

Versico SDS 2022

1.

Section 1. Product and Company Information

Product Name **PS 304**
 Siplast, Inc.
 1111 Highway 67 South
 Arkadelphia, AR 71923
 Tel: 800-922-8800
 Fax: 800-643-6768

EMERGENCY CONTACTS

Call Chemtrec: USA: 1-800-424-9300
 International: (703) 527-3887
 Product Use: Sealant
 Chemical Family: Mixture
 SDS Prepared: 5/22/2015
 SDS Prepared by: Siplast, Inc.
 SDS Email: ussds@Siplast.com

Section 2. Hazards Identification

Hazardous classification: Irritant Category 2
 Signal Words: **Warning**
 Hazardous Statements:
 H315 Causes skin Irritation
 H317: May cause an allergic skin reaction.
 H318: Causes serious eye damage.

Precautionary Statements:

P273: Avoid release to the environment
 P280: Wear protective gloves/protective clothing/eye protection
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P305 + P351 IF IN EYES: Rinse cautiously with water for several minutes.
 + P338 Remove contact lenses, if present and easy to do. Continue rinsing.
 P501: Dispose of contents/container in accordance with local regulation.

R-phrases:

R38 Irritating to skin.
 R41 Risk of serious damage to eyes.
 R43 May cause sensitization by skin contact.

S-phrases

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S39 Wear eye/face protection.

Carcinogenicity: This product contains no ingredient listed as a carcinogen on California Proposition 65 list.

Label: Pictogram

HMIG

Health	1
Flammability	0
Reactivity	0

Section 3. Composition / Information on Ingredients
HAZARDOUS INGREDIENTS

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Concentration</u>
Amino Silane	1760-24-3	1-3%

Section 4. First Aid Measures

First Aid For Skin: Clean product from affected area with Ethyl alcohol, then wash with soap and water.
 First Aid For Eyes: Flush with large amounts of water for at least 15 minutes. Consult a Physician if ill effects or irritation occurs.
 First Aid for Inhalation: An unlikely route of entry. Remove to fresh air. Consult a physician.
 First Aid For Ingestion: An unlikely route of entry. Consult a physician.

Section 5. Fire Fighting Measures
PS 304

Special Fire Fighting Instructions: None. Full emergency equipment with self –contained breathing apparatus and full protective clothing should be worn by firefighters.

Extinguishing Media:	Water, CO2, Dry Chemical, Foam.
Unusual Fire and Explosion Hazards:	None.
Flashpoint:	Not applicable.
Upper Flammable Limit:	Not applicable.
Lower Flammable Limit:	Not applicable.
Autoignition temperature:	Not applicable.
Sensitivity to Impact:	Not applicable.
Sensitivity to Static Discharge:	Not applicable.
Hazardous Combustion Products:	Thermal decomposition may produce toxic fumes of Carbon Monoxide, Carbon dioxide, Sulfur oxides and Hydrogen sulfide.

Section 6. Accidental release measures

Handling Precautions:	Use personal protection recommended in section 8. Avoid eye, skin and clothing contact.
Cleanup:	Collect spill with absorbent material such as cardboard, allow to cure and place into a container approved for waste disposal.
Regulatory Requirements:	Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7. Handling and Storage

Handling Precautions:	Use personal protection recommended in section 8. Avoid eye, skin and clothing contact.
Prevention of fires and explosions:	Product is not considered flammable under normal conditions, and product is not considered explosive.
Storage Requirements:	Store in a cool dry area (this product polymerizes when in contact with moisture.)

Section 8. Exposure Controls / Personal Protection

Hand protection:	Wear impervious gloves such as vinyl to minimize contact with skin.
Eye protection:	Wear safety glasses or goggles to avoid eye contact.
Skin protection:	Wear impervious gloves such as vinyl to minimize contact with skin.
Environmental exposure control:	No specific controls are needed.

Section 9. Physical and Chemical Properties

Physical State:	Water Solubility: Insoluble	% Volatile: 2.23%
Appearance and Odor:	Paste, mild mint scent	VOC: 21.64 g/l
Freezing/Melting Point(°C):	N/A	Flash Point: NA°C (Tag closed cup)
Odor Threshold (ppm):	N/A	Autoignition Temperature: NA
Vapor Pressure:	<1	pH: N/A
Vapor Density (Air=1):	>1	Flash Point Method: Based on FP of the most volatile component.
Density:	8.1 lbs./gal. (calculated)	LEL: NA UEL: N.A.
Specific Gravity:	0.97	

Section 10. Stability and Reactivity

Stability : Considered Stable.

Conditions to Avoid : None known.

Incompatible Materials : None known.

Hazardous
Decomposition Products: Thermal decomposition
may produce toxic fumes of
CO and /or CO₂.

Section 11. Toxicological Information

Information below is based on Amino Silane. (Refer to sections 2.and 3.)

Oral – Result: LD50 > 2,000 mg/kg. Remark: Very low order of toxicity.

Skin Absorption – Result: LD50 > 2,000 mg/kg. Remark: Very low order of toxicity.

Skin Direct contact – Result: Slight irritation.

Eye Direct contact – Result: Severe irritation. Remark: Causes corneal injury.

Inhalation – Result: LC50 Not acutely Toxic.

Exposure Limits – Not applicable.

Sensitization – No.

Reproductive Toxicity – No.

Mutagenicity – No.

Teratogenicity – No.

Synergistic Products – None.

Section 12. Ecological Information

No known applicable information.

Section 13. Disposal Considerations

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. This product becomes a firm synthetic rubber when cured. Please allow to cure before disposal.

Section 14. Transport Information

Special Shipping Information None.

DOT Not regulated.

TDG Not available.

PIN Not available

Section 15. Regulatory Information**Rotterdam Convention (PIC) Annex III:** listed (Tributyl tin compounds (impurities) <2ppm)**US Regulatory Information**

OSHA 29 CFR 1910-1200 – Irritant.

TSCA – All components of this product are listed on TSCA Inventory.

CERCLA Reportable Quantity – Not applicable.

SARA Title III:

Section 302 Extremely Hazardous Substances – None.

Section 304 – Not applicable.

Section 311/312 – Immediate (acute) health hazard.

Section 313 – None.

RCRA – Refer to section 13.

California Proposition 65 Carcinogens:	This product does not contain any chemicals known by the State of California to cause cancer.
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California Proposition 65 Reproductive Toxins:	This product does not contain any chemicals known by the State of California to cause reproductive harm.
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WHIMS Classification – D2B

Section 16. Other Information

Prepared in accordance with 29 CFR 1910.1200

This Product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by the CPR.

To the best of our knowledge, the information contained herein is accurate. However CHEM LINK INC. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be handled with care. Although we have described herein all of the hazards to which we are currently aware, we cannot guarantee that these are the only hazards which exist.

PRO PASTE RESIN



Commercial Product Data Sheet

Product Description

Pro Paste Resin is a high performance multi-component, fast curing, PMMA resin paste.

Product Uses

Pro Paste Resin is used for remediation of depressions in substrate surfaces or other surface irregularities prior to application of the Parapro Roof Membrane System, the Parapro 123 Flashing System and Terapro Waterproofing and Surfacing Systems. Pro Paste is also used to smooth the laps between fleece reinforcement layers on Terapro Reinforced Waterproofing and Surfacing Systems featuring Terapro Color Finish and Terapro Chips.

Color

Pro Paste Resin is supplied in a pebble gray color, #7032.

Packaging

Pro Paste Resin is supplied in 5-kg (11-lb) resealable drums with locking rings.

Coverage Rates

See recommendations for specific applications. Yields will vary depending upon system selected and the smoothness and absorbcency of substrate.

Application Conditions

Pro Paste can be applied when the ambient temperature is between 32°F (0°C) and 95°F (35°C) and the substrate temperature is between 32°F (0°C) and 122°C (50°C). Discontinue Pro Paste application when the ambient temperature exceeds 95°F (35°C) and/or the substrate temperature exceeds the 122°F (50°C) maximum, or provide adequate shade to the substrate area for up to one hour prior to and during application as necessary to maintain surface temperatures below the maximum.

Storage

Product shelf life is approximately 6 months from ship date. Shelf life will be reduced if product is stored at temperatures above 77°F (25°C). Store indoors in a closed container in a well-ventilated, cool, dry area away from heat, open fire, any ignition source, direct sunlight, oxidizing agents, strong acids, and strong alkalis. Do not store in temperatures below 32°F (0°C). Product may auto-polymerize at temperatures greater than 140°F (60°C). Materials stored on the job site during application should be kept on a pallet in a shaded, well-ventilated area. In unshaded areas, materials should be covered with a white, reflective tarp in a manner that allows air circulation underneath the tarp.

Handling

Do not smoke. Keep away from open fire, flame or any ignition source. Vapors may form explosive mixtures with air. Avoid skin and eye contact with this material. Avoid breathing fumes. Do not eat, drink or smoke in the application area.

Consult the Material Safety Data Sheet for additional information pertaining to this product.

Personal Protection Equipment (PPE)

Workers must wear a long sleeved shirt with long pants and work boots. Workers must use only butyl rubber or nitrile gloves when mixing or applying this product. Safety glasses with side shields are required for eye protection.

Use local exhaust ventilation to maintain worker exposure below TLV. If the airborne concentration poses a health hazard, becomes irritating or exceeds recommended limits, use a NIOSH approved respirator in accordance with OSHA Respirator Protection requirements under 29 CFR 1910.134. Specific type of respirator will depend of the airborne concentration. Filtering face piece or dust mask is not acceptable for use with this product if TLV filtering levels have been exceeded.

Mixing & Catalyzing

If batch mixing, thoroughly mix the entire drum of resin for 2-3 minutes prior to pouring resin into a second container. Catalyze only the amount of resin that can be used within the anticipated pot life. Add pre-measured catalyst to the resin, stir for 2 minutes using a slow-speed mechanical agitator or mixing stick, and apply to the substrate. The amount of catalyst needed is based on the weight of the resin used, and varies with the ambient temperature as shown in the chart on the back of this sheet.

Pot Life

Pro Paste Resin pot life is approximately 15 minutes at 68°F (20°C). Because pot life is in large part dependent on ambient temperature, which constantly changes, actual pot life must be determined in the field. Pot life will be reduced at high temperatures.

Set Times

Minimum set times noted below are approximate, and may vary. The information provided is based on laboratory conditions, and is intended for use as a guideline only. Actual set times and cure times should be established in the field, based on actual field conditions.

Rain Proof at 68°F (20°C): Approximately 30 minutes

Ready for Next Coat at 68°F (20°C): Approximately 60 minutes

Stress Resistant at 68°F (20°C): Approximately 3 hours

Tool Cleaning

When work is interrupted or completed, reusable tools must be thoroughly cleaned with Pro Prep before any catalyzed resin on the tools hardens.

Current copies of all Siplast Commercial Product Data Sheets are posted on the Siplast Web site at www.Siplast.com.

PRO PASTE RESIN

Pro Catalyst Mixing Chart

The amount of Pro Catalyst used with Pro Paste Resin varies from a minimum of 2% to 6% maximum by weight, depending upon the ambient temperatures as indicated in the following table:

Resin Quantity	2% Catalyst 77°F to 95°F (25°C to 35°C)				4% Catalyst 41°F to 77°F (5°C to 25°C)				6% Catalyst 32°F to 41°F (0°C to 5°C)			
	g	kg	Tblsp.	0.1 kg Bags	g	kg	Tblsp.	0.1 kg Bags	g	kg	Tblsp.	0.1 kg Bags
1.0 kg (0.72 liter)	20	.02	2	n/a	40	.04	4	n/a	60	.06	6	n/a
5.0 kg (3.6 liter)	100	0.1	10	1	200	0.2	20	2	300	0.3	30	3

PRO FLEECE



Commercial Product Data Sheet

Product Description

Pro Fleece is a non-woven, needle-punched polyester fabric reinforcement specially designed for compatibility with Parapro and Terapro resin products.

Product Uses

Pro Fleece is used as a fabric reinforcement in Parapro Flashing Systems, Parapro Roof Membrane Systems, Terapro Waterproofing and Surfacing Systems, and Terapro VTS Waterproofing and Surfacing Systems.

Packaging

Pro Fleece is packaged in the following roll dimensions:

WIDTH	LENGTH
12 in (305 mm)	82 ft (25 meter)
12 in (305 mm)	164 ft (50 meter)
25 in (630 mm)	164 ft (50 meter)
41 in (1050 mm)	164 ft (50 meter)

Color and Identification Markings

Pro Fleece is a white non-woven fabric.

- The 41 in x 164 ft (1050 mm x 50 m) (1050 mm) fleece has red logo printing and side lap lines.
- The 25 in x 164 ft (630 mm x 50 m) fleece has red logo printing.
- The 12 in x 164 feet (305 mm x 50 m) fleece has red logo printing.
- The 12 in x 82 ft (305 mm x 25 m) has no logo or other printed markings.

Storage

Always store in cool and dry location. Store flat to avoid deforming rolls and creasing fabric. Shelf life is indefinite with proper storage.

Fleece Properties

Physical & Mechanical Properties	Pro Fleece (unsaturated)
Color	White
Nominal Thickness	40 mils
Weight (g/m ²)	110
Water Absorption	<1%

Current copies of all Siplast Commercial Product Data Sheets are posted on the Siplast Web site at www.Siplast.com.

Rev 5/2015

Siplast

1000 Rochelle Blvd. • Irving, Texas 75062-3940 • 469-995-2200 • www.siplast.com
In Canada: 201 Bewicke Ave., Suite 208 • North Vancouver, BC V7M 3M7 • Toll Free 1-877-233-2338
Customer Service in North America: Toll Free 1-800-922-8800



An Icopal Group Company



SAFETY DATA SHEET

1. Identification

Product identifier PA-1000

Other means of identification Not available.

Recommended use Not available.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Supplier: Siplast, Inc.

Address: 1111 Highway 67 South
Arkadelphia, AR 71923

website: www.Siplast.com

Telephone: 800-922-8800

E-mail: ussds@siplast.com

CHEMTREC: 800-424-9300

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

No hazards resulting from the material as supplied.

Label elements

Hazard symbol None.

Signal word Not applicable.

Hazard statement Not applicable.

Prevention Not available.

Response Not available.

Storage Not available.

Disposal Not available.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
ASPHALT		8052-42-4	50 - 100
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC		64742-52-5	0 - 30
Other components below reportable levels			0 - 30

4. First-aid measures

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention, if needed. Call a physician if symptoms develop or persist.

Skin contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly wash (or discard) clothing and shoes before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Do not induce vomiting. Do not use mouth-to-mouth method if victim ingested the substance. Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms/effects, acute and delayed

Not available.

Indication of immediate medical attention and special treatment needed

In case of ingestion, the decision of whether or not to induce vomiting should be made by the attending physician. Certain pre-existing conditions may make workers particularly susceptible to the effects of this chemical: asthma, allergies, impaired pulmonary function.

General information

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Discard any shoes or clothing items that cannot be decontaminated.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂). Addition of water or foam to the fire may cause frothing.

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Fire may produce irritating, corrosive and/or toxic gases. Development of hazardous combustion gases or vapours possible in the event of a fire. The following may develop: Acrolein.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection.

Fire-fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. In the event of fire, cool tanks with water spray. By fire, toxic gases may be formed (CO_x, NO_x). Keep run-off water out of sewers and water sources. Dike for water control.

Specific methods

In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Ventilate closed spaces before entering them. Do not touch or walk through spilled material.

Methods and materials for containment and cleaning up

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Dike far ahead of spill for later disposal. Following product recovery, flush area with water.

Environmental precautions

Never return spills in original containers for re-use.

Prevent further leakage or spillage if safe to do so. Runoff or release to sewer, waterway or ground is forbidden.

7. Handling and storage

Precautions for safe handling

The product is non-combustible. If heated, irritating vapors may be formed. Do not use in areas without adequate ventilation. Wash hands thoroughly after handling. Wash hands after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated place. Keep the container tightly closed and dry. Store in a closed container away from incompatible materials. Keep out of the reach of children.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC (CAS 64742-52-5)	PEL	5 mg/m ³	Mist.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
ASPHALT (CAS 8052-42-4)	TWA	0.5 mg/m ³	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards Components**Type****Value****Form**ASPHALT (CAS 8052-42-4)
DISTILLATES
(PETROLEUM),
HYDROTREATED HEAVY
NAPHTHENIC (CAS
64742-52-5)Ceiling
STEL5 mg/m3
10 mg/m3Fume.
Mist.

TWA

5 mg/m3

Mist.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses; chemical goggles (if splashing is possible). Wear chemical goggles; face shield (if handling molten material).

Hand protection

Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

Other

Wear suitable protective clothing and eye/face protection. Use of an impervious apron is recommended.

Skin protection**Respiratory protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal hazards

During product use, there is a risk of thermal burns.

General hygiene considerations

When using do not smoke. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties**Appearance**

Solid.

Physical state

Solid.

Form

Solid.

Color

Black. Dark brown

Odor

Product is a black, semi-solid with a burnt tar odor.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

150 - 250 °F (65.56 - 121.11 °C) ASTM D36 Softening Point

Initial boiling point and boiling range

> 800 °F (> 426.67 °C)

Flash point

> 400.0 °F (> 204.4 °C)

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits**Flammability limit - lower (%)**

Not available.

Flammability limit - upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not available.

Vapor density

Not available.

Relative density

Not available.

Solubility(ies)**Solubility (water)**

Not available.

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature

> 700 °F (> 371.11 °C)

Decomposition temperature

Not available.

Viscosity Not available.

