life with long lasting effects
EUH066 - Repeated exposure may cause skin dryness or cracking.

Revision Date

- 15/January/2018

Preparation Date

- 06/January/2012

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • RESISTA™ Insulation (Flat and Tapered)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.

DSD/DPD • According to European Directive 1999/45/EC this preparation is not considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label elements(s) required

2.3 Other hazards

OSHA HCS 2012 • This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Glass, oxide, chemicals	CAS:65997-17-3 EC Number:266-046-0	< 25%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
2-Methylbutane	CAS:78-78-4 EC Number:201-142-8	4.5% TO 9.9%	Inhalation-Rat LC50 • 280000 mg/m ³ 4 Hour (s)	EU DSD/DPD: EU CLP: Annex VI: Flam. Liq. 1, H224; Asp. Tox. 1, H304; STOT SE 3: Narc., H336; Aquatic Chronic 2, H411; EUH066 OSHA HCS 2012: Flam. Liq. 1; Eye Irrit. 2A; Skin Irrit. 2; STOT SE 3: Resp. Irrit. & Narc.; Asp. Tox. 1	NDA
Pentane	CAS:109-66-0 EC Number:203-692-4	0.05% TO 5.5%	Inhalation-Rat LC50 • 364 g/m ³ 4 Hour(s) Ingestion/Oral-Rat LD50 • >2000 mg/kg	EU DSD/DPD: EU CLP, Annex VI, Table 3.2: F+, R12; Xn, R65; R66; R67; N, R51, R53 EU CLP: Annex VI: Flam. Liq. 2, H225; Asp. Tox. 1, H304; STOT SE 3: Narc., H336; Aquatic Chronic 2, H411; EUH066 OSHA HCS 2012: Flam. Liq. 1; Asp. Tox. 1;	NDA

				Eye Irrit. 2; Skin Irrit. 2; STOT SE 3: Narc.	
2-Propanol, 1-chloro -, 2,2',2"-phosphate	CAS:13674-84-5 EC Number:237-158-7	< 5%	Ingestion/Oral-Rat LD50 • 1500 mg/kg	EU DSD/DPD: Self Classified: Xn, R22 EU CLP: Self Classified: Acute Tox. 4, H302 OSHA HCS 2012: Acute Tox. 4 (Oral)	NDA

See Section 11 for Toxicological Information. See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation**
- Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Skin**
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.
- Ingestion**
- Rinse mouth. Do not give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- No specific actions or treatments recommended related to exposure to this material.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- LARGE FIRE: Water spray, fog or regular foam.
 - SMALL FIRES: Dry chemical, CO2, water spray or regular foam.
- Unsuitable Extinguishing Media**
- No data available.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Burning of this product will produce thick black smoke. Toxic fumes and vapors may be produced. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Isopentane and n-pentane, highly flammable materials, may be present within this product.
- Hazardous Combustion Products**
- Carbon dioxide and carbon monoxide, phosphorus oxides, and phosphoric acid.

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Not applicable.

Emergency Procedures • Not applicable.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Avoid generating dust. Pick up large pieces. Sweep and scoop up material and put into a suitable container for disposal as a non-hazardous waste.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use only in well ventilated areas. Wear appropriate personal protective equipment. Protect against dust that may be generated by reprocessing, altering or applying this product. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage • Keep away from heat, sparks and flame. Store in a cool, dry place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick
Pentane (109-66-0)	TWAs	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1770 mg/m ³ TWA	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1770 mg/m ³ TWA
	STELs	Not established	Not established	Not established	Not established	750 ppm STEL; 2210 mg/m ³ STEL
2-Methylbutane (78-78-4)	TWAs	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1770 mg/m ³ TWA	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA (listed under Pentane, all isomers)	Not established
Glass, oxide, chemicals	TWAs	1 fiber/cm ³ TWA (respirable fibers: length >5 µm, aspect ratio ≥3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination, listed under Synthetic	1 fibre/cm ³ TWA <i>as Glass wool fiber</i>	1 fibre/cm ³ TWA (fibres >5 µm, with an aspect ratio of ≥3:1, as determined by the membrane filter method at 400-450 times magnification (4 mm objective), using phase-contrast illumination, listed under Synthetic	1 fiber/cm ³ TWA (respirable fibers: length >5 µm, aspect ratio ≥3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination, listed under Synthetic	1 fibre/cm ³ TWA (fibres >5 µm with a diameter <3 µm, aspect ratio >5:1) <i>as Glass wool fiber</i>

		vitreous fibers) <i>as Glass wool fiber</i>		vitreous fibres) <i>as Glass wool fiber</i>	vitreous fibers) <i>as Glass wool fiber</i>	
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec
Pentane (109-66-0)	STELs	750 ppm STEL; 2213 mg/m3 STEL	Not established	750 ppm STEL; 2213 mg/m3 STEL	Not established	Not established
	TWAs	600 ppm TWA; 1771 mg/m3 TWA	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA; 1771 mg/m3 TWA	600 ppm TWA	120 ppm TWAEV; 350 mg/m3 TWAEV
2-Methylbutane (78-78-4)	TWAs	Not established	600 ppm TWA (listed under Pentane, all isomers)	Not established	600 ppm TWA (listed under Pentane, all isomers)	Not established
Glass, oxide, chemicals	TWAs	3 fibre/cm3 TWA (with a diameter $\leq 3.5 \mu\text{m}$ and a length $\geq 10 \mu\text{m}$); 5 mg/m3 TWA (total mass) <i>as Glass wool fiber</i>	1 fiber/cm3 TWA (respirable fibers: length $> 5 \mu\text{m}$, aspect ratio $\geq 3:1$, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination, listed under Synthetic vitreous fibers) <i>as Glass wool fiber</i>	3 fibre/cm3 TWA (with a diameter $\leq 3.5 \mu\text{m}$ and a length $\geq 10 \mu\text{m}$); 5 mg/m3 TWA (total mass) <i>as Glass wool fiber</i>	1 fibre/cm3 TWA (fibres $> 5 \mu\text{m}$ in length and an aspect ratio $\geq 3:1$ as determined by the membrane filter method at 400-450 times magnification (4 -mm objective), using phase-contrast illumination, respirable, listed under Synthetic Vitreous Fibres (Man Made Mineral Fibres)) <i>as Glass wool fiber</i>	2 fibre/cm3 TWAEV (respirable, listed under Fibres - Artificial Vitreous Mineral Fibres) <i>as Glass wool fiber</i>
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Saskatchewan	Canada Yukon	Europe	NIOSH	OSHA
Pentane (109-66-0)	TWAs	600 ppm TWA	600 ppm TWA; 1800 mg/m3 TWA	1000 ppm TWA; 3000 mg/m3 TWA	120 ppm TWA; 350 mg/m3 TWA	1000 ppm TWA; 2950 mg/m3 TWA
	STELs	Not established	750 ppm STEL; 2250 mg/m3 STEL	Not established	Not established	Not established
	Ceilings	Not established	Not established	Not established	610 ppm Ceiling (15 min); 1800 mg/m3 Ceiling (15 min)	Not established
2-Methylbutane (78-78-4)	TWAs	600 ppm TWA (listed under Pentane, all isomers)	Not established	1000 ppm TWA; 3000 mg/m3 TWA	Not established	Not established
Glass, oxide, chemicals	TWAs	1 fibre/cm3 TWA (respirable fibres, listed under Synthetic vitreous fibres) <i>as Glass wool fiber</i>	30 mppcf TWA; 10 mg/m3 TWA (respirable mass) <i>as Glass wool fiber</i>	Not established	3 fiber/cm3 TWA (fibres $\leq 3.5 \mu\text{m}$ in diameter and $\geq 10 \mu\text{m}$ in length); 5 mg/m3 TWA (total) <i>as Glass wool fiber</i>	Not established

8.2 Exposure controls

Engineering Measures/Controls

- No special controls are expected to be needed.

Personal Protective Equipment**Respiratory**

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Hands

- Wear appropriate gloves.

Skin/Body

- Wear long sleeves and/or protective coveralls if determined to be needed by the end-user.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties**9.1 Information on Basic Physical and Chemical Properties**

Material Description			
Physical Form	Solid	Appearance/Description	White rigid cellular sheets with a dark gray mat and no odor.
Color	White	Odor	Odorless
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity**10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization not indicated.

10.4 Conditions to avoid

- No data available.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- No data available.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Pentane (0.05% TO 5.5%)	109-66-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • >2000 mg/kg; Inhalation-Rat LC50 • 364 g/m ³ 4 Hour(s)
2-Methylbutane (4.5% TO 9.9%)	78-78-4	Acute Toxicity: Inhalation-Rat LC50 • 280000 mg/m ³ 4 Hour(s)

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Route(s) of entry/exposure • Inhalation, Skin, Eye, Ingestion

Medical Conditions • Disorders of the lungs.

Aggravated by Exposure

Potential Health Effects

Inhalation

- | | |
|--------------------------|--|
| Acute (Immediate) | <ul style="list-style-type: none"> Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible. |
| Chronic (Delayed) | <ul style="list-style-type: none"> No data available |

Skin

- | | |
|--------------------------|---|
| Acute (Immediate) | <ul style="list-style-type: none"> Exposure to dust may cause mechanical irritation. |
| Chronic (Delayed) | <ul style="list-style-type: none"> No data available. |

Eye

- | | |
|--------------------------|---|
| Acute (Immediate) | <ul style="list-style-type: none"> Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes. |
| Chronic (Delayed) | <ul style="list-style-type: none"> No data available. |

Ingestion

- | | |
|--------------------------|---|
| Acute (Immediate) | <ul style="list-style-type: none"> Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes. |
| Chronic (Delayed) | <ul style="list-style-type: none"> No data available. |

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

- | | |
|------------------------|---|
| Product waste | <ul style="list-style-type: none"> Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. |
| Packaging waste | <ul style="list-style-type: none"> Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. |

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not regulated	NDA	NDA	NDA
TDG	NDA	Not regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not regulated	NDA	NDA	NDA
ADN	NDA	Not regulated	NDA	NDA	NDA
ADR/RID	NDA	Not regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not regulated	NDA	NDA	NDA

14.6 Special precautions for user • None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

State Right To Know				
Component	CAS	MA	NJ	PA
2-Methylbutane	78-78-4	Yes	Yes	Yes
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	No	No	No
Glass, oxide, chemicals	65997-17-3	Yes	No	Yes
Pentane	109-66-0	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
2-Methylbutane	78-78-4	Yes	No	Yes	No	Yes
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Yes	No	Yes	No	Yes
Glass, oxide, chemicals	65997-17-3	Yes	No	Yes	No	Yes
Pentane	109-66-0	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• 2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	B2
• 2-Methylbutane	78-78-4	B2
• Glass, oxide, chemicals	65997-17-3	Not Listed

<ul style="list-style-type: none"> • Glass, oxide, chemicals as Glass wool fiber 		Uncontrolled product according to WHMIS classification criteria (listed under Glass wool); D2A (listed under Mineral wool fiber)
Canada - WHMIS - Ingredient Disclosure List		
• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	1 %
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Environment**Canada - 2004 NPRI (National Pollutant Release Inventory)**

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Canada - 2005 NPRI (National Pollutant Release Inventory)

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Canada - CEPA - Greenhouse Gases Subject to Mandatory Reporting

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Canada - CEPA - Priority Substances List

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Canada - DWQ (Drinking Water Quality) - IMACs

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Other**Canada - Accelerated Reduction/Elimination of Toxics (ARET)**

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed

- Glass, oxide, chemicals as Glass wool fiber

Not Listed

Canada New Brunswick

Environment

Canada - New Brunswick - Ozone Depleting Substances - Schedule A

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	F+; R12 N; R51-53 Xn; R65 R66 R67
• 2-Methylbutane	78-78-4	F+; R12 N; R51-53 Xn; R65 R66 R67
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	F+ Xn N R:12-51/53-65-66-67 S:(2)-9-16-29-33-61-62
• 2-Methylbutane	78-78-4	F+ Xn N R:12-51/53-65-66-67 S:(2)-9-16-29-33-61-62
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	C
• 2-Methylbutane	78-78-4	C
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	S:(2)-9-16-29-33-61-62

• 2-Methylbutane	78-78-4	S:(2)-9-16-29-33-61-62
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		(including mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers [or other mineral derived fibers] of average diameter 1 µm or less)

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		carcinogen, initial date 7/1/90 (inhalable and biopersistent)

U.S. - California - Proposition 65 - Developmental Toxicity

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed

• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• 2-Propanol, 1-chloro-, 2,2',2''-phosphate	13674-84-5	Not Listed
• Pentane	109-66-0	Not Listed
• 2-Methylbutane	78-78-4	Not Listed
• Glass, oxide, chemicals	65997-17-3	Not Listed
• Glass, oxide, chemicals as Glass wool fiber		Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information**Relevant Phrases (code & full text)**

- H224 - Extremely flammable liquid and vapour
- H225 - Highly flammable liquid and vapour
- H302 - Harmful if swallowed
- H304 - May be fatal if swallowed and enters airways
- H336 - May cause drowsiness or dizziness
- H411 - Toxic to aquatic life with long lasting effects
- EUH066 - Repeated exposure may cause skin dryness or cracking.
- R12 - Extremely flammable.
- R22 - Harmful if swallowed.
- R51 - Toxic to aquatic organisms.
- R53 - May cause long-term adverse effects in the aquatic environment.
- R65 - Harmful: may cause lung damage if swallowed.
- R66 - Repeated exposure may cause skin dryness or cracking.
- R67 - Vapours may cause drowsiness and dizziness.

Revision Date

- 18/January/2018

Preparation Date

- 06/November/2009

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or

representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification

Product identifier

Product Name • I.S.O. Stick™ Insulation Adhesive Winter Grade Part 1

Synonyms • Isocyanate portion of two-component polyurethane adhesive

Relevant identified uses of the substance or mixture and uses advised against

Recommended use • Isocyanate portion of two-component polyurethane adhesive. To dispense, properly mix with I.S.O. Stick Winter Grade Part 2.

Restrictions on use • Proper dispensing requires mixing with I.S.O. Stick Winter Grade Part 2

Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012

- Skin Irritation 2
- Skin Sensitization 1
- Eye Irritation 2
- Acute Toxicity Inhalation 4
- Respiratory Sensitization 1
- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
- Germ Cell Mutagenicity 2
- Specific Target Organ Toxicity Repeated Exposure 1

Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • Causes skin irritation
 May cause an allergic skin reaction
 Causes serious eye irritation
 Harmful if inhaled
 May cause allergy or asthma symptoms or breathing difficulties if inhaled
 May cause respiratory irritation
 Suspected of causing genetic defects.
 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention** • Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not breathe mist, vapors, and/or spray.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing should not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 In case of inadequate ventilation wear respiratory protection.
- Response** • IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER/doctor.
 If on skin: Wash with plenty of water.
 Take off contaminated clothing and wash before reuse.
 Specific treatment, see supplemental first aid information.
 If skin irritation or rash occurs: Get medical advice/attention.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 IF exposed or concerned: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.
- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS 2015

Classification of the substance or mixture

WHMIS 2015

- Skin Irritation 2
- Skin Sensitization 1
- Eye Irritation 2
- Acute Toxicity Inhalation 4
- Respiratory Sensitization 1
- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
- Germ Cell Mutagenicity 2
- Specific Target Organ Toxicity Repeated Exposure 1

Label elements

WHMIS 2015

DANGER



- Hazard statements** • Causes skin irritation
 May cause an allergic skin reaction

Causes serious eye irritation
 Harmful if inhaled
 May cause allergy or asthma symptoms or breathing difficulties if inhaled
 May cause respiratory irritation
 Suspected of causing genetic defects.
 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention** • Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not breathe mist, vapors, and/or spray.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing should not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 In case of inadequate ventilation wear respiratory protection.
- Response** • IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER/doctor/ if you feel unwell.
 IF ON SKIN: Wash with plenty of water.
 Take off contaminated clothing and wash it before reuse.
 Specific treatment, see supplemental first aid information.
 If skin irritation or rash occurs: Get medical advice/attention.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 IF exposed or concerned: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.
- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

WHMIS 2015

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Polymeric Isocyanates	CAS:9016-87-9	< 32%	Ingestion/Oral-Rat LD50 • 49 g/kg Inhalation-Rat LC50 • 490 mg/m ³ 4 Hour(s) Skin-Rabbit LD50 • >9400 mg/kg	OSHA HCS 2012: Acute Tox. 2 (Inhl); Eye Irrit. 2 WHMIS 2015: Acute Tox. 2 (Inhl); Eye Irrit. 2	NDA
				OSHA HCS 2012: Acute Tox. 2 (Inhl); Skin Irrit. 2; Eye Irrit. 2; Resp. Sens. 1; Skin Sens. 1; Muta. 2	

4,4'-Methylene Bisphenyl Isocyanate	CAS:101-68-8	23% TO 25%	Ingestion/Oral-Rat LD50 • 9200 mg/kg	(Inhl); STOT SE 3: Resp. Irrit. (Inhl); STOT RE 1 (Lungs / Inhl) WHMIS 2015: Acute Tox. 2 (Inhl); Skin Irrit. 2; Eye Irrit. 2; Resp. Sens. 1; Skin Sens. 1; Muta. 2 (Inhl); STOT SE 3: Resp. Irrit. (Inhl); STOT RE 1 (Lungs / Inhl)	NDA
Diphenylmethane Diisocyanate Mixed Isomers	CAS:26447-40-5	< 3%	NDA	OSHA HCS 2012: Acute Tox. 2 (Inhl); Skin Irrit. 2; Eye Irrit. 2; Resp. Sens. 1; Skin Sens. 1; STOT SE 3: Resp. Irrit. WHMIS 2015: Acute Tox. 2 (Inhl); Skin Irrit. 2; Eye Irrit. 2; Resp. Sens. 1; Skin Sens. 1; STOT SE 3: Resp. Irrit.	NDA

Section 4: First-Aid Measures

Description of first aid measures

- | | |
|-------------------|--|
| Inhalation | <ul style="list-style-type: none"> Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Keep patient warm. Get medical attention immediately if symptoms occur. |
| Skin | <ul style="list-style-type: none"> Wash skin with soap and water. Take off contaminated clothing and wash before reuse. If irritation develops and persists, get medical attention. |
| Eye | <ul style="list-style-type: none"> In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention. |
| Ingestion | <ul style="list-style-type: none"> Rinse mouth. Drink 1 - 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. |

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • CO₂, extinguishing powder or water spray. Fight larger fires with water spray.

