

Versico SDS 2022

1. G300 LS Black Lap sealant
2. Low-voc epdm/tpo primer
3. V-150 primer
4. DASH dual cartridge adhesive part A
5. DASH dual cartridge adhesive part B
6. G500 CM Water Cutoff Mastic
7. TPO clear cut edge sealant
8. TPO low voc cut edge sealant
9. Weathered membrane cleaner

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name: G300LS Black Lap Sealant

Synonym: Industrial Sealant

Chemical Family: Solvent Based Sealant

Product Use: Sealant for EPDM Single-Ply Roofing Membranes

Restrictions on Use: For industrial use only.

Manufacturer Information

Versico LLC
1285 Ritner Highway
Carlisle, PA 17013
USA
Phone: +1-800-992-7663
Emergency Phone #: +1-800-424-9300 (CHEMTREC)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Flammable Liquids - Category 2

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 2A

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 1 (lungs, central nervous system)

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Highly flammable liquid and vapor

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation. May cause drowsiness or dizziness

Causes damage to organs through prolonged or repeated exposure

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

Precautionary Statement(s)

Prevention

Keep container tightly closed
Keep away from heat/sparks/open flame/hot surfaces - No smoking
Ground/Bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting equipment
Take precautionary measures against static discharge
Use only non-sparking tools
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapours/spray
Wash thoroughly after handling
Do not eat, drink or smoke when using this product

Response

In case of fire: Use appropriate media to extinguish
IF INHALED: Remove person to fresh air and keep at rest in a position 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 ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
Call a POISON CENTER or doctor if you feel unwell
Specific treatment (see label)

Storage

Store in a well-ventilated place. Keep cool
Keep container tightly closed
Store locked up

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
Not applicable	Ground coal	1-5
Trade Secret	Silica compound	1-5
Trade Secret	Severely hydrotreated paraffinic oil	3-7
1317-65-3	Limestone	10-30

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

Trade Secret	Carbon compound	1-5
Trade Secret	Polyphenol antioxidant	0.1-1
64742-89-8	Naphtha, petroleum, light aliphatic	10-30
Trade Secret	Polybutene	1-5
Mixture	Terpene phenolic resin	1-5
12001-26-2	Mica	0.1-1
64742-88-7	Solvent naphtha, petroleum, medium aliphatic	10-30

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

IF exposed or concerned: Get medical advice/attention.

Inhalation

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

Skin

Remove/Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation occurs, get medical advice/attention.

Eyes

Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion

If swallowed, get medical attention. Do NOT induce vomiting.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May cause gastrointestinal irritation.

Delayed

Causes damage to organs through prolonged or repeated exposure: lungs, central nervous system.

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Dry chemical, foam or carbon dioxide. Water may be ineffective. Use water spray to keep containers cool.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Can burn and explode easily when exposed to open flames or high heat.

Hazardous Combustion Products

Oxides of carbon, oxides of nitrogen

Fire Fighting Measures

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Remove all sources of ignition. Avoid breathing vapors. Ventilate affected area. Absorb with earth, sand or other non-combustible material and transfer to container. Use non-sparking tools. Dike for later disposal.

Environmental Precautions

Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from heat/sparks/open flame/hot surfaces - No smoking. Do not eat or drink when using this product. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use non-sparking tools. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Wash contaminated clothing before reuse. KEEP OUT OF REACH OF CHILDREN.

Conditions for Safe Storage, Including any Incompatibilities

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

Store in a well-ventilated place. Keep cool

Keep container tightly closed

Store locked up

Keep away from heat and ignition sources. Keep away from incompatible materials. Do not cut, puncture, or weld on or near this container.

Incompatible Materials

Strong oxidizing agents, acids, bases

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Silica compound	Trade Secret	
OSHA (US):	20 mppcf TWA; ((80)/(% SiO ₂) mg/m ³ TWA)	
Mexico:	10 mg/m ³ TWA LMPE-PPT	
Limestone	1317-65-3	
NIOSH:	10 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable dust	
OSHA (US):	15 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable fraction	
Mexico:	10 mg/m ³ TWA LMPE-PPT	20 mg/m ³ STEL [LMPE-CT]
Carbon compound	Trade Secret	
ACGIH:	3 mg/m ³ TWA inhalable fraction	
NIOSH:	3.5 mg/m ³ TWA; 0.1 mg/m ³ TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons) as PAH	
	1750 mg/m ³ IDLH	
OSHA (US):	3.5 mg/m ³ TWA	
Mexico:	3.5 mg/m ³ TWA LMPE-PPT	7 mg/m ³ STEL [LMPE-CT]
Mica	12001-26-2	
ACGIH:	3 mg/m ³ TWA respirable fraction	

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

NIOSH:	3 mg/m ³ TWA (containing <1% Quartz) respirable dust	1500 mg/m ³ IDLH (containing <1% Quartz)
OSHA (US):	20 mppcf TWA (<1% Crystalline silica)	
Mexico:	3 mg/m ³ TWA LMPE-PPT respirable fraction	
Silica, crystalline	14808-60-7	
ACGIH:	0.025 mg/m ³ TWA respirable fraction	
NIOSH:	0.05 mg/m ³ TWA respirable dust	50 mg/m ³ IDLH respirable dust
OSHA (US):	((30)/(%SiO ₂ + 2) mg/m ³ TWA) total dust; ((250)/(%SiO ₂ + 5) mppcf TWA) respirable fraction; ((10)/(%SiO ₂ + 2) mg/m ³ TWA) respirable fraction	
Mexico:	0.1 mg/m ³ TWA LMPE-PPT respirable fraction	

Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate work clothing. Wear protective shoes. Recommended material: protective skin cream.

Respiratory Protection

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	viscous paste	Physical State	liquid
Odor	hydrocarbon	Color	black
Odor Threshold	Not available	pH	Not available

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

Melting Point	<18 °C (< 0 °F)	Boiling Point	119 - 185 °C (246-365 °F)
Freezing point	<18 °C	Evaporation Rate	3.5
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	230 °C (446 °F)	Flash Point	4.4 °C [TCC] (40 °F)
Lower Explosive Limit	0.8 %	Decomposition	Not available
Upper Explosive Limit	6.7 %	Vapor Pressure	8.27 mmHg
Vapor Density (air=1)	4	Specific Gravity (water=1)	1.03 - 1.04
Water Solubility	negligible	Partition coefficient: n-octanol/water	Not available
Viscosity	1100000 cps	Solubility (Other)	hydrocarbons
Density	Not available	VOC	390 - 400 g/L

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials

Strong oxidizing agents, acids, bases

Hazardous decomposition products

Oxides of carbon, oxides of nitrogen

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause respiratory irritation.

Skin Contact

Causes skin irritation.

Eye Contact

Causes serious eye irritation.

Ingestion

May cause gastrointestinal irritation.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Severely hydrotreated paraffinic oil (Trade Secret)

Oral LD50 Rat >5000 mg/kg

Dermal LD50 Rabbit >2000 mg/kg

Carbon compound (Trade Secret)

Oral LD50 Rat >15400 mg/kg

Polyphenol antioxidant (Trade Secret)

Oral LD50 Rat >200 mg/kg

Dermal LD50 Rabbit >5010 mg/kg

Naphtha, petroleum, light aliphatic (64742-89-8)

Oral LD50 Mouse 5000 mg/kg

Dermal LD50 Rabbit 3000 mg/kg

Solvent naphtha, petroleum, medium aliphatic (64742-88-7)

Oral LD50 Rat >5000 mg/kg

Dermal LD50 Rabbit 3000 mg/kg

Silica, crystalline (14808-60-7)

Oral LD50 Rat 500 mg/kg

Immediate Effects

Cause skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May cause gastrointestinal irritation.

Delayed Effects

Causes damage to organs through prolonged or repeated exposure: lungs, central nervous system.

Irritation/Corrosivity Data

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Respiratory Sensitization

No data available.

Dermal Sensitization

It may cause sensitization in some individuals.

Component Carcinogenicity

Silica compound	Trade Secret
IARC:	Monograph 68 [1997] (Group 3 (not classifiable))
Carbon compound	Trade Secret
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 93 [2010]; Monograph 65 [1996] (Group 2B (possibly carcinogenic to humans))
DFG:	Category 3B (could be carcinogenic for man, inhalable fraction)
OSHA:	Present
Silica, crystalline	14808-60-7
ACGIH:	A2 - Suspected Human Carcinogen
IARC:	Monograph 100C [2012]; Monograph 68 [1997] (Group 1 (carcinogenic to humans))
NTP:	Known Human Carcinogen (respirable size)
DFG:	Category 1 (causes cancer in man, alveola fraction)
OSHA:	Present (respirable size)

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

May affect the central nervous nervous system: drowsiness, dizziness.

Specific Target Organ Toxicity - Repeated Exposure

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

May cause damage to organs through prolonged or repeated exposure: lungs, central nervous system.

Aspiration hazard

May cause aspiration hazard.

Medical Conditions Aggravated by Exposure

May cause allergic skin reaction. Aspiration into the lungs may cause chemical pneumonitis.

Additional Data

This product contains crystalline silica, which is a known carcinogen. However, this component is bound by the polymer portion of the sealant. The only way this component would be released is through incineration. Therefore, this product is not considered a carcinogen.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Avoid release to the environment.

Component Analysis - Aquatic Toxicity

Severely hydrotreated paraffinic oil	Trade Secret
Fish:	LC50 96 h Oncorhynchus mykiss >5000 mg/L
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L IUCLID
Polyphenol antioxidant	Trade Secret
Fish:	LC50 96 h Oncorhynchus mykiss >0.2 mg/L [semi-static]
Algae:	EC50 72 h Pseudokirchneriella subcapitata >0.2 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna >0.2 mg/L IUCLID
Naphtha, petroleum, light aliphatic	64742-89-8
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID
Solvent naphtha, petroleum, medium aliphatic	64742-88-7

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

Fish:	LC50 96 h Pimephales promelas 800 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata 450 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna >100 mg/L IUCLID

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: ADHESIVES

Hazard Class: 3

UN/NA #: UN1133

Packing Group: II

Required Label(s): < 0.3 gal (limited quantity)

IATA Information:

Shipping Name: ADHESIVES

Hazard Class: 3

UN#: UN1133

Packing Group: II

Required Label(s): < 0.3 gal (limited quantity)

TDG Information:

Shipping Name: ADHESIVES

Hazard Class: 3

UN#: UN1133

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

Packing Group: II

Required Label(s):

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactivity:** No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Silica compound	Trade Secret	No	Yes	Yes	Yes	Yes
Limestone	1317-65-3	No	Yes	Yes	Yes	Yes
Carbon compound	Trade Secret	Yes	Yes	Yes	Yes	Yes
Mica	12001-26-2	Yes	Yes	Yes	Yes	Yes
Solvent naphtha, petroleum, medium aliphatic	64742-88-7	No	No	No	Yes	No
Silica, crystalline	14808-60-7	No	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer

Carbon compound	Trade Secret
Carc:	carcinogen , initial date 2/21/03 (airborne, unbound particles of respirable size)
Silica, crystalline	14808-60-7
Carc:	carcinogen , initial date 10/1/88 (airborne particles of respirable size)

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Carbon compound	Trade Secret
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Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

	1 %
Mica	12001-26-2
	1 %
Silica, crystalline	14808-60-7
	1 %

Component Analysis - Inventory

Silica compound (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
No	DSL	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Severely hydrotreated paraffinic oil (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	No

Limestone (1317-65-3)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	NSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Carbon compound (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Polyphenol antioxidant (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No

Naphtha, petroleum, light aliphatic (64742-89-8)

Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Polybutene (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Mica (12001-26-2)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
No	DSL	No	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Solvent naphtha, petroleum, medium aliphatic (64742-88-7)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Silica, crystalline (14808-60-7)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 1 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard



Safety Data Sheet

Material Name: G300LS Black Lap Sealant

Product #: 302174

NFPA Ratings

Health: 1 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

Revision Date: June 1, 2018

Revision Note: General Update

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.

Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Low VOC EPDM/TPO Primer

Synonyms

Primer

Chemical Family

Primer, mixture

Product Use

Solvent primer

Restrictions on Use

For industrial use only.