Other information

Density Not Available

Percent volatile 0 %

Specific gravity 1 - 1.9

10. Stability and reactivity

Reactivity Not available.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions Hazardous polymerization does not occur.

Conditions to avoid Strong oxidizing agents.

Incompatible materials Incompatible with oxidizing agents.

Hazardous decomposition products Upon decomposition, product emits acrid dense smoke with carbon dioxide, carbon monoxide, trace oxides of nitrogen and sulfur, and water.

11. Toxicological information

Information on likely routes of exposure

Ingestion May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Inhalation May cause irritation to the respiratory system.

Skin contact Irritating to skin.

Eye contact Causes eye irritation. Molten material will produce thermal burns.

Symptoms related to the physical, chemical and toxicological characteristics Not available.

Information on toxicological effects

Acute toxicity Not available.

Skin corrosion/irritation Defats the skin. Causes irritation.

Serious eye damage/eye irritation Irritating to eyes.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization Irritating to skin.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Contains no ingredient listed as toxic to reproduction

Specific target organ toxicity - single exposure Not available.

Specific target organ toxicity - repeated exposure Not available.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful. May cause eczema-like skin disorders(dermatitis).

12. Ecological information

Ecotoxicity This product has no known eco-toxicological effects. Not expected to be harmful to aquatic organisms.

Persistence and degradability Not available.

Bioaccumulative potential Not available.

Mobility in soil Not available.

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.
Hazardous waste code	Not applicable.
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Offer rinsed packaging material to local recycling facilities.

14. Transport information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available.
Further information	If the product is shipped at ambient temperature, not regulated for transport by ground, air or vessel. If shipped above 212 deg F: "UN3257, Elevated Temperature Liquid, n.o.s. (Asphalt mixture), 9, PG III"

15. Regulatory information

US federal regulations	All components are on the U.S. EPA TSCA Inventory List.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4)	Not listed.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed.
Superfund Amendments and Reauthorization Act of 1986 (SARA)	
Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
SARA 302 Extremely hazardous substance	Not listed.
SARA 311/312 Hazardous chemical	No
SARA 313 (TRI reporting)	Not regulated.
Other federal regulations	
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated.
Safe Drinking Water Act (SDWA)	Not regulated.
US state regulations	WARNING: This product contains a chemical known to the State of California to cause cancer.
US. Massachusetts RTK - Substance List	Not regulated.
US. New Jersey Worker and Community Right-to-Know Act	Not regulated.
US. Pennsylvania RTK - Hazardous Substances	Not regulated.
US. Rhode Island RTK	Not regulated.

US. California Proposition 65

Not Listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	01-09-2015
Revision date	04-13-2015
Version #	02
Further information	HMIS® is a registered trade and service mark of the NPCA.

References

ACGIH
EPA: AQUIRE database
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents
Korea. Accidental Release Prevention Substances (Presidential Decree of Toxic Chemical Control Law, Executive Order No. 19203)
Korea. Dangerous Substances Threshold Quantity (Presidential Decree of Dangerous Substances Safety Management Act No. 18406, Schedule 1)
Korea. Harmful Substances Prohibited from Manufacturing (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 29)
Korea. Harmful Substances Requiring Permission for Manufacture or Use (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 30)
Korea. Non-Toxic Chemicals List (National Institute of Environment Research (NIER) Public Notice No. 1997-10, as amended)
Korea. Observational Chemicals (Ministerial Decree of TCCL Article 6)
Korea. OELs. Regulation for Permitted Concentration of Hazardous Substances (Ministry of Labor (MOL) Public Notice No. 1986-45, as amended)
Korea. Prohibited Chemical Substances (TCCL Article 11)
Korea. Regulated volatile organic compounds (VOCs) (MOE Notice No. 2001-36, March 8, 2001, as amended)
Korea. Restricted Chemical Substances (TCCL Article 11)
Korea. Toxic Chemical Control Law (TCCL), Existing Chemicals Inventory (KECI)
Korea. Toxic Chemical Control Law (TCCL), pre-1997 List
Korea. Toxic Chemicals (TCCL Article 10)
Korea. Toxic Release Inventory (TRI) Chemicals (TCCL Article 14)
Taiwan. Dangerous Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)
Taiwan. Industrial Precursor Chemicals (Categories and Regulations Governing Inspection and Declaration of Industrial Precursor Chemicals, MOEA Decree No. 87, as amended)
Taiwan. OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials)
Taiwan. Toxic Chemical Substances (TCS) (List of Toxic Chemical Substances announced by the Environmental Protection Administration)
Taiwan. Toxic Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)
HSDB® - Hazardous Substances Data Bank
JIS Z 7250: 2005 Safety data sheet for chemical products-Part 1:Content and order of sections
JCIA GHS Guideline, October 2008
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision Information

Physical & Chemical Properties: Multiple Properties



Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Revision Date: 05/24/2015

Version: 2.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

Intended Use of the Product

Use of the Substance/Mixture: Parapro Liquid Resin system. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company

Siplast, Inc.
1000 Rochelle Blvd
Irving, TX 75062
T 800-922-8800

www.siplast.com

Manufacturer

Siplast, Inc.
35 McClellan Blvd
Arkadelphia, AR 71923
T 870-246-9000

Emergency Telephone Number

Emergency Number : 800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Flam. Liq. 2	H225
Acute Tox. 4 (Oral)	H302
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Resp. Sens. 1	H334
Skin Sens. 1	H317
Muta. 1B	H340
Carc. 1B	H350
Carc. 2	H351
STOT SE 3	H335
STOT SE 3	H336
Aquatic Acute 3	H402
Aquatic Chronic 3	H412

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

Hazard Statements (GHS-US)

: Danger
: H225 - Highly flammable liquid and vapor.
: H302 - Harmful if swallowed.
: H315 - Causes skin irritation.
: H317 - May cause an allergic skin reaction.
: H319 - Causes serious eye irritation.

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 - May cause respiratory irritation.

H336 - May cause drowsiness or dizziness.

H340 - May cause genetic defects.

H350 - May cause cancer.

H351 - Suspected of causing cancer

H360 - May damage fertility or the unborn child.

H402 - Harmful to aquatic life.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements (GHS-US) : 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, and lighting equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P260 - Do not breathe vapors, mist, spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

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

P272 - Contaminated work clothing must not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection, respiratory protection.

P284 - [In case of inadequate ventilation] wear respiratory protection.

P301+P312 - If swallowed: Call a poison center/doctor if you feel unwell.

P302+P352 - If on skin: Wash with plenty of water.

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove person 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.

P321 - Specific treatment (see section 4).

P330 - Rinse mouth.

P333+P313 - If skin irritation or rash 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/doctor.

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

P370+P378 - In case of fire: Use appropriate media to extinguish.

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

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Flammable vapors can accumulate in head space of closed systems.

Unknown Acute Toxicity (GHS-US) Not available

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Methyl methacrylate	(CAS No) 80-62-6	15 - 40	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 3, H402
2-Ethylhexyl acrylate	(CAS No) 103-11-7	10 - 30	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT SE 3, H336 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Titanium dioxide	(CAS No) 13463-67-7	0 - 20	Carc. 2, H351
Quartz	(CAS No) 14808-60-7	0.1 – 2.0	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Naphtha, petroleum, hydrodesulfurized heavy	(CAS No) 64742-82-1	0 – 0.5	Flam. Liq. 1, H224 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1B, H350 Repr. 2, H361 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Fatty acids, C18, unsaturated, dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine	(CAS No) 162627-17-0	0 – 0.5	Skin Sens. 1, H317
Solvent naphtha, petroleum, light aromatic	(CAS No) 64742-95-6	0 – 0.5	Flam. Liq. 1, H224 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1B, H350 Repr. 2, H361 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411

Multiple WHMIS ranges have been utilized due to varying composition.

Full text of H-phrases: see section 16

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek medical attention.

Most Important Symptoms and Effects Both Acute and Delayed

General: Harmful if swallowed. Causes eye irritation. Skin irritation. May cause an allergic skin reaction. Irritation of respiratory tract. May damage fertility. May damage the unborn child. Inhalation may cause allergic respiratory reaction with asthma-like symptoms and difficulty breathing. Vapors may cause drowsiness and dizziness. May cause cancer. May cause heritable genetic damage.

Inhalation: May cause respiratory irritation. Exposure may produce an allergic reaction. May cause drowsiness or dizziness.

Skin Contact: Causes skin irritation. May cause an allergic skin reaction.

Eye Contact: Causes eye irritation.

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

Chronic Symptoms: May damage fertility. May damage the unborn child. May cause heritable genetic damage. May cause cancer.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Highly flammable liquid and vapor.

Explosion Hazard: May form flammable/explosive vapor-air mixture.

Reactivity: Product may polymerize at 60°C (>140°F), causing an exothermic reaction which may cause container damage or fire. May react with peroxides, oxidizers, and incompatibilities.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Hydrocarbons. Black smoke. Methyl methacrylate. Oxides of titanium. May release flammable gases. May liberate toxic gases.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Use special care to avoid static electric charges. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid all eye and skin contact and do not breathe vapor and mist. Do not allow product to spread into the environment. Handle in accordance with good industrial hygiene and safety practice.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

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For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection. Use appropriate personal protection equipment (PPE).

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. Contact competent authorities after a spill. Use only non-sparking tools.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable. Product may polymerize at 60°C (>140°F), causing an exothermic reaction which may cause container damage or fire. May react with peroxides, oxidizers, and incompatibilities. When heated to decomposition, emits toxic fumes.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep in fireproof place. Keep/Store away from extremely high or low temperatures, ignition sources, combustible materials, heat, direct sunlight, incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Specific End Use(s)

Parapro Liquid Resin system. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Methyl methacrylate (80-62-6)		
Mexico	OEL TWA (mg/m ³)	410 mg/m ³
Mexico	OEL TWA (ppm)	100 ppm
Mexico	OEL STEL (mg/m ³)	510 mg/m ³
Mexico	OEL STEL (ppm)	125 ppm
USA ACGIH	ACGIH TWA (ppm)	50 ppm
USA ACGIH	ACGIH STEL (ppm)	100 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	410 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	410 mg/m ³
USA NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
USA IDLH	US IDLH (ppm)	1000 ppm
Alberta	OEL STEL (mg/m ³)	410 mg/m ³
Alberta	OEL STEL (ppm)	100 ppm
Alberta	OEL TWA (mg/m ³)	205 mg/m ³
Alberta	OEL TWA (ppm)	50 ppm
British Columbia	OEL STEL (ppm)	100 ppm

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British Columbia	OEL TWA (ppm)	50 ppm
Manitoba	OEL STEL (ppm)	100 ppm
Manitoba	OEL TWA (ppm)	50 ppm
New Brunswick	OEL TWA (mg/m ³)	410 mg/m ³
New Brunswick	OEL TWA (ppm)	100 ppm
Newfoundland & Labrador	OEL STEL (ppm)	100 ppm
Newfoundland & Labrador	OEL TWA (ppm)	50 ppm
Nova Scotia	OEL STEL (ppm)	100 ppm
Nova Scotia	OEL TWA (ppm)	50 ppm
Nunavut	OEL STEL (mg/m ³)	510 mg/m ³
Nunavut	OEL STEL (ppm)	125 ppm
Nunavut	OEL TWA (mg/m ³)	410 mg/m ³
Nunavut	OEL TWA (ppm)	100 ppm
Northwest Territories	OEL STEL (mg/m ³)	510 mg/m ³
Northwest Territories	OEL STEL (ppm)	125 ppm
Northwest Territories	OEL TWA (mg/m ³)	410 mg/m ³
Northwest Territories	OEL TWA (ppm)	100 ppm
Ontario	OEL STEL (ppm)	100 ppm
Ontario	OEL TWA (ppm)	50 ppm
Prince Edward Island	OEL STEL (ppm)	100 ppm
Prince Edward Island	OEL TWA (ppm)	50 ppm
Québec	VEMP (mg/m ³)	205 mg/m ³
Québec	VEMP (ppm)	50 ppm
Saskatchewan	OEL STEL (ppm)	100 ppm
Saskatchewan	OEL TWA (ppm)	50 ppm
Yukon	OEL STEL (mg/m ³)	510 mg/m ³
Yukon	OEL STEL (ppm)	125 ppm
Yukon	OEL TWA (mg/m ³)	410 mg/m ³
Yukon	OEL TWA (ppm)	100 ppm
Quartz (14808-60-7)		
Mexico	OEL TWA (mg/m ³)	0.1 mg/m ³ (respirable fraction)
USA ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
USA OSHA	OSHA PEL (STEL) (mg/m ³)	250 mppcf/%SiO ₂ +5, 10mg/m ³ /%SiO ₂ +2
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.05 mg/m ³ (respirable dust)
USA IDLH	US IDLH (mg/m ³)	50 mg/m ³ (respirable dust)
Alberta	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable particulate)
British Columbia	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable)
Manitoba	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
New Brunswick	OEL TWA (mg/m ³)	0.1 mg/m ³ (respirable fraction)
Newfoundland & Labrador	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
Nova Scotia	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
Nunavut	OEL TWA (mg/m ³)	0.1 mg/m ³ (respirable mass)
Northwest Territories	OEL TWA (mg/m ³)	0.1 mg/m ³ (respirable mass)
Ontario	OEL TWA (mg/m ³)	0.10 mg/m ³ (designated substances regulation-respirable)
Prince Edward Island	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
Québec	VEMP (mg/m ³)	0.1 mg/m ³ (respirable dust)
Saskatchewan	OEL TWA (mg/m ³)	0.05 mg/m ³ (respirable fraction)
Yukon	OEL TWA (mg/m ³)	300 particle/mL

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Titanium dioxide (13463-67-7)		
Mexico	OEL TWA (mg/m ³)	10 mg/m ³
Mexico	OEL STEL (mg/m ³)	20 mg/m ³
USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust)
USA IDLH	US IDLH (mg/m ³)	5000 mg/m ³
Alberta	OEL TWA (mg/m ³)	10 mg/m ³
British Columbia	OEL TWA (mg/m ³)	10 mg/m ³ (total dust)
Manitoba	OEL TWA (mg/m ³)	10 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	10 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	10 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	10 mg/m ³
Nunavut	OEL TWA (mg/m ³)	5 mg/m ³ (respirable mass)
Northwest Territories	OEL TWA (mg/m ³)	5 mg/m ³ (respirable mass)
Ontario	OEL TWA (mg/m ³)	10 mg/m ³
Prince Edward Island	OEL TWA (mg/m ³)	10 mg/m ³
Québec	VEMP (mg/m ³)	10 mg/m ³ (containing no Asbestos and <1% Crystalline silica-total dust)
Saskatchewan	OEL STEL (mg/m ³)	20 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	10 mg/m ³
Yukon	OEL STEL (mg/m ³)	20 mg/m ³
Yukon	OEL TWA (mg/m ³)	30 mppcf
Silica, amorphous (7631-86-9)		
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	6 mg/m ³
USA IDLH	US IDLH (mg/m ³)	3000 mg/m ³
Nunavut	OEL TWA (mg/m ³)	2 mg/m ³ (respirable mass)
Northwest Territories	OEL TWA (mg/m ³)	2 mg/m ³ (respirable mass)
Yukon	OEL TWA (mg/m ³)	300 particle/mL (as measured by Konimeter instrumentation)

Exposure Controls

Appropriate Engineering Controls: Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases/vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment: Protective clothing. Gloves. Insufficient ventilation: wear respiratory protection. Protective goggles.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flamm resistant/retardant clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.

Thermal Hazard Protection: Wear suitable protective clothing.

Other Information: When using, do not eat, drink or smoke.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: White, pebble gray, gray, beige
Odor	: Methyl methacrylate, Light Floral Scent
Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: 10 °C (50.00 °F)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: > 1000 hPa @50°C (122°F)
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Specific gravity / density	: 0.97 - 1.4 g/l @21°C (69.8°F)
Specific Gravity	: Not available
Solubility	: Insoluble in water.
Partition Coefficient: N-octanol/water	: Not available
Viscosity	: 25- 42 dPa*s @20°C (68°F)
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Static discharge could act as an ignition source.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Product may polymerize at 60°C (>140°F), causing an exothermic reaction which may cause container damage or fire. May react with peroxides, oxidizers, and incompatibilities.

Chemical Stability: Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

Possibility of Hazardous Reactions: Hazardous polymerization may occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). May release flammable gases. Toxic gases. Nitrogen oxides. Hydrocarbons. Methyl methacrylate. Oxides of titanium.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Harmful if swallowed.

LD50 and LC50 Data:

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

ATE US (oral)	1749.78 mg/kg body weight
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Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Irritation: Causes serious eye irritation.

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Respiratory or Skin Sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ Cell Mutagenicity: May cause genetic defects.

Teratogenicity: Not available

Carcinogenicity: May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: May damage fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation. May cause drowsiness or dizziness.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation. Exposure may produce an allergic reaction. May cause drowsiness or dizziness.

Symptoms/Injuries After Skin Contact: Causes skin irritation. May cause an allergic skin reaction.

Symptoms/Injuries After Eye Contact: Causes eye irritation.

Symptoms/Injuries After Ingestion: Swallowing a small quantity of this material will result in serious health hazard.