Unsuitable Extinguishing Media • Do not use a direct stream of water.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • This product may ignite if exposed to sources of ignition at temperatures in excess of its flash point.

Hazardous Combustion Products • If present in a fire or explosion, potential thermal decomposition byproducts include carbon monoxide, oxides of nitrogen, organic isocyanates, and hydrogen cyanide.

Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
Move fire exposed containers if safe to do so. Cool fire exposed containers with water spray. Dike contaminated fire-control water for later disposal.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Emergency Procedures**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Stay upwind. Keep out of low areas. Keep unauthorized personnel away. Ventilate closed spaces before entering.

Environmental precautions

- Avoid release to the environment.

Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Absorb spilled material with a sorbent such as sawdust or calcium silicate hydrate. When absorbed, transfer to an impervious container. Neutralize with solution of 8-10% sodium carbonate and 2% liquid detergent in water (10:1 ratio of solution to product). Do not seal container, as CO₂ will be released. Neutralize in a well-ventilated area for at least 48 hours before sealing containers for disposal.

Section 7 - Handling and Storage

Precautions for safe handling

- Handling**
- Use only with adequate ventilation. Prevent formation of aerosols. Keep away from water as reaction can be initiated by water exposure. Persons with sensitivity to isocyanate should not handle/use this product. Use protective equipment as needed. Do not breathe mist/vapours/spray. When handling, avoid contact with eyes; skin; and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities

- Storage**
- Store in original unopened containers to prevent contact with moisture and other incompatible materials. Keep container tightly closed. Store in a dry, well-ventilated place. Recommended temperature range for storage is 55-85°F. (12.8-29.4°C.)

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick
4,4'-Methylene Bisphenyl Isocyanate (101-68-8)	TWAs	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA; 0.05 mg/m ³ TWA	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.051 mg/m ³ TWA (listed under Methylene bisphenyl isocyanate)
	Ceilings	Not established	Not established	0.01 ppm Ceiling (listed under Methylene bisphenyl isocyanate (MDI))	Not established	Not established

Polymeric Isocyanates (9016-87-9)	TWAs	Not established	0.005 ppm TWA; 0.07 mg/m3 TWA	Not established	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec
4,4'-Methylene Bisphenyl Isocyanate (101-68-8)	STELs	0.015 ppm STEL (listed under Methylene bisphenyl isocyanate)	Not established	0.015 ppm STEL (listed under Methylene bisphenyl isocyanate)	Not established	Not established
	TWAs	0.005 ppm TWA	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate)	0.005 ppm TWA (designated substances regulation, listed under Isocyanates, organic compounds (Methylene bisphenyl isocyanate (MDI))); 0.005 ppm TWA (applies to workplaces to which the designated substances regulation does not apply, listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWAEV; 0.051 mg/m3 TWAEV
	Ceilings	Not established	Not established	Not established	0.02 ppm Ceiling (designated substances regulation, listed under Isocyanates, organic compounds (Methylene bisphenyl isocyanate (MDI)))	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Saskatchewan	Canada Yukon	NIOSH	OSHA	
Diphenylmethane Diisocyanate Mixed Isomers (26447-40-5)	Ceilings	Not established	Not established	Not established	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling	
4,4'-Methylene Bisphenyl Isocyanate (101-68-8)	TWAs	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	Not established	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.05 mg/m3 TWA	Not established	
	Ceilings	Not established	0.02 ppm Ceiling (listed under Methylene bisphenyl isocyanate (MDI)); 0.2 mg/m3 Ceiling (listed under Methylene bisphenyl isocyanate (MDI))	0.020 ppm Ceiling (10 min); 0.2 mg/m3 Ceiling (10 min)	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling	

Exposure Control Notations**Canada Ontario**

•4,4'-Methylene Bisphenyl Isocyanate (101-68-8): **Designated Substances:** (0.005 ppm TWA (listed under Isocyanates, organic compounds (Methylene bisphenyl isocyanate (MDI))); 0.02 ppm Ceiling (listed under Isocyanates, organic compounds (Methylene bisphenyl isocyanate

(MDI)))

Exposure Limits Supplemental**ACGIH**

•4,4'-Methylene Bisphenyl Isocyanate (101-68-8): **TLV Basis - Critical Effects:** (respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI)))

Exposure controls**Engineering Measures/Controls**

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment**Respiratory**

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 certified respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Use impermeable gloves and protective clothing as necessary to prevent skin contact. Glove materials known to be effective against permeation by isocyanates include butyl rubber, nitrile rubber, and polychloroprene.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

OSHA = Occupational Safety and Health Administration

TWAEV = Time-Weighted Average Exposure Value

STEL = Short Term Exposure Limits are based on 15-minute exposures

Section 9 - Physical and Chemical Properties**Information on Physical and Chemical Properties**

Material Description			
Physical Form	Liquid	Appearance/Description	Brown liquid with aromatic odor.
Color	Brown	Odor	Aromatic
Odor Threshold	No data available		
General Properties			
Boiling Point	>= 93 °C(>= 199.4 °F)	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	= 1.2 Water=1	Water Solubility	Reacts
Viscosity	300 Centipoise (cPs, cP) or mPas		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	220 °C(428 °F)	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		

Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- May react with water and incompatible materials.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous Polymerization: May occur at temperatures >392°F./200°C.

Conditions to avoid

- Contact with moisture, other materials that react with isocyanates, or temperatures above 200°C (392°F), may cause polymerization.

Incompatible materials

- Water, alcohols, acids, alkalis, and amines.

Hazardous decomposition products

- Carbon monoxide, carbon dioxide, nitrogen oxides, isocyanates, and hydrogen cyanide.

Section 11 - Toxicological Information

Information on toxicological effects

Components		
4,4'-Methylene Bisphenyl Isocyanate (23% TO 25%)	101-68-8	<p>Acute Toxicity: Ingestion/Oral-Rat LD50 • 9200 mg/kg; Behavioral:Somnolence (general depressed activity); Behavioral:Ataxia; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Body temperature decrease; Inhalation-Rat TCLo • 2.4 mg/m³ 6 Hour(s); Lungs, Thorax, or Respiration:Structural or functional change in trachea or bronchi; Lungs, Thorax, or Respiration:Other changes; Biochemical:Metabolism (intermediary):Other proteins;</p> <p>Irritation: Eye-Rabbit • 100 mg • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s);</p> <p>Multi-dose Toxicity: Inhalation-Guinea Pig TCLo • 2 mg/m³ 3 Hour(s) 5 Day(s)-Intermittent; Lungs, Thorax, or Respiration:Structural or functional change in trachea or bronchi; Lungs, Thorax, or Respiration:Changes in lung weight;</p> <p>Mutagen: Micronucleus test • Inhalation-Rat • 7.1 mg/m³ 3 Hour(s); DNA adduct • Inhalation-Rat • 0.002 mg/L 17 Hour(s) 1 Year(s); Mutation in microorganisms • Unreported Route-Salmonella typhimurium • 0.02 mg/plate (+S9);</p> <p>Reproductive: Inhalation-Rat TCLo • 9 mg/m³ 6 Hour(s)(6-15D preg); Reproductive Effects:Maternal Effects:Other effects; Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system</p>
Polymeric Isocyanates (< 32%)	9016-87-9	<p>Acute Toxicity: Ingestion/Oral-Rat LD50 • 49 g/kg; Behavioral:Somnolence (general depressed activity); Gastrointestinal:Hypermotility, diarrhea; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Body temperature decrease; Inhalation-Rat LC50 • 490 mg/m³ 4 Hour(s); Sense Organs and Special Senses:Eye:Other; Lungs, Thorax, or Respiration:Respiratory depression; Blood:Hemorrhage; Skin-Rabbit LD50 • >9400 mg/kg;</p> <p>Irritation: Eye-Rabbit • 100 mg • Mild irritation;</p> <p>Reproductive: Inhalation-Rat TCLo • 12 mg/m³ 6 Hour(s)(6-15D preg); Reproductive Effects:Maternal Effects:Other effects; Reproductive Effects:Effects on Embryo or Fetus:Extra embryonic structures; Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system;</p> <p>Tumorigen / Carcinogen: Inhalation-Rat TCLo • 6 mg/m³ 6 Hour(s) 2 Year(s)-Intermittent; Tumorigenic:Equivocal tumorigenic agent by RTECS criteria; Lungs, Thorax, or Respiration:Tumors</p>

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 • Acute Toxicity - Inhalation 4 - ATEmix (inhl, dust/mist) = 0.72 mg/l 4-hr WHMIS 2015 • Acute Toxicity - Inhalation 4 - ATEmix (inhl, dust/mist) = 0.72 mg/l 4-hr
Skin corrosion/Irritation	OSHA HCS 2012 • Skin Irritation 2 WHMIS 2015 • Skin Irritation 2
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Irritation 2 WHMIS 2015 • Eye Irritation 2
Skin sensitization	OSHA HCS 2012 • Skin Sensitizer 1 WHMIS 2015 • Skin Sensitizer 1
Respiratory sensitization	OSHA HCS 2012 • Respiratory Sensitizer 1 WHMIS 2015 • Respiratory Sensitizer 1
Aspiration Hazard	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Carcinogenicity	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Germ Cell Mutagenicity	OSHA HCS 2012 • Germ Cell Mutagenicity 2 WHMIS 2015 • Germ Cell Mutagenicity 2
Toxicity for Reproduction	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
STOT-SE	OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation WHMIS 2015 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1 WHMIS 2015 • Specific Target Organ Toxicity Repeated Exposure 1

Potential Health Effects

Inhalation

Acute (Immediate)

- Harmful if inhaled. May cause respiratory irritation.

Chronic (Delayed)

- May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin

Acute (Immediate)

- Causes skin irritation. May cause skin sensitization. Symptoms include redness and skin rash.

Chronic (Delayed)

- No data available

Eye

Acute (Immediate)

- Causes serious eye irritation.

Chronic (Delayed)

- No data available

Ingestion

Acute (Immediate)

- The product is nontoxic by ingestion, but ingestion may cause nausea, vomiting, and/or gastrointestinal irritation.

Chronic (Delayed)

- No data available

Other

Chronic (Delayed)

- Causes damage to the lungs through prolonged or repeated exposure via Inhalation. Long-term effect of Isocyanic acid, methylenedi-p-phenylene ester on the respiratory system of 318 workers suggests that such workers may develop fibrosis. Long-term exposure tends to restrict pulmonary function and cause decrease in CO single breath transfer factor.

Mutagenic Effects

- Repeated and prolonged exposure may cause mutagenic effects.

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

Section 12 - Ecological Information**Toxicity**

- Material data lacking.

Persistence and degradability

- Material data lacking.

Bioaccumulative potential

- Material data lacking.

Mobility in Soil

- Material data lacking.

Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations**Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
TDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IMO/IMDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IATA/ICAO	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA

Special precautions for user

- None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- No data available

Section 15 - Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA Hazard Classifications • Acute, Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	No	No	No
4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Yes	Yes	Yes
Polymeric Isocyanates	9016-87-9	No	Yes	No

Inventory				
Component	CAS	Canada DSL	Canada NDSL	TSCA
Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Yes	No	Yes
4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Yes	No	Yes
Polymeric Isocyanates	9016-87-9	Yes	No	Yes

Canada**Labor****Canada - WHMIS 1988 - Classifications of Substances**

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	D1A, D2A, D2B
• Polymeric Isocyanates	9016-87-9	D1A, D2A, D2B

Canada - WHMIS 1988 - Ingredient Disclosure List

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	0.1 %
• Polymeric Isocyanates	9016-87-9	Not Listed

Environment**Canada - CEPA - Priority Substances List**

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	(listed under Methylene diphenyl diisocyanate)
• Polymeric Isocyanates	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	5000 lb final RQ; 2270 kg final RQ
• Polymeric Isocyanates	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates, under Methylenebis (phenylisocyanate))
• Polymeric Isocyanates	9016-87-9	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
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• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed
U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)		
• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed
U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)		
• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	
• Polymeric Isocyanates	9016-87-9	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5	Not Listed
• 4,4'-Methylene Bisphenyl Isocyanate	101-68-8	Not Listed
• Polymeric Isocyanates	9016-87-9	Not Listed

Section 16 - Other Information

Revision Date

- 22/February/2018

Preparation Date

- 22/February/2018

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification

Product identifier

Product Name

- **I.S.O. Stick™ Insulation Adhesive Winter Grade Part 2**

Synonyms

- Polyol portion of two component polyurethane adhesive

Relevant identified uses of the substance or mixture and uses advised against

Recommended use

- Polyol portion of two component polyurethane adhesive. To dispense: properly mix with I.S.O. Stick™ Insulation Winter Grade Part 1

Restrictions on use

- Proper dispensing requires mixing with I.S.O. Stick™ Insulation Winter Grade Part 1

Details of the supplier of the safety data sheet

Manufacturer

- Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

Emergency telephone number

Manufacturer

- (800) 424-9300 - CHEMTREC

Manufacturer

- (703) 527-3887 - CHEMTREC - International

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012

- Eye Irritation 2
Specific Target Organ Toxicity Repeated Exposure 2

Label elements

OSHA HCS 2012

WARNING



Hazard statements • Causes serious eye irritation

Precautionary statements

Prevention • Do not breathe mist, vapours and/or spray.
Wash thoroughly after handling.
Wear eye/face protection , .

- Response** • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Get medical advice/attention if you feel unwell.

- Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS 2015

Classification of the substance or mixture

WHMIS 2015

- Eye Irritation 2
Specific Target Organ Toxicity Repeated Exposure 2

Label elements

WHMIS 2015

WARNING



- Hazard statements** • Causes serious eye irritation
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention** • Do not breathe mist, vapours and/or spray.
Wash thoroughly after handling.
Wear eye/face protection , .
- Response** • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
- Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

WHMIS 2015

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments

Diethylene Glycol	CAS:111-46-6	< 15%	Skin-Rabbit LD50 • 11890 mg/kg Ingestion/Oral-Rat LD50 • 12000 mg/kg	OSHA HCS 2012: Eye Irrit. 2 WHMIS 2015: Eye Irrit. 2	NDA
Dipropylene Glycol	CAS:25265-71-8	< 10%	Ingestion/Oral-Rat LD50 • 14850 mg/kg Skin-Rabbit LD50 • >20 mL/kg	OSHA HCS 2012: Eye Irrit. 2 WHMIS 2015: Eye Irrit. 2	NDA

Section 4: First-Aid Measures

Description of first aid measures

- Inhalation**
- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- Skin**
- Wash skin with soap and water. If irritation develops and persists, get medical attention.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion**
- Rinse mouth. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

- Suitable Extinguishing Media**
- Water, foam, dry chemical, carbon dioxide (CO2).

- Unsuitable Extinguishing Media**
- Do not use a direct stream of water.

Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- This product may ignite if exposed to sources of ignition at temperatures in excess of its flash point.
- Hazardous Combustion Products**
- If present in a fire or explosion, potential thermal decomposition byproducts include carbon monoxide, smoke, and irritant decomposition byproducts.

Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA).
SMALL FIRES: Move containers from fire area if you can do it without risk.
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Avoid contact with skin and eyes.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Keep out of low areas. Stay upwind.

Environmental precautions

- Prevent entry into waterways and sewers.

Methods and material for containment and cleaning up**Containment/Clean-up Measures**

- Absorb spilled material with a sorbent such as sawdust, vermiculite, or calcium silicate hydrate.
When absorbed, transfer to an impervious container.
Dike to collect large liquid spills.

Section 7 - Handling and Storage**Precautions for safe handling****Handling**

- Use only in well ventilated areas. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe mist, vapours and/or spray. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Containers should be kept tightly closed to prevent contact with moisture and other chemicals. Do not reuse empty containers for any purpose.

Conditions for safe storage, including any incompatibilities**Storage**

- Store containers tightly sealed in original containers in a dry, well ventilated area away from incompatible materials. Store between 55 - 85 °F (12.8 - 29.4 °C)

Section 8 - Exposure Controls/Personal Protection**Control parameters****Exposure Limits/Guidelines**

- No exposure limits/guidelines available for the material or the components.

Exposure controls**Engineering Measures/Controls**

- This adhesive is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment**Respiratory**

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate chemical resistant clothing and chemical resistant gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Section 9 - Physical and Chemical Properties**Information on Physical and Chemical Properties**

Material Description			
Physical Form	Liquid	Appearance/Description	Red liquid with a mildly sweet odor.
Color	Red	Odor	Mildly sweet.
Odor Threshold	No data available		

General Properties

Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	= 1.02 Water=1	Water Solubility	Appreciable 10 to 99 %
Viscosity	300 Centipoise (cPs, cP) or mPas		

Volatility

Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		

Flammability

Flash Point	191 °C(375.8 °F)	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		

Environmental

Octanol/Water Partition coefficient	No data available		
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Section 10: Stability and Reactivity**Reactivity**

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- High temperatures.

Incompatible materials

- Oxidizing agents.

Hazardous decomposition products

- Carbon monoxide; carbon dioxide; smoke; irritant decomposition byproducts.