Manufacturer Information

Versico Roofing System
1285 Ritner Highway
Carlisle, PA 17013 USA
Phone: +1-800-992-7663
Emergency Phone #: +1-800-424-9300 (CHEMTREC)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Flammable Liquids - Category 3

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 2A

Skin Sensitization - Category 1A

Carcinogenicity - Category 2

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 2 (liver,kidneys)

GHS Label Elements

Symbol(s)



Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

Signal Word

Warning

Hazard Statement(s)

Flammable liquid and vapor

Causes skin irritation

Causes serious eye irritation

May cause allergic skin reaction

Suspected of causing cancer

May cause drowsiness or dizziness

May cause damage to organs through prolonged or repeated exposure

Precautionary Statement(s)

Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Keep container tightly closed

Keep away from heat/sparks/open flame/hot surfaces - No smoking

Ground/Bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting equipment

Take precautionary measures against static discharge

Use only non-sparking tools

Use only outdoors or in a well-ventilated area

Wear protective gloves/protective clothing/eye protection/face protection

Do not breathe dust/fume/gas/mist/vapours/spray

Wash thoroughly after handling

Contaminated work clothing must not be allowed out of the workplace

Response

In case of fire: Use appropriate media to extinguish

IF exposed or concerned: Get medical advice/attention

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or 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

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower

If skin irritation or rash occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

Specific treatment (see label)

Storage

Keep container tightly closed

Store in a well-ventilated place. Keep cool

Store locked up

Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
64742-89-8	Solvent naphtha, petroleum, light aliphatic	10-30
Trade Secret	Isophorone Diisocyanate	0.5-1.5
108-88-3	Toluene	3-7
Trade Secret	Chlorinated polypropylene	0.1-1
98-56-6	PCBTF	60-100
67-63-0	Anhydrous Isopropanol	0.1-1

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

IF exposed or concerned: Get medical advice/attention.

Inhalation

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

Skin

Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eyes

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

If swallowed, get medical attention.

Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

Causes skin irritation. Causes serious eye irritation. May cause allergic skin reaction. May cause drowsiness or dizziness.

Delayed

May cause allergic skin reaction. Suspected of causing cancer. May cause liver and kidney damage.

Note to Physicians

Contains: toluene, isopropanol.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Dry chemical, foam or carbon dioxide. Water may be ineffective.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Flammable liquid and vapor.

Hazardous Combustion Products

Oxides of carbon, oxides of nitrogen

Advice for firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Fire Fighting Measures

Move container from fire area if it can be done without risk.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Remove all sources of ignition. Avoid breathing vapors. Ventilate the area. Use non-sparking tools. Use clean non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal. Large spills: Dike for later disposal. Prevent entry into waterways, sewers, basements, or confined areas.

Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

Environmental Precautions

Avoid release to the environment. Collect spillage.

Section 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. Keep away from heat and ignition sources. When using do not smoke. Use non-sparking tools. Ground any equipment used in handling. Wash with plenty of soap and water. Wash contaminated clothing before reuse. **KEEP OUT OF REACH OF CHILDREN.** Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Do not breathe gas, fumes, vapor, or spray. Contaminated work clothing should not be allowed out of the workplace.

Conditions for Safe Storage, Including any Incompatibilities

Keep container tightly closed

Store in a well-ventilated place. Keep cool

Store locked up

Keep away from heat, sparks and flame. Do not cut, puncture, or weld on or near this container. Empty containers may contain product residue. Keep away from incompatible materials.

Incompatible Materials

Strong oxidizing agents, acids, bases

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Toluene	108-88-3	
ACGIH:	20 ppm TWA	
NIOSH:	100 ppm TWA; 375 mg/m ³ TWA	150 ppm STEL; 560 mg/m ³ STEL
	500 ppm IDLH	
Europe:	50 ppm TWA; 192 mg/m ³ TWA	100 ppm STEL; 384 mg/m ³ STEL
	Possibility of significant uptake through the skin	
OSHA (US):	200 ppm TWA	300 ppm Ceiling
Mexico:	50 ppm TWA LMPE-PPT; 188 mg/m ³ TWA LMPE-PPT	



Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

	Skin - potential for cutaneous absorption
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Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

Anhydrous isopropanol	67-63-0	
ACGIH:	200 ppm TWA	
NIOSH:	400 ppm TWA; 980 mg/m ³ TWA	400 ppm STEL
	2000 ppm IDLH (10% LEL)	500 ppm STEL; 1225 mg/m ³ STEL
OSHA (US):	400 ppm TWA; 980 mg/m ³ TWA	
Mexico:	400 ppm TWA LMPE-PPT; 980 mg/m ³ TWA LMPE-PPT	
		500 ppm STEL [LMPE-CT]; 1225 mg/m ³ STEL [LMPE-CT]
PCBTF	98-56-6	
ACGIH:	2.5 mg/m ³ TWA as F (related to Fluorides)	
OSHA (US):	2.5 mg/m ³ TWA as F; 2.5 mg/m ³ TWA dust (related to Fluorides)	
Mexico:	2.5 mg/m ³ TWA LMPE-PPT as F (related to Fluorides)	

Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate chemical resistant clothing. Wear protective shoes.

Respiratory Protection

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	thin green liquid	Physical State	liquid
Odor	Naphthenic distillate	Color	green
Odor Threshold	Not available	pH	Not available
Melting Point	-95 - -33 °C(-139 - 27°F)	Boiling Point	111 - 139 °C(232 -282°F)
Freezing point	Not available	Evaporation Rate	1.4
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	246 °C(475°F)	Flash Point	4 °C(40°F)
Lower Explosive Limit	0.9	Decomposition	Not available
Upper Explosive Limit	10.5	Vapor Pressure	7.4 mmHg
Vapor Density (air=1)	5.7	Specific Gravity (water=1)	Not available
Water Solubility	insoluble	Partition coefficient: n-octanol/water	Not available
Viscosity	<200 cps	Solubility (Other)	Not available
Density	1.177	VOC	<250 g/L

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

Will not polymerize.

Conditions to Avoid

Keep away from heat/sparks/open flame/hot surfaces - No smoking. Take action to prevent static discharges. Avoid contact with incompatible materials.

Incompatible Materials

Strong oxidizing agents, acids, bases

Hazardous decomposition products

Oxides of carbon, oxides of nitrogen

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause drowsiness or dizziness.

Skin Contact

Causes skin irritation.

Eye Contact

Causes serious eye irritation.

Ingestion

No information on significant adverse effects.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

Oral LD50 Rat >2000 mg/kg

Dermal LD50 Rat >2000 mg/kg

Inhalation Rat >5000 ppm 1 hour

Isophorone Diisocyanate (Trade Secret)

Oral LD50 Rat >20000 mg/kg

Dermal LD50 Rabbit 4000 mg/kg

Inhalation LC50 Rat 5 mg/l 4 h

Toluene (108-88-3)

Oral LD50 >7000 mg/kg

Dermal LD50 12 - 14 g/kg

Inhalation LC50 30 mg/L

chlorinated homopolymer (Trade Secret)

Oral Rat 5000 mg/kg

Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

PCBTF (98-56-6)

Oral LD50 Rat 13 g/kg

Dermal LD50 Rabbit >2 mL/kg

Inhalation LC50 Rat 33 mg/L 4 h

Anhydrous isopropanol (67-63-0)

Oral LD50 Rat 1870 mg/kg

Dermal LD50 Rabbit 4059 mg/kg

Inhalation LC50 Rat 72600 mg/m³ 4 h

Immediate Effects

Causes skin irritation. Causes serious eye irritation. May cause allergic skin reaction. May cause drowsiness or dizziness.

Delayed Effects

May cause allergic skin reaction. Suspected of causing cancer. May cause liver and kidney damage.

Irritation/Corrosivity Data

Causes skin and eye irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

May cause allergic skin reaction.

Component Carcinogenicity

Toluene	108-88-3
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))
PCBTF	98-56-6
ACGIH:	A4 - Not Classifiable as a Human Carcinogen (related to Fluorides)
Anhydrous isopropanol	67-63-0
ACGIH:	A4 - Not Classifiable as a Human Carcinogen

Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

IARC:	Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977] (Group 3 (not classifiable))
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Germ Cell Mutagenicity

No information available for the product.

Tumorigenic Data

No data available

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

central nervous system

Specific Target Organ Toxicity - Repeated Exposure

Prolonged exposure may cause liver and kidney damage.

Aspiration hazard

No information available for the product.

Medical Conditions Aggravated by Exposure

May cause allergic skin reaction.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Solvent naphtha, petroleum, light aliphatic	64742-89-8
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID
Isophorone Diisocyanate	Trade Secret
Fish:	LC50 96 h Oncorhynchus mykiss 9.22 mg/L
Invertebrate:	EC50 48 h Daphnia magna 6.14 mg/L IUCLID
Toluene	108-88-3
Fish:	LC50 96 h Pimephales promelas 15.22 - 19.05 mg/L [flow-through] (1 day old); LC50 96 h Pimephales promelas 12.6 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L [flow-through];

Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

	LC50 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static]; LC50 96 h Oryzias latipes 54 mg/L [static]; LC50 96 h Poecilia reticulata 28.2 mg/L [semi-static]; LC50 96 h Poecilia reticulata 50.87 - 70.34 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >433 mg/L IUCLID; EC50 72 h Pseudokirchneriella subcapitata 12.5 mg/L [static] EPA
Invertebrate:	EC50 48 h Daphnia magna 5.46 - 9.83 mg/L [static] EPA; EC50 48 h Daphnia magna 11.5 mg/L IUCLID
PCBTF	98-56-6
Invertebrate:	EC50 48 h Daphnia magna 3.68 mg/L IUCLID
Anhydrous isopropanol	67-63-0
Fish:	LC50 96 h Pimephales promelas 9640 mg/L [flow-through]; LC50 96 h Pimephales promelas 11130 mg/L [static]; LC50 96 h Lepomis macrochirus >1400000 µg/L
Algae:	EC50 96 h Desmodesmus subspicatus >1000 mg/L IUCLID; EC50 72 h Desmodesmus subspicatus >1000 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 13299 mg/L IUCLID

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: ADHESIVES



Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

Hazard Class: 3
UN/NA #: UN1133
Packing Group: II
Required Label(s): 3

IATA Information:
Shipping Name: ADHESIVES
Hazard Class: 3
UN#: UN1133
Packing Group: II
Required Label(s): 3

TDG Information:
Shipping Name: ADHESIVES
Hazard Class: 3
UN#: UN1133
Packing Group: II

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Toluene	108-88-3
SARA 313:	1 % de minimis concentration
CERCLA:	1000 lb final RQ; 454 kg final RQ
TSCA 12b:	Section 4 , 1 % de minimus concentration (related to Hydrocarbons, C>4)
PCBTF	98-56-6
TSCA 12b:	Section 4 , 1 % de minimus concentration
Anhydrous isopropanol	67-63-0

Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

SARA 313:	1 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)
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SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactivity:** No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes
PCBTF	98-56-6	Yes	No	Yes	Yes	Yes
Anhydrous isopropanol	67-63-0	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects

Toluene	108-88-3
Repro/Dev. Tox	developmental toxicity , 1/1/1991

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Toluene	108-88-3
	1 %
Anhydrous isopropanol	67-63-0
	1 %

Component Analysis - Inventory

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Isophorone Diisocyanate (Trade Secret)

Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Anhydrous isopropanol (67-63-0)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Toluene (108-88-3)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

chlorinated homopolymer (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No

PCBTF (98-56-6)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe



Safety Data Sheet

Material Name: Low VOC EPDM/TPO Primer

Product #: 329161

Summary of Changes

New SDS: 8/18/2017

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.

Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name: V-150 Primer

Synonyms: Solvent-Based Primer

Chemical Family: Primer

Product Use: Cleaning and Priming EPDM Single-Ply Roofing Membranes

Restrictions on Use: For industrial use only.

Manufacturer Information

Versico
1285 Ritner Highway
Carlisle, PA 17013
USA
Phone: +1-800-992-7663
Emergency Phone #: +1-800-424-9300 (CHEMTREC)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Flammable Liquids - Category 2

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 2A

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 2

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Highly flammable liquid and vapor

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation. May cause drowsiness or dizziness

May cause damage to organs through prolonged or repeated exposure

Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

Precautionary Statement(s)

Prevention

Keep container tightly closed
 Keep away from heat/sparks/open flame/hot surfaces - No smoking
 Ground/Bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting equipment
 Take precautionary measures against static discharge
 Use only non-sparking tools
 Use only outdoors or in a well-ventilated area
 Wear protective gloves/protective clothing/eye protection/face protection
 Do not breathe dust/fume/gas/mist/vapours/spray
 Wash thoroughly after handling

Response

In case of fire: Use appropriate media to extinguish
 IF INHALED: Remove person to fresh air and keep at rest in a position 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 ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash before reuse
 Call a POISON CENTER or doctor if you feel unwell
 Specific treatment (see label)

Storage

Store in a well-ventilated place. Keep container tightly closed
 Keep cool
 Store locked up

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
108-88-3	Toluene	60-100
64742-89-8	Heptane	5-10
Trade Secret	Phenolic resin	0.1-1
Trade Secret	Silicon adsorbent mixture	0.1-1

Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

67-63-0	Anhydrous Isopropanol	0.1-1
Trade Secret	Dibutyltin dilaurate	< 0.1
Trade Secret	Isophorone diisocyanate	0.1-1

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

If exposed or concerned: Call a POISON CENTER or doctor/physician.