Chronic Symptoms: May damage fertility. May damage the unborn child. May cause heritable genetic damage. May cause cancer.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Methyl methacrylate (80-62-6)	
LD50 Oral Rat	7900 mg/kg
LC50 Inhalation Rat	4632 ppm/4h
2-Ethylhexyl acrylate (103-11-7)	
LD50 Oral Rat	4435 mg/kg
LD50 Dermal Rabbit	7522 mg/kg
Quartz (14808-60-7)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg
Titanium dioxide (13463-67-7)	
LD50 Oral Rat	> 10000 mg/kg
Naphtha, petroleum, hydrodesulfurized heavy (64742-82-1)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 3160 mg/kg
Solvent naphtha, petroleum, light aromatic (64742-95-6)	
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	3400 ppm/4h
ATE US (gases)	3,400.00 ppmV/4h
Methyl methacrylate (80-62-6)	
IARC Group	3
2-Ethylhexyl acrylate (103-11-7)	
IARC Group	3
Quartz (14808-60-7)	
IARC Group	1
National Toxicity Program (NTP) Status	Known Human Carcinogens.
Titanium dioxide (13463-67-7)	
IARC Group	2B

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Harmful to aquatic life with long lasting effects.

Methyl methacrylate (80-62-6)	
LC50 Fish 1	243 - 275 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	69 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	125.5 - 190.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
2-Ethylhexyl acrylate (103-11-7)	
EC50 Daphnia 1	17.45 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Solvent naphtha, petroleum, light aromatic (64742-95-6)	
LC50 Fish 1	9.22 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Persistence and Degradability Not available

Bioaccumulative Potential

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)	
Bioaccumulative Potential	Not established.
Methyl methacrylate (80-62-6)	
Log Pow	0.7
2-Ethylhexyl acrylate (103-11-7)	
Log Pow	4.64 (at 25 °C)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable.

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT

Proper Shipping Name : PAINT
Hazard Class : 3
Identification Number : UN1263
Label Codes : 3
Packing Group : II
ERG Number : 128



In Accordance with IMDG

Proper Shipping Name : PAINT
Hazard Class : 3
Identification Number : UN1263
Packing Group : II
Label Codes : 3
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E



Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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In Accordance with IATA

Proper Shipping Name : PAINT
Packing Group : II
Identification Number : UN1263
Hazard Class : 3
Label Codes : 3
ERG Code (IATA) : 3L



In Accordance with TDG

Proper Shipping Name : PAINT
Packing Group : II
Hazard Class : 3
Identification Number : UN1263
Label Codes : 3



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)	
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
Methyl methacrylate (80-62-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 %
2-Ethylhexyl acrylate (103-11-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Quartz (14808-60-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Titanium dioxide (13463-67-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Naphtha, petroleum, hydrodesulfurized heavy (64742-82-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Solvent naphtha, petroleum, light aromatic (64742-95-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

US State Regulations

Quartz (14808-60-7)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Titanium dioxide (13463-67-7)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Methyl methacrylate (80-62-6)	
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)	
U.S. - Colorado - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues	

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Idaho - Occupational Exposure Limits - TWAs
U.S. - Illinois - Toxic Air Contaminants
U.S. - Louisiana - Reportable Quantity List for Pollutants
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants
U.S. - Massachusetts - Allowable Ambient Limits (AALs)
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Massachusetts - Threshold Effects Exposure Limits (TELs)
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Michigan - Polluting Materials List
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Environmental Hazardous Substances List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New York - Occupational Exposure Limits - TWAs
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - North Dakota - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues
U.S. - Oregon - Permissible Exposure Limits - TWAs
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 24-Hour
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories
U.S. - Tennessee - Occupational Exposure Limits - TWAs
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Vermont - Hazardous Waste - Hazardous Constituents
U.S. - Vermont - Permissible Exposure Limits - TWAs
U.S. - Washington - Dangerous Waste - Dangerous Waste Constituents List
U.S. - Washington - Dangerous Waste - Discarded Chemical Products List
U.S. - Washington - Permissible Exposure Limits - STELs
U.S. - Washington - Permissible Exposure Limits - TWAs
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet
2-Ethylhexyl acrylate (103-11-7)
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
RTK - U.S. - Massachusetts - Right To Know List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
Quartz (14808-60-7)
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Idaho - Occupational Exposure Limits - Mineral Dusts
U.S. - Illinois - Toxic Air Contaminant Carcinogens
U.S. - Illinois - Toxic Air Contaminants
U.S. - Maine - Chemicals of High Concern
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New York - Occupational Exposure Limits - Mineral Dusts
U.S. - New York - Occupational Exposure Limits - TWAs
U.S. - Oregon - Permissible Exposure Limits - Mineral Dusts
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Tennessee - Occupational Exposure Limits - TWAs
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Vermont - Permissible Exposure Limits - TWAs
U.S. - Washington - Permissible Exposure Limits - STELs
U.S. - Washington - Permissible Exposure Limits - TWAs
Titanium dioxide (13463-67-7)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Idaho - Occupational Exposure Limits - TWAs
U.S. - Illinois - Toxic Air Contaminant Carcinogens
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Hazardous Substance List

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Occupational Exposure Limits - TWAs
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - Oregon - Permissible Exposure Limits - TWAs
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Tennessee - Occupational Exposure Limits - TWAs
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Vermont - Permissible Exposure Limits - TWAs
U.S. - Washington - Permissible Exposure Limits - STELs
U.S. - Washington - Permissible Exposure Limits - TWAs

Naphtha, petroleum, hydrodesulfurized heavy (64742-82-1)
U.S. - Maine - Chemicals of High Concern
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Chemicals of High Concern - Persistent Bioaccumulative Toxins
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Solvent naphtha, petroleum, light aromatic (64742-95-6)
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Canadian Regulations

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
 	

Methyl methacrylate (80-62-6)	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

2-Ethylhexyl acrylate (103-11-7)	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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Quartz (14808-60-7)	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

Titanium dioxide (13463-67-7)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

Naphtha, petroleum, hydrodesulfurized heavy (64742-82-1)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class B Division 2 - Flammable Liquid

Solvent naphtha, petroleum, light aromatic (64742-95-6)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Fatty acids, C18, unsaturated, dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine (162627-17-0)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 05/24/2015
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Comb. Dust	Combustible Dust
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Flam. Liq. 4	Flammable liquids Category 4
Muta. 1B	Germ cell mutagenicity Category 1B
Repr. 2	Reproductive toxicity Category 2
Resp. Sens. 1	Respiratory sensitisation Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H227	Combustible liquid
	May form combustible dust concentrations in air
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H320	Causes eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Parapro Roof Membrane Resin (Gray, White); Paracoat; Terapro Base Resin; Terapro Flashing Resin; Terapro VTS Resin; Terapro Wearing Layer; Parapro Flashing (Gray, White); Paracoat Sand (Gray, White)

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Party Responsible for the Preparation of This Document

Todd Franks

Siplast, Inc.

1111 Highway 67 South

Arkadelphia, AR 71923

870-246-8095 x 1108

ussds@siplast.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS



SAFETY DATA SHEET

PC-227 Elastomeric Coating

Revision Date: 2/24/2016

SECTION I - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME PC-227 Elastomeric Coating
PRODUCT USE Acrylic Roof Coating
SUPPLIER Siplast
1000 Rochelle Blvd.
Irving, TX 75062
www.siplast.com
PRODUCT INFORMATION 800-922-8800
CHEMTREC NORTH AMERICA 1-800-424-9300
CHEMTREC INTERNATIONAL 703-527-3887

SECTION II – HAZARDS IDENTIFICATION

GHS CLASSIFICATION: NON-HAZARDOUS
GHS LABEL: None

SECTION III – COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Weight %
*Titanium dioxide (unbound only)	13463-67-7	3-7
Limestone	1317-65-3	10-40
Zinc Oxide	1314-13-2	2-4

The hazards of the listed titanium dioxide, crystalline silica (Quartz) from limestone and ZnO are for their powder unbound form. In the bound form and when used for application as a roof coating for which the products are designed, these ingredients are not hazardous.

SECTION IV – FIRST AID MEASURES

Eye Contact: Eye irritation. Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from eyeball to ensure thorough rinsing. Get immediate medical attention.

Skin Contact: Itching or burning of the skin. Immediately flush the skin with plenty of water while removing contaminated clothing and shoes. Get immediate medical attention.

Inhalation: Nasal irritation, headache, dizziness, nausea, vomiting. Heart palpitations, breathing difficulty, cyanosis, tremors, weakness, red flushing of face, irritability. Remove exposed person from source of exposure to fresh air. If not breathing, clear airway and start cardiopulmonary resuscitation (CPR). Avoid mouth to mouth resuscitation. Get medical attention immediately.

Ingestion: If ingested, do not induce vomiting unless directed to do so by a medical personnel. Get medical attention.

SECTION V – FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use dry chemical, foam, or carbon dioxide to extinguish fire.

Specific hazards arising from the chemical: Dangerous when exposed to heat or flame. Will form flammable or explosive mixtures with air at room temperature. Irritating or toxic substances may be emitted upon thermal decomposition. Thermal decomposition products may include oxides of carbon and nitrogen. Vapor or gas may spread to distant ignition sources and flash back. Vapors or gas may accumulate in low areas. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire. Containers may explode in heat of fire. Vapors may concentrate in confined areas. Liquid will float and may reignite on the surface of water.

Special protective action for fire-fighters: Water should be used to cool fire-exposed containers, structures and to protect personnel. Use water to dilute spills and flush them away from sources of ignition. Do not flush down sewers or other drainage systems. Exposed fire-fighters must wear NIOSH approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. Keep people away from and upwind of spill/leak. Material can create slippery conditions.

Environmental Precautions: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Methods of Cleaning up: Contain spills immediately with inert materials (e.g. sand, warth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.

SECTION VII – HANDLING AND STORAGE

Precautions for safe handling:

Avoid breathing dust, vapor or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Use personal protective equipment in handling and observe personal hygiene after use of the product.

Conditions for safe storage: **Storage Temperature:** Minimum: 40°F (4.44°C)
Maximum: 100°F (37.77°C)
Storage Period: 12 months

Keep container closed when not in use. Protect from freezing.

SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:

Component	CAS #	Regulation	Type of Listing	Occupational Exposure Limits
Titanium dioxide	13463-67-7	JSOH OELs (05 2009	TWA	1 mg/m ³ (Respirable dust)
			TWA	4 mg/m ³ (Total dust)
		US ACGIH (2011)	TWA	10 mg/m ³
Zinc oxide	1314-13-2	ACGIH	TWA	2 mg/m ³
			STEL	10 mg/m ³
		OSHA	PEL	5 mg/m ³ (fume, respirable fraction) 15 mg/m ³ (Total dust)

Control Parameters:

Component	CAS #	Regulation	Type of Listing	Occupational Exposure Limits
Calcium Carbonate (in Limestone)	1317-65-3	OSHA NIOSH	TWA	5 mg/m ³ (Respirable fraction) 15 mg/m ³ (Total dust) 10 mg/m ³ (Total dust) 5 mg/m ³ (respirable dust)
Quartz (in limestone) Quartz	14808-60-7	ACGIH OSHA NIOSH	TWA TWA	0.025 mg/m ³ (respirable fraction) 0.1 mg/m ³ (respirable dust) 0.05 mg/m ³ (respirable dust)

Engineering Controls: Mechanical local exhaust ventilation at point of containment release.

Protective Measures: Employees should wash their hands and face before eating, drinking or using tobacco products. Educate and train employees in the safe use and handling of this product. EMERGENCY SHOWERS AND EYE WASH STATIONS SHOULD BE AVAILABLE.

Eye/face Protection: Chemical splash goggles (ANSI Z-87.1 or approved equivalent)

Skin Protection: Impervious (Neoprene gloves)

Respiratory Protection: Wear suitable respirator (MSHA/NIOSH approved or equivalent) where exposure limits are exceeded.

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid (white)

Odor: Slight amine odor

Odor threshold: Not available

pH: 8.5-10.4

Melting point/freezing point: 0°C (32°F) similar to water

Boiling Point/boiling range: 100°C (212°F) similar to water

Flash Point: Not applicable (water based product), however, solid material will support combustion if water has been evaporated.

Evaporation Rate: Not available

Flammability: Not available

Upper/Lower Flammability or explosive limits: Not available

Vapor Pressure: 22.7 mm Hg at 20°C (68°F) similar to water

Vapor density: Not available

Relative density: 10.0-11.7#/gal

Solubility: in water Soluble

Partition Coefficient: n-octanol/water: Not available

Auto-ignition temperature: Not available

Decomposition temperature: Not available

Viscosity: 100-115 ku

Note: The above data are typical values and must not be construed as a specification.

SECTION X – STABILITY AND REACTIVITY

Reactivity: Non-reactive

Chemical Stability: Stable

Possibility of hazardous reactions: None known.

Conditions/Materials to avoid: Keep from freezing/No known materials to avoid

Incompatible Materials: None known.

Hazardous decomposition: By Thermal decomposition: carbon monoxide, carbon dioxide, acrylic monomers, other potentially toxic fumes

SECTION XI – TOXICOLOGICAL INFORMATION

Acute Toxicity:

Component	Acute Oral	Acute Dermal	Acute Inhalation
Titanium Dioxide	LD50 rat >5000 mg/kg	LD50:>5000 mg/kg (Rabbit)	LC50/4h/rat (dust/mist):>6.82 mg/l, 4 h (Rat)
Limestone	LD50 rat >6450 mg/kg	Not available	Not available
Zinc Oxide	Not available	Not available	LC50>2500 mg/m ³ , (mouse)
Mixture	Not available	Not available	Not available

Skin/Eye Irritation:

Titanium Dioxide	Rabbit, Exposure Time, 24 h, Non-Irritating
Limestone & Zinc Oxide	Not available
Mixture	Not available

Mutagenicity:

Titanium Dioxide	Genetic Toxicity in Vitro: Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without) Genetic Toxicity in Vivo: Drosophila SLRL test: negative (Drosophila melanogaster)
Limestone & Zinc Oxide	Not available
Mixture	Not available

Carcinogenicity:

Titanium dioxide (Ti-Pure, DuPont) - Rat, Male/Female, Inhalation

According to IARC, several rat inhalation and intratracheal installation studies using titanium dioxide have shown increases in benign and malignant lung tumors.

Based upon all study results, DuPont scientists conclude that titanium dioxide will not cause lung cancer or chronic respiratory diseases in humans at concentrations experience in the workplace.

Reviewed human exposure data did not suggest an association between occupational exposure to titanium dioxide and cancer. Additionally, the IARC working group determined that, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other material, such as in paints."

Quartz (in Limestone)

ACGIH: A2-suspected human carcinogen
NIOSH: Potential occupational carcinogen
IARC: Monograph 68 (1997) (Listed under Crystalline Silica inhaled in the form of quartz or cristobalite
From occupational sources) (Group 1-Carcinogenic to humans)

Limestone & Zinc Oxide
Mixture

Not available
Not available

Sensitization:

Titanium dioxide	Dermal: non-sensitizer (Guinea pig, Maximization Test), non-sensitizer (Human, Patch Test) Repeated Dose toxicity: 28 days, Inhalation: NOAEL: 35 mg/m ³ , (Rat)
Quartz, zinc oxide, mixture	Not available

Reproductive toxicity, STOT, Aspiration hazard- Not available for components and mixture in the products listed.

Other Toxicological Information:

*Reviewed human exposure data did not suggest an association between occupational exposure to titanium dioxide and cancer. Additionally, the IARC working group determined that, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other material, such as in paints."

SECTION XII – ECOLOGICAL INFORMATION**Ecotoxicity:**

Titanium dioxide	Aquatic Toxicity: 96 hr LC50: Fathead minnow>1,000 mg/l; LC50: > 1000 mg/l (Golden Orfe (Leuciscus idus), 48 hours) ; Acute Toxicity to Aquatic invertebrates: EC50> 3 mg/l (Water Flea (Daphnia Magna)) Toxicity to Microorganisms: EC50> 10,000 mg/l, (Pseudomonas fluorescens, 24 h)
Limestone	Acute and Prolonged toxicity to Fish: LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hours)

Persistence and Degradability, Bioaccumulative Potential, Mobility in Soil: Not available for components and mixtures in the products listed

SECTION XIII – DISPOSAL INFORMATION**Environmental Precautions:**

Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Waste Disposal Method:

Waste disposal should be in accordance with existing federal, state and local environmental laws.

Empty Container Precautions:

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

SECTION XIV – TRANSPORT INFORMATION

UN Number	Not applicable
UN proper Shipping Name	Not applicable
Transport Hazard Class	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not hazardous
Land Transport (DOT)	Non-Regulated
Sea Transport (IMDG)	Non-Regulated

Air Transport (ICAO/IATA)	Non-Regulated
Special Precautions	No data available

SECTION XV – REGULATORY INFORMATION

Unites States TSCA Inventory (US.TSCA): All components of this product are in compliance with the inventory listing requirement of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

CERCLA Information (40CFR302.4): Release of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to the state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title Section 304.

SARA TITLE III, Sections 302, 304, 311, 312: This material does not contain any component listed in EPA's List of List.

Workplace Classification:

OSHA This product is considered not hazardous under OSHA Hazard Communication Standard (29CFR1910.1200).

WHMIS This product and its components are not listed as a 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS).

Proposition 65 This product contains a chemical known to cause cancer or reproductive toxicity:

Component	CAS #	Authoritative Body	Date Entered
Titanium dioxide (airborne, unbound particles of respirable size)	(none), several substances for single listing	Labor code (LC)	September 2, 2011
Silica, crystalline (airborne particles of respirable size); 0.5% in Limestone	(none), several substances for single listing	State's Qualified Expert (SQE)	October 1, 1988

SECTION XVI – OTHER INFORMATION

HMIS Rating:

Health	Flammability	Physical Hazard
1	0	0

Legend:

Acronym	Meaning
ACGIH	American Conference of Governmental Hygienists
OSHA	Occupational Safety Health Administration
SARA	Superfund Amendment Reauthorization Act
TRI	Toxic Release Inventory
GHS	Globally Harmonized System (of Classification and Labeling of Chemicals)
DOT	Department of Transportation
IMDG	International Maritime Dangerous Goods
ICAO	International Civil Aviation Organization
IATA	International Air Transport Association

The information in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. The information relates only to the specific material designated and may not be valid for such material used in combination with or any other material in any process, unless specified in the test.