Section 11 - Toxicological Information**Information on toxicological effects**

Components		
Diethylene Glycol (< 15%)	111-46-6	Acute Toxicity: Ingestion/Oral-Rat LD50 • 12000 mg/kg; <i>Brain and Coverings:Other degenerative changes; Liver:Other changes; Kidney, Ureter, and Bladder:Other changes;</i> Skin-Rabbit LD50 • 11890 mg/kg; Irritation: Eye-Rabbit • 50 mg • Mild irritation; Skin-Rabbit • 500 mg • Mild irritation; Tumorigen / Carcinogen: Ingestion/Oral-Rat • 584 g/kg 2 Year(s)-Continuous; <i>Tumorigenic:Equivocal tumorigenic agent by RTECS criteria; Kidney, Ureter, and Bladder:Tumors;</i> Inhalation-Mouse TCLo • 4 mg/m ³ 2 Hour(s) 30 Week(s) -Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria; Blood:Lymphoma, including Hodgkin's disease; Skin and Appendages:Other:Tumors</i>
Dipropylene Glycol (< 10%)	25265-71-8	Acute Toxicity: Ingestion/Oral-Rat LD50 • 14850 mg/kg; Skin-Rabbit LD50 • >20 mL/kg; Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 812 g/kg 58 Week(s)-Intermittent; <i>Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain; Kidney, Ureter, and Bladder:Changes in both tubules and glomeruli; Related to Chronic Data:Death in the Other Multiple Dose data type field;</i> Ingestion/Oral-Rat TDLo • 1700900 mg/kg 2 Year(s)-Intermittent; <i>Sense Organs and Special Senses:Olfaction:Other changes; Gastrointestinal:Changes in structure or function of salivary glands; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain</i>

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Skin corrosion/Irritation	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Irritation 2 WHMIS 2015 • Eye Irritation 2
Skin sensitization	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Respiratory sensitization	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Aspiration Hazard	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Carcinogenicity	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Germ Cell Mutagenicity	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
Toxicity for Reproduction	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
STOT-SE	OSHA HCS 2012 • No data available WHMIS 2015 • No data available
STOT-RE	OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2 WHMIS 2015 • Specific Target Organ Toxicity Repeated Exposure 2

Potential Health Effects

Inhalation

Acute (Immediate)

- Inhalation of toxicologically-significant quantities of ingredients is unlikely when the product is used in a well-ventilated area and in accordance with instructions.

Chronic (Delayed)

- No data available

Skin

Acute (Immediate)

- May cause mild irritation.

Chronic (Delayed)

- No data available

Eye

Acute (Immediate)

- Causes serious eye irritation.

Chronic (Delayed)

- No data available

Ingestion

Acute (Immediate)

- The product is nontoxic by ingestion, but ingestion may cause nausea, vomiting, and/or gastrointestinal irritation.

Chronic (Delayed)

- Long-term chronic ingestion may damage the kidneys and the gastrointestinal system.

Key to abbreviations

LD = Lethal Dose

TD = Toxic Dose

Section 12 - Ecological Information

Toxicity

- No ecotoxicity data is available for the product or its components.

Persistence and degradability

- No ecotoxicity data is available for the product or its components.

Bioaccumulative potential

- No ecotoxicity data is available for the product or its components.

Mobility in Soil

- No ecotoxicity data is available for the product or its components.

Other adverse effects

- No ecotoxicity data is available for the product or its components.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
TDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IMO/IMDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IATA/ICAO	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA

Special precautions for user

- None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- Acute, Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Diethylene Glycol	111-46-6	No	No	Yes
Dipropylene Glycol	25265-71-8	No	No	Yes

Inventory				
Component	CAS	Canada DSL	Canada NDSL	TSCA
Diethylene Glycol	111-46-6	Yes	No	Yes
Dipropylene Glycol	25265-71-8	Yes	No	Yes

Canada

Labor

Canada - WHMIS 1988 - Classifications of Substances

• Diethylene Glycol	111-46-6	D1B
• Dipropylene Glycol	25265-71-8	Not Listed

Canada - WHMIS 1988 - Ingredient Disclosure List

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Diethylene Glycol	111-46-6	Not Listed
• Dipropylene Glycol	25265-71-8	Not Listed

Section 16 - Other Information**Revision Date**

- 22/February/2018

Preparation Date

- 22/February/2018

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company, LLC assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable

safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • I.S.O. Twin Pack™ Insulation Adhesive Part 1

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

- | | |
|----------------|--|
| CLP | <ul style="list-style-type: none"> • Skin Irritation 2 - H315 • Skin Sensitization 1 - H317 • Eye Irritation 2 - H319 • Acute Toxicity Inhalation 3 - H331 • Respiratory Sensitization 1 - H334 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335 • Carcinogenicity 2 - H351 • Specific Target Organ Toxicity Repeated Exposure 2 - H373 |
| DSD/DPD | <ul style="list-style-type: none"> • Harmful (Xn) • Irritant (Xi) • Carcinogenic Substances - Category 3 R20, R36/37/38, R40, R42/43, R48/20 |

2.2 Label Elements

CLP

DANGER



- Hazard statements** • H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H319 - Causes serious eye irritation
 H331 - Toxic if inhaled
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 H335 - May cause respiratory irritation
 H351 - Suspected of causing cancer.
 H373 - May cause damage to organs through prolonged or repeated exposure.

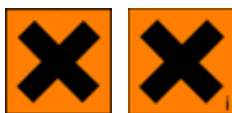
Precautionary statements

- Prevention** • P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P260 - Do not breathe mist/vapours/spray.
 P264 - Wash thoroughly after handling.
 P271 - Use only outdoors or in a well-ventilated area.
 P272 - Contaminated work clothing should not be allowed out of the workplace.
 P280 - Wear protective gloves and eye/face protection , .
 P281 - Use personal protective equipment as required.
 P285 - In case of inadequate ventilation wear respiratory protection.

- Response** • P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P321 - Specific treatment, see supplemental first aid information.
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P362 - Take off contaminated clothing and wash before reuse.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P308+P313 - IF exposed or concerned: Get medical advice/attention.
 P314 - Get medical advice/attention if you feel unwell.

- Storage/Disposal** • P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases** • R20 - Harmful by inhalation.
 R36/37/38 - Irritating to eyes, respiratory system and skin.
 R40 - Limited evidence of a carcinogenic effect.
 R42/43 - May cause sensitisation by inhalation and skin contact.
 R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.

- Safety phrases** • S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S36 - Wear suitable protective clothing.
 S37 - Wear suitable gloves.
 S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S53 - Avoid exposure - obtain special instructions before use.

2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

- DSD/DPD** • According to European Directive 1999/45/EC this preparation is considered dangerous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Skin Irritation 2 - H315
- Skin Sensitization 1A - H317
- Eye Irritation 2 - H319
- Acute Toxicity Inhalation 2 - H330
- Respiratory Sensitization 1A - H334
- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
- Specific Target Organ Toxicity Repeated Exposure 1 - H372

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- Causes skin irritation - H315
 - May cause an allergic skin reaction - H317
 - Causes serious eye irritation - H319
 - Fatal if inhaled - H330
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled - H334
 - May cause respiratory irritation - H335
 - Causes damage to organs - Lungs through prolonged or repeated exposure via Inhalation - H372

Precautionary statements

- Prevention**
- Do not breathe mist/vapours/spray. - P260
 - Wash thoroughly after handling. - P264
 - Do not eat, drink or smoke when using this product. - P270
 - Use only outdoors or in a well-ventilated area. - P271
 - Contaminated work clothing should not be allowed out of the workplace. - P272
 - Wear protective gloves/protective clothing/eye protection/face protection. - P280
 - In case of inadequate ventilation wear respiratory protection. - P285
- Response**
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. - P342+P311
 - If on skin: Wash with plenty of water .
 - If skin irritation or rash occurs: Get medical advice/attention. - P333+P313
 - Take off contaminated clothing and wash before reuse. - P362
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
 - If eye irritation persists: Get medical advice/attention. - P337+P313
 - Specific treatment is urgent, see supplemental first aid information. - P320
 - Get medical advice/attention if you feel unwell. - P314
- Storage/Disposal**
- Store in a well-ventilated place. Keep container tightly closed. - P403+P233
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501
- Supplemental information**
- 75 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Very Toxic - D1A
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



- Very Toxic - D1A
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Polymethylene polyphenyl isocyanate	CAS:9016-87-9	25% TO 50%	Ingestion/Oral-Rat LD50 • 49 g/kg Inhalation-Rat LC50 • 490 mg/m ³ 4 Hour(s) Skin-Rabbit LD50 • >9400 mg/kg	EU DSD/DPD: Self Classified: Xn, R20-48/20; Xn, R42/43, Xi, R36/37/38; Carc. 3, R40 EU CLP: Self Classified: Acute Tox. 2 (mist), H330; STOT RE 2, H373; Eye Irrit. 2, H319; STOT SE 3: Resp. Irrit., H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; Carc. 2, H351 OSHA HCS 2012: Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1A; STOT SE 3: Resp. Irrit.; Resp. Sens. 1A; STOT RE 1(Lung); Acute Tox. 2 (inhl, mist)	NDA
Isocyanic acid, methylenedi-p-phenylene ester	CAS:101-68-8 EC Number:202-966-0 EU Index:615-005-00-9	25% TO 50%	Ingestion/Oral-Rat LD50 • 9200 mg/kg Inhalation-Rat LC50 • 178 mg/m ³	EU DSD/DPD: Annex VI, Table 3.2: Carc. Cat. 3; R40; Xn; R20-48/20; Xi; R36/37/38, R42/43 EU CLP: Annex VI, Table 3.1: Carc. 2, H351; Acute Tox. 4, H332; STOT RE 2 *, H373; Eye Irrit. 2, H319; STOT SE 3: Resp. Irrit., H335; Skin Irrit. 2, H319; Resp. Sens. 1, H334; Skin Sens. 1, H317 OSHA HCS 2012: Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Resp. Sens. 1, STOT SE 3: Resp. Irrit.; STOT RE 1(Lungs);	NDA
Diphenylmethane diisocyanate	CAS:26447-40-5 EC Number:247-714-0	2.5% TO 10%	NDA	EU DSD/DPD: Annex VI, Table 3.2: Carc. Cat. 3; R40; Xn; R20-48/20; Xi; R36/37/38;R42/43 EU CLP: Annex VI, Table 3.1: Carc. 2, H351; Acute Tox. 4 , H332; STOT RE 2, H373; Eye Irrit. 2, H319; STOT SE 3: Resp. Irrit., H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317	NDA

EU Index:615-
005-00-9OSHA HCS 2012: Eye Irrit. 2; STOT SE 3; Resp.
Irrit.; Skin Irrit. 2; Resp. Sens. 1A; Skin Sens. 1A;
STOT RE 1

See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Keep patient warm. Get medical attention immediately if symptoms occur.

Skin

- Wash skin with soap and water. Take off contaminated clothing and wash before reuse. If irritation develops and persists, get medical attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Rinse mouth. Drink 1 - 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • CO₂, extinguishing powder or water spray. Fight larger fires with water spray.

Unsuitable Extinguishing Media

- Do not use a direct stream of water.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- Dried solids can burn and release toxic fumes and vapors.

Hazardous Combustion Products

- No data available

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
Move fire exposed containers if safe to do so. Cool fire exposed containers with water spray. Dike contaminated fire-control water for later disposal.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers

Emergency Procedures

- or spilled material unless wearing appropriate protective clothing.
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids. Stay upwind. Keep out of low areas. Keep unauthorized personnel away. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Avoid release to the environment.

6.3 Methods and material for containment and cleaning up**Containment/Clean-up Measures**

- Stop leak if you can do it without risk. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
LARGE SPILLS: Dike far ahead of spill for later disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage**7.1 Precautions for safe handling****Handling**

- Use only with adequate ventilation. Prevent formation of aerosols. Keep away from water as reaction can be initiated by water exposure. Persons with sensitivity to isocyanate should not handle/use this product. Wear appropriate personal protective equipment, avoid direct contact. Do not breath mist/vapours/spray. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities**Storage**

- Store in a cool, dry, well-ventilated place. Keep container tightly closed. Protect from atmospheric moisture. Keep away from heat, sparks and flame.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection**8.1 Control parameters**

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick
Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)	TWAs	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA; 0.05 mg/m3 TWA	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.051 mg/m3 TWA (listed under Methylene bisphenyl isocyanate)
	Ceilings	Not established	Not established	0.01 ppm Ceiling (listed under Methylene bisphenyl isocyanate (MDI))	Not established	Not established
Polymethylene polyphenyl isocyanate (9016-87-9)	TWAs	Not established	0.005 ppm TWA; 0.07 mg/m3 TWA	Not established	Not established	Not established

Exposure Limits/Guidelines (Con't.)

	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec
Diphenylmethane diisocyanate (26447-40-5)	Ceilings	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling	Not established	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling	Not established	Not established
Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)	TWAs	Not established	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	Not established	0.005 ppm TWA (designated substances regulation, listed under Isocyanates, organic compounds (Methylene bisphenyl isocyanate (MDI))); 0.005 ppm TWA (applies to workplaces to which the designated substances regulation does not apply, listed under Methylene bisphenyl isocyanate (MDI))	0.005 ppm TWA _{AEV} ; 0.051 mg/m3 TWA _{AEV}
	Ceilings	Not established	Not established	Not established	0.02 ppm Ceiling (designated substances regulation, listed under Isocyanates, organic compounds (Methylene bisphenyl isocyanate (MDI)))	Not established

Exposure Limits/Guidelines (Con't.)

	Result	Canada Saskatchewan	Canada Yukon	Denmark	Germany DFG	Germany TRGS
Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)	TWAs	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	Not established	0.005 ppm TWA; 0.05 mg/m3 TWA	Not established	0.05 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, ceiling factor 2, exposure factor 1)
	Ceilings	Not established	0.02 ppm Ceiling (Methylene bisphenyl isocyanate (MDI)); 0.2 mg/m3 Ceiling (Methylene bisphenyl isocyanate (MDI))	Not established	0.05 mg/m3 Peak (inhalable fraction)	Not established
	MAKs	Not established	Not established	Not established	0.05 mg/m3 TWA MAK (see also polymeric MDI, inhalable fraction)	Not established
						0.05 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can

Polymethylene polyphenyl isocyanate (9016-87-9)	TWAs	Not established	Not established	Not established	Not established	be excluded when AGW and BGW values are observed, inhalable fraction, as MDI, exposure factor 1)
	Ceilings	Not established	Not established	Not established	0.05 mg/m3 Peak (inhalable fraction)	Not established
	MAKs	Not established	Not established	Not established	0.05 mg/m3 TWA MAK (inhalable fraction)	Not established

Exposure Limits/Guidelines (Con't.)

	Result	NIOSH	OSHA
Diphenylmethane diisocyanate (26447-40-5)	Ceilings	Not established	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling
Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)	Ceilings	0.020 ppm Ceiling (10 min); 0.2 mg/m3 Ceiling (10 min)	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling
	TWAs	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.05 mg/m3 TWA	Not established

Exposure Control Notations

Germany TRGS

•Isocyanic acid, methylenedi-p-phenylene ester (101-68-8): **Carcinogens:** (Category 3 (as inhalable aerosol, alveola fraction)) | **Developmental Toxins:** (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveoli fraction)) | **Reproductive Toxins:** (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveola fraction)) | **Germ Cell Mutagens:** (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveola fraction))

•Polymethylene polyphenyl isocyanate (9016-87-9): **Carcinogens:** (Category 3 (as inhalable aerosol, alveola fraction)) | **Developmental Toxins:** (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveoli fraction)) | **Reproductive Toxins:** (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveola fraction)) | **Germ Cell Mutagens:** (Based on current data, this substance cannot be classified in categories 1-3 (as inhalable aerosol, alveola fraction)) | **Skin:** (skin notation (calculated as MDI))

Germany DFG

•Isocyanic acid, methylenedi-p-phenylene ester (101-68-8): **Carcinogens:** (Category 4 (no significant contribution to human cancer)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to (inhalable fraction, see also polymeric MDI)) | **Sensitizers:** (respiratory and skin sensitizer (inhalable fraction)) | **Skin:** (skin notation)

•Polymethylene polyphenyl isocyanate (9016-87-9): **Carcinogens:** (Category 4 (no significant contribution to human cancer)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to (inhalable fraction)) | **Sensitizers:** (respiratory and skin sensitizer (inhalable fraction)) | **Skin:** (skin notation)

Exposure Limits Supplemental

ACGIH

•Isocyanic acid, methylenedi-p-phenylene ester (101-68-8): **TLV Basis - Critical Effects:** (respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI)))

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the

OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face**Skin/Body****Environmental Exposure Controls**

- Wear chemical splash safety goggles.
- Wear appropriate gloves. Chloroprene rubber, CR. Nitrile rubber, NBR. Butyl rubber, BR. Wear appropriate chemical resistant clothing.
- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

TWA EV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Off white to light amber liquid with faint aromatic odor.
Color	Off White - Light Amber.	Odor	Faint Aromatic.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point	Not relevant
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	1.12 Water=1 @ 20 C(68 F)	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	0 mmHg (torr)	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	176 C(348.8 F)	UEL	Data lacking
LEL	0.4 %	Autoignition	> 482 F(> 250 C)
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- There is a potential for violent reaction if contaminated with water.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Danger of polymerization. Reacts violently with water.

10.4 Conditions to avoid

- Contact with moisture, other materials that react with isocyanates, or temperatures above 350°F (177°C), may cause polymerization.

10.5 Incompatible materials

- Reacts with amines, caustic alkali solutions, alcohols, ammonia, oxidizers, acids, polyols. Reacts with water forming carbon dioxide-may rupture sealed containers if contaminated with water. May produce violent reactions with bases and numerous organic substances including alcohols and amines.