Inhalation

Remove person to fresh air and keep comfortable for breathing. Give artificial respiration if not breathing. Immediately call a POISON CENTER or doctor/physician.

Skin

Remove/Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.

Eyes

Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

If swallowed, do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Causes damage to central nervous system.

Delayed

Prolonged exposure may cause liver, kidney and central nervous system damage.

Note to Physicians

Contains: toluene, heptane, isopropanol.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

Suitable Extinguishing Media

Dry chemical, foam or carbon dioxide. Water may be ineffective. Use water spray to keep containers cool.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Can burn and explode easily when exposed to open flames or high heat.

Hazardous Combustion Products

Oxides of carbon

Fire Fighting Measures

Wear full protective fire-fighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Remove all sources of ignition. Avoid breathing vapors. Ventilate affected area. Absorb with earth, sand or other non-combustible material and transfer to container. Use non-sparking tools. Dike for later disposal.

Environmental Precautions

Avoid release to the environment.

Section 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 eat, drink or smoke when using this product. Keep away from heat/sparks/open flames/hot surfaces. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use non-sparking tools. Use only outdoors or in a well-ventilated area. Vapors will travel. Prevent vapors from entering buildings through open windows or ventilation systems. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid contact during pregnancy/while nursing. **KEEP OUT OF REACH OF CHILDREN.**

Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed

Keep cool

Store locked up

Keep away from heat and ignition sources. Keep away from incompatible materials. Do not cut, puncture, or weld on or near this container.

Incompatible Materials

Strong oxidizing agents, acids, bases, amines

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Toluene	108-88-3	
ACGIH:	20 ppm TWA	
NIOSH:	100 ppm TWA; 375 mg/m ³ TWA	150 ppm STEL; 560 mg/m ³ STEL
	500 ppm IDLH	
Europe:	50 ppm TWA; 192 mg/m ³ TWA	100 ppm STEL; 384 mg/m ³ STEL
	Possibility of significant uptake through the skin	
OSHA (US):	200 ppm TWA	300 ppm Ceiling
Mexico:	50 ppm TWA LMPE-PPT; 188 mg/m ³ TWA LMPE-PPT	
	Skin - potential for cutaneous absorption	
Anhydrous isopropanol	67-63-0	
ACGIH:	200 ppm TWA	
NIOSH:	400 ppm TWA; 980 mg/m ³ TWA	400 ppm STEL
	2000 ppm IDLH (10% LEL)	500 ppm STEL; 1225 mg/m ³ STEL
OSHA (US):	400 ppm TWA; 980 mg/m ³ TWA	
Mexico:	400 ppm TWA LMPE-PPT; 980 mg/m ³ TWA LMPE-PPT	

Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

		500 ppm STEL [LMPE-CT]; 1225 mg/m ³ STEL [LMPE-CT]
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Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate work clothing. Wear protective shoes. Recommended material: protective skin cream.

Respiratory Protection

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	dark liquid	Physical State	liquid
Odor	hydrocarbon	Color	olive, green, dark gray
Odor Threshold	Not available	pH	Not available
Melting Point	-95 °C (-139 °F)	Boiling Point	90 - 111 °C (194-231 °F)
Freezing point	Not available	Evaporation Rate	2.5
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	230 °C (475 °F)	Flash Point	-7.2 °C (19 °F)
Lower Explosive Limit	1 %	Decomposition	Not available
Upper Explosive Limit	7 %	Vapor Pressure	24.9 mmHg
Vapor Density (air=1)	3.2	Specific Gravity (water=1)	Not available

Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

Water Solubility	Negligible	Partition coefficient: n-octanol/water	Not available
Viscosity	<200 cps	Solubility (Other)	Not available
Density	0.88 (relative)	VOC	727 g/L

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials

Strong oxidizing agents, acids, bases, amines

Hazardous decomposition products

Oxides of carbon

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause respiratory irritation. May cause drowsiness or dizziness.

Skin Contact

Causes skin irritation.

Eye Contact

Causes serious eye irritation.

Ingestion

May cause gastrointestinal irritation.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Toluene (108-88-3)

Oral LD50 Rat 2600 mg/kg

Dermal LD50 Rabbit 12000 mg/kg

Inhalation LC50 Rat 30 - 35 mg/L 4

Heptane (64742-89-8)

Oral LD50 Mouse 5000 mg/kg

Dermal LD50 Rabbit 3000 mg/kg

Silicon adsorbent mixture (Trade Secret)

Oral LD50 Rat >32000 mg/kg

Dermal LD50 Rabbit >2000 mg/kg

Dibutyltin dilaurate (Trade Secret)

Oral LD50 Rat 45 mg/kg

Dermal LD50 Rabbit 630 mg/kg

Isophorone diisocyanate (Trade Secret)

Oral LD50 Rat >20000 mg/kg

Dermal LD50 Rabbit >2000 mg/kg

Inhalation LC50 Rat 5 mg/L 4 h

Anhydrous isopropanol (67-63-0)

Oral LD50 Rat 1870 mg/kg

Dermal LD50 Rabbit 4059 mg/kg

Inhalation LC50 Rat 72600 mg/m³ 4 h

Immediate Effects

Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Causes damage to central nervous system.

Delayed Effects

Prolonged exposure may cause liver, kidney and central nervous system damage.

Irritation/Corrosivity Data

Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

Toluene	108-88-3
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Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))
Anhydrous isopropanol	67-63-0
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977] (Group 3 (not classifiable))

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

Causes damage to central nervous system.

Specific Target Organ Toxicity - Repeated Exposure

Prolonged exposure may cause liver, kidney and central nervous system damage.

Aspiration hazard

May cause aspiration hazard.

Medical Conditions Aggravated by Exposure

Aspiration into the lungs may cause chemical pneumonitis.

Additional Data

No additional information available.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Avoid release to the environment.

Component Analysis - Aquatic Toxicity

Toluene	108-88-3
Fish:	LC50 96 h Pimephales promelas 15.22 - 19.05 mg/L [flow-through] (1 day old); LC50 96 h Pimephales promelas 12.6 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static]; LC50 96 h Oryzias latipes 54 mg/L [static]; LC50 96 h Poecilia reticulata 28.2 mg/L [semi-static];

Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

	LC50 96 h Poecilia reticulata 50.87 - 70.34 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >433 mg/L IUCLID; EC50 72 h Pseudokirchneriella subcapitata 12.5 mg/L [static] EPA
Invertebrate:	EC50 48 h Daphnia magna 5.46 - 9.83 mg/L [static] EPA; EC50 48 h Daphnia magna 11.5 mg/L IUCLID
Heptane	64742-89-8
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID
Isophorone diisocyanate	Trade Secret
Fish:	LC50 96 h Oncorhynchus mykiss 9.22 mg/L
Invertebrate:	EC50 48 h Daphnia magna 6.14 mg/L IUCLID
Anhydrous isopropanol	67-63-0
Fish:	LC50 96 h Pimephales promelas 9640 mg/L [flow-through]; LC50 96 h Pimephales promelas 11130 mg/L [static]; LC50 96 h Lepomis macrochirus >1400000 µg/L
Algae:	EC50 96 h Desmodesmus subspicatus >1000 mg/L IUCLID; EC50 72 h Desmodesmus subspicatus >1000 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 13299 mg/L IUCLID

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information available.

Section 13 - DISPOSAL CONSIDERATIONS



Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: Adhesives

Hazard Class: 3

UN/NA #: UN1133

Packing Group: II

Required Label(s): Red flammable liquid

IATA Information:

Shipping Name: ADHESIVES

Hazard Class: 3

UN#: UN1133

Packing Group: II

Required Label(s): 3

TDG Information:

Shipping Name: ADHESIVES

Hazard Class: 3

UN#: UN1133

Packing Group: II

Required Label(s):

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Toluene	108-88-3
SARA 313:	1 % de minimis concentration
CERCLA:	1000 lb final RQ; 454 kg final RQ
Anhydrous isopropanol	67-63-0
SARA 313:	1 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes Chronic Health: Yes Fire: Yes Pressure: No Reactivity: No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes
Anhydrous isopropanol	67-63-0	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects

Toluene	108-88-3
Repro/Dev. Tox	developmental toxicity , initial date 1/1/91
	female reproductive toxicity , initial date 8/7/09

Component Analysis - Inventory

Toluene (108-88-3)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Heptane (64742-89-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Isophorondiamine-isobutyraldimine (54914-37-3)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	No	No	Yes	Yes	No

Dibutyltin dilaurate (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX

Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes
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Isophorone diisocyanate (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Anhydrous isopropanol (67-63-0)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

Revision date: September 6, 2019

Revision – General Update

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace;



Safety Data Sheet

Material Name: V-150 Primer

Product #: 302081

MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name: DASH Dual Cartridge Adhesive Part A

Synonym: Polymethylene Polyphenylisocyanate

Chemical Family: Aromatic isocyanates

Product Use: Two-part adhesive for roofing systems

Restrictions on Use: For industrial use only.

Manufacturer Information

Versico Roofing Systems
1285 Ritner Highway
Carlisle, PA 17013
USA
Phone: +1-800-992-7663
Emergency Phone #: +1-800-424-9300 (CHEMTREC)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Acute Toxicity- Category 4 (Inhalation- mist)

Skin Corrosive/Irritation - Category 2

Eye Damage/Irritation - Category 2B

Specific Target Organ Toxicity - Single Exposure –(Irritating to respiratory system)-Category 3

Specific Target Organ Toxicity - Repeated Exposure –(by inhalation)-Category 2

Skin Sensitivity - Category 1B

Respiratory Sensitization- Category 1

Carcinogenicity-Category 2

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement:

H320 Causes eye irritation.

H315 Causes skin irritation.

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to organs (Olfactory organs) through prolonged or repeated exposure (inhalation).

Precautionary Statements (Prevention):

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P271 Use only outdoors or in a well-ventilated area.
P260 Do not breathe dust/gas/mist/vapours.
P201 Obtain special instructions before use.
P261 Avoid breathing mist.
P202 Do not handle until all safety precautions have been read and understood.
P284 [In case of inadequate ventilation] wear respiratory protection.
P272 Contaminated work clothing should not be allowed out of the workplace.
P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

P312 Call a POISON CENTER or doctor/physician 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.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician.
P314 Get medical advice/attention if you feel unwell.
P303 + P361 IF ON SKIN (or hair): Wash with plenty of soap and water.
P333 + P361 If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.
P362 + P364 Take off contaminated clothing and wash before reuse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.

Precautionary Statements (Storage):

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

Labeling of special preparations (GHS):

CONTAINS ISOCYANATES. INHALATION OF ISOCYANATE MISTS OR VAPORS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

PULMONARY FUNCTION. OVEREXPOSURE WELL ABOVE THE PEL MAY RESULT IN BRONCHITIS, BRONCHIAL SPASMS AND PULMONARY EDEMA. LONG-TERM EXPOSURE TO ISOCYANATES HAS BEEN REPORTED TO CAUSE LUNG DAMAGE, INCLUDING REDUCED LUNG FUNCTION WHICH MAY BE PERMANENT. ACUTE OR CHRONIC OVEREXPOSURE TO ISOCYANATES MAY CAUSE SENSITIZATION IN SOME INDIVIDUALS, RESULTING IN ALLERGIC RESPIRATORY REACTIONS INCLUDING WHEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING. ANIMAL TESTS INDICATE THAT SKIN CONTACT MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION. ANIMAL TESTS AND OTHER RESEARCH INDICATE THAT SKIN CONTACT WITH MDI MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION.