This SDS adheres to the standards and regulatory requirements of the United States and has been written under the guidance of the Globally harmonized System of Classification and Labeling of Chemicals.

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Pro Primer R

Synonyms: Pro Primer R Resin

Intended Use of the Product

Use of the Substance/Mixture: Liquid-applied Waterproofing System - Component. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company

Siplast, Inc.
1000 East Rochelle Blvd
Irving, TX 75062
T 800-922-8800

www.siplast.com

Manufacturer

Siplast, Inc.
35 McClelland Blvd
Arkadelphia, AR 71923
T 870-246-9000

Emergency Telephone Number

Emergency Number : 800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Resp. Sens. 1	H334
Skin Sens. 1	H317
Repr. 1B	H360
STOT SE 3	H335
Aquatic Acute 3	H402
Aquatic Chronic 2	H411

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H225 - Highly flammable liquid and vapor.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 - May cause respiratory irritation.
H360 - May damage fertility or the unborn child.
H402 - Harmful to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary Statements (GHS-US) :

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, and lighting equipment.

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P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing vapors, mist, 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 must not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, respiratory protection.
P284 - [In case of inadequate ventilation] wear respiratory protection.
P302+P352 - If on skin: Wash with plenty of water.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person 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/doctor/... if you feel unwell.
P321 - Specific treatment (see section 4).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P333+P313 - If skin irritation or rash 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/doctor.
P362 - Take off contaminated clothing and wash before reuse.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use appropriate media to extinguish.
P391 - Collect spillage.
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.
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Flammable vapors can accumulate in head space of closed systems.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Methyl methacrylate	(CAS No) 80-62-6	30 - 60	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 3, H402
2-Ethylhexyl acrylate	(CAS No) 103-11-7	0 - 10	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT SE 3, H336 Aquatic Acute 3, H402 Aquatic Chronic 3, H412

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Paraffin waxes and Hydrocarbon waxes	(CAS No) 8002-74-2	1 - 2	Comb. Dust
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	(CAS No) 6846-50-0	0 - 1	Aquatic Acute 2, H401 Aquatic Chronic 3, H412
2-Propanol, 1,1'-[(4-methylphenyl)imino]bis-	(CAS No) 38668-48-3	0 - 1	Acute Tox. 2 (Oral), H300 Eye Irrit. 2A, H319 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
1-Methyl-2-pyrrolidone	(CAS No) 872-50-4	0 1	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 1B, H360 STOT SE 3, H335

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek medical attention.

Most Important Symptoms and Effects Both Acute and Delayed

General: Eye irritation. Skin irritation. May cause an allergic skin reaction. Inhalation may cause allergic respiratory reaction with asthma-like symptoms and difficulty breathing. Irritation of respiratory tract. Causes serious eye irritation. May damage fertility or the unborn child.

Inhalation: May cause respiratory irritation. Exposure may produce an allergic reaction. May cause drowsiness or dizziness. Inhalation may cause immediate severe irritation progressing quickly to chemical burns.

Skin Contact: Causes skin irritation. May cause an allergic skin reaction.

Eye Contact: Causes eye irritation.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: May damage fertility or the unborn child.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical powder, foam, carbon dioxide (CO₂).

Unsuitable Extinguishing Media: Do not use extinguishing media containing water.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Highly flammable liquid and vapor.

Explosion Hazard: May form flammable/explosive vapor-air mixture.

Reactivity: Product may polymerize at 60°C (>140°F), causing an exothermic reaction which may cause container damage or fire. May react with peroxides, oxidizers, and incompatibilities.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Hydrocarbons. Black smoke.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to section 9 for flammability properties.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Use special care to avoid static electric charges. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid all eyes and skin contact and do not breathe vapor and mist. Do not allow product to spread into the environment. Handle in accordance with good industrial hygiene and safety practice.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection. Use appropriate personal protection equipment (PPE).

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. Contact competent authorities after a spill.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable. Product may polymerize at 60°C (>140°F), causing an exothermic reaction which may cause container damage or fire. May react with peroxides, oxidizers, and incompatibilities. When heated to decomposition, emits toxic fumes.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Wash hands and forearms thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep in fireproof place. Keep/Store away from extremely high or low temperatures, ignition sources, combustible materials, heat, direct sunlight, incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Specific End Use(s)

Liquid-applied Waterproofing System - Component.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Methyl methacrylate (80-62-6)		
Mexico	OEL TWA (mg/m ³)	410 mg/m ³
Mexico	OEL TWA (ppm)	100 ppm
Mexico	OEL STEL (mg/m ³)	510 mg/m ³
Mexico	OEL STEL (ppm)	125 ppm
USA ACGIH	ACGIH TWA (ppm)	50 ppm
USA ACGIH	ACGIH STEL (ppm)	100 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	410 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	410 mg/m ³
USA NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
USA IDLH	US IDLH (ppm)	1000 ppm

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Alberta	OEL STEL (mg/m ³)	410 mg/m ³
Alberta	OEL STEL (ppm)	100 ppm
Alberta	OEL TWA (mg/m ³)	205 mg/m ³
Alberta	OEL TWA (ppm)	50 ppm
British Columbia	OEL STEL (ppm)	100 ppm
British Columbia	OEL TWA (ppm)	50 ppm
Manitoba	OEL STEL (ppm)	100 ppm
Manitoba	OEL TWA (ppm)	50 ppm
New Brunswick	OEL TWA (mg/m ³)	410 mg/m ³
New Brunswick	OEL TWA (ppm)	100 ppm
Newfoundland & Labrador	OEL STEL (ppm)	100 ppm
Newfoundland & Labrador	OEL TWA (ppm)	50 ppm
Nova Scotia	OEL STEL (ppm)	100 ppm
Nova Scotia	OEL TWA (ppm)	50 ppm
Nunavut	OEL STEL (mg/m ³)	510 mg/m ³
Nunavut	OEL STEL (ppm)	125 ppm
Nunavut	OEL TWA (mg/m ³)	410 mg/m ³
Nunavut	OEL TWA (ppm)	100 ppm
Northwest Territories	OEL STEL (mg/m ³)	510 mg/m ³
Northwest Territories	OEL STEL (ppm)	125 ppm
Northwest Territories	OEL TWA (mg/m ³)	410 mg/m ³
Northwest Territories	OEL TWA (ppm)	100 ppm
Ontario	OEL STEL (ppm)	100 ppm
Ontario	OEL TWA (ppm)	50 ppm
Prince Edward Island	OEL STEL (ppm)	100 ppm
Prince Edward Island	OEL TWA (ppm)	50 ppm
Québec	VEMP (mg/m ³)	205 mg/m ³
Québec	VEMP (ppm)	50 ppm
Saskatchewan	OEL STEL (ppm)	100 ppm
Saskatchewan	OEL TWA (ppm)	50 ppm
Yukon	OEL STEL (mg/m ³)	510 mg/m ³
Yukon	OEL STEL (ppm)	125 ppm
Yukon	OEL TWA (mg/m ³)	410 mg/m ³
Yukon	OEL TWA (ppm)	100 ppm

Paraffin waxes and Hydrocarbon waxes (8002-74-2)		
Mexico	OEL TWA (mg/m ³)	2 mg/m ³ (fume)
Mexico	OEL STEL (mg/m ³)	6 mg/m ³ (fume)
USA ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³ (fume)
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	2 mg/m ³ (fume)
Alberta	OEL TWA (mg/m ³)	2 mg/m ³ (fume)
British Columbia	OEL TWA (mg/m ³)	2 mg/m ³ (fume)
Manitoba	OEL TWA (mg/m ³)	2 mg/m ³ (fume)
New Brunswick	OEL TWA (mg/m ³)	2 mg/m ³ (fume)
Newfoundland & Labrador	OEL TWA (mg/m ³)	2 mg/m ³ (fume)
Nova Scotia	OEL TWA (mg/m ³)	2 mg/m ³ (fume)
Nunavut	OEL STEL (mg/m ³)	6 mg/m ³ (fume)
Nunavut	OEL TWA (mg/m ³)	2 mg/m ³ (fume)
Northwest Territories	OEL STEL (mg/m ³)	6 mg/m ³ (fume)
Northwest Territories	OEL TWA (mg/m ³)	2 mg/m ³ (fume)
Ontario	OEL TWA (mg/m ³)	2 mg/m ³ (fume)
Prince Edward Island	OEL TWA (mg/m ³)	2 mg/m ³ (fume)
Québec	VEMP (mg/m ³)	2 mg/m ³ (fume)

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Saskatchewan	OEL STEL (mg/m ³)	4 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	2 mg/m ³
Yukon	OEL STEL (mg/m ³)	6 mg/m ³ (fume)
Yukon	OEL TWA (mg/m ³)	2 mg/m ³ (fume)

1-Methyl-2-pyrrolidone (872-50-4)		
Ontario	OEL TWA (mg/m ³)	400 mg/m ³
Yukon	OEL STEL (mg/m ³)	500 mg/m ³
Yukon	OEL STEL (ppm)	125 ppm
Yukon	OEL TWA (mg/m ³)	400 mg/m ³
Yukon	OEL TWA (ppm)	100 ppm

Exposure Controls

Appropriate Engineering Controls: Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases/vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment: Protective clothing. Gloves. Insufficient ventilation: wear respiratory protection. Protective goggles.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flammable resistant/retardant clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.

Thermal Hazard Protection: Wear suitable protective clothing.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Colorless
Odor	: Methyl methacrylate
Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 94 °C (201.20 °F)
Flash Point	: >10 °C (50.00 °F)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: > 50 hPa @50°C (122°F)
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Density	: 0.99 g/l (@20°C (68°F))
Specific Gravity	: Not available
Solubility	: In water, material is partially soluble.

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Partition Coefficient: N-octanol/water	: Not available
Viscosity	: Efflux time 45-60 sec @20°C (68°F)
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Static discharge could act as an ignition source.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Product may polymerize at 60°C (>140°F), causing an exothermic reaction which may cause container damage or fire. May react with peroxides, oxidizers, and incompatibilities.

Chemical Stability: Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

Possibility of Hazardous Reactions: Hazardous polymerization may occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). May release flammable gases. Toxic gases. Nitrogen oxides. Hydrocarbons.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: May damage fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation. Exposure may produce an allergic reaction. May cause drowsiness or dizziness. Inhalation may cause immediate severe irritation progressing quickly to chemical burns.

Symptoms/Injuries After Skin Contact: Causes skin irritation. May cause an allergic skin reaction.

Symptoms/Injuries After Eye Contact: Causes eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: May damage fertility or the unborn child.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

2-Propanol, 1,1'-[(4-methylphenyl)imino]bis- (38668-48-3)	
LD50 Oral Rat	25 mg/kg
Methyl methacrylate (80-62-6)	
LD50 Oral Rat	7900 mg/kg
LC50 Inhalation Rat	4632 ppm/4h
2-Ethylhexyl acrylate (103-11-7)	
LD50 Oral Rat	4435 mg/kg
LD50 Dermal Rabbit	7522 mg/kg
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate (6846-50-0)	
LD50 Oral Rat	> 3200 mg/kg
Paraffin waxes and Hydrocarbon waxes (8002-74-2)	
LD50 Oral Rat	> 3750 mg/kg
LD50 Dermal Rabbit	> 3600 mg/kg

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1-Methyl-2-pyrrolidone (872-50-4)	
LD50 Oral Rat	4150 mg/kg
LD50 Dermal Rabbit	> 5000 mg/kg
LC50 Inhalation Rat	5.1 mg/l/4h

Methyl methacrylate (80-62-6)	
IARC Group	3

2-Ethylhexyl acrylate (103-11-7)	
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Toxic to aquatic life with long lasting effects.

2-Propanol, 1,1'-[(4-methylphenyl)imino]bis- (38668-48-3)	
LC50 Fish 1	17 mg/l
EC50 Daphnia 1	28.8 mg/l
LC 50 Fish 2	>=

Methyl methacrylate (80-62-6)	
LC50 Fish 1	243 - 275 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	69 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	125.5 - 190.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

2-Ethylhexyl acrylate (103-11-7)	
EC50 Daphnia 1	17.45 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Bisphenol A-epichlorohydrin polymer (25068-38-6)	
LOEC (acute)	1 mg/l Daphnia magna
NOEC chronic crustacea	0.3 mg/l Daphnia magna

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate (6846-50-0)	
LC50 Fish 1	> 1.55 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	> 1.46 mg/l (Exposure time: 48 h - Species: Daphnia magna)

1-Methyl-2-pyrrolidone (872-50-4)	
LC50 Fish 1	832 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	4897 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	1072 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Persistence and Degradability

Pro Primer R	
Persistence and Degradability	May cause long-term adverse effects in the environment.

Bioaccumulative Potential

Pro Primer R	
Bioaccumulative Potential	Not established.

Methyl methacrylate (80-62-6)	
Log Pow	0.7

2-Ethylhexyl acrylate (103-11-7)	
Log Pow	4.64 (at 25 °C)

1-Methyl-2-pyrrolidone (872-50-4)	
Log Pow	-0.46 (at 25 °C)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

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Additional Information: Handle empty containers with care because residual vapors are flammable.

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT

Proper Shipping Name : PAINT
Hazard Class : 3
Identification Number : UN1263
Label Codes : 3
Packing Group : II
Marine Pollutant : Marine pollutant
ERG Number : 128



In Accordance with IMDG

Proper Shipping Name : PAINT
Hazard Class : 3
Identification Number : UN1263
Packing Group : II
Label Codes : 3
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E
Marine pollutant : Marine pollutant



In Accordance with IATA

Proper Shipping Name : PAINT
Packing Group : II
Identification Number : UN1263
Hazard Class : 3
Label Codes : 3
ERG Code (IATA) : 3L



In Accordance with TDG

Proper Shipping Name : PAINT
Packing Group : II
Hazard Class : 3
Identification Number : UN1263
Label Codes : 3
Marine Pollutant (TDG) : Marine pollutant



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Pro Primer R	
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
2-Propanol, 1,1'-[(4-methylphenyl)imino]bis- (38668-48-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Methyl methacrylate (80-62-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 %
2-Ethylhexyl acrylate (103-11-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Bisphenol A-epichlorohydrin polymer (25068-38-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

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2,2,4-Trimethyl-1,3-pentanediol diisobutyrate (6846-50-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Paraffin waxes and Hydrocarbon waxes (8002-74-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
1-Methyl-2-pyrrolidone (872-50-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 %

US State Regulations

1-Methyl-2-pyrrolidone (872-50-4)	
U.S. - California - Proposition 65 - Developmental Toxicity	WARNING: This product contains chemicals known to the State of California to cause birth defects.

Methyl methacrylate (80-62-6)	
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728) U.S. - Colorado - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min) U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr) U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs) U.S. - Idaho - Occupational Exposure Limits - TWAs U.S. - Illinois - Toxic Air Contaminants U.S. - Louisiana - Reportable Quantity List for Pollutants U.S. - Maine - Air Pollutants - Hazardous Air Pollutants U.S. - Massachusetts - Allowable Ambient Limits (AALs) U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs) U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1 U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2 U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1 U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2 RTK - U.S. - Massachusetts - Right To Know List U.S. - Massachusetts - Threshold Effects Exposure Limits (TELEs) U.S. - Massachusetts - Toxics Use Reduction Act U.S. - Michigan - Occupational Exposure Limits - TWAs U.S. - Michigan - Polluting Materials List U.S. - Minnesota - Chemicals of High Concern U.S. - Minnesota - Hazardous Substance List U.S. - Minnesota - Permissible Exposure Limits - TWAs U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances U.S. - New Jersey - Environmental Hazardous Substances List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New Jersey - Special Health Hazards Substances List U.S. - New York - Occupational Exposure Limits - TWAs U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour U.S. - North Dakota - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues U.S. - Oregon - Permissible Exposure Limits - TWAs	

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RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
 RTK - U.S. - Pennsylvania - RTK (Right to Know) List
 U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 24-Hour
 U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations
 U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories
 U.S. - Tennessee - Occupational Exposure Limits - TWAs
 U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term
 U.S. - Vermont - Hazardous Waste - Hazardous Constituents
 U.S. - Vermont - Permissible Exposure Limits - TWAs
 U.S. - Washington - Dangerous Waste - Dangerous Waste Constituents List
 U.S. - Washington - Dangerous Waste - Discarded Chemical Products List
 U.S. - Washington - Permissible Exposure Limits - STELs
 U.S. - Washington - Permissible Exposure Limits - TWAs
 U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet
 U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet
 U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater
 U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet

2-Ethylhexyl acrylate (103-11-7)

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
 U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
 U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
 U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
 U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
 RTK - U.S. - Massachusetts - Right To Know List
 RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - New Jersey - Special Health Hazards Substances List
 RTK - U.S. - Pennsylvania - RTK (Right to Know) List
 U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

Bisphenol A-epichlorohydrin polymer (25068-38-6)

U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate (6846-50-0)

U.S. - Minnesota - Chemicals of High Concern
 U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

Paraffin waxes and Hydrocarbon waxes (8002-74-2)