10.6 Hazardous decomposition products

- Carbon dioxide, carbon monoxide, oxides of nitrogen, dense black smoke, hydrogen cyanide, isocyanic acid, other undetermined compounds.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Isocyanic acid, methylenedi-p-phenylene ester (25% TO 50%)	101-68-8	Acute Toxicity: Ingestion/Oral-Rat LD50 • 9200 mg/kg; Behavioral:Somnolence (general depressed activity); Behavioral:Ataxia; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Body temperature decrease; Inhalation-Rat LC50 • 178 mg/m ³ ; Irritation: Eye-Rabbit • 100 mg • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s); Mutagen: DNA adduct • Inhalation-Rat • 2 mg/m ³ 52 Week(s)-Intermittent; Micronucleus test • Inhalation-Rat • 7.1 mg/m ³ 3 Hour(s); DNA adduct • Inhalation-Rat • 0.002 mg/L 17 Hour(s) 1 Year(s); Reproductive: Inhalation-Rat TCLO • 9 mg/m ³ 6 Hour(s)(6-15D preg); Reproductive Effects:Maternal Effects:Other effects; Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system
Polymethylene polyphenyl isocyanate (25% TO 50%)	9016-87-9	Acute Toxicity: Ingestion/Oral-Rat LD50 • 49 g/kg; Behavioral:Somnolence (general depressed activity); Gastrointestinal:Hypermotility, diarrhea; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Body temperature decrease; Inhalation-Rat LC50 • 490 mg/m ³ 4 Hour(s); Sense Organs and Special Senses:Eye:Other; Lungs, Thorax, or Respiration:Respiratory depression; Blood:Hemorrhage; Skin-Rabbit LD50 • >9400 mg/kg; Irritation: Eye-Rabbit • 100 mg • Mild irritation; Reproductive: Inhalation-Rat TCLO • 12 mg/m ³ 6 Hour(s)(6-15D preg); Reproductive Effects:Maternal Effects:Other effects; Reproductive Effects:Effects on Embryo or Fetus:Extra embryonic structures; Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Inhalation 3 - ATEmix(inhl)=0.748 mg/L OSHA HCS 2012 • Acute Toxicity - Inhalation 2 - ATEmix(inhl)=0.49 mg/L
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Carcinogenicity 2 OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Skin sensitization	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1A

STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Respiratory Sensitizer 1 OSHA HCS 2012 • Respiratory Sensitizer 1A
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2

Potential Health Effects

Inhalation

- Acute (Immediate)** • Toxic if inhaled. May cause respiratory irritation.
- Chronic (Delayed)** • May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin

- Acute (Immediate)** • Causes skin irritation. May cause skin sensitization. Symptoms include redness and skin rash.
- Chronic (Delayed)** • No data available.

Eye

- Acute (Immediate)** • Causes serious eye irritation.
- Chronic (Delayed)** • No data available.

Ingestion

- Acute (Immediate)** • Although swallowing this product is an unlikely means of exposure, irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.
- Chronic (Delayed)** • No data available

Other

- Chronic (Delayed)** • Causes damage to the lungs through prolonged or repeated exposure via Inhalation. Long-term effect of Isocyanic acid, methylenedi-p-phenylene ester on the respiratory system of 318 workers suggests that such workers may develop fibrosis. Long-term exposure tends to restrict pulmonary function and cause decrease in CO single breath transfer factor.

Carcinogenic Effects

- May cause cancer.

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- Acute, Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Diphenylmethane diisocyanate	26447-40-5	Yes	Yes	No
Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	No	No	Yes
Polymethylene polyphenyl isocyanate	9016-87-9	No	Yes	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Diphenylmethane diisocyanate	26447-40-5	Yes	No	Yes	No	Yes
Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Yes	No	Yes	No	Yes
Polymethylene polyphenyl isocyanate	9016-87-9	Yes	No	No	No	Yes

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	D1A, D2A, D2B
• Polymethylene polyphenyl isocyanate	9016-87-9	D1A, D2A, D2B

Canada - WHMIS - Ingredient Disclosure List

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	0.1 %
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

• Diphenylmethane diisocyanate	26447-40-5	Binders (listed under Certain isocyanates); Curing agents (listed under Certain isocyanates); Glues (listed under Certain isocyanates); Paints (listed under Certain isocyanates); Coatings (listed under Certain isocyanates); Molding compounds (listed under Certain isocyanates)
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Binders; Curing agents; Glues; Paints; Coatings; Molding compounds

• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed
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Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• Diphenylmethane diisocyanate	26447-40-5	Xn; R20-48/20 Xi; R36/37/38 Carc.Cat.3; R40 R42/43
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Xn; R20-48/20 Xi; R36/37/38 Carc.Cat.3; R40 R42/43
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Diphenylmethane diisocyanate	26447-40-5	5%≤C: Xi; R:36/37/38 0.1% ≤C: R:42
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	5%≤C: Xi; R:36/37/38 0.1% ≤C: R:42
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Diphenylmethane diisocyanate	26447-40-5	Xn R:20-36/37/38-40-42/43-48/20 S:(1/2)-23-36/37-45
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Xn R:20-36/37/38-40-42/43-48/20 S:(1/2)-23-36/37-45
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Diphenylmethane diisocyanate	26447-40-5	C, 2
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	C, 2
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Diphenylmethane diisocyanate	26447-40-5	S:(1/2)-23-36/37-45
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	S:(1/2)-23-36/37-45
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
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• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Environment

Germany - TA Luft - Types and Classes

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	organic Substance: 5.2.5, Class I
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	0.10 kg/h Mass flow (Class I); 20 mg/m3 Mass concentration (Class I)
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	ID Number 635, hazard class 1 - low hazard to waters
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Germany - Water Classification (VwVwS) - Annex 3

• Diphenylmethane diisocyanate	26447-40-5	ID Number 8322, hazard class 1 - low hazard to waters
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

United States

Labor**U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	(listed under Methylene diphenyl diisocyanate)
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	5000 lb final RQ; 2270 kg final RQ
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)
• Polymethylene polyphenyl isocyanate	9016-87-9	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Diphenylmethane diisocyanate	26447-40-5	Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester	101-68-8	Not Listed
• Polymethylene polyphenyl isocyanate	9016-87-9	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H330 - Fatal if inhaled

Last Revision Date	H332 - Harmful if inhaled
Preparation Date	<ul style="list-style-type: none">• 14/May/2013
Disclaimer/Statement of Liability	<ul style="list-style-type: none">• 18/October/2011• The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.
Key to abbreviations	
NDA = No Data Available	

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • I.S.O. Twin Pack™ Insulation Adhesive Part B

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Skin Irritation 2 - H315
Skin Sensitization 1 - H317
Eye Irritation 2 - H319

DSD/DPD • Irritant (Xi)
R36/38, R43

2.2 Label Elements

CLP

WARNING



Hazard statements • H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation

Precautionary statements

Prevention • P261 - Avoid breathing mists, vapours, and/or spray.
P264 - Wash thoroughly after handling.

P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves and eye/face protection , .
Response • P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P321 - Specific treatment, see supplemental first aid information.

Storage/Disposal • P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



Risk phrases • R36/38 - Irritating to eyes and skin.
R43 - May cause sensitisation by skin contact.

Safety phrases • S24 - Avoid contact with skin.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37 - Wear suitable gloves.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD • This product is considered dangerous according to the European Directive 67/548/EEC.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Skin Irritation 2
Skin Sensitization 1
Eye Irritation 2A

2.2 Label elements

OSHA HCS 2012

WARNING



Hazard statements • Causes skin irritation
May cause an allergic skin reaction
Causes serious eye irritation

Precautionary statements

Prevention • Avoid breathing mists, vapours, and/or spray.
Wash thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves and eye/face protection , .

Response • If on skin: Wash with plenty of water .
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 Specific treatment, see supplemental first aid information.

- Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



- Other Toxic Effects - D2B

WHMIS

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Siloxanes and Silicones, di-Me, reaction products with silica	CAS:67762-90-7	<= 2.5%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	CAS:1760-24-3 EINECS:217-164-6	<= 2.5%	Ingestion/Oral-Rat LD50 • 2413 mg/kg	EU DSD/DPD: Self Classified: Xi; R36 EU CLP: Self Classified: Eye Irrit. 2, H319 OSHA HCS 2012: Eye Irrit. 2	NDA
Propanol, oxybis-	CAS:25265-71-8 EINECS:246-770-3	<= 2.5%	Ingestion/Oral-Rat LD50 • 14850 mg/kg Skin-Rabbit LD50 • >20 mL/kg	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|---|
| Inhalation | <ul style="list-style-type: none"> • Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none"> • Wash skin with soap and water. If irritation develops and persists, get medical attention. |
| Eye | <ul style="list-style-type: none"> • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention. |
| Ingestion | <ul style="list-style-type: none"> • Rinse mouth. Drink 1 - 2 glasses of water. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Get medical attention immediately. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> • All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|---|
| Suitable Extinguishing Media | <ul style="list-style-type: none"> • Use fire extinguishing media as appropriate for surrounding conditions. |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"> • No data available |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|---|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none"> • Dried solids can burn and release toxic fumes and vapors. |
| Hazardous Combustion Products | <ul style="list-style-type: none"> • No data available |

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA).
SMALL FIRES: Move containers from fire area if you can do it without risk.
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|-----------------------------|---|
| Personal Precautions | <ul style="list-style-type: none"> • Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. |
| Emergency Procedures | <ul style="list-style-type: none"> • As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Keep out of low areas. Stay upwind. |

6.2 Environmental precautions

- Prevent entry into waterways and sewers.

6.3 Methods and material for containment and cleaning up

- | | |
|--------------------------------------|--|
| Containment/Clean-up Measures | <ul style="list-style-type: none"> • Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. |
|--------------------------------------|--|

Dike to collect large liquid spills.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only in well ventilated areas. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist, vapours, spray. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines			
	Result	Germany DFG	Germany TRGS
Propanol, oxybis- (25265-71-8)	TWAs	Not established	100 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, inhalable fraction, exposure factor 2)
	Ceilings	200 mg/m3 Peak (inhalable fraction)	Not established
	MAKs	100 mg/m3 TWA MAK (inhalable fraction)	Not established

Exposure Control Notations

Germany TRGS

•Propanol, oxybis- (25265-71-8): **Skin:** (skin notation)

Germany DFG

•Propanol, oxybis- (25265-71-8): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation (inhalable fraction))

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate chemical resistant clothing and chemical resistant gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Colorless liquid with polyether odor.
Color	Colorless	Odor	Polyether
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	9 to 10
Specific Gravity/Relative Density	= 0.98 @ 20 °C(68 °F) Water=1	Water Solubility	Data lacking
Viscosity	Data lacking	Explosive Properties	Product does not present an explosion hazard.
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	> 350 °C(> 662 °F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not determined.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- High temperatures.

10.5 Incompatible materials

- Oxidizing agents.

10.6 Hazardous decomposition products

- Carbon monoxide, carbon dioxide, tin oxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Siloxanes and Silicones, di-Me, reaction products with silica (<= 2.5%)	67762-90-7	Multi-dose Toxicity: Inhalation-Rat TCLo • 30 mg/kg 6 Hour(s) 4 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration:Other changes</i> ; <i>Blood:Hemorrhage</i> ; <i>Related to Chronic Data:Death in the Other Multiple Dose data type field</i>
Ethylenediamine, N-(3-(trimethoxysilyl)propyl)- (<= 2.5%)	1760-24-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 2413 mg/kg; <i>Behavioral:Tremor</i> ; <i>Gastrointestinal:Hypermotility, diarrhea</i> ; <i>Gastrointestinal:Other changes</i> ; Skin-Rat LD50 • >2009 mg/kg; Irritation: Eye-Rabbit • 15 mg • Severe irritation; Skin-Rabbit • 500 mg-Open • Mild irritation
Propanol, oxybis- (<= 2.5%)	25265-71-8	Acute Toxicity: Ingestion/Oral-Rat LD50 • 14850 mg/kg; Skin-Rabbit LD50 • >20 mL/kg

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2A
Skin sensitization	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

- Acute (Immediate)** • May cause irritation.
- Chronic (Delayed)** • No data available

Skin

- Acute (Immediate)** • Causes skin irritation. May cause skin sensitization. Symptoms include redness, and skin rash.
- Chronic (Delayed)** • No data available

Eye

- Acute (Immediate)** • Causes serious eye irritation.
- Chronic (Delayed)** • No data available

Ingestion

- Acute (Immediate)** • Although swallowing this product is an unlikely means of exposure, irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.
- Chronic (Delayed)** • No data available

Key to abbreviations

LD = Lethal Dose

TC = Toxic Concentration

Section 12 - Ecological Information**12.1 Toxicity**

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations**13.1 Waste treatment methods**

- Product waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Packaging waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA

IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA
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14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

State Right To Know				
Component	CAS	MA	NJ	PA
Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	No	No	No
Propanol, oxybis-	25265-71-8	No	No	Yes
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Yes	No	Yes	Yes	No
Propanol, oxybis-	25265-71-8	Yes	No	Yes	Yes	No
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Yes	No	Yes	No	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Yes	Yes	Yes
Propanol, oxybis-	25265-71-8	Yes	Yes	Yes
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Yes	Yes	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Australia - High Volume Industrial Chemicals List

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Australia - List of Designated Hazardous Substances - Classification

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Environment**Australia - National Pollutant Inventory (NPI) Substance List**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Australia - Priority Existing Chemical Program

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Belgium**Labor****Belgium - Substances and Preparations - Carcinogens and Mutagens**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Bulgaria**Environment****Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Canada**Labor****Canada - WHMIS - Classifications of Substances**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed

• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
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Canada - WHMIS - Ingredient Disclosure List

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Environment**Canada - CEPA - Priority Substances List**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

China**Other****China - Annex I & II - Controlled Chemicals Lists**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Denmark**Environment****Denmark - List of Undesirable Substances - Product Groups/Function**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Environment

Germany - TA Luft - Types and Classes

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
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• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	ID Number 849, not considered hazardous to water

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Germany - Water Classification (VwVwS) - Annex 3

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	ID Number 7703, hazard class 1 - low hazard to waters
• Propanol, oxybis-	25265-71-8	ID Number 3419, hazard class 1 - low hazard to waters
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Mexico**Other****Mexico - Hazard Classifications**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Mexico - Regulated Substances

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed

• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs		
• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs		
• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
U.S. - CERCLA/SARA - Section 313 - Emission Reporting		
• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed
U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing		
• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

United States - Pennsylvania

Labor**U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Ethylenediamine, N-(3-(trimethoxysilyl)propyl)-	1760-24-3	Not Listed
• Propanol, oxybis-	25265-71-8	Not Listed
• Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information**Revision Date**

- 19/January/2018

Preparation Date

- 13/April/2009

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No data available

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How to Use This Book

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1. Ես չեմ կարողանում հասկանալ, թե ինչու ես եմ այստեղ:
 2. Ես չեմ կարողանում հասկանալ, թե ինչու ես եմ այստեղ:
 3. Ես չեմ կարողանում հասկանալ, թե ինչու ես եմ այստեղ:
 4. Ես չեմ կարողանում հասկանալ, թե ինչու ես եմ այստեղ:
 5. Ես չեմ կարողանում հասկանալ, թե ինչու ես եմ այստեղ:
 6. Ես չեմ կարողանում հասկանալ, թե ինչու ես եմ այստեղ:
 7. Ես չեմ կարողանում հասկանալ, թե ինչու ես եմ այստեղ:
 8. Ես չեմ կարողանում հասկանալ, թե ինչու ես եմ այստեղ:
 9. Ես չեմ կարողանում հասկանալ, թե ինչու ես եմ այստեղ:
 10. Ես չեմ կարողանում հասկանալ, թե ինչու ես եմ այստեղ:

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• ပတ်ဝန်းကျင်ဆိုင်ရာ အန္တရာယ်များကို ကာကွယ်ရန် အရေးကြီးသော အချက်အလက်များကို ဖော်ပြပါ။

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	2019 թ. 01.01	Չի կատարվում անվտանգության կոմիտեի կողմից անվտանգության կոմիտեի կողմից	Չի կատարվում անվտանգության կոմիտեի կողմից անվտանգության կոմիտեի կողմից

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ΑΩΠΚΩ ρ ΠΩΗΠΚΗΠΚ

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Date of preparation: 07/01/13

SECTION I**Manufacturer** : BLUE RIDGE™ FIBERBOARD, INC.**Address** : 250 Celotex Dr.
: Danville, VA 24541**Telephone #** :
Emergency # : 1-800-424-9300 Chemtrec**Product Class** :**Mfg. code I.D.** :**Trade Name** : STRUCTODEK® High Density Fiberboard Roof Insulation; Primed Red Coated 2 Sides;
Black Coated 1 or 6 Sides; or
Uncoated "Natural"**- H M I S -****|Health** : 0 |**|Flammability** : 1 |**|Reactivity** : 0 |**|Personal Protection** : |

(Hazard Rating: 0=Least,1=Slight,2=Moderate,3=High,4=Extreme,*=Chronic)

SECTION II-A HAZARDOUS COMPONENTS

No.	Component	CAS#	% by Weight	SARA 313	VAPOR PRESSURE (mm Hg @ 20 C)	LEL (@ 25 C)
1.	Wood Fiber*	N/A	85-95	N/A	N/A	N/A

*: Wood dust is listed by the IARC as a human carcinogen (Group 1).

Structodek High Density Fiberboard Roof Insulation is defined by OSHA (29 CFR Part 1910) as an "Article". A manufactured item which is formed to a specific shape or design during manufacture which does not release or otherwise result in exposure to a hazardous chemical under normal conditions of use.

SECTION II-B OCCUPATIONAL EXPOSURE LIMITS

No.	PEL/TWA	OSHA PEL/CEILING	PEL/STEL	SKIN	TLV/TWA	ACGIH TLV/CEILING	TLV/STEL	SKIN
1.	5 mg/m3*	N/E	10 mg/m3*	No	5 mg/m3**	N/E	10 mg/m3**	No
*: Wood dust, soft and hard woods		**: Wood dust, soft woods		N/E: Not Established				

SECTION III PHYSICAL DATA

Boiling Point	: Not applicable	% Volatile by volume	: 0
Evaporation Rate	: No applicable	% Volatile by weight	: Not applicable
Vapor Density	: Not applicable	Weight per gallon	: Not applicable
pH Level	: Not applicable	Appearance	: Brown board, Black or Red on edges/sides

SECTION IV HEALTH INFORMATION**EYE CONTACT:** Wood dust may cause mechanical irritation.**SKIN CONTACT:** Wood dust may cause mechanical irritation.**INHALATION:** Wood dust may cause nasal dryness, irritation, and obstruction. Coughing, wheezing, sneezing, sinusitis, and prolonged coughs have been reported.**INGESTION:** Health effects are not expected via this exposure route.**SIGNS AND SYMPTOMS:** Symptoms of eye/skin irritation included reddening and rash. Symptoms of respiratory irritation include coughing, wheezing, and shortness of breath.**AGGRAVATED MEDICAL CONDITIONS:** None known with normal product use.**OTHER HEALTH EFFECTS:** Wood dust may cause contact dermatitis on prolonged/repeated contact. IARC classifies wood dust as a human carcinogen. An increased risk of nasal cavity and para-nasal sinus cancer has been associated with wood dust exposure.**SECTION V EMERGENCY AND FIRST AID PROCEDURES****EYE CONTACT:** Flush eyes with water to remove fibers.**SKIN CONTACT:** Flush with water to remove fibers. Wash affected area with soap and water if available.**INHALATION:** Move individual from dusty environment. Treat symptomatically.**INGESTION:** None normally required.