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Emergency overview

DANGER:

CONTAINS ISOCYANATES. INHALATION OF ISOCYANATE MISTS OR VAPORS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED PULMONARY FUNCTION. OVEREXPOSURE WELL ABOVE THE PEL MAY RESULT IN BRONCHITIS, BRONCHIAL SPASMS AND PULMONARY EDEMA. LONG-TERM EXPOSURE TO ISOCYANATES HAS BEEN REPORTED TO CAUSE LUNG DAMAGE, INCLUDING REDUCED LUNG FUNCTION WHICH MAY BE PERMANENT. ACUTE OR CHRONIC OVEREXPOSURE TO ISOCYANATES MAY CAUSE SENSITIZATION IN SOME INDIVIDUALS, RESULTING IN ALLERGIC RESPIRATORY REACTIONS INCLUDING WHEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING. ANIMAL TESTS INDICATE THAT SKIN CONTACT MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION. AVOID CONTACT WITH SKIN AND EYES. SKIN OR EYE CONTACT MAY CAUSE IRRITATION.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
101-68-8	Diphenylmethane-4,4'-diisocyanate (MDI)	25.0 - 50.0
17589-24-1	1,3-Diazetidine-2,4-dione, 1,3-bis[4-[(4-isocyanatophenyl)methyl]phenyl]-	1.0 - 3.0
26447-40-5	Methylenediphenyl diisocyanate	3.0 - 7.0
57636-09-6	Isocyanic acid, polymethylenepolyphenylene ester,	1.0 - 3.0

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

	polymer with.alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl)	
9016-87-9	P-MDI	50.0 - 75.0

Section 4 - FIRST AID MEASURES

General advice: Remove contaminated clothing.

EYES: In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

SKIN: Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

INGESTION: Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required

INHALATION: Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Eye irritation, skin irritation, allergic symptoms

Hazards: Symptoms can appear later.

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Hazards: Respiratory sensitization may result in allergic (asthma-like) signs in the lower respiratory tract including wheezing, shortness of breath and difficulty breathing, the onset of which may be delayed. Repeated inhalation of high concentrations may cause lung damage, including reduced lung function, which may be permanent. Substances eliciting lower respiratory tract irritation may worsen the asthma-like reactions that may be produced by product exposures.

Indication of any immediate medical attention and special treatment needed

Note to physician

Antidote: Specific antidotes or neutralizers to isocyanates do not exist.

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

Treatment: Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Dry powder, foam, carbon dioxide, water spray.

Special hazards arising from the substance or mixture

Hazards during fire-fighting: nitrous gases, fumes/smoke, isocyanate, vapour

Fire Fighting Measures

As in any fire, wear self-contained breathing apparatus and full protective gear.

Further information:

Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For small amounts: Absorb isocyanate with suitable absorbent material (see § 40 CFR, sections 260, 264 and 265 for further information). Shovel into open container. Do not make container pressure tight. Move container to a well-ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90 % water, 8 % concentrated ammonia, 2 % detergent. Add at a 10 to 1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide.

For large amounts: If temporary control of isocyanate vapor is required, a blanket of protein foam or other suitable foam (available from most fire departments) may be placed over the spill. Transfer as much liquid as possible via pump or vacuum device into closed but not sealed containers for disposal.

For residues: The following measures should be taken for final cleanup: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes.

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

Dike spillage.

Section 7 - HANDLING AND STORAGE

Precautions for safe handling

Provide suitable exhaust ventilation at the processing machines. Ensure thorough ventilation of stores and work areas. Avoid aerosol formation. When handling heated product, vapours of the product should be ventilated, and respiratory protection used. Wear respiratory protection when spraying. Danger of bursting when sealed gastight. Protect against moisture. If bulging of drum occurs, transfer to well ventilated area, puncture to relieve pressure, open vent and let stand for 48 hours before resealing.

Protection against fire and explosion:

Storage No explosion proofing necessary.

Conditions for safe storage, including any incompatibilities

Keep away from water. Segregate from foods and animal feeds. Segregate from acids and bases. Segregate from bases.

Suitable materials for containers: Carbon steel (Iron), High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4301 (V2)

Further information on storage conditions: Formation of CO₂ and build up of pressure possible. Keep container tightly closed and in a well-ventilated place. Outage of containers should be filled with dry inert gas at atmospheric pressure to avoid reaction with moisture.

Storage stability:

Storage temperature: 32 - 110 °F

Protect against moisture.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Diphenylmethane-4,4'-diisocyanate (MDI)	101-68-8
OSHA PEL	CLV 0.02 ppm 0.2 mg/m ³
ACGIH TLV	TWA value 0.005 ppm

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

P-MDI	9016-87-9
OSHA PEL	CLV 0.02 ppm 0.2 mg/m ³
ACGIH TVL	TWA value 0.005 ppm
Isocyanic acid, polymethylene - polyphenylene ester (P-MDI)	57636-09-6
OSHA PEL	CLV 0.02 ppm 0.2 mg/m ³
ACGIH TLV	TWA value 0.005 ppm

Personal protective equipment

Respiratory protection:

When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. When atmospheric levels may exceed the occupational exposure limit (PEL or TLV) NIOSH-certified air-purifying respirators equipped with an organic vapor sorbent and particulate filter can be used as long as appropriate precautions and change out schedules are in place. For emergency or non-routine, high exposure situations, including confined space entry, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves should be worn to prevent all skin contact., Suitable materials may include, chloroprene rubber (Neoprene), nitrile rubber (Buna N), chlorinated polyethylene, polyvinylchloride (Pylox), butyl rubber, depending upon conditions of use.

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Cover as much of the exposed skin as possible to prevent all skin contact., Suitable materials may include, saran-coated material, depending upon conditions of use.

General safety and hygiene measures:

Wear protective clothing as necessary to prevent contact. Eye wash fountains and safety showers must be easily accessible. Observe the appropriate PEL or TLV value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

Appearance	liquid	Physical State	liquid
Odor	faint aromatic	Color	Dark amber
Boiling Point (@ 5mmHg)	200°C(392°F)	Flammability Limit	Not flammable
Freezing Point (@ 1 ATM)	3°C (37.4°F)	Vapor Pressure (20°C)	0.00016 mmHg
Autoignition	>250 °C (482 °F)	Flash Point	220°C (428 °F)
Solubility in water	Reacts with water	Viscosity, Dynamic (20°C)	200 mPa.s
Vapor Density (air=1)	N/A	Molar Mass	360 g/mol
Density (20°C)	1.22 g/cm ³	pH	N/A
Relative Density(25°C)	1.22	Bulk Density (25°C)	10.17 lb/USg
Thermal decomposition	No decomposition if stored and handled as prescribed.	Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.

Other Information: If necessary, information on other physical and chemical parameters is indicated in this section

Section 10 - STABILITY AND REACTIVITY

Reactivity

Corrosion to metals: No corrosive effect on metal.
Oxidizing properties: Not fire-propagating

Chemical Stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of Hazardous Reactions

Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohols. Reacts with acids. Reacts with alkalis. Reacts with amines. Risk of exothermic reaction. Risk of polymerization. Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength.

Conditions to Avoid

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

Avoid moisture.

Incompatible Materials

Acids, amines, alcohols, water, Alkalines, strong bases, Substances/products that react with isocyanates

Hazardous decomposition products: carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Inhalation of vapours may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Inhalation exposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed.

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Diphenylmethane-4,4'-diisocyanate (MDI) (101-68-8)

Oral LD50 Rat 2000 mg/kg

Dermal LD50 Rabbit >9,400 mg/kg

Inhalation LD50 Rat 2.0 (OECD Guideline 403)

An aerosol was tested

Assessment other acute effects

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

Irritation / corrosion

Assessment of irritating effects: Irritating to eyes, respiratory system and skin. Skin contact may result in dermatitis, either irritative or allergic.

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

Skin

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Species: rabbit

Result: Irritating.

Method: Draize test

Eye

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Species: rabbit

Result: Irritating.

Method: Draize test

Sensitization

Assessment of sensitization: Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract. As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the PEL/TLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Chronic overexposure to isocyanates has also been reported to cause lung damage, including a decrease in lung function, which may be permanent. Prolonged contact can cause reddening, swelling, rash, scaling, or blistering. In those who have developed a skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material, or even as a result of vapour-only exposure. Animal tests indicate that skin contact may play a role in causing respiratory sensitization.

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Buehler test

Species: guinea pig

Result: sensitizing

Mouse Local Lymph Node Assay (LLNA)

Species: mouse

Result: sensitizin

Can cause skin sensitization

other

Species: guinea pig

Result: sensitizing

Studies in animals suggest that dermal exposure may lead to pulmonary sensitization. However, the relevance of this result for humans is unclear.

Chronic Toxicity/Effects

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

Repeated dose toxicity

Assessment of repeated dose toxicity: The substance may cause damage to the olfactory epithelium after repeated inhalation. The substance may cause damage to the lung after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure.

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Experimental/calculated data: rat (Wistar) (male/female) Inhalation 2 yrs, 6 hr/day 0, 0.2, 1, 6 mg/m³, olfactory epithelium

NOAEL: 0.2 mg/m³

LOAEL: 1 mg/m³

The substance may cause damage to the olfactory epithelium after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure. Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.

Genetic toxicity

Assessment of mutagenicity: The substance was mutagenic in various bacterial test systems; however, these results could not be confirmed in tests with mammals.

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Genetic toxicity in vitro: OECD Guideline 471 Ames-test Salmonella typhimurium: with and without metabolic activation ambiguous

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Genetic toxicity in vivo: OECD Guideline 474 Micronucleus assay rat (male) Inhalation negative. No clastogenic effect reported.

Carcinogenicity

Assessment of carcinogenicity: A carcinogenic potential cannot be excluded after prolonged exposure to severely irritating concentrations. These effects are not relevant to humans at occupational levels of exposure.

Experimental/calculated data: OECD Guideline 453 rat Inhalation 0, 0.2, 1, 6 mg/m³

Result: Lung tumors

Reproductive toxicity

Assessment of reproduction toxicity: Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.

Teratogenicity

Assessment of teratogenicity: The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.

Development

OECD Guideline 414 rat Inhalation 0, 1, 4, 12 mg/m³

NOAEL Mat.: 4 mg/m³

NOAEL Teratog.: 4 mg/m³

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Eye irritation, skin irritation, allergic symptoms

Medical conditions aggravated by overexposure

The isocyanate component is a respiratory sensitizer. It may cause allergic reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing. Medical supervision of all employees who handle or come into contact with isocyanates is recommended. Contact may aggravate pulmonary disorders. Persons with history of respiratory disease or hypersensitivity should not be exposed to this product. Preemployment and periodic medical examinations with respiratory function tests (FEV, FVC as a minimum) are suggested. Persons with asthmatic conditions, chronic bronchitis, other chronic respiratory diseases, recurrent eczema or pulmonary sensitization should be excluded from working with isocyanates. Once a person is diagnosed as having pulmonary sensitization (allergic asthma) to isocyanates, further exposure is not recommended.

Section 12 - ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. Based on long-term (chronic) toxicity study data, the product is very likely not harmful to aquatic organisms.

The product may hydrolyse. The test result maybe partially due to degradation products. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Toxicity to fish

LC0 (96 h) > 1,000 mg/l, Brachydanio rerio (OECD Guideline 203, static)

Aquatic invertebrates

EC50 (24 h) > 1,000 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants

EC0 (72 h) 1,640 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201, static)

Microorganisms/Effect on activated sludge

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

Toxicity to microorganisms

OECD Guideline 209 aquaticaerobic bacteria from a domestic water treatment plant/EC50 (3 h): > 100 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H₂O) Poorly biodegradable. The product is unstable in water. The elimination data also refer to products of hydrolysis.

Elimination information

0 % BOD of the ThOD (28 d) (OECD Guideline 302 C) (aerobic, activated sludge) Poorly biodegradable.

Assessment of stability in water

In contact with water the substance will hydrolyse slowly.

Information on Stability in Water (Hydrolysis)

t_{1/2} 20 h (25 °C)

Bioaccumulative potential

Assessment bioaccumulation potential

Significant accumulation in organisms is not to be expected.

Bioaccumulation potential

Bioconcentration factor: 200 (28 d), Cyprinus carpio (OECD Guideline 305 E)

Mobility in soil

Assessment transport between environmental compartments.

The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected.

Section 13 - DISPOSAL CONSIDERATIONS

Waste disposal of substance:

Incinerate or dispose of in a licensed facility. Do not discharge substance/product into sewer system.

Container disposal:

DRUMS:

Steel drums must be emptied and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer or an approved landfill. Do not attempt to refill or clean containers since residue is difficult to remove. Under no circumstances should empty drums be burned or cut open with gas or electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Not classified as a dangerous good under transport regulations

Sea transport IMDG

Not classified as a dangerous good under transport regulations

Air transportation IATA/ICAO

Not classified as a dangerous good under transport regulations

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

Registration status:

Chemical TSCA, US released / listed.