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
 U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
 U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
 U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
 RTK - U.S. - Massachusetts - Right To Know List
 U.S. - Michigan - Occupational Exposure Limits - TWAs
 U.S. - Minnesota - Hazardous Substance List
 U.S. - Minnesota - Permissible Exposure Limits - TWAs
 RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - New York - Occupational Exposure Limits - TWAs
 U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
 U.S. - Oregon - Permissible Exposure Limits - TWAs
 RTK - U.S. - Pennsylvania - RTK (Right to Know) List
 U.S. - Tennessee - Occupational Exposure Limits - TWAs
 U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

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U.S. - Vermont - Permissible Exposure Limits - TWAs
 U.S. - Washington - Permissible Exposure Limits - STELs
 U.S. - Washington - Permissible Exposure Limits - TWAs

1-Methyl-2-pyrrolidone (872-50-4)

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)
 U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
 U.S. - Maine - Chemicals of High Concern
 RTK - U.S. - Massachusetts - Right To Know List
 U.S. - Massachusetts - Toxics Use Reduction Act
 U.S. - Minnesota - Chemicals of High Concern
 U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
 U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
 U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
 U.S. - New Jersey - Environmental Hazardous Substances List
 RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - New Jersey - Special Health Hazards Substances List
 RTK - U.S. - Pennsylvania - RTK (Right to Know) List
 U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

Canadian Regulations

Pro Primer R

WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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2-Propanol, 1,1'-[(4-methylphenyl)imino]bis- (38668-48-3)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Methyl methacrylate (80-62-6)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
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2-Ethylhexyl acrylate (103-11-7)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
----------------------	--

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate (6846-50-0)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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Paraffin waxes and Hydrocarbon waxes (8002-74-2)

Listed on the Canadian DSL (Domestic Substances List)

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WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
1-Methyl-2-pyrrolidone (872-50-4)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 05/29/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 2 (Oral)	Acute toxicity (oral) Category 2
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Comb. Dust	Combustible Dust
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 4	Flammable liquids Category 4
Repr. 1B	Reproductive toxicity Category 1B
Resp. Sens. 1	Respiratory sensitisation Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H227	Combustible liquid
	May form combustible dust concentrations in air
H300	Fatal if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H320	Causes eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H360	May damage fertility or the unborn child
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Party Responsible for the Preparation of This Document

Pro Primer R

Safety Data Sheet

Todd Franks
Siplast, Inc.
1111 Highway 67 South
Arkadelphia, AR 71923
870-246-8095 x 1108
ussds@icopal.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Pro Catalyst

Synonyms: Dibenzoyl peroxide, 50% powder with dicyclohexyl phthalate

Intended Use of the Product

Use of the Substance/Mixture: Curing agent. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company

Siplast, Inc.
1000 East Rochelle Blvd
Irving, TX 75062
T 800-922-8800

www.siplast.com

Manufacturer

Siplast, Inc.
35 McClelland Blvd
Arkadelphia, AR 71923
T 870-246-9000

Emergency Telephone Number

Emergency Number : 800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Comb. Dust H232
Org. Perox. D H242
Eye Irrit. 2A H319
Skin Sens. 1 H317
Repr. 2 H361
Aquatic Acute 1 H400
Aquatic Chronic 3 H412

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H232 - May form combustible dust concentrations in air.
H242 - Heating may cause a fire.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H361 - Suspected of damaging fertility or the unborn child.
H400 - Very toxic to aquatic life.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements (GHS-US)

: 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.
P220 - Keep/Store away from clothing, combustible materials, incompatible materials.
P234 - Keep only in original container.
P261 - Avoid breathing dust, fumes.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P273 - Avoid release to the environment.

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P280 - Wear protective gloves, protective clothing, eye protection, face protection, respiratory protection.
P302+P352 - If on skin: Wash with plenty of water.
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.
P321 - Specific treatment (see section 4).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P405 - Store locked up.
P410 - Protect from sunlight.
P411+P235 - Store at temperatures not exceeding 25°C/77°F. Keep cool.
P420 - Store away from other materials.
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. May form combustible dust concentrations in air. This material contains an organic peroxide. Heating may cause hazardous decomposition. Hazardous decomposition products from peroxides are flammable and can be explosive under confinement.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
1,2-Benzenedicarboxylic acid, dicyclohexyl ester	(CAS No) 84-61-7	40 - 55	Skin Sens. 1, H317 Repr. 2, H361 Aquatic Chronic 3, H412
Dibenzoyl peroxide	(CAS No) 94-36-0	40 - 55	Org. Perox. B, H241 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400
Water	(CAS No) 7732-18-5	2	Not classified
Silica, amorphous	(CAS No) 7631-86-9	1.5	Not classified

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek medical attention.

Most Important Symptoms and Effects Both Acute and Delayed

General: Eye irritation. Exposure may produce an allergic reaction. Suspected of damaging fertility. Suspected of damaging the unborn child.

Inhalation: May cause respiratory irritation. Exposure may produce an allergic reaction.

Skin Contact: May cause an allergic skin reaction. May cause skin irritation.

Eye Contact: Causes eye irritation.

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Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Suspected of damaging fertility. Suspected of damaging the unborn child.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide, foam.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire. Halons.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Peroxides and their decomposition products can be flammable, can ignite when heated, and explode under confinement. Will support combustion under fire conditions.

Explosion Hazard: Dust explosion hazard in air.

Reactivity: Will react with incompatible materials, at elevated temperatures, and under fire conditions.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Benzene. Benzoic acid.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Use special care to avoid static electric charges. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid all contact with skin, eyes, or clothing. Do not allow product to spread into the environment. Handle in accordance with good industrial hygiene and safety practice. Do NOT breathe (dust, fumes). Avoid generating dust.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection. Use appropriate personal protection equipment (PPE).

Emergency Procedures: Ventilate area. Stop leak if safe to do so.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

For Containment: Remove ignition sources. Sweep or vacuum the product to recover it.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Use explosion proof vacuum during cleanup, with appropriate filter, do not mix with other materials. Spillage should be wetted or immersed in water. Minimize generation of dust. Eliminate all ignition sources. Contact competent authorities after a spill.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: This material contains an organic peroxide. Heating may cause hazardous decomposition. Hazardous decomposition products from peroxides are flammable and can be explosive under confinement. Dust explosion possible if in powder or granular form, mixed with air.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Wash hands and forearms thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

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Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep in fireproof place. Keep/Store away from direct sunlight, extremely high or low temperatures, ignition sources, combustible materials, heat, direct sunlight, combustible materials, incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Copper. Iron. Rust.

Storage Temperature: < 25 °C

Specific End Use(s)

Curing agent. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Dibenzoyl peroxide (94-36-0)		
Mexico	OEL TWA (mg/m ³)	5 mg/m ³
USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³
USA IDLH	US IDLH (mg/m ³)	1500 mg/m ³
Alberta	OEL TWA (mg/m ³)	5 mg/m ³
British Columbia	OEL TWA (mg/m ³)	5 mg/m ³
Manitoba	OEL TWA (mg/m ³)	5 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	5 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	5 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	5 mg/m ³
Nunavut	OEL STEL (mg/m ³)	10 mg/m ³
Nunavut	OEL TWA (mg/m ³)	5 mg/m ³
Northwest Territories	OEL STEL (mg/m ³)	10 mg/m ³
Northwest Territories	OEL TWA (mg/m ³)	5 mg/m ³
Ontario	OEL TWA (mg/m ³)	5 mg/m ³
Prince Edward Island	OEL TWA (mg/m ³)	5 mg/m ³
Québec	VEMP (mg/m ³)	5 mg/m ³
Saskatchewan	OEL STEL (mg/m ³)	10 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	5 mg/m ³
Yukon	OEL STEL (mg/m ³)	5 mg/m ³
Yukon	OEL TWA (mg/m ³)	5 mg/m ³
Water (7732-18-5)		
USA ACGIH	TLV	Not applicable
USA OSHA	PEL	Not applicable
USA NIOSH	REL	Not applicable
USA NIOSH	IDLH	Not applicable
Silica, amorphous (7631-86-9)		
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	6 mg/m ³
USA IDLH	US IDLH (mg/m ³)	3000 mg/m ³
Nunavut	OEL TWA (mg/m ³)	2 mg/m ³ (respirable mass)
Northwest Territories	OEL TWA (mg/m ³)	2 mg/m ³ (respirable mass)
Yukon	OEL TWA (mg/m ³)	300 particle/mL (as measured by Konimeter instrumentation)

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Exposure Controls

Appropriate Engineering Controls: Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases/vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment: Protective clothing. Gloves. Insufficient ventilation: wear respiratory protection. Protective goggles.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Thermal Hazard Protection: Wear suitable protective clothing.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Free flowing powder
Odor	: Faint
Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: (Decomposes)
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Decomposition products may be flammable
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Density	: 1230 kg/m ³ @20°C (68°F)
Specific Gravity	: 1.23 @20°C (68°F)
Solubility	: Insoluble in water @20°C (68°F).
Partition Coefficient: N-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Static discharge could act as an ignition source.
Peroxide Content	: 48 - 50%

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SECTION 10: STABILITY AND REACTIVITY

Reactivity: Will react with incompatible materials, at elevated temperatures, and under fire conditions.

Chemical Stability: Decomposes upon heating and elevated temperatures. SADT (Self accelerating decomposition temperature) is 55°C, material will undergo self accelerating decomposition above this temperature. Thermal decomposition can generate fire or explosion.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Copper. Rust. Iron.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Benzene. Benzoic acid.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation. Exposure may produce an allergic reaction.

Symptoms/Injuries After Skin Contact: May cause an allergic skin reaction. May cause skin irritation.

Symptoms/Injuries After Eye Contact: Causes eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Suspected of causing cancer.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Water (7732-18-5)	
LD50 Oral Rat	> 90000 mg/kg
Silica, amorphous (7631-86-9)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 2.2 mg/l (Exposure time: 1 h)
Dibenzoyl peroxide (94-36-0)	
IARC Group	3
Silica, amorphous (7631-86-9)	
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Very toxic to aquatic life with long lasting effects.

Silica, amorphous (7631-86-9)	
LC50 Fish 1	5000 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	7600 mg/l (Exposure time: 48 h - Species: Ceriodaphnia dubia)

Persistence and Degradability

Pro Catalyst	
Persistence and Degradability	May cause long-term adverse effects in the environment.

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Bioaccumulative Potential

Pro Catalyst	
Bioaccumulative Potential	Not established.
Silica, amorphous (7631-86-9)	
BCF Fish 1	(no bioaccumulation expected)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

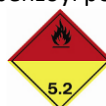
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: Container remains hazardous when empty. Continue to observe all precautions.

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT

Proper Shipping Name : ORGANIC PEROXIDE TYPE D, SOLID(Dibenzoyl peroxide, 50%)
Hazard Class : 5.2
Identification Number : UN3106
Label Codes : 5.2
Packing Group : II
Marine Pollutant : Marine pollutant
ERG Number : 145



In Accordance with IMDG

Proper Shipping Name : ORGANIC PEROXIDE TYPE D, SOLID(Dibenzoyl peroxide, 50%)
Hazard Class : 5.2
Identification Number : UN3106
Label Codes : 5.2
EmS-No. (Fire) : F-J
EmS-No. (Spillage) : S-R



In Accordance with IATA

Proper Shipping Name : ORGANIC PEROXIDE TYPE D, SOLID (Dibenzoyl peroxide, 50%)
Packing Group : II
Identification Number : UN3106
Hazard Class : 5.2
Label Codes : 5.2
ERG Code (IATA) : 5L



In Accordance with TDG

Proper Shipping Name : ORGANIC PEROXIDE TYPE D, SOLID(Dibenzoyl peroxide, 50%)
Packing Group : II
Hazard Class : 5.2
Identification Number : UN3106
Label Codes : 5.2
Marine Pollutant (TDG) : Marine pollutant



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Pro Catalyst	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Reactive hazard

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1,2-Benzenedicarboxylic acid, dicyclohexyl ester (84-61-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Dibenzoyl peroxide (94-36-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 %
Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Silica, amorphous (7631-86-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

US State Regulations

1,2-Benzenedicarboxylic acid, dicyclohexyl ester (84-61-7)	
U.S. - Maine - Chemicals of High Concern	
U.S. - Minnesota - Chemicals of High Concern	
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups	
Dibenzoyl peroxide (94-36-0)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)	
U.S. - Delaware - Accidental Release Prevention Regulations - Sufficient Quantities	
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities	
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations	
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)	
U.S. - Idaho - Occupational Exposure Limits - TWAs	
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1	
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2	
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity	
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1	
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2	
RTK - U.S. - Massachusetts - Right To Know List	
U.S. - Massachusetts - Toxics Use Reduction Act	
U.S. - Michigan - Occupational Exposure Limits - TWAs	
U.S. - Michigan - Process Safety Management Highly Hazardous Chemicals	
U.S. - Minnesota - Hazardous Substance List	
U.S. - Minnesota - Permissible Exposure Limits - TWAs	
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour	
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual	
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances	
U.S. - New Jersey - Environmental Hazardous Substances List	
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - New Jersey - Special Health Hazards Substances List	
U.S. - New Jersey - TCPA - Extraordinarily Hazardous Substances (EHS)	
U.S. - New York - Occupational Exposure Limits - TWAs	
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour	
U.S. - Oregon - Permissible Exposure Limits - TWAs	
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	
RTK - U.S. - Pennsylvania - RTK (Right to Know) List	
U.S. - Tennessee - Occupational Exposure Limits - TWAs	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
U.S. - Vermont - Permissible Exposure Limits - TWAs	
U.S. - Washington - Permissible Exposure Limits - STELs	
U.S. - Washington - Permissible Exposure Limits - TWAs	

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U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet
U.S. - Wyoming - Process Safety Management - Highly Hazardous Chemicals

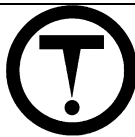
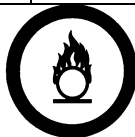
Silica, amorphous (7631-86-9)

U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Minnesota - Hazardous Substance List
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Oregon - Permissible Exposure Limits - Mineral Dusts
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Canadian Regulations

Pro Catalyst

WHMIS Classification	Class F - Dangerously Reactive Material Class C - Oxidizing Material Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
----------------------	--



1,2-Benzenedicarboxylic acid, dicyclohexyl ester (84-61-7)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
----------------------	---

Dibenzoyl peroxide (94-36-0)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification	Class C - Oxidizing Material Class F - Dangerously Reactive Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects
----------------------	--

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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Silica, amorphous (7631-86-9)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

Pro Catalyst

Safety Data Sheet

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SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 04/14/2015
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Comb. Dust	Combustible Dust
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Org. Perox. B	Organic Peroxide Category B
Org. Perox. D	Organic Peroxide Category D
Repr. 2	Reproductive toxicity Category 2
Skin Sens. 1	Skin sensitization Category 1
H232	May form combustible dust concentrations in air
H241	Heating may cause a fire or explosion
H242	Heating may cause a fire
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H361	Suspected of damaging fertility or the unborn child
H400	Very toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects

Party Responsible for the Preparation of This Document

Todd Franks
Siplast, Inc.
1111 Highway 67 South
Arkadelphia, AR 71923
870-246-8095 x 1108
ustfr@icopal.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS

Safety Data Sheet

Material Name: SecurShield Polyiso®, SecurShield Tapered Polyiso®, SecurShield CD Polyiso®, SecurShield Tapered Polyiso Hinged Target Sump®

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

SecurShield Polyiso®, SecurShield Tapered Polyiso®, SecurShield CD Polyiso®, SecurShield Tapered Polyiso Hinged Target Sump®

Synonyms

Polyiso Foam with Coated Glass Facer

Chemical Family

POLYISOCYANURATE Foam

Product Description

This product is as an article in accordance with 29 CFR 1910.1200.

Product Use

Thermal Insulation foams

Manufacturer Information

Carlisle SynTec
1285 Ritner Highway
Carlisle, PA 17013 USA
Phone: +1-800-479-6832
Emergency Phone #: +1-800-424-9300 (Chemtrec)

Section 2 - HAZARDS IDENTIFICATION

Component Related Regulatory Information

The components listed above are part of a product that is considered an “article” as defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200 and are considered “manufactured articles” as defined by the Canadian Hazardous Products Act (R.S.C., 1985, c. H-3) and as such are exempt from the requirement for an SDS. Under normal conditions of use, these components do not pose a hazard in the workplace or to the building occupants. Since this “article” poses no health hazard under normal conditions of use, there is no requirement for an SDS. In addition, “articles” are not included in the scope of the Globally Harmonized System (GHS). For that reason, the GHS labeling elements are not included on this SDS. Although these products are not subject to the OSHA or Canadian standards or GHS labelling elements, Carlisle would like to disclose as much health and safety information as possible to ensure that these products are handled and used properly. This SDS contains information critical to the safe handling and proper use of the products. It is recommended that this SDS should be retained and made available to the users of these products. In addition, the recommendations for handling and use of these products should be included in worker training programs.

GHS Label Elements**Symbol(s)**

None needed according to classification criteria

Signal Word

Safety Data Sheet

Material Name: SecurShield Polyiso®, SecurShield Tapered Polyiso®, SecurShield CD Polyiso®, SecurShield Tapered Polyiso Hinged Target Sump®

None needed according to classification criteria

Hazard Statement(s)

None needed according to classification criteria

Precautionary Statement(s)

Prevention

None needed according to classification criteria

Response

None needed according to classification criteria

Storage

None needed according to classification criteria

Disposal

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

Other Hazards

No additional information available.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent by weight
Not Available	Polyisocyanurate Foam	50-80
109-66-0	Pentane	< 10
65997-17-3	Fiberglass	1-5
471-34-1	Limestone	17-42

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

Get medical advice/attention if you feel unwell.

Inhalation

If dust is inhaled, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Get medical advice/attention if you feel unwell.