Date of preparation: 07/01/13

STRUCTODEK

Date of preparation: 07/01/13

SECTION VI FIRE AND EXPLOSION HAZARDS

FLAMMABILITY CLASSIFICATION

- NFPA : None
- DOT : Not regulated

FLASH POINT: Not Applicable. Product is a solid.

EXTINGUISHING MEDIA: Carbon Dioxide, water fog, foam, dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS: None recognized.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Smoldering materials may reignite. A fire watch should be maintained for extinguished materials.

SECTION VII REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS AND MATERIALS TO AVOID: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may yield Carbon Dioxide, Carbon Monoxide, and/or incomplete combustion products.

SECTION VIII EMPLOYEE PROTECTION

RESPIRATORY PROTECTION: None required with normal product use. If abraded, use of a dust filter respirator is recommended to prevent inhalation of wood dust.

PROTECTIVE CLOTHING: Cotton work gloves/Safety glasses.

ADDITIONAL PROTECTIVE MEASURES: Not applicable.

SECTION IX ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES: Not applicable: product is a solid.

WASTE DISPOSAL: Permitted landfill facility

SECTION X ADDITIONAL PRECAUTIONS

Prevent contact with fire. Prevent job-site damage.

The information contained herein is based on the data available to us and is believed to be correct. However, we make no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injury from the use of the product described herein.

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier****Product Name** | FiberTop™ Roof Insulation**Synonyms** | FiberTop™ Roof Insulation B, FiberTop™ Roof Insulation C, and FiberTop™ Roof Insulation E**1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified use(s)** | Construction**1.3 Details of the supplier of the safety data sheet****Manufacturer** | Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States**Telephone (General)** | firestonemsds@bfdp.com
800-428-4442**1.4 Emergency telephone number****Manufacturer** | (800) 424-9300 - CHEMTREC**Manufacturer** | (703) 527-3887 - CHEMTREC - International**Section 2: Hazards Identification****EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture**CLP** | Skin Irritation 2 - H315
Carcinogenicity 1A - H350
Specific Target Organ Toxicity Repeated Exposure 1 - H372
DSD/DPD | Carcinogenic Substances - Category 1
Toxic (T)
R45, R48/23**2.2 Label Elements****CLP****DANGER****Hazard statements** | H315 - Causes skin irritation
H350 - May cause cancer.

H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention | P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves .
P281 - Use personal protective equipment as required.

Response | P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P362 - Take off contaminated clothing and wash before reuse.
P321 - Specific treatment, see supplemental first aid information.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.

Storage/Disposal | P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



Risk phrases | R45 - May cause cancer.
R48/23 - Toxic: danger of serious damage to health by prolonged exposure through inhalation.

Safety phrases | S37 - Wear suitable gloves.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S53 - Avoid exposure - obtain special instructions before use.

2.3 Other Hazards

CLP | May form combustible dust concentrations in air.
According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD | May form combustible dust concentrations in air.
According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 | Skin Irritation 2 - H315
Carcinogenicity 1A - H350
Specific Target Organ Toxicity Repeated Exposure 1 - H372
Combustible Dust

2.2 Label elements

OSHA HCS 2012

DANGER



Hazard statements | Causes skin irritation - H315
May cause cancer. - H350
Causes damage to organs through prolonged or repeated exposure. - H372
May form combustible dust concentrations in air.

Precautionary statements

- Prevention** | Obtain special instructions before use. - P201
 Do not handle until all safety precautions have been read and understood. - P202
 Do not breathe dust. - P260
 Wash thoroughly after handling. - P264
 Do not eat, drink or smoke when using this product. - P270
 Wear protective gloves, clothing, and eye/face protection, - P280
 Use personal protective equipment as required. - P281
- Response** | If on skin: Wash with plenty of water.
 Take off contaminated clothing and wash before reuse. - P362
 Specific treatment, see supplemental first aid information. - P321
 If skin irritation occurs: Get medical advice/attention. - P332+P313
 IF exposed or concerned: Get medical advice/attention. - P308+P313
 Get medical advice/attention if you feel unwell. - P314
- Storage/Disposal** | Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

2.3 Other hazards

- OSHA HCS 2012** | Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

- WHMIS** | Other Toxic Effects - D2A
 Other Toxic Effects - D2B

2.2 Label elements

WHMIS



- | Other Toxic Effects - D2A
 Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- | May form combustible dust concentrations in air.
 In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- | Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments

Cellulose	CAS: 9004-34-6 EINECS: 232-674-9	75% TO 98%	Ingestion/Oral-Rat LD50 • >5 g/kg Inhalation-Rat LC50 • >5800 mg/m ³ 4 Hour(s) Skin-Rabbit LD50 • >2 g/kg	EU DSD/DPD: Self Classified: Carc. Cat. 1; R45; T; R48/23 EU CLP: Self Classified: Carc. 1A, H350; STOT RE 1, H372 OSHA HCS 2012: Carc. 1A; STOT RE 1 (Lungs); Comb. Dust	NDA
Asphalt	CAS: 8052-42-4 EINECS: 232-490-9	< 13%	Ingestion/Oral-Rat LD50 • >5000 mg/kg Inhalation-Rat LC50 • >94.4 mg/m ³	EU DSD/DPD: Self Classified: Xi; R38 EU CLP: Self Classified: Skin Irrit. 2, H315 OSHA HCS 2012: Skin Irrit. 2	NDA
Pitch	CAS: 68187-58-6 EINECS: 269-110-6	< 10%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation** | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- Skin** | Wash skin with soap and water. If irritation develops and persists, get medical attention.
- Eye** | In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion** | Do NOT induce vomiting. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- | Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician** | All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media** | In case of fire use media as appropriate for surrounding fire.

- Unsuitable Extinguishing Media** | None known.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards** | Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Smoldering materials may reignite. A fire watch should be maintained for extinguished materials.

- Hazardous Combustion Products** | Burning may produce irritating fumes and gases, black smoke, carbon dioxide, carbon monoxide, sulfur oxides and hydrogen sulfide.

5.3 Advice for firefighters

- | Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions** | Ventilate enclosed areas. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Emergency Procedures** | ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind.

6.2 Environmental precautions

- | Prevent entry into waterways and sewers.

6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures** | Avoid generating dust.
Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
Sweep up while carefully monitoring dust concentrations in the air or vacuum using vacuum equipped with a HEPA filter.

6.4 Reference to other sections

- | Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

- Handling** | Use only with adequate ventilation. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat, sparks, and flame. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe dust. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

- Storage** | Keep container closed. Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- | Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Australia	Belgium	Canada Alberta	Canada British Columbia
Asphalt (8052-42-4)	TWAs	0.5 mg/m ³ TWA (fume, inhalable fraction, as benzene soluble aerosol)	5 mg/m ³ TWA (fume)	5 mg/m ³ TWA (fume)	5 mg/m ³ TWA (Petroleum; Bitumen, fume)	0.5 mg/m ³ TWA (inhalable fume, as Benzene-soluble aerosol)
Cellulose (9004-34-6)	TWAs	10 mg/m ³ TWA	10 mg/m ³ TWA (containing no asbestos and <1% crystalline silica, inhalable dust)	10 mg/m ³ TWA	10 mg/m ³ TWA	10 mg/m ³ TWA (total dust); 3 mg/m ³ TWA (respirable fraction)

Exposure Limits/Guidelines (Con't.)						
	Result	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut
Asphalt (8052-42-4)	TWAs	0.5 mg/m3 TWA (fume, inhalable fraction, as Benzene soluble aerosol)	5 mg/m3 TWA (petroleum fumes)	5 mg/m3 TWA (Petroleum fumes)	0.5 mg/m3 TWA (fume, inhalable fraction, as Benzene soluble aerosol)	5 mg/m3 TWA (Petroleum fumes)
	STELs	Not established	Not established	10 mg/m3 STEL (Petroleum fumes)	Not established	10 mg/m3 STEL (Petroleum fumes)
Cellulose (9004-34-6)	TWAs	10 mg/m3 TWA	10 mg/m3 TWA	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	10 mg/m3 TWA	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Ontario	Canada Quebec	Canada Saskatchewan	Canada Yukon	China
Asphalt (8052-42-4)	STELs	Not established	Not established	Not established	10 mg/m3 STEL (fume)	12.5 mg/m3 STEL (fume, as Benzene soluble matter)
	TWAs	0.5 mg/m3 TWA (fume, inhalable, as Benzene-soluble aerosol)	5 mg/m3 TWAEV (fume)	0.5 mg/m3 TWA (fume and inhalable fraction, as Benzene soluble aerosol)	5 mg/m3 TWA (fume)	5 mg/m3 TWA (fume, as Benzene soluble matter)
Cellulose (9004-34-6)	STELs	Not established	Not established	Not established	20 mg/m3 STEL	20 mg/m3 STEL
	TWAs	10 mg/m3 TWA	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust)	10 mg/m3 TWA	30 mppcf TWA; 10 mg/m3 TWA	10 mg/m3 TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Denmark	NIOSH	OSHA		
Asphalt (8052-42-4)	TWAs	1 mg/m3 TWA (Cyclohexane fraction of total dust, fume)	Not established	Not established		
	Ceilings	Not established	5 mg/m3 Ceiling (fume, 15 min)	Not established		
Cellulose (9004-34-6)	TWAs	Not established	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)		

Exposure Control Notations

ACGIH

•Asphalt (8052-42-4): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free))

Germany DFG

•Asphalt (8052-42-4): **Carcinogens:** (Category 2 (considered to be carcinogenic for man, aerosol and vapour)) | **Skin:** (skin notation (aerosol and vapour))

Exposure Limits Supplemental

ACGIH

•Cellulose (9004-34-6): **TLV Basis - Critical Effects:** (upper respiratory tract irritation)

•Asphalt (8052-42-4): **BEIs:** (Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)) |

TLV Basis - Critical Effects: (eye and upper respiratory tract irritation (fume))

8.2 Exposure controls

Engineering Measures/Controls

- | This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- | Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- | Wear appropriate gloves.

Environmental Exposure Controls

- | Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

OSHA = Occupational Safety and Health Administration

TWAEV = Time-Weighted Average Exposure Value

STEL = Short Term Exposure Limits are based on 15-minute exposures

BEI = Biological Exposure Indices

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Brown/black solid wood, rigid board with resinous wood odor.
Color	Brown/Black	Odor	Resinous wood.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	Variable	Water Solubility	Insoluble Weakens upon exposure to water
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	40 g/cm ³ for wood dust	Autoignition	399.2 to 500 F(204 to 260 C) for wood
Flammability (solid, gas)	Combustible		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

┆ No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

┆ No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

┆ Stable

10.3 Possibility of hazardous reactions

┆ Hazardous polymerization will not occur.

10.4 Conditions to avoid

┆ Avoid generating dust. Keep away from heat, sparks and flame.

10.5 Incompatible materials

┆ Solvents or solvent-based adhesives. Oxidizing agents and drying oils.

10.6 Hazardous decomposition products

┆ Burning can produce irritating and potentially toxic fumes and gases, black smoke, carbon dioxide, carbon monoxide, sulfur oxides and hydrogen sulfide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Cellulose (75% TO 98%)	9004-34-6	Acute Toxicity: Inhalation-Rat LC50 • >5800 mg/m ³ 4 Hour(s); Skin-Rabbit LD50 • >2 g/kg
Asphalt (< 13%)	8052-42-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5000 mg/kg; <i>Gastrointestinal:Hypermotility, diarrhea</i> ; Inhalation-Rat LC50 • >94.4 mg/m ³ ; Mutagen: Micronucleus test • Unreported Route-Rat • Other Cell Type • 57.8 µg/L; Tumorigen / Carcinogen: Skin-Mouse TDLo • 905 g/kg 2 Year(s)-Intermittent; <i>Tumorigenic:Neoplastic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors; Skin and Appendages:Other:Tumors</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Carcinogenicity 1A OSHA HCS 2012 • Carcinogenicity 1A
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 1 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

- Acute (Immediate)** | Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.
- Chronic (Delayed)** | Prolonged exposure to the dust may cause wheezing, chest tightness, productive cough nasal irritation and symptoms of chronic respiratory disease.

Skin

- Acute (Immediate)** | Causes skin irritation.
- Chronic (Delayed)** | No data available.

Eye

- Acute (Immediate)** | Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.
- Chronic (Delayed)** | No data available.

Ingestion

- Acute (Immediate)** | Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.
- Chronic (Delayed)** | No data available

Carcinogenic Effects

- | May cause cancer. This product contains petroleum asphalt. Asphalt fumes arise from hot asphalt. Asphalt fumes (CAS # 8052-42-4): In 1985/87, IARC (International Agency for Research on Cancer) concluded the following: (a) Bitumens are not classifiable as to their carcinogenicity to humans (Group 3). (b) Extracts of steam- and air-refined bitumens are possibly carcinogenic to humans (Group 2B). IARC found that evidence for carcinogenicity from animal studies was: inadequate for undiluted air-refined bitumens; limited for steam-refined and cracking residue bitumens; sufficient for extracts of steam-refined and air-refined bitumen. IARC found that human evidence for carcinogenicity of asphalt fumes was inadequate. Studies of roofers indicated an excess of cancers; however, IARC concluded that, since roofers may be exposed also to coal-tar pitches and other materials, "the excess cancer risk cannot be attributed specifically to bitumens." In 1994, a published review of 20 epidemiology studies of asphalt workers and roofers agreed with IARC, that current human evidence is inadequate for the carcinogenicity of asphalt fumes in humans. Trace amounts of polynuclear aromatic hydrocarbons (PAHs) may be present in some asphalts and can be released upon excessive heating, which results in thermal cracking of the asphalt compounds. Some of these PAHs have been identified as having the potential to induce carcinogenic and reproductive health effects.

Carcinogenic Effects		
	CAS	IARC
Asphalt	8052-42-4	Group 2B-Possible Carcinogen

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

| Material data lacking.

12.2 Persistence and degradability

| Material data lacking.

12.3 Bioaccumulative potential

| Material data lacking.

12.4 Mobility in Soil

| Material data lacking.

12.5 Results of PBT and vPvB assessment

| PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

| No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

| Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

| Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

| None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

| Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications | Acute, Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Asphalt	8052-42-4	Yes	Yes	Yes
Cellulose	9004-34-6	Yes	Yes	Yes
Pitch	68187-58-6	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Asphalt	8052-42-4	Yes	No	Yes	Yes	No
Cellulose	9004-34-6	Yes	No	Yes	Yes	No
Pitch	68187-58-6	Yes	No	Yes	Yes	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
Asphalt	8052-42-4	Yes	Yes	Yes
Cellulose	9004-34-6	Yes	Yes	Yes
Pitch	68187-58-6	Yes	Yes	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Australia - High Volume Industrial Chemicals List

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	
• Pitch	68187-58-6	Not Listed

Australia - List of Designated Hazardous Substances - Classification

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Self classification required (petroleum fumes)
• Pitch	68187-58-6	Not Listed

Environment

Australia - National Pollutant Inventory (NPI) Substance List

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Australia - Priority Existing Chemical Program

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Belgium**Labor****Belgium - Substances and Preparations - Carcinogens and Mutagens**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Bulgaria**Environment****Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Canada**Labor****Canada - WHMIS - Classifications of Substances**

• Cellulose	9004-34-6	Uncontrolled product according to WHMIS classification criteria (including microcrystalline and paper fibers)
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Environment**Canada - CEPA - Priority Substances List**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

China

Other**China - Annex I & II - Controlled Chemicals Lists**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Denmark**Environment****Denmark - List of Undesirable Substances - Product Groups/Function**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Environment**Germany - TA Luft - Types and Classes**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	ID Number 326, not considered hazardous to water
• Pitch	68187-58-6	Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Germany - Water Classification (VwVwS) - Annex 3

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed

• Pitch	68187-58-6	Not Listed
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United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Cellulose	9004-34-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Pitch	68187-58-6	Not Listed

15.2 Chemical Safety Assessment

| No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date | 23/December/2014

Preparation Date | 09/February/2009

Disclaimer/Statement of Liability | The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility

for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Firestone Building Products Company, LLC

Material Safety Data Sheet

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SECTION 1: PRODUCT IDENTIFICATION

Product Name:	V-Force™ SB Primer
Chemical Name / Synonym:	Solvent Based Primer
Chemical Family:	Mixture
24-Hour Emergency Phone:	(800) 424-9300 CHEMTREC
Manufacturer's Name:	Firestone Building Products Company, LLC
Manufacturer's Address:	250 West 96 th Street, Indianapolis, IN 46260
NFPA Hazard Rating:	Health 1, Flammability 3, Reactivity 0
HMIS Hazard Rating:	Health 1, Flammability 3, Reactivity 0

SECTION 2: CHEMICAL COMPOSITION

Chemical Name:	Common Name:	CAS #:	% (by wt)	Exposure Limits:
Naphtha (may contain n-Hexane & n-Heptane)	Naphtha	64742	30-60	None Established
n-Hexane	Hexane	110-54-3	(included in naphtha)	PEL 500 ppm TLV 50 ppm (skin)
n-Heptane	Heptane	142-82-5	(included in naphtha)	PEL 500 ppm TLV 400 ppm ACGIH STEL 500 ppm
Dimethyl Ketone	Acetone	67-64-1	15-40	PEL 1000 ppm TLV 500 ppm ACGIH STEL 750 ppm
Nonhazardous as per 29 CFR 1910.1200.	None	None	<55	None Established