EPCRA 311/312 (Hazard categories)

Acute;Chronic

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	CAS
Diphenylmethane-4,4'-diisocyanate (MDI)	101-68-8
P-MDI	9016-87-9

CERCLA-RQ (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	CAS	CERCLA RQ
Diphenylmethane-4,4'-diisocyanate (MDI);	101-68-8	5000 lbs
P-MDI	9016-87-9	5,000 lbs

Reportable Quantity for release: 13,157.9 lb

STATE REGULATIONS

Chemical Name	CAS	State RTK
Diphenylmethane-4,4'-diisocyanate (MDI);	101-68-8	MA, NJ, PA
P-MDI	9016-87-9	MA, NJ, PA
Methylenediphenyl diisocyanate	26447-40-5	NJ

Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2 Fire: 1 Physical Hazard: 1

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 2 Fire: 1 Reactivity: 1

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

Revision Date: June 1, 2018

Revision Note: General Update

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be



Safety Data Sheet

Material Name: DASH Dual Cartridge Adhesive Part A

Product #: 310150A

applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

DASH Dual Cartridge Adhesive Part B

Synonyms

Urethane System Resin Component

Chemical Family

Resin

Product Use

Membrane and Insulation Adhesive

Restrictions on Use

For industrial use only.

Manufacturer Information

Versico LLC

1285 Ritner Highway

Carlisle, PA 17013

USA

Phone: +1-800-992-7663

Emergency Phone #: +1-800-424-9300 (CHEMTREC)

Section 2 - HAZARDS IDENTIFICATION

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

No need for classification according to GHS criteria for this product.

Label elements

The product does not require a hazard warning label in accordance with GHS criteria.

Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Emergency overview

CAUTION:

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

This product does not contain any components classified as hazardous under the referenced regulation.

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS	Component Name	Percent
Trade Secret	Polyol	< 70.0
13674-84-5	tris(2-chloro-1-methylethyl)phosphate	< 30.0
Trade Secret	Catalyst	< 2.0
Trade Secret	Surfactant	< 1.0

The product contains:

CAS Number	Content (W/W)	Chemical name
13674-84-5	>= 20.0 - < 30.0 %	tris(2-chloro-1-methylethyl)phosphate

Section 4 - FIRST AID MEASURES

General advice:

Remove contaminated clothing.

Inhalation

Keep patient calm, remove to fresh air.

Skin

Wash thoroughly with soap and water.

Eyes

Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion

Rinse mouth and then drink plenty of water. Do not induce vomiting..

Most Important Symptoms/Effects

Material Name: DASH Dual Cartridge Adhesive Part B

Product #: 315177B

Information on: tris(2-chloro-1-methylethyl)phosphate

Symptoms: Overexposure may cause: convulsions, depression, hypoxemia, tremors

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water spray, dry powder, carbon dioxide, foam

Special Hazards Arising from the Chemical

Hazards during fire-fighting:

No particular hazards known.

Hazardous Combustion Products

Oxides of carbon, oxides of nitrogen

Advice for firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Spills should be contained, solidified, and placed in suitable containers for disposal.

Environmental Precautions

Do not empty into drains. Do not discharge into the subsoil/soil.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Ensure thorough ventilation of stores and work areas. Protect against moisture.

Material Name: DASH Dual Cartridge Adhesive Part B

Product #: 315177B

Protection against fire and explosion:

No explosion proofing necessary.

Conditions for Safe Storage, Including any Incompatibilities

Segregate from foods and animal feeds. Segregate from acids. Segregate from oxidants. Suitable materials for containers: Carbon steel (Iron), High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4301 (V2)

Further information on storage conditions: No special precautions necessary. Avoid extreme heat.

Store protected against freezing

Storage stability:

Storage temperature: 60 - 80 °F. Protect against moisture.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Advice on system design:

Provide local exhaust ventilation to control vapors/mists.

Eye/face protection:

Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

Skin Protection:

Wear work clothes with long sleeves. Wear protective shoes.

Respiratory Protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator as needed.

Hand protection:

Chemical resistant protective gloves.

Body protection:

Standard work clothes and shoes.

General safety and hygiene measures:

Avoid contact with skin. Handle in accordance with good industrial hygiene and safety practice. Wear protective clothing as necessary to prevent contact. Avoid inhalation of vapours/mists. Wash soiled clothing immediately.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	light yellow liquid	Physical State	liquid
Odor	musty	Color	Clear to light yellow
Odor Threshold	Not available	pH	>= 7
Freezing point	Not available	Evaporation Rate	3.8

Material Name: DASH Dual Cartridge Adhesive Part B

Product #: 315177B

Boiling Point	148.8 °C (> 300°F)	Flammability (solid, gas)	Not flammable
Autoignition	>250 °C (482°F)	Flash Point	Approx. >93°C (200°F)
Density (20 °C)	Approx. 1.1 g/cm ³	Decomposition	Not available
Self Igniting	Not self igniting	Vapor Pressure(25 °C)	< 0.1 hPa
Vapor Density (air=1)	N/A	Specific Gravity (water=1)	Not available
Water Solubility	Miscible	Partition coefficient: n-octanol/water	Not available

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: No corrosive effect on metal.

Oxidizing properties: Not fire-propagating

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to Avoid

Temperature: < 0 degrees Celsius

Incompatible Materials

Acids, isocyanates, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Section 11 - TOXICOLOGICAL INFORMATION

Primary Routes of Exposure

Material Name: DASH Dual Cartridge Adhesive Part B

Product #: 315177B

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute and Chronic Toxicity

Acute toxicity

Assessment of acute toxicity: No known acute effects.

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Origin of data: expert judgement

Irritation / corrosion

Assessment of irritating effects: No irritation is expected under intended use and appropriate handling.

Sensitization

Assessment of sensitization: The chemical structure does not suggest a sensitizing effect.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated oral uptake of the substance did not cause substance-related effects. Repeated inhalative uptake of the substance did not cause substance-related effects. Repeated dermal uptake of the substance did not cause substance-related effects.

Genetic toxicity

Assessment of mutagenicity: The chemical structure does not suggest a specific alert for such an effect.

Carcinogenicity

Assessment of carcinogenicity: The chemical structure does not suggest a specific alert for such an effect.

Reproductive toxicity

Assessment of reproduction toxicity: The chemical structure does not suggest a specific alert for such an effect.

Teratogenicity

Assessment of teratogenicity: The chemical structure does not suggest a specific alert for such an effect.

Other Information

The product has not been tested. The statement has been derived from the properties of the individual components.

Symptoms of Exposure

Medical conditions aggravated by overexposure

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

Component Analysis - Aquatic Toxicity

Persistence and Degradability

Assessment biodegradation and elimination (H₂O)

Poorly biodegradable.

Elimination information

Poorly biodegradable.

Bioaccumulative Potential

Does not significantly accumulate in organisms..

Mobility in soil

Assessment transport between environmental compartments

Adsorption to solid soil phase is not expected.

Additional information

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Other ecotoxicological advice:

The product has not been tested. Do not discharge product into the environment without control.

Section 13 - DISPOSAL CONSIDERATIONS

Waste disposal of substance:

Incinerate in a licensed facility. Dispose of in a licensed facility. Do not discharge substance/product into sewer system.

Container disposal:

Steel drums must be emptied and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer or an approved landfill. Do not attempt to refill or clean containers since residue is difficult to remove. Under no circumstances should empty drums be burned or cut open with gas or electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.

Section 14 - TRANSPORT INFORMATION

Land transport US DOT Information:

Not classified as a dangerous good under transport regulations

Material Name: DASH Dual Cartridge Adhesive Part B

Product #: 315177B

Air transport IATA/CAO Information:

Not classified as a dangerous good under transport regulations

Sea transport IMDG Information:

Not classified as a dangerous good under transport regulations

Section 15 - REGULATORY INFORMATION

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Not hazardous;

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 1 Fire: 1 Physical Hazard: 1

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 1 Fire: 1 Reactivity: 1

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

New SDS: April 28, 2015

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace;

Material Name: DASH Dual Cartridge Adhesive Part B

Product #: 315177B

MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name: Water Cut-Off Mastic

Synonyms: Butyl Mastic

Chemical Family: Mastic

Product Use: Elastomeric sealer for Single-Ply Membranes

Restrictions on Use: For industrial use only.

Manufacturer Information

Versico LLC
1285 Ritner Highway
Carlisle, PA 17013
USA
Phone: +1-800-992-7663
Emergency Phone #: +1-800-424-9300 (CHEMTREC)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Flammable Liquids - Category 2

Skin Corrosion/Irritation - Category 2

Specific Target Organ Toxicity - Single Exposure - Category 3

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Highly flammable liquid and vapor

Causes skin irritation

May cause drowsiness or dizziness

Precautionary Statement(s)

Prevention

Keep container tightly closed

Keep away from heat/sparks/open flame/hot surfaces - No smoking

Ground/Bond container and receiving equipment

Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

Use explosion-proof electrical/ventilating/lighting equipment
Take precautionary measures against static discharge
Use only non-sparking tools
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapours/spray
Wash thoroughly after handling

Response

In case of fire: Use appropriate media to extinguish
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing
IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
Call a POISON CENTER or doctor if you feel unwell
Specific treatment (see label)

Storage

Store in a well-ventilated place. Keep container tightly closed
Keep cool
Store locked up

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
Trade Secret	Silica compound	1-5
Trade Secret	Polyphenol antioxidant	< 0.1
Trade Secret	Severely hydrotreated paraffinic oil	1-5
Trade Secret	Polybutene	10-30
64742-89-8	Solvent naphtha, petroleum, light aliphatic	10-30
Mixture	Hydrous clay	3-7

Section 4 - FIRST AID MEASURES

Inhalation

Remove person to fresh air and keep comfortable for breathing. Give artificial respiration if not breathing. Call a POISON CENTER or doctor if you feel unwell.



Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

Skin

Remove/Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation occurs, get medical advice/attention.

Eyes

Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion

If swallowed, do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

Causes skin irritation. May cause drowsiness or dizziness.

Delayed

No information on significant adverse effects.

Section 5 - FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Dry chemical, foam or carbon dioxide. Water may be ineffective. Use water spray to keep containers cool.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Highly flammable liquid and vapor. Can burn and explode easily when exposed to open flames or high heat. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flashback.

Hazardous Combustion Products

Oxides of carbon, aldehydes

Firefighting Measures

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Remove all sources of ignition. Avoid breathing vapors. Ventilate affected area. Absorb with earth, sand or other non-combustible material and transfer to container. Use non-sparking tools. Dike for later disposal. Dispose in accordance with all applicable regulations.



Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

Environmental Precautions

Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from heat/sparks/open flames/hot surfaces. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use non-sparking tools. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. KEEP OUT OF REACH OF CHILDREN.

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed

Keep cool

Store locked up

Keep away from heat and ignition sources. Keep away from incompatible materials. Do not cut, puncture, or weld on or near this container.

Incompatible Materials

Strong oxidizing agents, acids, bases

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Calcium carbonate	1317-65-3	
NIOSH:	10 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable dust	
OSHA (US):	15 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable fraction	
Mexico:	10 mg/m ³ TWA LMPE-PPT	20 mg/m ³ STEL [LMPE-CT]
Silica compound	Trade Secret	
OSHA (US):	20 mppcf TWA; ((80)/(% SiO ₂) mg/m ³ TWA)	
Mexico:	10 mg/m ³ TWA LMPE-PPT	
Carbon compound	Trade Secret	
ACGIH:	3 mg/m ³ TWA inhalable fraction	

Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

NIOSH:	3.5 mg/m ³ TWA; 0.1 mg/m ³ TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons) as PAH	
	1750 mg/m ³ IDLH	
OSHA (US):	3.5 mg/m ³ TWA	
Mexico:	3.5 mg/m ³ TWA LMPE-PPT	7 mg/m ³ STEL [LMPE-CT]
Silica, crystalline	14808-60-7	
ACGIH:	0.025 mg/m ³ TWA respirable fraction	
NIOSH:	0.05 mg/m ³ TWA respirable dust	50 mg/m ³ IDLH respirable dust
OSHA (US):	((30)/(%SiO ₂ + 2) mg/m ³ TWA) total dust; ((250)/(%SiO ₂ + 5) mppcf TWA) respirable fraction; ((10)/(%SiO ₂ + 2) mg/m ³ TWA) respirable fraction	
Mexico:	0.1 mg/m ³ TWA LMPE-PPT respirable fraction	

Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Recommended material: protective skin cream.