Skin

If skin irritation or rash occurs: Wash with plenty of soap and water. Get medical attention if irritation develops or persists.

Safety Data Sheet

Material Name: SecurShield Polyiso®, SecurShield Tapered Polyiso®, SecurShield CD Polyiso®, SecurShield Tapered Polyiso Hinged Target Sump®

Eyes

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

Ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

Direct contact with dust may cause mechanical irritation of the eyes, skin, respiratory tract. May cause allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Delayed

No information on significant adverse effects.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Regular dry chemical, carbon dioxide, foam, water fog

Unsuitable Extinguishing Media

None known.

Special Hazards Arising from the Chemical

Fumes from heating may cause irritation, allergic reactions.

Hazardous Combustion Products

Oxides of carbon

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

Avoid generating dust in the air.

Environmental Precautions

Prevent environmental discharge consistent with regulatory requirements.

Safety Data Sheet

Material Name: SecurShield Polyiso®, SecurShield Tapered Polyiso®, SecurShield CD Polyiso®, SecurShield Tapered Polyiso Hinged Target Sump®

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Minimize dust generation and accumulation. Eliminate all sources of ignition. Do not breathe dust. Do not eat, drink or smoke when using this product. Do not get foam dust in eyes. Wear protective gloves and eye/face protection. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Refer to handling and storage guidelines provided by the manufacturer.

Conditions for Safe Storage, Including any Incompatibilities

None needed according to classification criteria. Store on flat foundation. Elevate 3-4" above foundation to prevent contact with moisture. Keep only in original packaging. If packaging is opened, place waterproof but breathable tarp on product. Refer to handling and storage guidelines provided by the manufacturer.

Incompatible Materials

Acetone, methyl ethyl ketone, tetrahydrofuran, chlorine, chloroform, hydrogen peroxide, ethylene dichloride, dimethyl sulfoxide, dimethyl formamide

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Pentane	109-66-0
OSHA (US):	This component has exposure limits. However, this component is present in what is considered an "article" as defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200 and a "manufactured article" as defined by the Canadian Hazardous Products Act (R.S.C., 1985, c. H-3). Therefore, the exposure limits for this component are unnecessary to provide safe exposure controls. This component will not be released from the product under normal working conditions.

Biological limit value

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

Engineering Controls

Provide local exhaust ventilation where dust may be generated. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Safety glasses or goggles are recommended when there is a potential for eye contact.

Skin Protection

Work clothes with long sleeves and pants are recommended, but not required.

Safety Data Sheet

Material Name: SecurShield Polyiso®, SecurShield Tapered Polyiso®, SecurShield CD Polyiso®, SecurShield Tapered Polyiso Hinged Target Sump®

Respiratory Protection

If respirable dusts are generated, respiratory protection may be needed. Consult with a health and safety professional for specific respirators appropriate for your use.

Glove Recommendations

Protective gloves are not required, but recommended.

Protective Materials

Recommended equipment: Provide emergency eye wash supplies in the immediate work area.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	light yellow foam	Physical State	solid
Odor	odorless to slight odor	Color	light yellow
Odor Threshold	Not available	pH	Not available
Melting Point	Not available	Boiling Point	Not applicable
Freezing point	Not applicable	Evaporation Rate	Not applicable
Boiling Point Range	Not applicable	Flammability (solid, gas)	Not available
Autoignition	Not available	Flash Point	Not applicable
Lower Explosive Limit	Not applicable	Decomposition	Not available
Upper Explosive Limit	Not applicable	Vapor Pressure	Not applicable
Vapor Density (air=1)	Not applicable	Specific Gravity (water=1)	1.5 - 2.5
Water Solubility	Insoluble	Partition coefficient: n-octanol/water	Not applicable
Viscosity	Not applicable	Solubility (Other)	Not available
Density	1.5 - 2.5 lbs/ft3	VOC	contains Pentane

Other Information

No additional information available.

Safety Data Sheet

Material Name: SecurShield Polyiso®, SecurShield Tapered Polyiso®, SecurShield CD Polyiso®, SecurShield Tapered Polyiso Hinged Target Sump®

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 dust generation and accumulation. Avoid heat, flames, sparks and other sources of ignition. Avoid contact with water or incompatible materials.

Incompatible Materials

Acetone, methyl ethyl ketone, tetrahydrofuran, chlorine, chloroform, hydrogen peroxide, ethylene dichloride, dimethyl sulfoxide, dimethyl formamide

Hazardous decomposition products

Oxides of carbon

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

Dust may cause irritation of the nose, throat and upper respiratory tract. May cause allergy or asthma symptoms or breathing difficulties if foam dust is inhaled.

Skin Contact

Dust may cause mechanical irritation. May cause allergic skin reaction.

Eye Contact

Direct contact with dust may cause mechanical irritation of the eyes.

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:

Pentane (109-66-0)

Non-hazardous acute toxicity values

Immediate Effects

Direct contact with dust may cause mechanical irritation of the eyes, skin, respiratory tract. May cause allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if foam dust is inhaled.

Delayed Effects

Safety Data Sheet

Material Name: SecurShield Polyiso®, SecurShield Tapered Polyiso®, SecurShield CD Polyiso®, SecurShield Tapered Polyiso Hinged Target Sump®

No information on significant adverse effects.

Irritation/Corrosivity Data

Direct contact with dust may cause mechanical irritation of the eyes, skin, respiratory tract.

Respiratory Sensitization

May cause allergy or asthma symptoms or breathing difficulties if foam dust is inhaled.

Dermal Sensitization

May cause allergic skin reaction.

Component Carcinogenicity

Germ Cell Mutagenicity

No data available.

Tumorigenic Data

No data available

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

May cause allergic reactions.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components

Persistence and Degradability

No studies have been established for this product.

Bioaccumulative Potential

No studies have been established for this product.

Mobility

No studies have been established for this product.

Other Toxicity

No additional information available.

Safety Data Sheet

Material Name: SecurShield Polyiso®, SecurShield Tapered Polyiso®, SecurShield CD Polyiso®, SecurShield Tapered Polyiso Hinged Target Sump®

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Product is not an EPA hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

UN/NA #: Not regulated

IATA Information:

UN#: Not regulated

IMDG Information:

UN#: Not regulated

TDG Information:

UN#: Not 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.

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
Pentane	109-66-0	Yes	Yes	Yes	Yes	Yes
Fiberglass	65997-17-3	No	No	Yes	No	No

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

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

Safety Data Sheet

Material Name: SecurShield Polyiso®, SecurShield Tapered Polyiso®, SecurShield CD Polyiso®, SecurShield Tapered Polyiso Hinged Target Sump®

Pentane	109-66-0
	1 %

Component Analysis - Inventory

Pentane (109-66-0)

US	Yes
----	-----

Cellulose pulp (65996-61-4)

US	Yes
----	-----

Fiberglass (65997-17-3)

US	Yes
----	-----

Section 16 - OTHER INFORMATION

Summary of Changes

New SDS: June 17, 2015

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; BOD - Biochemical Oxygen Demand; C - Celsius; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; 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; Kow - Octanol/water partition coefficient; 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; OSHA - Occupational Safety and Health Administration; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; 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



Safety Data Sheet

Material Name: SecurShield Polyiso®, SecurShield Tapered Polyiso®, SecurShield CD Polyiso®, SecurShield Tapered Polyiso Hinged Target Sump®

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

TAMKO BUILDING PRODUCTS, INC. SAFETY DATA SHEET - T01B2015

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: Roofing Granules

LABEL: GI Granules

USE & DESCRIPTION: Roofing Manufacturing

CHEMICAL FAMILY: Mixture

MANUFACTURED BY:

TAMKO Building Products, Inc.

P. O. Box 1404

Joplin, MO 64802-1404

www.TAMKO.com

EMERGENCY TELEPHONE NUMBERS:

General Information: 1-417-624-6644 (8 a.m. - 5 p.m. CST)

Chemtrec: 1-800-424-9300 (24 HOURS)

2. HAZARDS IDENTIFICATION

SIGNAL WORD: Danger

GHS CLASSIFICATION:

Carcinogenicity – Category 1A

Skin Irritation – Category 2

Eye Irritation – Category 2B

Specific Target Organ Toxicity, Repeated Exposure – Category 1

Specific Target Organ Toxicity, Single Exposure – Category 3

HAZARD STATEMENTS:

May cause cancer.

Causes skin and eye irritation.

Causes damage to organs through prolonged or repeated exposure.

May cause respiratory irritation

Additional hazard information: Can cause silicosis and other permanent lung damage.

PRECAUTIONARY STATEMENTS:Prevention

Obtain special instructions before use.

Do not breathe dust.

Do not eat, drink or smoke when using this product.

Use only outdoors or in well ventilated area.

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

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

Wash hands and exposed skin thoroughly after handling.

Response

If on skin: Wash with plenty of water.

Specific treatment: See section 4-First Aid

In case of fire: See Section 5.

Take off contaminated clothing and wash before reuse.

Get medical advice/attention: If exposed or concerned or you feel unwell, if eye, skin and or respiratory irritation persists.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Storage

Store locked up, in a well-ventilated place.

Disposal

Dispose in accordance with Federal, State, and Local regulations. (See section 13 for additional information).

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components	CAS No.	% by Weight
Basalt or Andesite (Composition varies naturally. Typically contains feldspar, chlorite, microcline, muscovite and epidote)	Mixture	82-94
Quartz (a component of Basalt or Andesite) (Silica)	14808-60-7	4-12
Ceramic	Mixture	1-5
Iron Oxide	1309-37-1	0-3
Titanium dioxide	13463-67-7	0-3
Carbon black	1333-86-4	0-1
Chromium oxide	1308-38-9	0-1

NE = Not established

4. FIRST AID MEASURES**EYE CONTACT:** Immediately flush eyes with plenty of cool water for at least 20 minutes, occasionally lifting the eye lids to ensure thorough rinsing. Get medical attention if irritation develops and persists.**SKIN CONTACT:** Wash off with soap and plenty of water. Get medical attention if irritation develops or persists.**INGESTION:** If swallowed, do not induce vomiting. If victim is fully conscious, give a cupful of water. If vomiting occurs, keep head lower than hips to avoid aspiration of vomit into the lungs which can cause inflammation or pneumonitis. Call poison control center or get immediate medical attention.**INHALATION:** If inhaled, remove person to fresh air. Drink water to clear throat or blow nose to clear. If not breathing, give artificial respiration or give oxygen by trained personnel and get immediate medical attention.**NOTES TO PHYSICIAN:** Treat symptomatically.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use appropriate extinguishing media for any nearby fire.

SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus (SCBA) and full protective clothing should be worn when fighting chemical fires. Use protective equipment appropriate for surrounding materials.

UNUSUAL FIRE OR EXPLOSION HAZARDS: None.

HAZARDOUS COMBUSTION PRODUCTS: None known.

6. ACCIDENTAL RELEASE MEASURES

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED: Wear appropriate personal protective equipment (See Section 8). Clean up promptly by sweeping or vacuum. Avoid dust formation. Minimize dust generation and accumulation.

WASTE DISPOSAL METHODS: Dispose in accordance with applicable Federal, State, and Local regulations. Do not burn.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with skin and eyes. Avoid dust formation. Avoid breathing dust. Minimize dust generation and accumulation. Wash thoroughly after handling.

STORING: Store in a manner which will minimize dust generation and accumulation. Store in sealed containers in a protected area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE LIMITS**

Components	CAS No.	OSHA		ACGIH		Unit
Raw Products		TWA	STEL	TWA	STEL	
Carbon Black	1333-86-4	3.5	NE	3*	NE	mg/m ³
Iron oxide	1309-37-1	NE	NE	5**	NE	mg/m ³
Titanium dioxide	13463-67-7	NE	NE	10	NE	mg/m ³
Quartz (Silica)	14808-60-7	See 1910.1000 Table Z3	NE	0.025**	NE	mg/m ³

NE= Not established

Note: Due to the form of the product, hazardous exposures from this product are not expected to occur under normal conditions of use. Gloves must be worn when handling and adequate ventilation must be provided during roofing related activities.

* Inhalable Fraction

** Respirable Fraction

ENGINEERING CONTROLS: Ensure adequate ventilation, especially in confined areas.

RESPIRATORY PROTECTION: If engineering controls do not maintain airborne concentrations below recommended exposure limits, use a NIOSH approved air-purifying respirator. If concentrations are sufficiently high that this respirator is inadequate, or high enough to cause oxygen deficiency, use a positive pressure self-contained breathing apparatus (SCBA). Follow all applicable respirator/SCBA use, fitting, and training standards and regulations.

VENTILATION: Use only with adequate ventilation to maintain exposures below applicable exposure limits.

EYE PROTECTION: Safety glasses with side shields (or goggles).

SKIN: Wear protective gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Granules	Upper/Lower Flammability or Explosive Limits:	Not Applicable
Odor Threshold	Not Applicable	Vapor Pressure:	Not Applicable
pH:	Not Applicable	Vapor Density (Air = 1):	Not Applicable
Boiling Point:	Not Applicable	Specific Gravity/Relative Density:	2.8
Melting Point:	>2300 °F	Solubility (IES):	Negligible
Flash Point:	Not determined	Initial Boiling Point and Boiling Range:	Not Applicable
Autoignition Temperature:	No data available.	Evaporation Rate (Butyl Acetate = 1):	Not Applicable
Viscosity:	No data available.	Flammability(Solid and Gas):	Not Applicable
Decomposition Temperature:	Not Applicable	Partition Coefficient: N-Octanol/Water:	No data available.

10. STABILITY AND REACTIVITY

STABILITY: Stable

REACTIVITY: Reactivity will not occur.

CONDITIONS TO AVOID: Not available.

PRODUCT SHOULD NOT BE BURNED OR HEATED USING A DIRECT FLAME DEVICE.

HAZARDOUS REACTION: Polymerization will not occur.

INCOMPATIBILITY (MATERIALS TO AVOID): No data available.

HAZARDOUS COMBUSTION PRODUCTS: No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS No.	Approximate Weight %	NIOSH – Selected LD50s and LC50s
Carbon black 1333-86-4	0 - 1	>8000 mg/kg Oral LD50 Rat >3 g/kg Dermal LD50 Rabbit

Carcinogens:

Ingredient Name CAS No.	Approximate Weight %	Carcinogen Categories
Carbon black 1333-86-4	0 - 1	ACGIH Carcinogens: A3 – Confirmed animal carcinogen with unknown relevance to humans IARC Group 2B: Possibly carcinogenic to humans.
Iron oxide 1309-37-1	0-3	ACGIH Carcinogens: A4 – Not classifiable as a human carcinogen IARC Group 3: Not classifiable as to carcinogenicity to humans.
Quartz (component of Basalt and Andesite) 14808-60-7	4-12	ACGIH Carcinogens: A2 – Suspected human carcinogen IARC Group 1: Carcinogenic to humans NTP: Known to be human carcinogen
Titanium Dioxide 13463-67-7	0-3	ACGIH Carcinogens: A4 – Not classifiable as a human carcinogen IARC Group 2B: Possibly carcinogenic to humans.

THE FOLLOWING COMPONENT DATA IS PROVIDED FOR USER INFORMATION:**SILICA**

Cancer - This product contains crystalline silica (quartz). IARC has determined that crystalline silica inhaled in the form of quartz from occupational sources is carcinogenic to humans (Group 1). IARC concluded that there was sufficient evidence in humans and animals for the carcinogenicity of inhaled crystalline silica in the form of quartz from occupational sources. The NTP has classified silica as known to be a human carcinogen. The physical nature of this product may help limit any inhalation hazard from crystalline silica during application and in its hardened state. However, physical forces such as grinding, drilling and other demolition work on this product may liberate crystalline silica dust.

Acute Effects - Exposure to silica dust can cause irritation of the eyes, nose and throat. Exposure to high concentrations can also cause Accelerated Silicosis causing progressive shortness of breath, fever, coughing, and weight loss.

Chronic Effects – In addition to cancer, breathing of silica over a period of time can cause damage to the lung tissue and silicosis after long exposure at low concentrations causing shortness of breath, fever, coughing, and weight loss. Prolonged and repeated exposure to respirable silica-containing dust may also cause autoimmune disease, kidney disease, tuberculosis, nonmalignant respiratory disease, and bronchitis.

TITANIUM DIOXIDE

Cancer - Titanium dioxide has recently been classified by the International Agency for Research on Cancer (IARC) as Group 2B "possibly carcinogen to humans". IARC determined that high concentrations of pigment-grade (powdered) and ultrafine titanium dioxide dust caused respiratory tract cancer in rats exposed by inhalation and intratracheal instillation. The series of biological events or steps that produced the rat lung cancers (e.g. particle deposition, impaired lung clearance, cell injury, fibrosis, mutations and ultimately cancer) have also been seen in people working in dusty environments. Therefore, IARC considered the animal data relevant to people doing jobs with exposures to titanium dioxide dust.

Acute Effects- Skin exposure to titanium dioxide is a mild irritant and may cause mechanical irritation (irritation from frictional action but is believed not to be absorbed through intact skin).

Dust may cause mechanical irritation (irritation from frictional action) of eyes. May cause gastrointestinal (digestive) tract irritation with nausea, vomiting and diarrhea if swallowed. It is not absorbed following ingestion. Dust may be harmful if inhaled and causes respiratory tract irritation. May affect respiration and blood.

Chronic Effects - Heavy occupational dust exposures may cause chronic rhinitis, chronic bronchitis, impaired pulmonary function, resemblance of silicosis without any fibrosis, functional change in trachea or bronchi, chronic pulmonary edema.