SECTION 3: HAZARD IDENTIFICATION

Primary Route of Exposure:	Inhalation, skin absorption
Signs and Symptoms of Exposure:	<p>Eye contact may cause moderate eye irritation, redness, tearing and blurred vision.</p> <p>Prolonged or repeated skin contact may cause irritation, dermatitis and drying of the skin. Absorption through intact skin may contribute to an individual's overall exposure.</p> <p>Inhalation may cause respiratory system irritation and central nervous system depression (narcosis) characterized by headache, dizziness, muscular weakness and fatigue. May cause unconsciousness if exposure is excessive.</p> <p>Acetone LD50 (oral, rat) >5000 mg/kg</p> <p>Acetone LC50 (inhalation, rat) 50 mg/l/4 hr</p>

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	Hexane LD50 (skin) >2000 mg/kg
	Hexane LC50 (inhalation, rat) >20 mg/l/4 hr
	Heptane LD50 (skin) >2000 mg/kg
	Heptane LC50 (inhalation, rat) >50 mg/l/4 hr
Medical Conditions Aggravated by Exposure:	Exposure to this product may aggravate pre-existing skin and respiratory diseases. Individuals with neurological diseases should avoid exposure to Hexane.
Chronic Effects:	May affect the nervous system.
Carcinogenicity:	None

SECTION 4: FIRST AID MEASURES

First Aid Procedures:	If this material contacts the eyes, hold eyelids open and flush immediately with a gentle stream of water for at least 15 minutes, preferably at an eyewash fountain. Get medical attention. In case of skin contact, wash affected area with soap and water. In case of inhalation, remove to fresh uncontaminated air. Administer oxygen if breathing is labored. Give artificial respiration if breathing has stopped. Get medical attention immediately if oxygen or artificial respiration is administered. In case of accidental ingestion, do not induce vomiting. Get medical attention and advise the physician of the nature of the material.
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SECTION 5: FIRE FIGHTING PROCEDURES

Suitable Extinguishing Media:	Foam, carbon dioxide, dry chemical, and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this product. Water may be ineffective, but should be used to keep fire-exposed containers cool. If a leak or spill has ignited, use water to disperse the vapors and to protect men attempting to stop a leak. Water spray may be used to flush spills away from exposures.
Hazardous Combustion Products:	Possible decomposition products that may occur during a fire include oxides of carbon and nitrogen, aldehydes, ketone, acrolein, halogenated compounds, methanol, formaldehyde, acetic acid, hydrogen peroxide, methane, and ethylene oxide.
Recommended Fire Fighting Procedures:	Wear impermeable protective clothing and self-contained breathing apparatus. Toxic fumes and vapors may be evolved. Minimize the breathing of gases, vapors, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.
Unusual Fire and Explosion Hazards:	This product is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

Firestone Building Products Company, LLC

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SECTION 6: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled:	Shut off and eliminate all ignition sources. Keep people away. Absorb free product onto sand, earth or other suitable absorbent material. Dispose of material in accordance to local governmental regulations. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Keep product clear of sewers, water, or extensive land areas. Continue to observe precautions for volatile, flammable vapors from absorbed material.
Precautions to Be Taken in Handling and Storing:	Keep away from heat, sparks, and open flames. Keep containers closed. Vapors of this material are heavier than air and will collect in low or confined areas. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground all transfer containers and equipment.

SECTION 7: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation:	Use with ventilation sufficient to prevent exceeding recommended exposure limits or build up of explosive concentrations of vapor in air.
Respiratory Protection:	If personal exposure concentrations cannot be maintained below the appropriate exposure limits using engineering controls, a NIOSH approved respirator may be appropriate based on employer-determined exposure levels.
Eye Protection:	The use of safety glasses with side shields when pouring or applying this product may be warranted.
Skin Protection:	The use of polyvinyl alcohol, nitrile rubber, or neoprene gloves when handling this product to avoid prolonged skin contact may be warranted.
Other:	Not required.
Work / Hygienic Practices:	Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Wash contaminated clothing prior to reuse.

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Red liquid with strong solvent odor.		
Flash Point:	-24° F	Lower Explosive Limit:	Unknown
Method Used:	ASTM D93	Upper Explosive Limit:	Unknown
Evaporation Rate:	Unknown (Ether=1)	Boiling Point:	Unknown
pH (undiluted product):	Unknown	Melting Point:	Not Applicable
Solubility in Water:	Insoluble	Specific Gravity:	0.77 (Water=1)
Vapor Density:	>1 (Air=1)	Percent Volatile:	Unknown
Vapor Pressure:	Unknown		

Firestone Building Products Company, LLC

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SECTION 9: STABILITY AND REACTIVITY

Thermal Stability:	Stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Avoid flames, sparks or other sources of ignition, prolonged sunlight. Incompatible with strong , strong reducing agents, basis, halogenated compounds, oxidizing agents.

SECTION 10: TRANSPORTATION

Regulatory Agency:	DOT
Proper Shipping Name:	Adhesives, <i>containing a flammable solvent</i>
Hazard Classification:	3
Identification Number:	UN1133
Packing Group:	II
Labels Required:	Flammable

SECTION 11: MISCELLANEOUS INFORMATION

Additional Comments:	None
Date of Previous MSDS:	Not applicable. New product.
Changes Since Previous MSDS:	Not applicable
Telephone Number for Additional Information:	(317) 575-7190

DISCLAIMER

The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • SA-Water Based (WB) Primer, Enverge™ Water Based Primer, SBEPPro™ WB Primer, V-Force™ WB Primer

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Water-based primer for asphaltic membrane

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture

CLP • Eye Irritation 2 - H319

2.2 Label Elements

CLP

WARNING

Hazard statements • H319 - Causes serious eye irritation

Precautionary statements

Prevention • P264 - Wash thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response • P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered

hazardous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Eye Irritation 2

2.2 Label elements

OSHA HCS 2012

WARNING



Hazard statements • Causes serious eye irritation

Precautionary statements

Prevention • Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Response • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015 • Eye Irritation 2

2.2 Label elements

WHMIS 2015

WARNING



Hazard statements • Causes serious eye irritation

Precautionary statements

Prevention • Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Response • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

WHMIS 2015 • In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Elastocol Stick H2O	NDA	100%	NDA	EU CLP: Eye Irrit. 2, H319 OSHA HCS 2012: Eye Irrit. 2 WHMIS 2015: Eye Irrit. 2	NDA

3.2 Mixtures

- Material does not meet the criteria of a mixture.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If irritation develops and persists, get medical attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Foam, CO2 powder, sand, chemical powder.

Unsuitable Extinguishing Media • No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- Non flammable water-based product. Concentration of alcohols is too low to create a fire hazard.

Hazardous Combustion Products

- Irritating and/or toxic gases or fumes such as CO, CO2 may be generated by thermal decomposition or combustion of the product.

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA).
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.
LARGE FIRES: Fight fire from maximum distance or use unmanned hose holders or

monitor nozzles.

SMALL FIRES: Move containers from fire area if you can do it without risk.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE) Avoid breathing mist, vapours, spray. Avoid contact with skin and eyes.

Emergency Procedures

- Keep unauthorized personnel away. Stay upwind. Stop leak if you can do it without risk.

6.2 Environmental precautions

- Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
Wash contaminated area with soap and water to prevent slips.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only with adequate ventilation. Wear appropriate personal protective equipment. Avoid breathing mist, vapours, spray. Avoid contact with skin and eyes. Do not ingest. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Do not store at temperatures lower than 5°C or over than 90°C.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body	<ul style="list-style-type: none"> Wear appropriate gloves.
Environmental Exposure Controls	<ul style="list-style-type: none"> In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Blue liquid.
Color	Blue	Odor	Data lacking
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 1.01 Water=1	Water Solubility	Soluble
Viscosity	750 Centipoise (cPs, cP) or mPas	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	VOC (Vol.)	0 g/L
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid excessive freezing and heat.

10.5 Incompatible materials

- Solution or acid emulsion.

10.6 Hazardous decomposition products

- Carbon monoxide, carbon dioxide, nitrogen and sulphur oxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2 WHMIS 2015 • Eye Irritation 2
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met

Potential Health Effects

Inhalation

- Acute (Immediate) • Vapour and mist can cause mild irritation of the nose and throat.
- Chronic (Delayed) • No data available.

Skin

- Acute (Immediate) • May cause mild irritation.
- Chronic (Delayed) • No data available.

Eye

- Acute (Immediate) • Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- May cause nausea, vomiting, abdominal pain and weakness.

Chronic (Delayed)

- No data available.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods**Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
TDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IMO/IMDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
ADN	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
ADR/RID	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IATA/ICAO	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens
Not Listed

Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

Not Listed

Canada

Labor

Canada - WHMIS 1988 - Classifications of Substances

Not Listed

Canada - WHMIS 1988 - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date	<ul style="list-style-type: none"> • 24/January/2018
Preparation Date	<ul style="list-style-type: none"> • 20/May/2013
Other Information	<ul style="list-style-type: none"> • Changes to this revision: Updated mailing address.
Disclaimer/Statement of Liability	<ul style="list-style-type: none"> • The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company, LLC assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

1. Identification

Product identifier Firestone SA Primer
Other means of identification W70RACSAP5
Recommended use Construction.
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor information
Company name Firestone Building Products Company, LLC
 200 4th Avenue South
 Nashville, TN 37201 USA
Email firestonemsds@bfdp.com
Telephone Number 1-800-428-4442
Contact Person SDS request
Emergency Telephone Number CHEMTREC: 1-800-424-9300

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2
Health hazards Skin corrosion/irritation Category 2
 Serious eye damage/eye irritation Category 2B
 Sensitization, respiratory Category 1
 Sensitization, skin Category 1
 Carcinogenicity Category 2
 Reproductive toxicity Category 2
 Specific target organ toxicity, single exposure Category 3 narcotic effects
 Specific target organ toxicity, repeated exposure Category 2 (central nervous system)
 Aspiration hazard Category 1
Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2
 Hazardous to the aquatic environment, long-term hazard Category 2
OSHA defined hazards Not classified.

Label elements



Signal word

Danger

Hazard statement

Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs (central nervous system) through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist/vapors. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.

Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If experiencing respiratory symptoms: Call a poison center/doctor. Take off contaminated clothing and wash it before reuse. In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. Collect spillage.

Storage

Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Naphtha (petroleum), hydrotreated light	64742-49-0	25 - 50
Toluene	108-88-3	25 - 50
Polymethylene polyphenyl isocyanate	9016-87-9	< 1
Ethylbenzene	100-41-4	< 0.5
Methylene diphenyl diisocyanate	101-68-8	< 0.5
Other components below reportable levels		<20

Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a poison center or doctor/physician.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.
5. Fire-fighting measures	
Suitable extinguishing media	Foam. Dry chemical powder. Carbon dioxide (CO ₂). Water fog. Larger fires: Water spray.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed such as: Carbon oxides (CO _x). Hydrogen Bromide (HBr). Hydrocarbons. Nitrogen Oxides (NO _x).
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent product from entering drains. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	PEL	435 mg/m3 100 ppm
Methylene diphenyl diisocyanate (CAS 101-68-8)	Ceiling	0.2 mg/m3 0.02 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm
Methylene diphenyl diisocyanate (CAS 101-68-8)	TWA	0.005 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m3 125 ppm
	TWA	435 mg/m3 100 ppm
Methylene diphenyl diisocyanate (CAS 101-68-8)	Ceiling	0.2 mg/m3 0.02 ppm
	TWA	0.05 mg/m3 0.005 ppm
Toluene (CAS 108-88-3)	STEL	560 mg/m3 150 ppm
	TWA	375 mg/m3 100 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Toluene (CAS 108-88-3)

Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3)

Skin designation applies.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Face shield is recommended.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Examples of preferred glove barrier materials include: Fluoroelastomer (FKM). Ethyl vinyl alcohol laminate ("EVAL"). Suitable gloves can be recommended by the glove supplier.

Skin protection

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state

Liquid.

Form

Liquid.

Color

Black.

Odor

Characteristic.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

208.4 °F (98 °C)

Flash point

24.8 °F (-4.0 °C)

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

1.1 %

Flammability limit - upper (%)

7 % v/v

Vapor pressure

36 mm Hg (68 °F (20 °C))
48 hPa (68 °F (20 °C))

Vapor density

Not available.

Relative density

0.791 (68 °F (20 °C))

Solubility(ies)

Solubility (water)

Insoluble

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature	419 °F (215 °C)
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	% Organic solvents: 83 % Solids: 17
Density	6.58 lbs/gal
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
VOC	5.51 lb/gal 660 g/l

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics
 Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Methylene diphenyl diisocyanate (CAS 101-68-8)		
<u>Acute</u>		
Inhalation		
LC50	Rat	> 2.24 mg/l, 1 Hours
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 5000 mg/m3
Oral		
LD50	Rat	> 2000 mg/kg
Polymethylene polyphenyl isocyanate (CAS 9016-87-9)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 10000 mg/kg

Components	Species	Test Results
Inhalation		
<i>Mist</i>		
LC50	Rat	> 490 mg/m3, 4 Hours
Oral		
LD50	Rat	> 10000 mg/kg
Toluene (CAS 108-88-3)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	12200 mg/kg
Inhalation		
<i>Vapor</i>		
LC50	Rat	28.1 mg/l, 4 Hours
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Suspected of causing cancer.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.	
Methylene diphenyl diisocyanate (CAS 101-68-8)	3 Not classifiable as to carcinogenicity to humans.	
Polymethylene polyphenyl isocyanate (CAS 9016-87-9)	3 Not classifiable as to carcinogenicity to humans.	
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.	
NTP Report on Carcinogens		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
Reproductive toxicity	Possible reproductive hazard. Suspected of damaging fertility or the unborn child.	
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.	
Specific target organ toxicity - repeated exposure	May cause damage to organs (central nervous system) through prolonged or repeated exposure.	
Aspiration hazard	May be fatal if swallowed and enters airways.	
Chronic effects	Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.	

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)		
Aquatic		
<i>Acute</i>		
Algae	EC50	0.4 mg/l, 72 hours
Crustacea	EC50	0.7 - 0.9 mg/l, 48 hours
Fish	LC50	0.3 - 1.3 mg/l, 96 hours
Toluene (CAS 108-88-3)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	11.5 mg/l, 48 hours

Components		Species	Test Results
Fish	LC50	Oncorhynchus kisutch	5.5 mg/l, 96 hours
<i>Chronic</i>			
Crustacea	NOEC	Ceriodaphnia dubia	0.74 mg/l, 7 days
Fish	NOEC	Oncorhynchus kisutch	1.4 mg/l, 40 days

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available for this product.

Partition coefficient n-octanol / water (log Kow)

Toluene (CAS 108-88-3) 2.73

Mobility in soil The product is immiscible in water.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number UN1133
UN proper shipping name Adhesives
Transport hazard class(es)
Class 3
Subsidiary risk -
Label(s) 3
Packing group II
Environmental hazards
Marine pollutant Yes
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions 149, B52, IB2, T4, TP1, TP8
Packaging exceptions 150
Packaging non bulk 173
Packaging bulk 242

IATA

UN number UN1133
UN proper shipping name Adhesives
Transport hazard class(es)
Class 3
Subsidiary risk -
Packing group II
Environmental hazards Yes
ERG Code 3L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number UN1133
UN proper shipping name ADHESIVES

Transport hazard class(es)**Class** 3**Subsidiary risk** -**Packing group** II**Environmental hazards****Marine pollutant** Yes**EmS** F-E, S-D**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.**Transport in bulk according to** Not established.**Annex II of MARPOL 73/78 and
the IBC Code****15. Regulatory information****US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

TSCA Chemical Action Plans, Chemicals of Concern

Methylene diphenyl diisocyanate (CAS 101-68-8) Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action Plan [RIN 2070-ZA15]

Polymethylene polyphenyl isocyanate (CAS 9016-87-9) Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action Plan [RIN 2070-ZA15]

CERCLA Hazardous Substance List (40 CFR 302.4)

Ethylbenzene (CAS 100-41-4) Listed.

Methylene diphenyl diisocyanate (CAS 101-68-8) Listed.

Toluene (CAS 108-88-3) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Toxic Substances Control Act (TSCA) All components of the mixture on the TSCA 8(b) inventory are designated "active".**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical Yes**Classified hazard categories** Flammable (gases, aerosols, liquids, or solids)
Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization
Carcinogenicity
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)
Aspiration hazard**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Ethylbenzene	100-41-4	< 0.5
Toluene	108-88-3	25 - 50

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Ethylbenzene (CAS 100-41-4)

Methylene diphenyl diisocyanate (CAS 101-68-8)

Toluene (CAS 108-88-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Toluene (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Toluene (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Toluene (CAS 108-88-3) 594

US state regulations

US. Massachusetts RTK - Substance List

Ethylbenzene (CAS 100-41-4)
Methylene diphenyl diisocyanate (CAS 101-68-8)
Toluene (CAS 108-88-3)

US. New Jersey Worker and Community Right-to-Know Act

Ethylbenzene (CAS 100-41-4)
Methylene diphenyl diisocyanate (CAS 101-68-8)
Polymethylene polyphenyl isocyanate (CAS 9016-87-9)
Toluene (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Ethylbenzene (CAS 100-41-4)
Methylene diphenyl diisocyanate (CAS 101-68-8)
Toluene (CAS 108-88-3)

US. Rhode Island RTK

Ethylbenzene (CAS 100-41-4)
Methylene diphenyl diisocyanate (CAS 101-68-8)
Toluene (CAS 108-88-3)

California Proposition 65



WARNING: This product can expose you to chemicals including Ethylbenzene, which is known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Ethylbenzene (CAS 100-41-4) Listed: June 11, 2004
Formaldehyde (CAS 50-00-0) Listed: January 1, 1988

California Proposition 65 - CRT: Listed date/Developmental toxin

Toluene (CAS 108-88-3) Listed: January 1, 1991

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Ethylbenzene (CAS 100-41-4)
Methylene diphenyl diisocyanate (CAS 101-68-8)
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
Polymethylene polyphenyl isocyanate (CAS 9016-87-9)
Toluene (CAS 108-88-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 02-September-2019

Revision date -

Version # 01

HMIS® ratings Health: 3*
Flammability: 3
Physical hazard: 0

Disclaimer Firestone Building Products cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • **SBS Glass Base Series: SBS Glass, SBS Glass Base SA, SBS Base, SBS Premium Base, SBS Glass Torch Base, MB Base SA, SBS Base P**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com
Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC
Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Specific Target Organ Toxicity Repeated Exposure 1 - H372
DSD/DPD • Harmful (Xn)
R20

2.2 Label Elements

CLP

DANGER



Hazard statements • H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention • P260 - Do not breathe dust, fume, gas, mist, vapours and/or spray.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.

