

Material Name: TPO Clear Cut-Edge Sealant

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name: TPO Clear Cut-Edge Sealant Synonym: Industrial Sealant Chemical Family: Solvent Based Sealant Product Use: Sealant for TPO Single-Ply Roofing Membranes Restrictions on Use: For industrial use only.

Manufacturer Information

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

Section 2 - HAZARDS IDENTIFICATION

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

Reproductive Toxicity- Category 2 Skin Irritation - Category 2 Aspiration Hazard - Category 1 Specific Target Organ Toxicity - Single Exposure - Category 3 Specific Target Organ Toxicity - Repeated Exposure - Category 2 Flammable Liquids- Category 2

GHS Label Elements

Symbol(s)



Signal Word Danger

Hazard Statement(s)

H225: Highly flammable liquid and vapour.

- H304: May be fatal if swallowed and enters airways.
- H315: Causes skin irritation.
- H336: May cause drowsiness or dizziness.
- H361: Suspected of damaging fertility or the unborn child.
- H373: May cause damage to organs through prolonged or repeated exposure.



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Precautionary Statement(s)

Prevention

[201]: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P260: Do not breathe dust/fume/gas/mist/vapors/spray.

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

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

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment.

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

Response

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

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

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

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

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

P308+P313: IF exposed or concerned: Get medical advice/attention.

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

P314: Get medical advice/attention if you feel unwell.

P331: Do NOT induce vomiting.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P337+P313: If eye irritation persists: Get medical advice/attention.

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P362: Take off contaminated clothing and wash before reuse.

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

P391: Collect spillage.

Storage

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

P403 + P233Store in a well-ventilated place.Keep container tightly closed

P405 Store locked up

Disposal

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

EMERGENCY OVERVIEW

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



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POTENTIAL HEALTH EFFECTS

EYES: Can cause severe eye irritation and corneal damage.

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

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

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

INHALATION: May cause nose or throat irritation. High concentrations may lead to central nervous

system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness).

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

TARGET ORGAN STATEMENT: Central Nervous System (CNS)

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

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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

Section 4 - FIRST AID MEASURES

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

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

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

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

SIGNS AND SYMPTOMS OF OVEREXPOSURE

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

SKIN: Mild to moderate skin irritant.

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



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

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

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

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

Section 5 - FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Class IB GENERAL HAZARD: Flammable liquid and vapor.

Extinguishing Media

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

Explosion Hazards

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

Hazardous Combustion Products

Carbon Monoxide, Carbon Dioxide, Aldehydes

Fire Fighting Measures

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

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

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



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Section 6 - ACCIDENTAL RELEASE MEASURES

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

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

Section 7 - HANDLING AND STORAGE

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

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

Storage

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

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

Incompatible Materials

Strong oxidizing agents, acids, bases



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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

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

Engineering Controls

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

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

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

Skin Protection

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

Respiratory Protection

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

whenever workplace conditions warrant a respirator's use.

Glove Recommendations

Wear appropriate chemical resistant gloves such as nitrile rubber.

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



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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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

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

Section 10 - STABILITY AND REACTIVITY

Reactivity
No reactivity hazard is expected.
Chemical Stability
Stable under normal conditions of use.
Possibility of Hazardous Reactions
Hazardous polymerization will not occur.
Conditions to Avoid
Avoid fire, sparks, static electricity and hot surfaces.
Incompatible Materials
Strong oxidizing agents, strong acids and strong bases.
Hazardous decomposition products
Carbon monoxide and carbon dioxide may form when heated to decomposition.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause respiratory irritation.

Skin Contact

Causes skin irritation.



Material Name: TPO Clear Cut-Edge Sealant

Irritaion

Eyes, nose, throat, respiratory tract irritation.