CARBON BLACK

Cancer – This product may contain carbon black. IARC has classified carbon black as Group 2B "possibly carcinogenic to humans". The physical nature of this product may help limit any inhalation hazard from product dust during application and in its hardened state. However, physical forces such as grinding, drilling and other demolition work on this product may liberate wood dust.

Acute Effects - Exposure to product dust can cause irritation of the eyes, nose and throat causing shortness of breath, dryness and soreness of the throat, sneezing, tearing and conjunctivitis.

Chronic Effects - Results of epidemiological studies of carbon black production workers suggest that cumulative exposure to carbon black may result in small decrements in lung function.

12. ECOLOGICAL INFORMATION

Ecotoxicity – No data available

Persistence and degradability – No data available

Bioaccumulative potential – No data available

Mobility in Soil – No data available

Other adverse effects (GHG, Ozone) - No data available

13. DISPOSAL CONSIDERATIONS

This product has not been regulated as a hazardous waste by the USEPA. Dispose of product and container in accordance with Federal, State, and Local regulations. Do not burn. Do not dispose as sewage.

14. TRANSPORT INFORMATION

This product is not regulated as a hazardous material for transport under 49 CFR or for vessel transport under the IMDG Code.

UN number: Not applicable

UN Proper Shipping Name: Not applicable

Packing Group, if applicable: Not applicable

Environmental Hazards: Not applicable

Transport in bulk: Not applicable

Special Precautions: Not applicable

15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA): Not regulated.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA): None

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA), TITLE III:

Section 302 Extremely Hazardous Substances: None

Section 311/312 Hazard Categories: Delayed Health

Section 313 Reportable Ingredients: None

California Proposition 65: **WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

16. OTHER INFORMATION

<u>HMS Rating:</u>	<u>NFPA Rating:</u>
Health - 1	Health - 1
Flammability - 0	Flammability - 0
Reactivity - 0	Reactivity - 0

Preparation Date: April 2015

Disclaimer of Liability

The information and recommendations contained herein are to the best of **TAMKO Building Products, Inc.**'s knowledge and belief, accurate and reliable as of the date issued. **TAMKO Building Products, Inc.** does not warrant or guarantee their accuracy or reliability, and **TAMKO Building Products, Inc.** shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy his or herself that they are suitable and complete for the user's particular use.

SAFETY DATA SHEET

RP 34 ALUMINUM POWDER

Section 1. Identification

GHS product identifier : RP 34 ALUMINUM POWDER
Product code : 00066545
Other means of identification : Not available.
Product type : Solid.
Material uses : Not available.
Supplier's details : Huntsman Advanced Materials Americas LLC
P.O. Box 4980
The Woodlands, TX 77387

Non-Emergency phone: (800) 257-5547

e-mail address of person responsible for this SDS : MSDS@huntsman.com


Emergency telephone number (24h/7day) : Chemtrec: (800) 424-9300 or (703) 527-3887

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

GHS label elements

Hazard pictograms : 

Signal word : Warning

Hazard statements : Causes serious eye irritation.
Causes skin irritation.

Precautionary statements : Wear protective gloves. Wear eye or face protection. Wash hands thoroughly after handling. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
aluminium powder (stabilized)	60 - 100	7429-90-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- Ingestion** : Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness

Section 4. First aid measures

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Flash point : Not applicable.

Extinguishing media

Suitable extinguishing media : Use dry chemical powder. Do not use water or foam.

Unsuitable extinguishing media : Do not use water or foam.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 6. Accidental release measures

Methods and materials for containment and cleaning up : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
aluminium powder (stabilized)	ACGIH TLV (United States, 4/2014). TWA: 1 mg/m ³ 8 hours. Form: Respirable fraction OSHA PEL (United States, 2/2013). TWA: 5 mg/m ³ , (as Al) 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ , (as Al) 8 hours. Form: Total dust

Appropriate engineering controls : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Individual protection measures

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Thermal hazards	: Not available.

Section 9. Physical and chemical properties

Appearance

Physical state	: Solid.
Color	: Gray.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not applicable
Melting point/Freezing point	: Not available.
Boiling/condensation point	: Not available.
Flash point	: Not applicable.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not applicable
Vapor density	: Not available.
Relative density	: 1
Solubility in water	: Insoluble

Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not applicable

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Conclusion/Summary

Skin	: aluminium powder (stabilized)	No additional information.
Eyes	: aluminium powder (stabilized)	No additional information.
Respiratory	: aluminium powder (stabilized)	No additional information.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Section 11. Toxicological information

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- Ingestion** : Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.

Section 11. Toxicological information

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information : Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Not available.

Other adverse effects : No known significant effects or critical hazards.

Other ecological information

BOD5 : Not determined.

COD : Not determined.

TOC : Not determined.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

DOT : Not regulated.

TDG : Not regulated.

IMDG : Not regulated.

IATA : Not regulated.

Regulatory information	UN number	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	-	-		-
TDG Classification	Not regulated.	-	-		-
IMDG Classification	Not regulated.	-	-		-
IATA Classification	Not regulated.	-	-		-

PG* : Packing group

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product

United States Regulations

TSCA 8(b) inventory : All components are listed or exempted.

TSCA 5(a)2 final significant new use rule (SNUR) : No ingredients listed.

TSCA 5(e) substance consent order : No ingredients listed.

TSCA 12(b) export notification : No ingredients listed.

SARA 311/312 : Immediate (acute) health hazard

Clean Air Act - Ozone Depleting Substances (ODS) : This product does not contain nor is it manufactured with ozone depleting substances.

	<u>Product name</u>	<u>Concentration %</u>
SARA 313 Form R - Reporting requirements	: aluminium powder (stabilized)	100

Section 15. Regulatory information

CERCLA Hazardous substances : No ingredients listed.

State regulations

PENNSYLVANIA - RTK : aluminum

California Prop 65 : This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

Canadian regulations

CEPA DSL : All components are listed or exempted.

WHMIS Classes : Class B-4: Flammable solid.
Class D-2B: Material causing other toxic effects (Toxic).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Brazil Regulations

Classification system used : Norma ABNT-NBR 14725-2:2012

International lists

Australia inventory (AICS): All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.) :

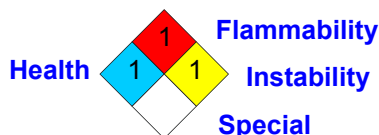
Health	1
Flammability	1
Physical hazards	1
Personal protection	

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.) :

Section 16. Other information



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Further information	:
Date of printing	: 5/5/2015.
Date of issue	: 5/5/2015.
Date of previous issue	: No previous validation.
Version	: 1

▢ Indicates information that has changed from previously issued version.

Notice to reader

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: COPPER POWDER
Product Codes: SM400101R, SM400105R, SM4001010R
Synonyms: Copper Powder, Copper
Emergency: CONTACT: (908) 273-5401 Mon-Sat
8:00AM-8:00PM

MSDS Number: Copper Powder
Product Use: For Powder Metallurgy Applications.
Restrictions: Industrial use only.
Manufacturer: EnvironMolds, LLC
18 bank St. Suite 1
Summit, NJ 07901
(908) 273-5401

2. HAZARDS IDENTIFICATION

Health Hazards

Acute Toxicity, Oral – Category 4
Acute Toxicity, Inhalation – Category 4
Irritant, Eye – Category 2B
Copper Fume: Irritant, Respiratory – Category 3

ENVIRONMENTAL HAZARDS

Acute Aquatic Toxicity – Category 1

PHYSICAL HAZARDS

None Known

Hazard Statements:

H302 – Harmful if swallowed.
H335 – May cause respiratory irritation.
H320 – Causes eye irritation.
H412 – Harmful to aquatic life with long lasting effects.

Pictogram:



Signal Word: Warning

Precautionary Statements:

P264 – Wash hands thoroughly after handling.
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
P270 – Do not eat, drink or smoke when using this product.
P273 – Avoid release to the environment.
P284 – Wear respiratory protection.
P301 + P330 – IF SWALLOWED: Rinse mouth with water.
P304 + P340 – IF INHALED: Remove victim to fresh air and
Keep at rest in a position comfortable for breathing.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS #</u>	<u>Range % by Wt.</u>	<u>EINECS #</u>
Copper	7440-50-8	99.4-100	231-159-6
Lithium Stearate	4485-12-5	0-0.6	224-772-5

4. FIRST AID MEASURES

EYES:

Flush eyes with plenty of water, lifting the upper and lower eyelids occasionally. Get medical attention if irritation develops.

SKIN:

Wash the skin using soap or a mild detergent and warm water.

INHALATION:

Move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get immediate medical attention. Fume from metallizing, welding or similar processes can cause respiratory irritation and/or metal fume fever (respiratory irritation, chills, nausea).

INGESTION:

If person is conscious, rinse mouth and give large quantities of water to drink. Get medical attention.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

Graphite, dolomite or sodium chloride. Do NOT use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Copper powder with particles sizes 50µ size range are classified as weakly explosive by the U.S. Bureau of Mines Report RI-6516. When present as a dust cloud, will NOT explode readily in air. Not easily ignited by sparks.

FIRE FIGHTING EQUIPMENT:

Wear full bunker gear including a positive pressure self-contained breathing apparatus.

PRECAUTIONS:

Keep away from ignition sources (e.g. heat and open flames). None required. Keep container closed.

HAZARDOUS DECOMPOSITION:

Upon heating in the presence of air, material decomposes to sulphur dioxide, cuprous oxide, and copper sulphate.

6. ACCIDENTAL RELEASE MEASURES

1. Restrict the area to those persons wearing respiratory protection. Do not allow unprotected people into the area until cleanup has been completed.
2. Ventilate the area thoroughly.
3. Collect the powder in a manner that minimizes further dust generation.
4. Keep out of sewers and waterways.
5. Recycle or dispose of as a waste (see Section 13).

7. HANDLING AND STORAGE

Avoid dust generation. Wash thoroughly after handling. Eating, drinking, and smoking are prohibited in work areas. Store powder in a dry area, -18° to 38°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation Requirements:

Keep dust and fume levels below occupational exposure limits. Local exhaust ventilation may be necessary for some operations.

Personal Protective Equipment:

EYES:

Wear dust-proof safety goggles. Contact lenses are not recommended.

SKIN:

None required; however, use of protective gloves and clothing is good industrial practice. The use of impervious gloves or barrier cream to protect the skin is recommended.

INHALATION:

Do not breathe dust or fume. Use with adequate ventilation. Use NIOSH/MSHA approved respirator.

OCCUPATIONAL EXPOSURE LIMITS:

Copper Dust and Mists

ACGIH TLV 1.0 mg/m³

NIOSH IDLH 100 mg/m³

OSHA PEL 1.0 mg/m³

IDLH = Immediately dangerous to life and health.

Copper is on the Sara Title III, Section 313 Toxic Chemicals List.

Copper Fume

ACGIH TLV 0.2 mg/m³

NIOSH IDLH 100 mg/m³

OSHA PEL 0.1 mg/m³

IDLH = Immediately dangerous to life and health.

Copper is on the Sara Title III, Section 313 Toxic Chemicals List.

9. CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR	Red to reddish-brown; odorless
FLASH POINT	Above 700°C
FLAMMABILITY	Non-flammable
AUTOIGNITION TEMPERATURE	Not determined
pH	Not applicable
VAPOR PRESSURE	1mm Hg @ 1628°C
VAPOR DENSITY	Not determined
MELTING POINT	1083°C
BOILING POINT	2580°C @ 760 mm Hg
SOLUBILITY IN WATER	Not soluble
SOLUBILITY IN FAT	Not determined
OCTANOL/WATER PARTITION COEFFICIENT	Not determined
RELATIVE DENSITY (Water=1)	8.2
VISCOSITY	Not applicable

10. STABILITY AND REACTIVITY

STABILITY:

Stable to ignition temperature of 700°C.

INCOMPATIBLE MATERIALS:

Copper is explosively incompatible with sodium azide. Copper dusts may react with acetylene gas to form copper acetylides, which are sensitive to shock. Copper mists may react with magnesium to form flammable hydrogen gas.

HAZARDOUS DECOMPOSITION:

None identified.

HAZARDOUS POLYMERIZATION:

Will not occur.

11. TOXICOLOGICAL INFORMATION

Copper is an essential element of mammalian metabolism. Copper metal has little or no serious toxicity. The most common adverse effect associated with copper is the acute inhalation of copper fume during refining or welding. Inhalation of copper fume or dust may result in metal fume fever, which is characterized by upper respiratory irritation, chills, metallic or sweet taste, nausea, and aching muscles. Attacks usually begin after 4-8 hours of exposure and last only 24-48 hours. Inhalation of fumes has been reported to sometimes cause discoloration of the skin and hair. Nausea and vomiting may result if larger amounts of copper metal are ingested. This is probably due to the conversion of the swallowed metal copper to its irritating salts. It is unlikely that poisoning by ingestion in industry would progress to a serious point because small amounts induce vomiting, emptying the stomach of copper salts. High airborne concentrations of copper metal would be expected to cause mechanical irritation of the eyes and respiratory tract. Metallic copper may cause keratinization of the hands and soles of the feet, but it is not commonly associated with industrial dermatitis.

No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program, the U.S. Occupational Safety and Health Act, or the International Agency for Research on Cancer (IARC).

12. ECOLOGICAL INFORMATION

No data on the ecological effects of this product have been developed.

13. DISPOSAL CONSIDERATIONS

Disposal must be in accordance with applicable local, state and federal regulations (contact local, state, or federal environmental agency for specific rules). Do not dump into sewers, on the ground, or into any body of water.

14. TRANSPORTATION INFORMATION

DOT: RQ, Environmentally Hazardous Substance, Solid NOS (contains Copper), 9, UN3077, III Marine Pollutant.

DOT EXCEPTION: Under 49 CFR 171.4, except when transporting aboard a vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packaging transported by motor vehicles, rail cars, and aircraft.

ADR/RID: UN3077, Environmentally Hazardous Substances, Solid, NOS (contains Copper), 9, III Marine Pollutant.

IMO/IMDG: UN3077, Environmentally Hazardous Substances, Solid, NOS (contains Copper), 9, III Marine Pollutant.

ICAO/IATA: Not regulated if shipped in non-bulk packaging.

REPORTABLE QUANTITY: Copper 5,000 lbs.

15. HAZARDOUS MATERIAL IDENTIFICATION SYSTEM/REGULATORY INFORMATION

Health Hazard: 1 – Slight: Slightly Toxic – May cause slight irritation.

Flammability Hazard: 0 – Minimal: Will not burn under normal conditions.

Reactivity Hazard: 0 – Minimal: Normally stable, does not react with water.

Maximum Personal Protection: E – Safety Glasses, Gloves & Dust Respirator.

All chemical constituents of these products are listed on the TSCA inventory of chemical substances maintained by the U.S. Environmental Protection Agency (EPA).

16. OTHER INFORMATION

Revision: A

May 14, 2015

Format has been updated to meet the new OSHA Hazard Communication Standard.

The information in this SDS relates to this specific product group. It may not be valid for this product if used in combination with any other materials or in any process. It is the user's responsibility to satisfy himself as to the suitability and completeness of this information for his own particular use.

Bituminous materials

1. Identification of the substance/mixture and of the company/undertaking

Product identification

Bituminous road materials comprise of coated macadam, asphalts and other proprietary products manufactured to BS EN 13108.

Identified uses of the substance or mixture

Public and private road surfacing and resurfacing.

Company Identification

Aggregate Industries UK Limited,
Bardon Hall,
Copt Oak Road,
Markfield,
Leicestershire LE67 9PJ
UNITED KINGDOM

Emergency contact details

Telephone: +44 (0) 1530 510006
(Mon. to Fri. 8 am to 5 pm) ask for H&S Team
e-mail: health.safety.team@aggregate.com

2. Hazards identification

Classification of the substance or mixture

Not classified as hazardous according to Regulation (EC) No.1272/2008.

The product will be supplied as a hot semi-solid, which can give rise to the following hazards:

- Can cause burns to any exposed skin
- Can set alight any combustible materials

- In confined areas, concentrations of asphalt fumes and vapours may build up. This can in high concentrations cause acute and chronic health effects
- Any asphalt fume may contain small trace amounts of hydrogen sulphide from the bitumen binder.

This product may contain low levels of respirable crystalline silica within the aggregates present in the material but the bituminous binder will prevent these from being an inhalation hazard. If the product is drilled, cut, sawn, crushed or accidentally broken up this may release dust which may contain respirable crystalline silica. Prolonged inhalation of respirable dust can constitute a long term health hazard such as lung fibrosis and in excessive amounts may cause silicosis.

Labelling

The product does not need to be labelled in accordance with EC directives or respective national laws.

3. Composition/information on ingredients

Mixtures

Bituminous road material is a mixture of natural aggregates, sand, filler and a bitumen binder. Additives. Aggregate (natural and recycled), sand and filler are inert minerals. Bitumen is a high molecular hydrocarbon derived from crude oil distillation, which bonds the other ingredients into a homogenous stable material. Other materials such as cellulose fibres, latex and other additives may be added.

Bitumen binder and respirable crystalline silica has the following hazard information:

	Bitumen binder	Respirable crystalline silica (quartz)
CAS No	8052-42-4	14808-60-7
EC No	232-490-9	238-878-4
Index No	[-]	[-]
Classification	Not Classified	STOT RE 2; H373i
Concentration	<10%	Variable dependent on source

4. First aid measures

Description of first aid measures

Inhalation

Remove to fresh air and allow person to rest. If recovery is not rapid obtain prompt medical attention.

Skin contact

Remove any contaminated clothing. Wash with soap/cleanser and rinse with plenty of water. If irritation persists, obtain prompt medical attention.