Respiratory Protection

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	gray viscous liquid	Physical State	liquid
Odor	mild,solvent	Color	gray
Odor Threshold	Not available	pH	Not available
Melting Point	Not available	Boiling Point	119 - 141 °C (246-286 °F)

Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

Freezing point	Not available	Evaporation Rate	3.5
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	246 °C (475 °F)	Flash Point	10 °C (50 °F)
Lower Explosive Limit	0.9 %	Decomposition	Not available
Upper Explosive Limit	6.7 %	Vapor Pressure	11.25 mmHg
Vapor Density (air=1)	4	Specific Gravity (water=1)	Not available
Water Solubility	0.5	Partition coefficient: n-octanol/water	Not available
Viscosity	1200000 cps	Solubility (Other)	hydrocarbons
Density	1.2 - 1.3 (relative)	VOC	250 g/L

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials

Strong oxidizing agents, acids, bases.

Hazardous decomposition products

Oxides of carbon, aldehydes

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause drowsiness or dizziness.

Skin Contact

Causes skin irritation.



Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

Eye Contact

May cause eye irritation.

Ingestion

May cause gastrointestinal irritation.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Carbon compound (Trade Secret)

Oral LD50 Rat >8000 mg/kg

Polyphenol antioxidant (Trade Secret)

Oral LD50 Rat >5000 mg/kg

Dermal LD50 Rabbit >5000 mg/kg

Severely hydrotreated paraffinic oil (Trade Secret)

Oral LD50 Rat >5000 mg/kg

Dermal LD50 Rabbit >2000 mg/kg

Polybutene (Trade Secret)

Oral LD50 Rat >34600 mg/kg

Dermal LD50 Rat >10250 mg/kg

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

Oral LD50 Rat >2000 mg/kg

Dermal LD50 Rat >2000 mg/kg

Silica, crystalline (14808-60-7)

Oral LD50 Rat 500 mg/kg

Immediate Effects

Causes skin irritation. May cause drowsiness or dizziness. May cause gastrointestinal irritation.

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

Causes skin irritation. May cause gastrointestinal irritation.

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

Silica compound	Trade Secret
IARC:	Monograph 68 [1997] (Group 3 (not classifiable))

Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

Carbon compound	Trade Secret
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 93 [2010]; Monograph 65 [1996] (Group 2B (possibly carcinogenic to humans))
DFG:	Category 3B (could be carcinogenic for man, inhalable fraction)
OSHA:	Present
Silica, crystalline	14808-60-7
ACGIH:	A2 - Suspected Human Carcinogen
IARC:	Monograph 100C [2012]; Monograph 68 [1997] (Group 1 (carcinogenic to humans))
NTP:	Known Human Carcinogen (respirable size)
DFG:	Category 1 (causes cancer in man, alveola fraction)
OSHA:	Present (respirable size)

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

May affect the central nervous system: drowsiness, dizziness.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

No data available.

Additional Data

This product contains crystalline silica, which is a known carcinogen. However, this component is bound by the polymer portion of the sealant. The only way this component would be released is through incineration. Therefore, this product is not considered a carcinogen.

Section 12 - ECOLOGICAL INFORMATION

Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

Ecotoxicity

Avoid release to the environment.

Component Analysis - Aquatic Toxicity

Polyphenol antioxidant	Trade Secret
Fish:	LC50 96 h Oncorhynchus mykiss >0.2 mg/L [semi-static]
Algae:	EC50 72 h Pseudokirchneriella subcapitata >0.2 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna >0.2 mg/L IUCLID
Severely hydrotreated paraffinic oil	Trade Secret
Fish:	LC50 96 h Oncorhynchus mykiss >5000 mg/L
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L IUCLID
Polybutene	Trade Secret
Fish:	Fish LC50 96 hr >1000 mg/L
Solvent naphtha, petroleum, light aliphatic	64742-89-8
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID
Hydrous clay	Mixture
Fish:	Fish LC50 96 hr Oncorhynchus 19000 mg/L

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information available.

Section 13 - DISPOSAL CONSIDERATIONS



Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name:ADHESIVES

Hazard Class: 3

UN/NA #: UN1133

Packing Group: II

Required Label(s): < 0.3 gal use Limited Quantity Label

IATA Information:

Shipping Name:ADHESIVES

Hazard Class: 3

UN#: UN1133

Packing Group: II

Required Label(s): < 0.3 gal use Limited Quantity Label

TDG Information:

Shipping Name:ADHESIVES

Hazard Class: 3

UN#: UN1133

Packing Group: II

Required Label(s):

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactivity:** No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Calcium carbonate	1317-65-3	No	Yes	Yes	Yes	Yes
Silica compound	Trade Secret	No	Yes	Yes	Yes	Yes
Carbon compound	Trade Secret	Yes	Yes	Yes	Yes	Yes
Silica, crystalline	14808-60-7	No	Yes	Yes	Yes	Yes

Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer

Carbon compound	Trade Secret
Carc:	carcinogen , initial date 2/21/03 (airborne, unbound particles of respirable size)
Silica, crystalline	14808-60-7
Carc:	carcinogen , initial date 10/1/88 (airborne particles of respirable size)

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Carbon compound	Trade Secret
	1 %
Silica, crystalline	14808-60-7
	1 %

Component Analysis - Inventory

Calcium carbonate (1317-65-3)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	NSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Silica compound (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
No	DSL	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Carbon compound (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Polyphenol antioxidant (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No

Severely hydrotreated paraffinic oil (Trade Secret)



Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	No

Polybutene (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Hydrous clay (Mixture)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	No	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Silica, crystalline (14808-60-7)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

New SDS: March 6, 2015

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and



Safety Data Sheet

Material Name: Water Cut-Off Mastic

Product #: 302202

Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name: TPO Clear Cut-Edge Sealant

Synonym: Industrial Sealant

Chemical Family: Solvent Based Sealant

Product Use: Sealant for TPO Single-Ply Roofing Membranes

Restrictions on Use: For industrial use only.

Manufacturer Information

Versico LLC

1285 Ritner Highway

Carlisle, PA 17013

USA

Phone: +1-800-992-7663

Emergency Phone #: +1-800-424-9300 (CHEMTREC)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Reproductive Toxicity- Category 2

Skin Irritation - Category 2

Aspiration Hazard - Category 1

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 2

Flammable Liquids- Category 2

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

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.

H361: Suspected of damaging fertility or the unborn child.

H373: May cause damage to organs through prolonged or repeated exposure.

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

Precautionary Statement(s)

Prevention

- [201]: 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/hot surfaces. – No smoking.
- P233: Keep container tightly closed.
- P240: Ground/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 dust/fume/gas/mist/vapors/spray.
- P264: Wash hands, forearms, and other exposed areas 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.
- P273: Avoid release to the environment.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

- P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313: IF exposed or concerned: Get medical advice/attention.
- P312: Call a POISON CENTER or doctor/physician if you feel unwell.
- P314: Get medical advice/attention if you feel unwell.
- P331: Do NOT induce vomiting.
- P332+P313: If skin irritation occurs: Get medical advice/attention.
- P337+P313: If eye irritation persists: Get medical advice/attention.
- P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P362: Take off contaminated clothing and wash before reuse.
- P370+P378: In case of fire: Use appropriate media to extinguish.
- P391: Collect spillage.

Storage

- P403 + P235 Store in a well-ventilated place. Keep cool
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed
- P405 Store locked up

Disposal

- P501 Dispose of contents/container in accordance with local/regional/national/international regulations

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: DANGER! Extremely flammable liquid and vapor. Vapor may cause flash fire and explosion. Harmful or fatal if swallowed. Harmful if absorbed through the skin. Pulmonary aspiration hazard. After ingestion, may enter lungs and produce damage. High vapor concentrations may cause drowsiness. Can cause eye, skin and respiratory tract irritation.

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

POTENTIAL HEALTH EFFECTS

EYES: Can cause severe eye irritation and corneal damage.

SKIN: Causes defatting and skin irritation. Can cause dermatitis.

SKIN ABSORPTION: May be absorbed through the skin in harmful amounts.

INGESTION: Can cause gastrointestinal irritation, nausea and vomiting. Aspiration of material into the lungs may cause chemical pneumonitis, which can be fatal. Harmful or fatal if swallowed.

INHALATION: May cause nose or throat irritation. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness).

ROUTES OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, and Skin Contact

TARGET ORGAN STATEMENT: Central Nervous System (CNS)

IRRITANCY: Eyes, nose, throat, respiratory tract, and skin irritation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
108-88-3	Toluene	45 - 70
1330-20-7	Xylene(o-, m-, p-Isomers)	15-40

Section 4 - FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of tempered water (at least 15-20 minutes) lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash or dispose of clothing before reuse.

INGESTION: Do not induce vomiting, keep person warm, quiet and get medical attention immediately. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Aspiration of this material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Liquid and vapor can severely irritate the eyes depending on type of exposure (splash, vapor) and exposure time.

SKIN: Mild to moderate skin irritant.

SKIN ABSORPTION: May be absorbed through the skin and can contribute to overall exposure. Effects are similar to CNS depression.

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

INGESTION: May result in central nervous system (CNS) depression with symptoms such as headaches, nausea, vomiting, diarrhea, dizziness, incoordination and unconsciousness. Aspiration of material into lungs may cause chemical pneumonitis which can be fatal.

INHALATION: High vapor concentrations may cause CNS depression with symptoms including light headedness, giddiness, nausea, drowsiness, headache, nose, throat and respiratory tract irritation, reduced appetite, confusion, and unconsciousness.

ACUTE TOXICITY: High vapor concentrations may cause central nervous system (CNS) depression with symptoms including light headedness, giddiness, nausea, drowsiness, headache, nose, throat and respiratory tract irritation, reduced appetite, confusion and unconsciousness.

CHRONIC EFFECTS: Damage to the nervous system of the extremities, peripheral neuropathy, with symptoms including numbness, tingling and weakness in the toes and fingers, sensory impairment to touch, pain, vibration and temperature, muscular weakness, blurred vision, coldness of extremities, loss of body weight and reflexes, and even paralysis. Frequent or prolonged contact may irritate the skin and cause a skin rash(dermatitis).

Section 5 - FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Class IB

GENERAL HAZARD: Flammable liquid and vapor.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water spray or fog.

Explosion Hazards

Avoid fire, sparks, static electricity and hot surfaces. Liquid readily evaporates at room/ambient temperature. Vapors are invisible, flammable, heavier than air, and may accumulate in low areas and spread long distances. Distant ignition and flashback are possible.

Hazardous Combustion Products

Carbon Monoxide, Carbon Dioxide, Aldehydes

Fire Fighting Measures

As in any fire, wear self-contained breathing apparatus with pressure-demand, full face piece SCBA (MSHA/NIOSH approved or equivalent) and full protective gear.

Sensitive to Static Discharge: Likely to catch fire from near-by spark. Static charge may accumulate by flow or agitation. Grounding and bonding of containers is required.

Hazardous Decomposition Products: Carbon Monoxide and Carbon Dioxide may form when heated to decomposition.

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

Section 6 - ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on absorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces, including ignitable vapors, have been removed, thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal. Only those persons who are adequately trained, authorized, and wearing the required personal protective equipment (PPE) should participate in spill response and clean-up.

LARGE SPILL: Keep spectators away. Only those persons who are adequately trained, authorized and wearing the required personal protective equipment (PPE) should participate in spill response and clean-up. Ventilate the area by natural means or by explosion proof mechanical means (i.e. fans). Know and prepare for spill response before using or handling this product. Eliminate all ignition sources (flames, hot surfaces, portable heaters and sources of electrical, static, or frictional sparks). Dike and contain spill with inert material (e.g. sand, earth). Transfer liquids to covered and labeled metal containers for recovery or disposal, or remove with inert absorbent. Use only non-sparking tools and appropriate PPE. Place absorbent diking materials in covered metal containers for disposal. Prevent contamination of sewers, streams, and groundwater with spilled material or used absorbent.

Section 7 - HANDLING AND STORAGE

GENERAL PROCEDURES: For professional or industrial use only. Follow label instructions. Keep out of the reach of children. Not for consumption. No smoking. Do not breathe vapors. Avoid contact with body. Turn off all pilot lights, flames, stoves, heaters, electric motors, welding equipment and other sources of ignition. Empty containers must not be washed and re-used for any purpose. Contact lens wearers must wear protective eye wear around chemical vapors and liquid. Wash hands thoroughly after handling. Flammable vapors may cause flash fire or ignite explosively. To prevent build-up of vapors, use adequate natural and/or mechanical ventilation (e.g. open all windows and doors to achieve cross ventilation). Containers may be hazardous when empty. Never use welding or cutting torch on or near container. Do not cut, drill, grind, or expose containers to heat, sparks, static electricity or other source of ignition. Explosion may occur causing injury or death.