Corrosivity

Not applicable

Sensitization: Not applicable

Neurotoxicity: Not applicable

Genetic Effects: Not applicable

Mutagenicity: Not applicable

Reproductive Effects:

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

Component Analysis - LD50/LC50

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

Toluene (108-88-3)

Oral LD50 Rat 2600 mg/kg - 7500 mg/kg Dermal LD50 Rabbit 12,124 mg/kg Inhalation LD50 Rat 8000 ppm (4hr dose)

Xylene (1330-20-7)

Oral LD50 Rat 4300 mg/kg Dermal LD50 Rabbit 2000 mg/kg Inhalation LD50 Rat 26800 ppm

Component Carcinogenicity

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

Section 12 - ECOLOGICAL INFORMATION

Environmental Data

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

Ecotoxicological Information:

Product #: 303436



Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

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

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

Bioaccumulation/Accumulation

Contains components with the potential to bio-accumulate.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

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

Section 14 - TRANSPORT INFORMATION

US DOT Information: Shipping Name: ADHESIVES Hazard Class: 3 UN/NA #: UN1133 Packing Group: II NAERG: 128 Marine Pollutant #1: None OTHER SHIPPING INFORMATION: contains (Toluene, Xylene) SPECIAL SHIPPING NOTES: If individual container size is less than 1.3 gallons, the proper shipping name is: ORM-D Consumer Commodity Non-Regulated

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

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

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

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



Material Name: TPO Clear Cut-Edge Sealant

Product #: 303436

EPCRA SECTION 313 SUPPLIER NOTIFICATION

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

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

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

TSCA (TOXIC SUBSTANCE CONTROL ACT)

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

CLEAN AIR ACT

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

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

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

STATES WITH SPECIAL REQUIREMENTS

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



Material Name: TPO Clear Cut-Edge Sealant

Canadian WHMIS Ingredient Disclosure List (IDL) CANADA WHMIS HAZARD SYMBOL AND CLASSIFICATION





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

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2 Fire: 3 Reactivity: 0 Personal Protection B Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

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

Summary of Changes

New SDS: April 17, 2015

Key / Legend

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

Other Information

Disclaimer:

Product #: 303436



Material Name: TPO Clear Cut-Edge Sealant

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.

Product #: 303436



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

Versico 1285 Ritner Highway Carlisle, PA 17013 USA Phone: +1-800-992-7663 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, Versico 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



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

Symbol(s)

None needed according to classification criteria

Signal Word 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



SecurShield[®] Polviso. SecurShield[®] Tapered Polviso. SecurShield[®] CD Polviso. Material Name: SecurShield[®] Tapered Polyiso Hinged Target Sump

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.

Eves

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.

Delaved

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.



SecurShield[®] Polviso. SecurShield[®] Tapered Polviso. SecurShield[®] CD Polviso. Material Name: SecurShield[®] Tapered Polyiso Hinged Target Sump

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.

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 eves. 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. |



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

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.

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.

| Appearance | light yellow foam | Physical State | solid |
|----------------------------|----------------------------|---------------------------|----------------|
| Odor | odorless to slight odor | Color | light yellow |
| Odor Threshold | Not available | рН | 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 |

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES



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

| 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.

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.



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

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 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.



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

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.

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



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

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

| 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



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

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

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



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name VersiWeld Bonding Adhesive **Synonyms** Contact Adhesive **Chemical Family** Adhesive **Product Use** Contact Adhesive for TPO Single-ply roofing. **Restrictions on Use** For industrial use only.

Manufacturer Information

Versico LLC 1285 Ritner Highway Carlisle, PA 17013 USA Phone: +1-800-992-7663

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

Section 2 - HAZARDS IDENTIFICATION

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

Flammable Liquids - Category 2 Aspiration Hazard - Category 1 Skin Corrosion/Irritation - Category 2 Serious Eye Damage/Eye Irritation - Category 2A Skin Sensitization - Category 1A Carcinogenicity - Category 2 Reproductive Toxicity - Category 1B Specific Target Organ Toxicity - Single Exposure - Category 1 (central nervous system, kidneys, liver, respiratory system) Specific Target Organ Toxicity - Single Exposure - Category 3 Specific Target Organ Toxicity - Repeated Exposure - Category 1 (central nervous system, respiratory system) Specific Target Organ Toxicity - Repeated Exposure - Category 2 (blood, liver) **GHS Label Elements**