Eye contact

Do not rub eyes, as the material is abrasive and may scratch the surface of the eye. Immediately and thoroughly irrigate with water. Seek medical attention if irritation persists.

Bituminous materials

Ingestion

Ingestion of Bituminous material is unlikely. Hot material will burn mouth and throat. If ingestion occurs, rinse out mouth and give water to drink. Seek medical advice immediately.

5. Firefighting measures

Suitable/unsuitable extinguishing media

Use media such as alcohol/aqueous foam, dry chemical, or carbon dioxide or water fog. Do not use direct water jets.

Special hazards arising in a fire

May produce toxic fumes, combustion products and dense smoke if involved in a fire.

Special advice for fire fighters

Do not breathe decomposition products and fumes. Use approved self-contained breathing apparatus. Wear fire retardant clothing. Use water spray to cool containers. Prevent runoff from fire control from entering waterways. Large fires should only be dealt with by trained personnel.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid breathing dusts and excessive physical contamination.

Environmental precautions

Entry into watercourses should be avoided so far as is possible.

Methods and materials for containment and cleaning up

Spray with water to prevent the generation of dust. Do not dry sweep residues. Contain so as to avoid the generation of dust (i.e. cover or enclose).

7. Handling and storage

Precautions for safe handling

- Skin contact with the product should be avoided
- Inhalation of fumes should be avoided as far as is reasonably practicable. Use of material in open areas is preferred
- If the formation of vapours is a risk, such as working in enclosed areas, then additional ventilation should be provided
- Handle away from sources of ignition and heat
- Do not smoke, eat or drink during use
- Ensure hardened material is handled so as to prevent the generation of dust.

Safe storage

- No special requirements.

8. Exposure controls/personal protection

Control parameters

Components with workplace exposure limits (WELs)

Component	WEL
Asphalt fume	5mg/m ³ (8Hr TWA)
Asphalt fume	4mg/m ³ (15 Min STEL)
Respirable crystalline silica	0.1mg/m ³ (8Hr TWA)

It is recommended that occupational monitoring be completed to determine exposure.

Exposure controls

Appropriate engineering controls

Use in well ventilated areas. Use mechanical ventilation in poorly ventilated areas.

Eye/face protection

Eye Protection in the form of safety glasses and/or goggles is required.

Hand protection

Handle with gloves. Recommend use of impervious heavy duty gloves. Gloves should be removed and hands thoroughly washed before handling or eating any food or drink.

Skin protection

Overalls/impervious clothing, selected according to the workplace conditions.

Respiratory protection

Suitable dust masks should be worn in enclosed spaces where adequate ventilation is not provided. The Chemical Agents Directive shows a requirement for respirators as a means of control should use a particulate filter type P3 or equivalent and an inorganic vapour type B or equivalent.

9. Physical and chemical properties

Physical and chemical properties will vary dependent source, but generic properties are as follows:

Appearance	Black coated granular solid
Odour	Strong characteristic bitumen odour
pH	Not applicable
Boiling point/range	Not determined
Melting point/range	90-100°C
Flash point	>200°C
Flammability	Not determined
Auto Flammability	>230°C
Explosive properties	Not applicable
Oxidizing properties	Not determined
Vapour pressure	Not applicable
Relative density	Above 2.00
Water solubility	Insoluble
Fat solubility	Not determined

Bituminous materials

10. Stability and reactivity

Reactivity and chemical stability

Stable at normal temperatures and under recommended storage conditions.

Conditions to avoid

Temperatures in excess of 230°C can lead to thermal decomposition of the bitumen binder.

Incompatible materials

Strong mineral acids and oxidizing agents.

Hazardous decomposition products

Thermal decomposition of the bitumen binder in asphalt may release the following: hydrogen sulphide, carbon dioxide, carbon monoxide, water, particulate matter, sulphur oxides, polycyclic aromatic hydrocarbons, unburnt hydrocarbons, nitrogen oxides and vanadium pentoxide.

11. Toxicological information

Information on toxicological effects

Acute toxicity

None.

Eye damage

Long term contact with eyes can cause eye irritation and damage.

Skin corrosion/irritation

Long term contact with skin may cause mechanical skin irritation and possible dermatitis.

Respiratory sensitisation

Chronic exposure by inhalation may cause cough, breathlessness and respiratory irritation. Long term exposure to asphalt fume can lead to respiratory damage and lung fibrosis.

Specific target organ toxicity - repeated exposure

Prolonged exposure of respirable crystalline silica fraction by inhalation may lead to silicosis in lungs.

Carcinogenicity

IARC classified respirable crystalline silica as a Group 1 carcinogen, therefore long term exposure may cause cancer.

Ingestion

Not likely to cause long term problems.

12. Ecological information

Environmental assessment

When used and disposed of as intended, no adverse environmental effects are foreseen. However the bituminous binder may pose a low environmental hazard. However, material should be refrained from entering watercourses or drains as it can cause blockages.

Mobility

Hardened bituminous materials are immobile.

Persistence and degradability

Hardened bituminous materials are resistant to degradation and will persist in the environment.

Ecotoxicity

Not expected to be toxic to aquatic organisms.

Bioaccumulative potential

Not applicable.

Results of PBT and vPvB assessment

Will not meet PBT or vPvB criteria.

13. Disposal considerations

Waste treatment methods

Product

Hardened Bituminous Materials are classified as an inert waste and can be disposed of as normal industrial waste in accordance with waste regulations.

It is recommended that it be disposed of via recycling or reuse.

Contaminated packaging

Not applicable.

14. Transport information

Special carriage information

None. This product is **NOT** classified as dangerous for transport.

15. Regulatory information

Classification: **Not classified as dangerous.**

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

Health & Safety at Work etc. Act 1974.
Control of Substances Hazardous to Health Regulations 2002 (as amended).
Classification, Labelling and Packaging of Substances and Mixtures Regulations 2008 (as amended).
EH40/2005 Workplace Exposure Limits (as amended).
HSE Crystalline Silica EH59.

Bituminous materials

16. Other information

Training and advice

Wear and use appropriate PPE.

Recommended restrictions on use

Use in accordance with manufacturer's technical instructions.

Further information

Contact the Aggregate Industries Health & Safety Team.

Key data used to compile data sheet

Classification, Labelling and Packaging of Substances and Mixtures Regulations 2008 (as amended).

EH40/2005 Workplace Exposure Limits (as amended).

HSE Crystalline Silica EH59.

Legal notice: The information in this Safety Data Sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. This information herein represents the best information currently available at the Revision Date. However, no warranty is expressed or implied with respect to such information and its use. Users should make their own investigations to determine the suitability of the information for their particular purposes and against all applicable legislation.

PA-100 ASPHALT



Commercial Product Data Sheet

Product Description

PA-100 Asphalt is a specially processed, inter-ply mopping asphalt designed for use with guaranteed Siplast Roof Systems. PA-100 is made of high quality asphalts that are oxidized to meet the adhesive requirements for SBS-modified bitumen roof applications.

Product Uses

PA-100 Asphalt is specifically designed for use with Siplast Paradiene 20/30, Paradiene 40 FR, Parafor 50, and Veral Roof Systems subject to Siplast specifications and roof incline requirements. Contact Siplast for specific approval on other product uses.

Product Approvals

PA-100 Asphalt is formulated to meet or exceed the requirements of ASTM D 312 Type IV for mopping asphalts used in roofing. PA-100 Asphalt is processed according to the following physical properties.

	Min.	Max.
Flash Point (FP):	575°F (302°C)	
Maximum Heating Temp:		525°F (274°C)
125 cp Equiviscous Temp:	400°F (204°C)	450°F (232°C)
Min. Application Temp:	400°F (204°C)	
Softening Point:	210°F (99°C)	225°F (107°C)
Penetration mm/10:		
@ 32°F (0°C)	6	
@ 77°F (25°C)	12	25
@ 115 F (46°C)		75
Ductility	1.5	
@ 77° F (25°C) cm		
Solubility in:	99	
Trichloroethylene (%)		

Product Application

All mopping layers of PA-100 must be total in coverage without breaks or voids. Care should be taken not to exceed Siplast recommended mopping weight of 25 pounds per ply per square (1.22 kg/m²).

Under cold weather conditions [40°F (4°C) and below including wind chill] special precautions must be taken to ensure that PA-100 Asphalt maintains minimum acceptable temperature at the point of contact with the roofing sheet. PA-100 must not be overheated to compensate for cold conditions. Use of insulated handling equipment is strongly recommended. During application, the PA-100 Asphalt should never be applied more than 5 feet (1.5 meters) ahead of the roll, which should be unrolled continuously at a steady pace. Pressure should be kept on the roll at all times to ensure proper embedment. Air pockets beneath the system or between plies are unacceptable. Any such pockets should be "broomed in" immediately while the PA-100 is hot enough to facilitate a proper bond.

COMMERCIAL PRODUCT INFORMATION

Coverage: Max: 25 lb/sq (1.22 kg/m²)

Unit: Kraft paper carton with metal bottom.

Packaging: The cartons are stacked two high on pallets. The palletized material is protected by a heat shrink, white polyethylene shroud.

Pallet: 40 in X 40 in (102 cm X 102 cm) wooden pallet

Number Cartons Per Pallet: 18

Number Pallets Per Truckload: 25

Weight Per Carton: 100 lb (45.4 kg)

Shipping Classification: DOT Class 55

Storage and Handling: All cartons of PA-100 Asphalt should be stored upright on a clean, flat surface. All cartons should be stored in a dry place, out of direct exposure to the elements, and should be kept away from excessive heat, fire or open flames. All materials should be handled in such a manner as to ensure that they remain dry prior to and during installation.

Current copies of all Siplast Commercial Product Data Sheets are posted on the Siplast Web site at www.Siplast.com.

Rev 9/08

PA-1125 PRIMER



Commercial Product Data Sheet

Product Description

PA-1125 Primer is an asphalt solvent blend designed as a primary coating for metal and masonry surfaces prior to application of Siplast Roofing and Flashing Systems.

Product Uses

PA-1125 Primer is applied to all metal flanges and concrete and masonry surfaces; the primer should be allowed to dry thoroughly prior to application of Siplast Roofing and Flashing Systems. PA-1125 Primer can be applied by brush or spray. Diluting PA-1125 using petroleum solvents will affect its bonding and drying characteristics.

Product Approvals

PA-1125 meets or exceeds the requirements for Federal Specification SSA-701B and ASTM D 41 for asphalt primer used in roofing.

COMMERCIAL PRODUCT INFORMATION

Unit: 5-Gallon Pail
4.7 gallons (17.8 liters) net content

Coverage: Coverage is dependent on the condition of the surface receiving the primer. The coverage ranges from 100 square feet per gallon (0.4 liter per 1/m²) on very rough, porous surfaces to 400 square feet per gallon (1.6 1/m²) on smooth, low-absorptive surfaces.

Flash Point, Pensky-Martens Closed Cup: 100°F (38°C)

Packaging: The pails are stacked three high on pallets and stretch wrapped.

Pallet: 36 in X 48 in (91 cm X 122 cm) wooden pallet
Number Pails Per Pallet: 36
Number Pallets Per Truckload: 22
Weight Per Pail: 37 lb (16.8 kg)

Shipping Classifications: White Label (combustible)

Storage and Handling: All containers of PA-1125 Primer should be stored upright on a clean, flat surface. Care should be taken that containers are not dropped and container seals are not broken prior to use. All containers should be stored in a dry place, out of direct exposure to the elements, and should be kept away from excessive heat, fire or open flames.

Current copies of all Siplast Commercial Product Data Sheets are posted on the Siplast Web site at www.Siplast.com.

Rev 9/08

Commercial Product Data Sheet

Product Description

Paraslope is a waterless asphalt encapsulated compressible aggregate designed to address drainage problems in isolated areas. The unique composition of Paraslope allows the product to be layered between membranes without compromising the integrity of the waterproofing system. This allows correction of ponding areas without removing the existing membrane. Paraslope is ready to roof immediately upon compaction and is compatible with asphalt-based roofing systems and substrates.

Product Uses

Paraslope may be used to facilitate water drainage in new or existing roof systems. It is particularly well suited for remediation of ponding areas where the membrane has already been installed. Paraslope can be easily screeded into depressions (deflection, irregularities, etc.) to correct slope-to-drain. It can also be used to create small water diversions (crickets, saddles, etc.).

Paraslope is intended for use between plies of bituminous or modified bituminous roof membranes. It is not intended for use under membranes or in conjunction with plastic or rubber-based products.

COMMERCIAL PRODUCT INFORMATION

Product Characteristics

Bulk Density: Min. 8 lb/ft³ (128 kg/m³)

Compressed Density after 33% Compaction:
Min. 12 lb/ft³ (192 kg/m³)

Compressive Strength after 33% Compaction:
Min. 12 psi (0.8 kg/cm²)

Packaging

Unit: 3 cubic foot (0.08 m³) plastic bag

Container Weight: Min. 24 lb (10.9 kg)

Container Yield After 33% Compaction: Min. 24 board feet

Storage and Handling: Paraslope should be stored in a dry place, out of direct exposure to elements. To avoid premature compaction of material, do not double-stack pallets. Premature compaction will make proper installation difficult. Material that comes into contact with moisture should not be used.

Application Instructions

Temperature Limitations: For best results, the product should be maintained at a minimum 65°F (18°C) temperature prior to use. Paraslope should not be applied in ambient temperatures below 40°F (4°C).

1. **The substrate must be completely dry and clean prior to application of Paraslope. Application of Paraslope over wet substrates will result in blistering.** Mark targeted areas clearly around ponding with a lumber crayon. If the ponded area has already dried, the residual watermark can be used as a guide for marking.
2. Apply a solvent-based asphalt adhesive (such as Siplast PA-311 or PA-311 M) to the substrate at a rate sufficient to achieve the recommended minimum thickness of 24 mils (0.6 mm). To ensure proper adhesion, any surface that Paraslope comes into contact with must be coated with adhesive.
3. Pour loose Paraslope onto the targeted, coated area.
4. Distribute the loose Paraslope material evenly. Excess Paraslope should be swept up to avoid tracking onto the surrounding area.
5. Scream loose Paraslope to the desired slope or elevation. To ensure that Paraslope can be properly compacted, loose material should not be deeper than 2 inches (5.0 cm). Properly compacted Paraslope will be approximately 33% thinner than its original screeded depth.
6. Lay a thin surface cover (1/4-inch (0.6 cm) Dens-Deck, 1/4-inch (0.6 cm) plywood, paneling, masonite, etc.) over the loose material to ensure that the surface remains uniform during compaction. The use of surface covers thicker than 1/4-inch (0.6 cm) may result in inadequate compaction.
7. After the surface cover is in place, compact Paraslope by moving a water-filled roller (200 lb – 400 lb) (90 kg - 180 kg) across the surface cover. A steel tamp can be used to compact Paraslope in areas where use of a roller is impractical.
8. If indentions due to foot traffic are deeper than 1/8-inch (0.3 cm), further compaction is necessary. Remove the surface cover and place plastic sheeting over the entire area to prevent Paraslope from sticking to the water-filled roller during final compaction.
9. Move the water-filled roller across the plastic sheeting until the desired compaction is obtained.

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PARASLOPE

10. If more than the recommended 2 inches (5.0 cm) of loose material is required to fill the area before compaction, Paraslope must be applied in multiple layers. In such cases, use a hand-held sprayer to apply a solvent-based asphalt primer (such as Siplast PA-1125) over the surface of the previously compacted layer. Then, introduce additional loose material and repeat the compaction process. **The final compacted thickness of a finished Paraslope application should not exceed 4 inches (10.1 cm).**
11. The preferred method of attaching membrane to compacted Paraslope is with a solvent-based asphalt adhesive (such as Siplast PA-311 or PA-311 M). Pre-cut sheets and apply adhesive to the back of the sheets at a rate sufficient to achieve the recommended minimum thickness of 40 mils (1.0 mm). After the back of the sheet is coated, it is set directly into position – a technique commonly referred to as “flying in” the sheet.
12. If the membrane is to be applied with hot asphalt or by torch, the product is rolled into place. In the case of hot asphalt application, a pouring can should be used to apply the asphalt to the Paraslope surface. When torching, it is important to direct the flame to the back of the membrane, not to the Paraslope surface.

Limitations

Substrate

The substrate must be completely dry before Paraslope is applied.

Thickness

The final compacted thickness of a finished Paraslope application should not exceed 4 inches (10.1 cm).

Traffic

Paraslope is not recommended for use in areas subject to heavy traffic.

Number of Bags to fill Ponding Areas

Average Pond Depth **inches (cm)**

Approximate Bags **Per Square (m²)**

0.25 (0.6)	1.1 (0.12)
0.50 (1.3)	2.1 (0.23)
0.75 (1.9)	3.2 (0.34)
1.00 (2.5)	4.2 (0.45)
1.25 (3.2)	5.3 (0.57)
1.50 (3.8)	6.3 (0.68)
1.75 (4.4)	7.4 (0.80)
2.00 (5.0)	8.4 (0.90)
2.25 (5.7)	9.5 (1.02)
2.50 (6.3)	10.5 (1.13)
2.75 (7.0)	11.6 (1.25)
3.00 (7.6)	12.6 (1.35)

Siplast SDS 2016

1. PS-304 elastometric sealant
2. Polyiso insulation
3. Roofing granules
4. Aluminum powder
5. Copper powder
6. Bitumen
7. Pa-100 asphalt primer
8. Pa-1125 asphalt primer
9. Paraslope
10. Propaste resin
11. Pro fleece rev 6
12. pa-100 mopping asphalt 5
13. Parapro membrane resin
14. Pc-227 coating
15. Pro primer r
16. Pro catalyst