HANDLING: Use adequate ventilation and appropriate respiratory protection to avoid breathing vapors when cover is removed. Ground and bond all equipment when handling flammable solvent-borne material.

Storage

Keep container closed when not in use. Store in a dry, well ventilated area, out of the sun and away from ignition sources. Do not remove or deface label. Prevent water or moist air from entering container.

STORAGE TEMPERATURE: 15.5°C (60°F) Minimum to 35°C (95°F) Maximum

Incompatible Materials

Strong oxidizing agents, acids, bases

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Toluene	108-88-3	
OSHA (US):	200 ppm TWA	300 ppm STEL Ceiling
ACGIH:	20 ppm TWA	
Xylene(o-, m-, p-Isomers)	1330-20-7	
OSHA (US):	100ppm TWA; 435 mg/m ³ TWA	
ACGIH	100 ppm TWA; 434 mg/m ³ TWA	150 ppm; 651 mg/m ³ STEL

Engineering Controls

Provide sufficient explosion proof mechanical (general and/or local exhaust) ventilation to maintain exposure below the occupational exposure limit and exposure concentration.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear safety glasses with side shields (or goggles) or a full face respirator.

Skin Protection

Wear chemical protective clothing & boots to prevent repeated or prolonged skin contact. Wear impervious gloves, if needed, to prevent repeated or prolonged skin contact.

Respiratory Protection

NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Glove Recommendations

Wear appropriate chemical resistant gloves such as nitrile rubber.

WORK HYGIENIC PRACTICES: Use good hygiene practices when handling this material. Wash hands thoroughly after use.

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	viscous liquid	Physical State	liquid
Odor	Solvent-like	Color	clear
Boiling Point Range	110.6°C(231°F) to 137°C(278.6°F)	Flammability Limit	1.0 to 7.1
Autoignition	526 °C (980 °F)	Flash Point	8.9°C (48 °F)
Specific Gravity (water=1)	0.872	% Volatile (by weight)	84.1
Vapor Density (air=1)	4	VOC	732.800 g/L EPA method 24
Density	7.27 lbs/gal		

COMMENTS: 5.27 lb VHAP/lb Solid 84.1% by weight HAP

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Avoid fire, sparks, static electricity and hot surfaces.

Incompatible Materials

Strong oxidizing agents, strong acids and strong bases.

Hazardous decomposition products

Carbon monoxide and carbon dioxide may form when heated to decomposition.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause respiratory irritation.

Skin Contact

Causes skin irritation.

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

Irritation

Eyes, nose, throat, respiratory tract irritation.

Corrosivity

Not applicable

Sensitization:

Not applicable

Neurotoxicity:

Not applicable

Genetic Effects:

Not applicable

Mutagenicity:

Not applicable

Reproductive Effects:

This product contains toluene, a chemical known to the state of California to cause birth defects or other reproductive harm.

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Toluene (108-88-3)

Oral LD50 Rat 2600 mg/kg - 7500 mg/kg

Dermal LD50 Rabbit 12,124 mg/kg

Inhalation LD50 Rat 8000 ppm (4hr dose)

Xylene (1330-20-7)

Oral LD50 Rat 4300 mg/kg

Dermal LD50 Rabbit 2000 mg/kg

Inhalation LD50 Rat 26800 ppm

Component Carcinogenicity

Toluene	108-88-3
IARC:	3
Xylene(o-, m-, p-Isomers)	1330-20-7
IARC:	3

Section 12 - ECOLOGICAL INFORMATION

Environmental Data

This product contains components that will normally float on water. These components may be harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment.

Ecotoxicological Information:

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

Contains components that are potentially toxic to freshwater and saltwater ecosystems.

Chemical Name	Wt. %	CAS
Toluene	45 - 70	108-88-3
Xylenes (o-,m-,p- Isomers)	15 - 40	1330-20-7

Bioaccumulation/Accumulation

Contains components with the potential to bio-accumulate.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: ADHESIVES

Hazard Class: 3

UN/NA #: UN1133

Packing Group: II

NAERG: 128

Marine Pollutant #1: None

OTHER SHIPPING INFORMATION: contains (Toluene, Xylene)

SPECIAL SHIPPING NOTES: If individual container size is less than 1.3 gallons, the proper shipping name is:

ORM-D Consumer Commodity

Non-Regulated

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactivity:** No

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt. %	CAS
Toluene	45 - 70	108-88-3
Xylenes (o-,m-,p- Isomers)	15 - 40	1330-20-7

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt. %	CERCLA RQ
Toluene	45 - 70	
Xylenes (o-,m-,p- Isomers)	15 - 40	100

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS	TSCA SECTION
Toluene	108-88-3	1,000 lbs.
Xylenes (o-,m-,p- Isomers)	1330-20-7	8a, 8d, 12b,

CLEAN AIR ACT

Chemical Name	Wt. %	CAS
Toluene	45 - 70	108-88-3
Xylenes (o-,m-,p- Isomers)	15 - 40	1330-20-7

CALIFORNIA PROPOSITION 65: This product contains toluene, a chemical known to the state of California to cause birth defects or other reproductive harm.

Chemical Name	Wt. %	Listed
Toluene	45 - 70	Developmental Toxicity

STATES WITH SPECIAL REQUIREMENTS

Chemical Name	Requirements
Toluene	New Jersey Right to Know List Pennsylvania Right to Know List Massachusetts Toxic Use Reduction Act (TURA) Reportable Chemical
Xylenes (o-,m-,p-Isomers)	New Jersey Right to Know List Pennsylvania Right to Know List Massachusetts Toxic Use Reduction Act (TURA) Reportable Chemical Illinois Right to Know List Minnesota Right to Know List Rhode Island Right to Know List

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

Canadian WHMIS Ingredient Disclosure List (IDL)

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION



Flammable Liquid

Toxic

DOMESTIC SUBSTANCE (INVENTORY): Toluene and Xylene are specified on the Canadian Domestic Substance List (DSL).

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2 Fire: 3 Reactivity: 0 Personal Protection B

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

New SDS: April 17, 2015

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

Safety Data Sheet

Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.

Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

Section 1 – PRODUCT AND COMPANY IDENTIFICATION

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Synonym: Industrial Sealant

Chemical Family: Solvent Based Sealant

Product Use: Sealant for TPO Single-Ply Roofing Membranes

Restrictions on Use: For industrial use only.

Manufacturer Information

Versico
1285 Ritner Highway
Carlisle, PA 17013
USA
Phone: +1-800-992-7663
Emergency Phone #: +1-800-424-9300 (CHEMTREC)

Section 2 – HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200

Flammable liquids – Category 2

Serious eye damage/ eye irritation – Category 2A

Specific target organ toxicity – single exposure central nervous system, narcotic effect, respiratory system – Category 3

Skin corrosion/irritation – Category 2

Toxic to reproduction – Unborn child – Category 2

Specific target organ toxicity – repeated exposure – Category 2

Aspiration hazard – Category 1

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

H225 Highly flammable liquid and vapor.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H355 May cause respiratory irritation.

Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

H361 Suspected of damaging unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s)

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/hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/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, spray, vapors.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash hands, forearms, exposed areas thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection

Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/physician

P303+P361+P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P362+P364 Take off contaminated clothing and wash it before reuse.

P370+P378 In case of fire; use water spray, carbon dioxide, dry chemical or alcohol foam for extinction.

Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with all federal, state, and local health and environmental regulations, all applicable federal, state, and local health and environmental regulations.

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
98-56-6	Parachlorobenzotrifluoride	66-71

Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

69430-35-9	Hydrocarbons, C6-20, polymers hydrogenated	8-11
108-88-3	Toluene	6-8
66070-58-4	Styrene-ethylene/butylenes-styrene polymer	5-7
68648-89-5	Styrene-ethylene/propylene-(styrene) polymer	4-5
9011-11-4	Hydrocarbon polymer	3-4

Section 4 – FIRST AID MEASURES

General

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice. (show the label where possible).

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Give artificial respiration if not breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin

Rinse skin with water/shower. Remove/take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash clothing before reuse. If skin irritation or rash occurs: wash with plenty of soap and water. Get medical attention.

Eye

Immediately flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If easy to do remove contact lenses. Washing eyes within several seconds is essential to achieve maximum effectiveness. If irritation persists seek medical attention.

Ingestion

Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person

Most important symptoms and effects, both acute and delayed

May irritate and cause redness and pain. Causes serious eye irritation. Can cause central nervous system depression. Vapors have a narcotic effect and may cause fatigue, dizziness and nausea.

Signs and symptoms of overexposure

Eyes

Adverse symptoms may include the following: pain or irritation, watering, redness.

Inhalation

Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness.

Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

Skin

Adverse symptoms may include the following: irritation, redness.

Ingestion

Adverse symptoms may include the following: nausea or vomiting. Breathing or swallowing of large amounts may cause liver and kidney damage.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5 – FIREFIGHTING MEASURES

Extinguishing Media

Suitable extinguishing media

Water spray, carbon dioxide, dry chemical, alcohol foam.

Unsuitable extinguishing media

Solid water stream – may spread fire.

Special hazards arising from the substance or mixture

Vapors may cause a flash fire or ignite explosively. Vapors may travel a considerable distance to a source of ignition and flashback. Prevent buildup of vapors or gases to explosive concentrations. Runoff to sewer may create fire or explosion hazard. Water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Advice for Firefighters

Hazardous combustion products

Carbon dioxide, carbon monoxide

Protective equipment

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

Section 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away. Immediately evacuate personnel to safe areas. Keep people away and upwind of spill/leak. Remove all sources of ignition.

Environmental precautions

Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/surface or ground water.

Methods and material for containment or cleaning up

Absorb with liquid-binding material (ie. Sand, diatomite, dry earth, acid binders, or other non-combustible material). Ensure adequate ventilation. Do not flush with water or aqueous cleansing agents.

Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Section 7 – HANDLING AND STORAGE

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.

Information about protection against explosions and fire

Keep ignition sources away – Do not smoke.
Protect from heat.
Protect against electrostatic charges.

Conditions for safe storage, including any incompatibilities storage

Requirements to be met by storerooms and receptacles

Store in a cool location.

Information about storage in one common storage facility

Not required.

Further information about storage conditions

Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.

Specific end use(s)

No further relevant information available.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Component exposure limits

Toluene	108-88-3	
OSHA (US):	200 ppm TWA	300 ppm CEIL
ACGIH:	20 ppm TWA	

Ingredients with biological limit values

None known.

Additional information

Not available

Exposure controls

Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

Engineering measures

Good general ventilation (typically 10 air changes/hour) 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.

Individual Protection Measures, such as Personal Protective Equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

Hand protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Select the glove material based on penetration times, rates of diffusion and degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

Eye protection

Wear safety glasses with side shields or tightly sealed goggles. Wear a respirator if needed.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid	Physical State	Clear liquid
Odor	liquid naphthalenic to, pleasant, acetone-like	Color	Clear
Odor Threshold	Not determined	pH	Not available
Melting Point	Not determined	Boiling Point/Range	139°C (228°F)
Freezing point	Not determined	Evaporation Rate	2 (n-Butyl acetate =1)
Autoignition	Not determined	Flammability (solid, gas)	Not applicable
Ignition temperature	480°C (896°F)	Flash Point	4°C (40°F)

Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

Lower Explosive Limit	0.9%	Decomposition	Not determined
Upper Explosive Limit	10.5%	Vapor Pressure	40hPa (5.3 mm Hg)
Vapor Density (air=1)	Not determined	Specific Gravity (water=1)	Not determined
Water Solubility	Not determined	Partition coefficient: n-octanol/water	Not determined
Viscosity	Not determined	Solubility (Other)	Not determined
Density	1.20 g/cm ³ (10.02 lbs/gal)	VOC	235 g/l

Other Information

No additional information available.

Section 10 – STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions. Possible corrosive vapors. Reacts with oxidizers.

Chemical Stability

Thermal decomposition/conditions to be avoided

No decomposition under normal use conditions.

Possibility of hazardous reactions

No dangerous reactions known expected.

Conditions to avoid

Heat, sparks and flames.

Incompatible Materials

Strong acids, strong alkalies, amines, ammonia, chloroform, copper, copper alloys, halogenated compounds, isocyanates, and strong oxidizing agents.