Response • P314 - Get medical advice/attention if you feel unwell.

Storage/Disposal • P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



Risk phrases • R20 - Harmful by inhalation.

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD • According to European Directive 1999/45/EC this preparation is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1

2.2 Label elements

OSHA HCS 2012

DANGER



Hazard statements • Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention • Do not breathe dust, fume, gas, mist, vapours and/or spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.

Response • Get medical advice/attention if you feel unwell.

Storage/Disposal • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS • Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

- The calcium carbonate is bound in an asphalt matrix, neither of which is expected to be released. The sand and granules are applied to the asphalt surface in such a manner that nominal release from the surface is anticipated.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Asphalt	CAS:8052-42-4 EINECS:232-490-9	40% TO 85%	Ingestion/Oral-Rat LD50 • >5000 mg/kg Inhalation-Rat LC50 • >94.4 mg/m³	EU DSD/DPD: Self Classified: Carc. 3; R40 EU CLP: Self Classified: Carc. 2, H351 OSHA HCS 2012: Carc. 2	Bound in an asphalt matrix
Limestone	CAS:1317-65-3 EC Number:215-279-6	0% TO 35%	NDA	EU DSD/DPD: Self Classified: Xn R48/20 EU CLP: Self Classified: STOT RE 1 (Lungs), H372 OSHA HCS 2012: STOT RE 1 (Lungs)	NDA
Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	CAS:64742-52-5 EC Number:265-155-0	0% TO 10%	NDA	EU DSD/DPD: Annex I: Carc.Cat.2; R45 EU CLP: Annex VI: Carc. 1B, H350 OSHA HCS 2012: Skin Irrit. 2	NDA
Quartz	CAS:14808-60-7 EC Number:238-878-4	< 10%	NDA	EU DSD/DPD: Self Classified: Carc 1; R45 EU CLP: Self Classified: Carc. 1A, H350 OSHA HCS 2012: Carc. 1A	Only nominal amounts released
Fibrous Glass	NDA	2% TO 5%	NDA	EU DSD/DPD: Not Classified - Criteria not met EU CLP: Not Classified - Criteria not met OSHA HCS 2012: Not Classified - Criteria not met	Bound within the oxidized-asphalt matrix of this product
Talc	CAS:14807-96-6 EC Number:238-877-9	0% TO 1%	NDA	EU DSD/DPD: Self Classified: N R48/20 EU CLP: Self Classified: STOT RE 1, H372 OSHA HCS 2012: STOT RE 1 (Lungs)	Only nominal amounts released

Formaldehyde	CAS:50-00-0 EC Number:200-001-8	N/A	Ingestion/Oral-Rat LD50 • 100 mg/kg Inhalation-Rat LC50 • 203 mg/m ³ Skin-Rabbit LD50 • 270 mg/kg	EU CLP: Community workplace exposure limit	NDA
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See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- | | |
|-------------------|---|
| Inhalation | <ul style="list-style-type: none"> Remove to fresh air, apply artificial respiration and/or oxygen if necessary and get medical attention. |
| Skin | <ul style="list-style-type: none"> Remove contaminated clothing and wash exposed skin with soap and water. If irritation develops or persists, seek medical attention. |
| Eye | <ul style="list-style-type: none"> If foreign matter enters eyes, immediately flush with large amounts of water for at least 15 minutes or until irritation subsides. If irritation develops, or persists, seek medical attention. |
| Ingestion | <ul style="list-style-type: none"> Consult a physician if unusual reaction is noted. Product is not intended nor is it likely to be ingested or eaten. |

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|---------------------------|--|
| Notes to Physician | <ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. |
|---------------------------|--|

See Section 2 for Potential Health Effects.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- | | |
|---------------------------------------|--|
| Suitable Extinguishing Media | <ul style="list-style-type: none"> Use water, foam, CO₂ or dry chemical extinguishers to contain fire. |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"> No data available. |
| Firefighting Procedures | <ul style="list-style-type: none"> Fire fighters should avoid inhaling any combustion products. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---|--|
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none"> Burning of this product will produce thick black smoke. |
| Hazardous Combustion Products | <ul style="list-style-type: none"> If burned, the materials could release toxic fumes and smoke. Incomplete thermal oxidation can produce hydrogen cyanide, carbon monoxide, carbon dioxide, ammonia, formaldehyde and other low molecular weight hydrocarbons and oxides or sulfur, nitrogen, calcium and magnesium. |

5.3 Advice for firefighters

- Firefighters should wear full-face, self contained breathing apparatus and impervious protective clothing to avoid smoke inhalation and lack of oxygen.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not touch damaged packages or spilled material.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Pick up large pieces. Vacuum dust. If sweeping is necessary, use a dust suppressant such as water. These procedures will help to minimize potential exposures. Scoop up material and put into a suitable container for disposal as a non-hazardous waste.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Do not breathe dusts or fumes generated from cutting or heating this material. Use this product with adequate ventilation. Always wash work clothes separately from other clothing. Wash thoroughly after handling. Use personal protective equipment as described in Section 8.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store indoors in a cool, dry, well-ventilated area. Do not handle or store near an open flame, heat or other sources of ignition.

Special Packaging Materials

- No data available.

Incompatible Materials or Ignition Sources

- This product will react with strong oxidizing agents, reducing agents, strong acids and alkalis.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada British Columbia	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	1 ppm Ceiling	0.3 ppm Ceiling	Not established	2 ppm Ceiling; 2.4 mg/m ³ Ceiling
	TWAs	Not established	0.3 ppm TWA	Not established	0.5 ppm TWA	Not established
	STELs	Not established	Not established	Not established	1.5 ppm STEL	Not established
Talc (14807-96-6)	TWAs	2 mg/m ³ TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	2 mg/m ³ TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate)	2 mg/m ³ TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	2 mg/m ³ TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m ³ TWA (respirable mass); 6 mg/m ³ TWA (total mass)
	STELs	Not established	20 mg/m ³ STEL	Not established	Not established	Not established

Limestone (1317-65-3)	TWAs	Not established	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction)	Not established	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica)	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Quartz (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable fraction)	0.025 mg/m3 TWA (respirable)	0.025 mg/m3 TWA (respirable fraction)	0.1 mg/m3 TWA (respirable fraction)	0.1 mg/m3 TWA (respirable mass); 0.3 mg/m3 TWA (total mass)
Asphalt (8052-42-4)	TWAs	0.5 mg/m3 TWA (fume, inhalable fraction, as benzene soluble aerosol)	0.5 mg/m3 TWA (inhalable fume, as Benzene-soluble aerosol)	0.5 mg/m3 TWA (fume, inhalable fraction, as Benzene soluble aerosol)	5 mg/m3 TWA (petroleum fumes)	5 mg/m3 TWA (Petroleum fumes)
	STELs	Not established	Not established	Not established	Not established	10 mg/m3 STEL (Petroleum fumes)

Exposure Limits/Guidelines (Con't.)

	Result	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec	Canada Yukon
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	2 ppm Ceiling; 2.4 mg/m3 Ceiling	1.5 ppm Ceiling	2 ppm Ceiling; 3 mg/m3 Ceiling	2 ppm Ceiling; 3 mg/m3 Ceiling
	STELs	Not established	Not established	1.0 ppm STEL	Not established	Not established
Talc (14807-96-6)	TWAs	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (containing no Asbestos and <1% Crystalline silica, respirable)	3 mg/m3 TWAEV (respirable dust)	20 mppcf TWA
Limestone (1317-65-3)	TWAs	Not established	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)	Not established	10 mg/m3 TWAEV (Limestone, containing no Asbestos and <1% Crystalline silica, total dust)	30 mppcf TWA; 10 mg/m3 TWA
	STELs	Not established	Not established	Not established	Not established	20 mg/m3 STEL
Quartz (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable fraction)	0.1 mg/m3 TWA (respirable mass); 0.3 mg/m3 TWA (total mass)	0.10 mg/m3 TWA (designated substance regulation, respirable)	0.1 mg/m3 TWAEV (respirable dust)	300 particle/mL TWA (listed under Silica)
Asphalt (8052-42-4)	TWAs	0.5 mg/m3 TWA (fume, inhalable fraction, as Benzene soluble aerosol)	5 mg/m3 TWA (Petroleum fumes)	0.5 mg/m3 TWA (fume, inhalable, as Benzene-soluble aerosol)	5 mg/m3 TWAEV (fume)	5 mg/m3 TWA (fume)
	STELs	Not established	10 mg/m3 STEL (Petroleum fumes)	Not established	Not established	10 mg/m3 STEL (fume)

Exposure Limits/Guidelines (Con't.)

	Result	NIOSH	OSHA	United States - California
Formaldehyde (50-00-0)	STELs	Not established	2 ppm STEL (see 29 CFR 1910.1048)	2 ppm STEL
	TWAs	0.016 ppm TWA	0.75 ppm TWA	0.75 ppm PEL
	Ceilings	0.1 ppm Ceiling (15 min)	Not established	Not established
Talc (14807-96-6)	TWAs	2 mg/m3 TWA (containing no Asbestos and <1% Quartz, respirable dust)	Not established	2 mg/m3 PEL (respirable dust, containing no Asbestos fibers, <1% Crystalline silica)

Limestone (1317-65-3)	TWAs	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	Not established
Quartz (14808-60-7)	TWAs	0.05 mg/m3 TWA (respirable dust)	Not established	0.3 mg/m3 PEL (total dust); 0.1 mg/m3 PEL (respirable dust)
Asphalt (8052-42-4)	TWAs	Not established	Not established	5 mg/m3 PEL (fume)
	Ceilings	5 mg/m3 Ceiling (fume, 15 min)	Not established	Not established

Exposure Limits Supplemental OSHA

- Quartz (14808-60-7): **Mineral Dusts:** ((30)/(%SiO₂ + 2) mg/m3 TWA, total dust; (250)/(%SiO₂ + 5) mppcf TWA, respirable fraction; (10)/(%SiO₂ + 2) mg/m3 TWA, respirable fraction)
- Talc (14807-96-6): **Mineral Dusts:** (20 mppcf TWA (if 1% Quartz or more, use Quartz limit))

8.2 Exposure controls

Engineering Measures/Controls

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment

Respiratory

- Respiratory protection is not normally required. Use a NIOSH approved/certified respiratory when the exposure limits are exceeded. Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

Eye/Face

- Safety glasses with side shields should be worn at a minimum.

Hands

- Leather or cotton gloves may be worn to prevent skin contact and irritation.

Skin/Body

- Normal work clothing (long sleeved shirts and long pants) is recommended.

General Industrial Hygiene Considerations

- Use good industrial hygiene practices in handling this material. Availability of eye wash fountains are recommended.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA)

STEL = Short Term Exposure Limits are based on 15-minute exposures.

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black mat with sand, ceramic and/or plastic film covered surface and an asphalt odor.
Color	Black	Odor	Asphalt odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		

Volatility

Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		

Flammability

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		

Environmental

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity**10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal conditions of use.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Keep away from heat, ignition sources and incompatible materials.

10.5 Incompatible materials

- This product will react with strong oxidizing agents, reducing agents, strong acids and alkalis.

10.6 Hazardous decomposition products

- Burning will produce smoke, carbon monoxide, and carbon dioxide.

Section 11 - Toxicological Information**11.1 Information on toxicological effects**

Components		
Limestone (0% TO 35%)	1317-65-3	Multi-dose Toxicity: Inhalation-Rat TCLo • 250 mg/m ³ 2 Hour(s) 24 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration:</i> Fibrosis, focal (pneumoconiosis)
Asphalt (40% TO 85%)	8052-42-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5000 mg/kg; <i>Gastrointestinal:</i> Hypermotility, diarrhea ; Inhalation-Rat LC50 • >94.4 mg/m ³ ; Mutagen: DNA adduct • Skin-Mouse • 600 mg/kg; Tumorigen / Carcinogen: Skin-Mouse TDLo • 130 g/kg 81 Week(s)-Intermittent; <i>Tumorigenic:</i> Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors; Skin and Appendages:Other:Tumors
Quartz (< 10%)	14808-60-7	Acute Toxicity: Inhalation-Rat TCLo • 200 mg/kg; <i>Lungs, Thorax, or Respiration:</i> Fibrosis, focal (pneumoconiosis); Lungs, Thorax, or Respiration:Other changes; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Fe ; Tumorigen / Carcinogen: Inhalation-Rat TCLo • 50 mg/m ³ 6 Hour(s) 71 Week(s)-Intermittent; <i>Tumorigenic:</i> Carcinogenic by RTECS criteria; Liver:Tumors

Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) (0% TO 10%)	64742-52-5	Irritation: Skin-Rabbit • 500 mg • Severe irritation
Talc (0% TO 1%)	14807-96-6	Irritation: Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation; Tumorigen / Carcinogen: Inhalation-Rat • 11 mg/m ³ 1 Year(s)-Intermittent; Tumorigenic: Equivocal tumorigenic agent by RTECS criteria; Lungs, Thorax, or Respiration: Tumors

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Oral - Classification criteria not met OSHA HCS 2012 • Acute Toxicity - Oral - Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 1 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1

Medical Conditions Aggravated by Exposure Potential Health Effects Inhalation

Acute (Immediate)

Chronic (Delayed)

- Pre-existing lung conditions which may be aggravated if fumes/dusts are inhaled.

Skin

Acute (Immediate)

Chronic (Delayed)

- Temporary irritation of nose and throat may occur.
- This product contains crystalline silica which is listed by IARC as a suspect carcinogen. Silicosis (pulmonary fibrosis or severe lung scarring) may occur if exposed to high levels or repeated encounters with dust. Exposure to airborne particles that exceed the limits listed may cause lung cancer. This product also contains petroleum asphalt. If heated, there is limited evidence that derivatives of asphalt fumes may cause carcinogenic effects in animals. There is inadequate evidence to support that asphalt fumes alone are carcinogenic to humans.

Eye

Acute (Immediate)

- Mechanical irritation of the eye may occur characterized by itching or redness.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- Ingestion of this product unlikely.

Chronic (Delayed)

- No data available.

Carcinogenic Effects

- When used under normal conditions, this product is not considered a carcinogen. Based upon the newly published IARC classifications for bitumen/asphalt fumes, it has been determined that the IARC carcinogen designation does not apply to this material as it does not contain material identified by IARC. This product contains crystalline silica. IARC Monographs on Evaluation of Carcinogenic Risk of Chemicals to Humans (Monograph 68, 1997) concludes that there is sufficient evidence for the carcinogenicity of crystalline silica to humans, IARC (Group I). Crystalline Silica is classified as a Known Carcinogen according to the NTP.

Carcinogenic Effects				
	CAS	OSHA	IARC	NTP
Formaldehyde	50-00-0	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen
Quartz	14808-60-7	Not Listed	Group 1-Carcinogenic	Known Human Carcinogen
Asphalt	8052-42-4	Not Listed	Group 2B-Possible Carcinogen	Not Listed

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

SEV = Severe

TC = Toxic Concentration

Section 12 - Ecological Information**12.1 Toxicity**

- No information available for the product.

12.2 Persistence and degradability

- No information available for the product.

12.3 Bioaccumulative potential

- No information available for the product.

12.4 Mobility in Soil

- No information available for the product.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects**Ecological Fate**

- No information available for the product.