Hazardous decomposition products

Carbon dioxide, carbon monoxide, toxic fumes chlorine and fluorine containing gases can be produced.

Section 11 – TOXICOLOGICAL INFORMATION

Acute and Chronic Toxicity

Acute toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

PCBTF (98-56-6)

Oral LD50 Rat 6.8 g/kg
Dermal LD50 Rabbit >2.7 g/kg
Inhalation LC50 Rat >4479 ppm

Toluene (108-88-3)

Inhalation LC50 Rat >20 mg/l 4h
Dermal LD50 Rabbit 12,267 mg/kg
Oral LD50 Rat (male) 5,580 mg/kg
Oral TDLo Rat 1,000 mg/kg

Primary irritant effect

Skin

Causes mild skin irritation.

Eyes

Causes serious eye irritation.

Sensitization

Not expected to be a sensitizer.

Mutagenicity

No known significant effects or critical hazards.

Component Carcinogenicity

Toluene	108-88-3
IARC:	3

Reproductive toxicity

Not classified. Based on available data, the classification is not met.

Specific target organ toxicity (single exposure)

May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure)

May cause damage to organs through repeated or prolonged exposure.

Aspiration hazard

May be harmful if swallowed and enters airways.

Potential adverse human health effects and symptoms

Harmful if swallowed. Harmful in contact with the skin. Harmful if inhaled. Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation

Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness.

Symptoms/injuries after skin contact

Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.

Symptoms/injuries after ingestion

Swallowing a small quantity of this material will result in serious health hazard.

Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

Section 12 – ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Parachlorobenzotrifluoride	98-56-6
Fish:	LC50 13.5 mg/l (Rainbow trout) 96 h LC50 12.0 mg/l (Bluegill sunfish) 96 h MATC >0.54<1.4 mg/l (Fathead minnow) 31 day (Triethylene glycol used as solvent carrier. BCF 121.8 & 202.0 (Bluegill sunfish) 48 h LC50 12.4 mg/l (Water flea) 48 h MATC >0.03<0.05 mg/l (Water flea) 21 day
Algae:	IC 50 500 ml/l (Green & Blue-green algae) 72 h
Toluene	108-88-3
Fish:	EC50 443 ppm (Skeletonema costatum) marine water 96 h acute EC50 12500 ug/l (Pseudokirchneriella subcapitata) fresh water 72 h acute EC50 11600 ug/l (Gammarus pseudolimnaeus adult) fresh water 48h acute EC50 6000 ug/l (Daphnia magna – juvenile(fledging, hatchling, weanling) fresh water 48h LC50 5500 ug/l (Oncorhynchus kisutch – fry) fresh water 96 h acute NOEC 500000 ug/l (Pseudokirchneriella subcapitata) fresh water 96 h chronic NOEC 1000 ug/l (Daphnia magna) fresh water 21 days chronic

Persistence and degradability

98-56-6 parachlorobenzotrifluoride

Atmospheric lifetime: estimated to be 65.9 days for OH radical reaction, LogKow 3.7, Koc 420-530, Water sol. @ 23°C 29.1. Parachlorobenzotrifluoride will preferentially partition to the atmosphere, due to its high volatility. It has been estimated that 99.93% of 100Kg spill would end up in the atmosphere, while only 0.06% would partition to water.

108-88-3 toluene

Readily biodegradable Log Pow 2.73, BCF 8.3, Potential low

Other adverse effects

No further relevant information available.

Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

Section 13 – DISPOSAL CONSIDERATIONS

Waste treatment method

Contaminated product, soil, water, container residues and spill cleanup materials may be hazardous wastes. Comply with applicable federal, state, and local regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container.

Uncleaned packaging

Disposal must be made according to official regulations.

RCRA toxic hazardous waste “U” list

108-88-3 toluene listed U220 reference no.

Section 14 – TRANSPORT INFORMATION

US DOT Information:

Shipping Name: Adhesives, containing a flammable liquid

Hazard Class: 3

UN/NA #: UN1133

Packing Group: II

Required Label(s): 3

Marine pollutant: No

Special precautions for user: Warning: Flammable liquids

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.

Section 15 – REGULATORY INFORMATION

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

SARA Section 304 Extremely Hazardous Substances Reportable quantity(RQ):

None

SARA Section 302 Threshold Planning Quantity (TPQ):

None

SARA Section 311 (Clean Water Act)

108-88-3 toluene

SARA Section 313 (Specific toxic chemical listings)

108-88-3 toluene

TSCA (Toxic Substance Control Act)

108-88-3 toluene

IARC (International Agency for Research on Cancer)

Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

None

NTP (National Toxicology Program)

None

California Proposition 65

Carcinogens list: None

Developmental toxicity: No components listed

Reproductive toxicity: 108-88-3 toluene

No significant risk level (NSRL): no data

Section 16 – OTHER INFORMATION

Summary of Changes

New SDS: September 13, 2016

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.



Safety Data Sheet

Material Name: VersiWeld® TPO Low-VOC Cut-Edge Sealant

Product #: 327530

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.

Safety Data Sheet

Material Name: Weathered Membrane Cleaner

Product #: 304066

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Weathered Membrane Cleaner

Chemical Family

Cleaner

Product Use

Cleaner

Restrictions on Use

For industrial use only

Manufacturer Information

Versico LLC

1285 Ritner Highway

Carlisle, PA 17013

USA

Phone: +1-800-992-7663

Emergency Phone #: +1-800-424-9300 (CHEMTREC)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Flammable Liquids - Category 2

Aspiration Hazard - Category 1

Skin Corrosion/Irritation - Category 2

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 1 (lungs, brain, kidneys, nervous system)

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Safety Data Sheet

Material Name: Weathered Membrane Cleaner

Product #: 304066

Highly flammable liquid and vapor
May be fatal if swallowed and enters airways
Causes skin irritation
May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure

Precautionary Statement(s)

Prevention

Keep container tightly closed
Keep away from heat/sparks/open flame/hot surfaces - No smoking
Ground/Bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting equipment
Take precautionary measures against static discharge
Use only non-sparking tools
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapours/spray
Wash thoroughly after handling
Contaminated work clothing must not be allowed out of the workplace
Do not eat, drink or smoke when using this product

Response

In case of fire: Use appropriate media to extinguish
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor if you feel unwell
IF SWALLOWED: Immediately call a POISON CENTER
Do NOT induce vomiting
IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
Specific treatment (see label)

Storage

Store in a well-ventilated place. Keep container tightly closed
Keep cool
Store locked up

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
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Safety Data Sheet

Material Name: Weathered Membrane Cleaner

Product #: 304066

64742-89-8

Solvent naphtha, petroleum, light aliphatic

60-100

Section 4 - FIRST AID MEASURES

Inhalation

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

Skin

Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eyes

Rinse cautiously with water for 15 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. If swallowed, get medical attention.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness.

Delayed

lung damage, brain damage, kidney damage, nervous system damage

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use carbon dioxide, regular dry chemical, regular foam or water.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Highly flammable liquid and vapor. Vapors are heavier than air and may flashback.



Safety Data Sheet

Material Name: Weathered Membrane Cleaner

Product #: 304066

Hazardous Combustion Products

toxic gases: carbon monoxide, carbon dioxide.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn.

Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Remove all sources of ignition. Avoid breathing vapors. Wear self-contained breathing apparatus and protective clothing. Use non-sparking tools and equipment. Flammable liquid: Fire or projection hazard. Vapor-suppressing foam may be used to control vapors. Eliminate all sources of ignition. All equipment used when handling the product must be grounded. Stop leak if possible without personal risk. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements, or confined areas. Dike for later disposal. Use non-sparking tools. Large spills: Keep unnecessary people away, isolate hazard area and deny entry. Prevent entry into waterways, sewers, basements, or confined areas. Dike for later disposal. Use water spray jet to minimize or disperse vapors. Runoff may create fire or explosion hazard. Absorb with earth, sand or other non-combustible material and transfer to container. Dispose in accordance with all applicable federal, state/regional and local laws and regulations.

Environmental Precautions

Avoid release to the environment. Collect spillage.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Highly flammable liquid and vapor. Keep container tightly closed. Keep away from heat/sparks/open flame/hot surfaces - No smoking. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/face protection. Keep away from incompatible materials. Do not breathe vapor. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. Do not ingest. KEEP OUT OF REACH OF CHILDREN.

Safety Data Sheet

Material Name: Weathered Membrane Cleaner

Product #: 304066

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed

Keep cool

Store locked up

Store in accordance with all current regulations and standards. Store in a cool dry place. Keep away from sources of ignition. Ground/Bond container and receiving equipment. Keep away from incompatible materials.

Incompatible Materials

Strong acids, alkalies, oxidizing agents, chlorine, oxygen

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

ACGIH, NIOSH, EU, OSHA (US) and Mexico have not developed exposure limits for any of this product's components

Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate chemical resistant clothing.

Respiratory Protection

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	clear liquid	Physical State	liquid
Odor	hydrocarbon odor	Color	clear
Odor Threshold	Not available	pH	Not available

Safety Data Sheet

Material Name: Weathered Membrane Cleaner

Product #: 304066

Melting Point	Not available	Boiling Point	118 - 150 °C
Freezing point	Not available	Evaporation Rate	1
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	320 °C(608°F)	Flash Point	18 °C(64.4°F)
Lower Explosive Limit	0.9	Decomposition	Not available
Upper Explosive Limit	7	Vapor Pressure	11.5 mmHg
Vapor Density (air=1)	4	Specific Gravity (water=1)	Not available
Water Solubility	negligible	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Density	0.74 - 0.76	VOC	100 %

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Keep away from heat/sparks/open flame/hot surfaces - No smoking. Avoid contact with incompatible materials.

Incompatible Materials

Strong acids, alkalies, oxidizing agents, chlorine, oxygen

Hazardous decomposition products

Releases toxic gases: carbon monoxide, carbon dioxide.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause drowsiness or dizziness.

Safety Data Sheet

Material Name: Weathered Membrane Cleaner

Product #: 304066

Skin Contact

Causes skin irritation.

Eye Contact

May cause eye irritation.

Ingestion

May cause irritation of the mouth and throat. May cause central nervous system depression. Aspiration Hazard. May be fatal if swallowed and enters airways.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

Oral LD50 Mouse 5000 mg/kg

Dermal LD50 Rabbit 3000 mg/kg

Product Toxicity Data

Product Analysis LD/LC 50 Toxicity Values

Oral LD50:	Rat >2000 mg/kg LD50
Dermal LD50:	Rat 2000 mg/kg
Inhalation LC50:	Rat >5000 ppm 1 hour LD50

Immediate Effects

Causes skin irritation. May cause drowsiness or dizziness.

Delayed Effects

Lung damage, brain damage, kidney damage, liver damage, nervous system damage

Irritation/Corrosivity Data

Causes skin irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA

Germ Cell Mutagenicity

No information available for the product.

Tumorigenic Data

No data available

Reproductive Toxicity

No information available for the product.

Safety Data Sheet

Material Name: Weathered Membrane Cleaner

Product #: 304066

Specific Target Organ Toxicity - Single Exposure

Central nervous system

Specific Target Organ Toxicity - Repeated Exposure

lungs, brain, kidneys, liver, nervous system

Aspiration hazard

Aspiration Hazard. May be fatal if swallowed and enters airways.

Medical Conditions Aggravated by Exposure

Skin disorders, respiratory disorders, liver disorders, kidney disorders, central nervous system disorders

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Solvent naphtha, petroleum, light aliphatic	64742-89-8
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations. Subject to disposal regulations. U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: Paint Related Material

Hazard Class: 3

UN/NA #: UN1263

Packing Group: II

Required Label(s): 3

Additional information: Special provisions 149, B52, IB2, T4, TP1, TP8

IATA Information:

Shipping Name: Paint Related Material

Hazard Class: 3

UN#: UN1263

Packing Group: II



Safety Data Sheet

Material Name: Weathered Membrane Cleaner

Product #: 304066

Required Label(s): 3

TDG Information:

Shipping Name: Paint Related Material

Hazard Class: 3

UN#: UN1263

Packing Group: II

Required Label(s): 3

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactivity:** No

U.S. State Regulations

None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA

Not listed under California Proposition 65

Canadian WHMIS Ingredient Disclosure List (IDL)

The components of this product are either not listed on the IDL or are present below the threshold limit listed on the IDL.

Component Analysis - Inventory

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2* Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe



Safety Data Sheet

Material Name: Weathered Membrane Cleaner

Product #: 304066

Summary of Changes

Revision Date: June 1, 2018

Revision Note: General Update

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use