12.7 Other Information

- This product has not been tested. Based on information related to all raw materials in the finished product it is not expected to harm ecosystems through its applied use.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- Chronic

State Right To Know					
Component	CAS	MA	MN	NJ	PA
Asphalt	8052-42-4	Yes	Yes	Yes	Yes
Formaldehyde	50-00-0	Yes	Yes	Yes	Yes
Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	No	No	No	No
Limestone	1317-65-3	Yes	Yes	Yes	Yes
Quartz	14808-60-7	Yes	Yes	Yes	Yes
Talc	14807-96-6	Yes	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Asphalt	8052-42-4	Yes	No	Yes	Yes	No
Formaldehyde	50-00-0	Yes	No	Yes	Yes	No
Hydrotreated heavy naphthenic distillates	64742-52-5	Yes	No	Yes	Yes	No

(petroleum) (Highly Refined)						
Limestone	1317-65-3	No	Yes	Yes	Yes	No
Quartz	14808-60-7	Yes	No	Yes	Yes	No
Talc	14807-96-6	Yes	No	Yes	Yes	No
Inventory (Con't.)						
Component		CAS		TSCA		
Asphalt		8052-42-4		Yes		
Formaldehyde		50-00-0		Yes		
Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)		64742-52-5		Yes		
Limestone		1317-65-3		Yes		
Quartz		14808-60-7		Yes		
Talc		14807-96-6		Yes		

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Formaldehyde	50-00-0	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Demographic, medical and occupational history; Records of personal exposure; Standardised respiratory questionnaire to be completed; Standardised respiratory function test, for example, FEV1, FVC and FEV1/FVC; Chest X-ray full size PA view

Australia - High Volume Industrial Chemicals List

• Formaldehyde	50-00-0	
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	
• Asphalt	8052-42-4	
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	

Australia - List of Designated Hazardous Substances - Classification

• Formaldehyde	50-00-0	T, C Carc.Cat.3 R40, R23/24/25, R34, R43
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Carc.Cat.2 R45
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Self classification required (containing no asbestos)

• Asphalt	8052-42-4	fibres) Self classification required (petroleum fumes)
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Self classification required

Environment

Australia - National Pollutant Inventory (NPI) Substance List

• Formaldehyde	50-00-0	10 tonne/yr Threshold category 1
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Formaldehyde	50-00-0	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Australia - Priority Existing Chemical Program

• Formaldehyde	50-00-0	Full assessment - report published December 2006
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Formaldehyde	50-00-0	A, B1, D1A, D2A, D2B; B3, D1A, D2A, D2B, E (regulated under Formol)
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	D2A
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	D2A
		D2A (In certain cases, this classification does not apply. For more information, consult

• Quartz	14808-60-7	the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS Division website.)
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Canada - WHMIS - Ingredient Disclosure List

• Formaldehyde	50-00-0	0.1 %
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	1 %

Environment**Canada - CEPA - Priority Substances List**

• Formaldehyde	50-00-0	Priority Substance List 2 (substance considered toxic)
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Formaldehyde	50-00-0	T; R23/24/25 C; R34 Carc.Cat.3; R40 R43
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Carc.Cat.2; R45
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Formaldehyde	50-00-0	0.2%≤C: R:43 25%≤C: T; R:23/24/25 5%≤C<25%: Xn; R:20/21/22 25%≤C: C; R:34 5%≤C<25%: Xi; R:36/37/38
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Formaldehyde	50-00-0	T R:23/24/25-34-40-43 S:(1/2) -26-36/37/39-45-51
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	T R:45 S:53-45
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Formaldehyde	50-00-0	B, D
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	L
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Formaldehyde	50-00-0	S:(1/2)-26-36/37/39-45-51
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	S:53-45
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Mexico**Other****Mexico - Hazard Classifications**

• Formaldehyde	50-00-0	Hazard Class = 3 (8) PG = III UN1198; Hazard Class = 8 PG = III (with not <25% formaldehyde) UN2209
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Mexico - Regulated Substances

• Formaldehyde	50-00-0	UN1198; UN2209 (with not <25% formaldehyde)
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Formaldehyde	50-00-0	1000 lb TQ
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Formaldehyde	50-00-0	2 ppm STEL (Irritant and potential cancer hazard, See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level; 0.75 ppm TWA
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Formaldehyde	50-00-0	
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Formaldehyde	50-00-0	100 lb final RQ; 45.4 kg final RQ
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Formaldehyde	50-00-0	100 lb EPCRA RQ
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed

• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Formaldehyde	50-00-0	500 lb TPQ
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Formaldehyde	50-00-0	0.1 % de minimis concentration
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Formaldehyde	50-00-0	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CWA (Clean Water Act) - Hazardous Substances

• Formaldehyde	50-00-0	
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - CWA (Clean Water Act) - Priority Pollutants

• Formaldehyde	50-00-0	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

• Formaldehyde	50-00-0	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Formaldehyde	50-00-0	carcinogen, initial date 1/1/88 (gas)
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	carcinogen, initial date 10/1/88 (airborne particles of respirable size)

United States - New Jersey

Environment

U.S. - New Jersey - Special Health Hazards Substances List

• Formaldehyde	50-00-0	carcinogen; corrosive; flammable - fourth degree; mutagen
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	carcinogen
• Asphalt	8052-42-4	flammable - third degree
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	carcinogen

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Formaldehyde	50-00-0	
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Not Listed
• Asphalt	8052-42-4	Not Listed
• Limestone	1317-65-3	Not Listed
• Quartz	14808-60-7	Not Listed

United States - Rhode Island

Labor

U.S. - Rhode Island - Hazardous Substance List

• Formaldehyde	50-00-0	Toxic; Flammable; Carcinogen
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined)	64742-52-5	Not Listed
• Hydrotreated heavy naphthenic distillates (petroleum) (Highly Refined) as Oil mist, mineral, sum total of 15 polynuclear aromatic hydrocarbons (PAHs)		Not Listed
• Talc	14807-96-6	Toxic (powder or fibrous)
• Asphalt	8052-42-4	Toxic; Flammable
• Limestone	1317-65-3	Toxic
• Quartz	14808-60-7	Toxic (dust and fiber)

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date	• 26/January/2018
Preparation Date	• 17/October/2008
Other Information	• Changes to this revision: Updated mailing address.
Disclaimer/Statement of Liability	• The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • UltraPly™ TPO SA Membrane

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction:Roofing Material

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

DSD/DPD • Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

CLP • This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

DSD/DPD • Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements • No label elements(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

- This material, as an article, does not legally require an SDS.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation • First aid is not expected to be necessary if material is used under ordinary conditions

and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

- Skin**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Does not present any special fire or explosive hazards.

Hazardous Combustion Products • Upon reaching temperatures of combustion, produces corrosive and/or toxic fumes.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory

- No respiratory protection is required under normal conditions of use.

Eye/Face

- Under normal conditions of use, eye protection is not required.

Skin/Body

- No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	White & gray, tan & gray, or gray & gray membranes with tacky bottom. No odor.
Color	White and gray, tan & gray, or gray & gray.	Odor	None
Odor Threshold	None		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	= 0.94 Water=1	Water Solubility	Insoluble
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		

Volatility

Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		

Flammability

Flash Point	> 392 °F(> 200 °C)	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		

Environmental

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity**10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- Thermal decomposition could produce CO, CO₂, and Oxides of Nitrogen.

Section 11 - Toxicological Information**11.1 Information on toxicological effects**

- Other Material Information**
- This material is an article that does not release or otherwise result in exposure to a hazardous chemical under normal use. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Aspiration Hazard	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

- Product waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Packaging waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ADN	NDA	Not Regulated	NDA	NDA	NDA
ADR/RID	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany

Labor**Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment**Germany - TA Luft - Types and Classes**

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor**U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information**Revision Date**

- 19/January/2018

Preparation Date

- 26/February/2015

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Firestone Building Products Company, LLC

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SECTION 1: PRODUCT IDENTIFICATION

Product Name:	V-Force™ SB Primer
Chemical Name / Synonym:	Solvent Based Primer
Chemical Family:	Mixture
24-Hour Emergency Phone:	(800) 424-9300 CHEMTREC
Manufacturer's Name:	Firestone Building Products Company, LLC
Manufacturer's Address:	250 West 96 th Street, Indianapolis, IN 46260
NFPA Hazard Rating:	Health 1, Flammability 3, Reactivity 0
HMIS Hazard Rating:	Health 1, Flammability 3, Reactivity 0

SECTION 2: CHEMICAL COMPOSITION

Chemical Name:	Common Name:	CAS #:	% (by wt)	Exposure Limits:
Naphtha (may contain n-Hexane & n-Heptane)	Naphtha	64742	30-60	None Established
n-Hexane	Hexane	110-54-3	(included in naphtha)	PEL 500 ppm TLV 50 ppm (skin)
n-Heptane	Heptane	142-82-5	(included in naphtha)	PEL 500 ppm TLV 400 ppm ACGIH STEL 500 ppm
Dimethyl Ketone	Acetone	67-64-1	15-40	PEL 1000 ppm TLV 500 ppm ACGIH STEL 750 ppm
Nonhazardous as per 29 CFR 1910.1200.	None	None	<55	None Established

SECTION 3: HAZARD IDENTIFICATION

Primary Route of Exposure:	Inhalation, skin absorption
Signs and Symptoms of Exposure:	<p>Eye contact may cause moderate eye irritation, redness, tearing and blurred vision.</p> <p>Prolonged or repeated skin contact may cause irritation, dermatitis and drying of the skin. Absorption through intact skin may contribute to an individual's overall exposure.</p> <p>Inhalation may cause respiratory system irritation and central nervous system depression (narcosis) characterized by headache, dizziness, muscular weakness and fatigue. May cause unconsciousness if exposure is excessive.</p> <p>Acetone LD50 (oral, rat) >5000 mg/kg</p> <p>Acetone LC50 (inhalation, rat) 50 mg/l/4 hr</p>

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	Hexane LD50 (skin) >2000 mg/kg
	Hexane LC50 (inhalation, rat) >20 mg/l/4 hr
	Heptane LD50 (skin) >2000 mg/kg
	Heptane LC50 (inhalation, rat) >50 mg/l/4 hr
Medical Conditions Aggravated by Exposure:	Exposure to this product may aggravate pre-existing skin and respiratory diseases. Individuals with neurological diseases should avoid exposure to Hexane.
Chronic Effects:	May affect the nervous system.
Carcinogenicity:	None

SECTION 4: FIRST AID MEASURES

First Aid Procedures:	If this material contacts the eyes, hold eyelids open and flush immediately with a gentle stream of water for at least 15 minutes, preferably at an eyewash fountain. Get medical attention. In case of skin contact, wash affected area with soap and water. In case of inhalation, remove to fresh uncontaminated air. Administer oxygen if breathing is labored. Give artificial respiration if breathing has stopped. Get medical attention immediately if oxygen or artificial respiration is administered. In case of accidental ingestion, do not induce vomiting. Get medical attention and advise the physician of the nature of the material.
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SECTION 5: FIRE FIGHTING PROCEDURES

Suitable Extinguishing Media:	Foam, carbon dioxide, dry chemical, and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this product. Water may be ineffective, but should be used to keep fire-exposed containers cool. If a leak or spill has ignited, use water to disperse the vapors and to protect men attempting to stop a leak. Water spray may be used to flush spills away from exposures.
Hazardous Combustion Products:	Possible decomposition products that may occur during a fire include oxides of carbon and nitrogen, aldehydes, ketone, acrolein, halogenated compounds, methanol, formaldehyde, acetic acid, hydrogen peroxide, methane, and ethylene oxide.
Recommended Fire Fighting Procedures:	Wear impermeable protective clothing and self-contained breathing apparatus. Toxic fumes and vapors may be evolved. Minimize the breathing of gases, vapors, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.
Unusual Fire and Explosion Hazards:	This product is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

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SECTION 6: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled:	Shut off and eliminate all ignition sources. Keep people away. Absorb free product onto sand, earth or other suitable absorbent material. Dispose of material in accordance to local governmental regulations. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Keep product clear of sewers, water, or extensive land areas. Continue to observe precautions for volatile, flammable vapors from absorbed material.
Precautions to Be Taken in Handling and Storing:	Keep away from heat, sparks, and open flames. Keep containers closed. Vapors of this material are heavier than air and will collect in low or confined areas. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground all transfer containers and equipment.

SECTION 7: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation:	Use with ventilation sufficient to prevent exceeding recommended exposure limits or build up of explosive concentrations of vapor in air.
Respiratory Protection:	If personal exposure concentrations cannot be maintained below the appropriate exposure limits using engineering controls, a NIOSH approved respirator may be appropriate based on employer-determined exposure levels.
Eye Protection:	The use of safety glasses with side shields when pouring or applying this product may be warranted.
Skin Protection:	The use of polyvinyl alcohol, nitrile rubber, or neoprene gloves when handling this product to avoid prolonged skin contact may be warranted.
Other:	Not required.
Work / Hygienic Practices:	Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Wash contaminated clothing prior to reuse.

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Red liquid with strong solvent odor.		
Flash Point:	-24° F	Lower Explosive Limit:	Unknown
Method Used:	ASTM D93	Upper Explosive Limit:	Unknown
Evaporation Rate:	Unknown (Ether=1)	Boiling Point:	Unknown
pH (undiluted product):	Unknown	Melting Point:	Not Applicable
Solubility in Water:	Insoluble	Specific Gravity:	0.77 (Water=1)
Vapor Density:	>1 (Air=1)	Percent Volatile:	Unknown
Vapor Pressure:	Unknown		

Firestone Building Products Company, LLC

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SECTION 9: STABILITY AND REACTIVITY

Thermal Stability:	Stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Avoid flames, sparks or other sources of ignition, prolonged sunlight. Incompatible with strong , strong reducing agents, basis, halogenated compounds, oxidizing agents.

SECTION 10: TRANSPORTATION

Regulatory Agency:	DOT
Proper Shipping Name:	Adhesives, <i>containing a flammable solvent</i>
Hazard Classification:	3
Identification Number:	UN1133
Packing Group:	II
Labels Required:	Flammable

SECTION 11: MISCELLANEOUS INFORMATION

Additional Comments:	None
Date of Previous MSDS:	Not applicable. New product.
Changes Since Previous MSDS:	Not applicable
Telephone Number for Additional Information:	(317) 575-7190

DISCLAIMER

The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Safety Data Sheet**Firestone Building Products Company****Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product identifier**

Product Name • **SA-Water Based (WB) Primer, Enverge™ Water Based Primer, SBEPPro™ WB Primer, V-Force™ WB Primer**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Water-based primer for asphaltic membrane

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture

CLP • Eye Irritation 2 - H319

2.2 Label Elements

CLP

WARNING

Hazard statements • H319 - Causes serious eye irritation

Precautionary statements

Prevention • P264 - Wash thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response • P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered

hazardous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Eye Irritation 2

2.2 Label elements

OSHA HCS 2012

WARNING



Hazard statements • Causes serious eye irritation

Precautionary statements

Prevention • Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Response • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015 • Eye Irritation 2

2.2 Label elements

WHMIS 2015

WARNING



Hazard statements • Causes serious eye irritation

Precautionary statements

Prevention • Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Response • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

WHMIS 2015 • In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Elastocol Stick H2O	NDA	100%	NDA	EU CLP: Eye Irrit. 2, H319 OSHA HCS 2012: Eye Irrit. 2 WHMIS 2015: Eye Irrit. 2	NDA

3.2 Mixtures

- Material does not meet the criteria of a mixture.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If irritation develops and persists, get medical attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Foam, CO2 powder, sand, chemical powder.

Unsuitable Extinguishing Media • No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Non flammable water-based product. Concentration of alcohols is too low to create a fire hazard.

Hazardous Combustion Products • Irritating and/or toxic gases or fumes such as CO, CO2 may be generated by thermal decomposition or combustion of the product.

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA).
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.
LARGE FIRES: Fight fire from maximum distance or use unmanned hose holders or

monitor nozzles.

SMALL FIRES: Move containers from fire area if you can do it without risk.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE) Avoid breathing mist, vapours, spray. Avoid contact with skin and eyes.

Emergency Procedures

- Keep unauthorized personnel away. Stay upwind. Stop leak if you can do it without risk.

6.2 Environmental precautions

- Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
Wash contaminated area with soap and water to prevent slips.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only with adequate ventilation. Wear appropriate personal protective equipment. Avoid breathing mist, vapours, spray. Avoid contact with skin and eyes. Do not ingest. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Do not store at temperatures lower than 5°C or over than 90°C.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body	<ul style="list-style-type: none"> Wear appropriate gloves.
Environmental Exposure Controls	<ul style="list-style-type: none"> In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Blue liquid.
Color	Blue	Odor	Data lacking
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 1.01 Water=1	Water Solubility	Soluble
Viscosity	750 Centipoise (cPs, cP) or mPas	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	VOC (Vol.)	0 g/L
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid excessive freezing and heat.

10.5 Incompatible materials

- Solution or acid emulsion.

10.6 Hazardous decomposition products

- Carbon monoxide, carbon dioxide, nitrogen and sulphur oxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2 WHMIS 2015 • Eye Irritation 2
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met

Potential Health Effects

Inhalation

Acute (Immediate)

- Vapour and mist can cause mild irritation of the nose and throat.

Chronic (Delayed)

- No data available.

Skin

Acute (Immediate)

- May cause mild irritation.

Chronic (Delayed)

- No data available.

Eye

Acute (Immediate)

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- May cause nausea, vomiting, abdominal pain and weakness.

Chronic (Delayed)

- No data available.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods**Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
TDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IMO/IMDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
ADN	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
ADR/RID	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IATA/ICAO	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens
Not Listed

Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

Not Listed

Canada

Labor

Canada - WHMIS 1988 - Classifications of Substances

Not Listed

Canada - WHMIS 1988 - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date	<ul style="list-style-type: none"> • 24/January/2018
Preparation Date	<ul style="list-style-type: none"> • 20/May/2013
Other Information	<ul style="list-style-type: none"> • Changes to this revision: Updated mailing address.
Disclaimer/Statement of Liability	<ul style="list-style-type: none"> • The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company, LLC assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet

Firestone Building Products Company

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • V-Force™ Vapor Barrier Membrane

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture

CLP • Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label elements(s) required

2.3 Other hazards

OSHA HCS 2012

- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015

- Not classified

2.2 Label elements

WHMIS 2015

Hazard statements • No label element(s) required

Precautionary statements

2.3 Other hazards

WHMIS 2015

- In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nonhazardous Components	NDA	100%	NDA	EU CLP: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.

Eye

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.

Ingestion

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water, foam, dry chemical, carbon dioxide (CO₂).

Unsuitable Extinguishing Media • None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Combustion of this product causes dense black smoke. Water may cause frothing.

Hazardous Combustion Products • Carbon dioxide, carbon monoxide and partially burned carbon.

5.3 Advice for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

Emergency Procedures • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- No special precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Pick up pieces and place in container or bag for disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage • Keep away from heat, sparks and flame. Store in a clean, dry area in its original unopened packaging at temperatures of 50° F (10° C) – 140° F (60° C), so that it will be 50° F (10° C) or above at the time of application. Store in a well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines • No exposure limits/guidelines available for the material or the components.

8.2 Exposure controls

Engineering Measures/Controls • Under normal conditions of use, special ventilation is not required.

Personal Protective Equipment

Respiratory • No respiratory protection is required under normal conditions of use.

Eye/Face • Under normal conditions of use, eye protection is not required.

Skin/Body • No skin protection is ordinarily required under normal conditions of use.

Environmental Exposure Controls • Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid membrane with asphalt odor.
Color	Black	Odor	Asphalt odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Not relevant	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	Varies	Water Solubility	Insoluble
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Keep away from heat, sparks, and flame.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- No data available

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
	EU/CLP • Classification criteria not met

STOT-SE	OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met WHMIS 2015 • Classification criteria not met

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

- Product waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Packaging waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
TDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IMO/IMDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
ADN	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
ADR/RID	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IATA/ICAO	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2011/65/EU) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

Not Listed

Germany - TRGS 505 - Specific Lead Regulations

Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

Not Listed

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

Not Listed

Germany - TA Luft - Emission Limits for Fibers

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date

- 19/January/2018

Preparation Date

- 03/February/2014

Other Information

- Changes to this revision: Updated mailing address.

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No Data Available