Symbol(s)



Material Name: VersiWeld Bonding Adhesive

Signal Word Danger

Hazard Statement(s)

Highly flammable liquid and vapor May be fatal if swallowed and enters airways Causes skin irritation Causes serious eye irritation May cause allergic skin reaction Suspected of causing cancer May damage fertility or the unborn child Causes damage to organs May cause drowsiness or dizziness Causes damage to organs through prolonged or repeated exposure May cause damage to organs through prolonged or repeated exposure

Precautionary Statement(s)

Prevention

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

Response

In case of fire: Use appropriate media to extinguish If exposed: Call a POISON CENTER or doctor/physician IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor if you feel unwell IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Product #: 302323



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

If eye irritation persists: Get medical advice/attention IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower If skin irritation or rash occurs: Get medical advice/attention IF SWALLOWED: Immediately call a POISON CENTER/doctor Do NOT induce vomiting Specific treatment (see label)

Storage

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

Disposal

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

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| CAS | Component Name | Percent |
|--------------|---|---------|
| Mixture | Polychloroprene | 7-13 |
| Mixture | Styrene butadiene polymer | 0.5-1.5 |
| Mixture | Chlorinated polypropylene | 0.1-1 |
| Trade Secret | Polyphenol antioxidant | 0.1-1 |
| 1309-48-4 | Magnesium oxide | 0.1-1 |
| 1314-13-2 | Zinc oxide | 0.1-1 |
| Trade Secret | Heat reactive phenolic resin | 1-5 |
| 108-88-3 | Toluene | 15-40 |
| 64742-89-8 | Solvent naphtha, petroleum, light aliphatic | 10-30 |
| 67-64-1 | Acetone | 5-10 |
| 1330-20-7 | Xylene | 0.5-1.5 |
| 100-41-4 | 4 Ethylbenzene | |



Material Name: VersiWeld Bonding Adhesive

Section 4 - FIRST AID MEASURES

Product #: 302323

Description of Necessary Measures

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

Inhalation

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

Skin

Remove contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation or rash occurs, seek medical advice/attention.

Eyes

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

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause allergic skin reaction. Causes damage to central nervous system, kidneys, liver, and respiratory system. May cause drowsiness or dizziness.

Delayed

Suspected of causing cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure: central nervous system, respiratory system, blood, liver.

Note to Physicians

Contains: toluene, heptane.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Highly flammable liquid and vapor. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flashback.



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

Hazardous Combustion Products

Oxides of carbon, oxides of nitrogen

Advice for firefighters

Keep away from heat/sparks/open flame/hot surfaces - No smoking. Ground/bond container and receiving equipment. Take action to prevent static discharges.

Fire Fighting Measures

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

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

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

Environmental Precautions

Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Ground/bond container and receiving equipment. Use explosion-proof equipment. Take precautionary measures against static discharge. Use non-sparking tools. Use only outdoors or in a well-ventilated area. Vapors will travel. Prevent vapors from entering buildings through open windows or ventilation systems. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. KEEP OUT OF REACH OF CHILDREN.

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed Keep cool. Store locked up .Keep away from heat and ignition sources. Do not cut, puncture, or weld on or near this container. Empty containers may contain product residue.

Incompatible Materials



Material Name: VersiWeld Bonding Adhesive

Acids, bases, strong oxidizing agents

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

| Styrene butadiene polymer | Mixture | | | |
|------------------------------|--|---|--|--|
| NIOSH: | 10 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable dust | | | |
| OSHA (US): | 15 mg/m ³ TWA total dust; 5 mg/m ³ | TWA respirable fraction | | |
| Mexico: | 10 mg/m³ TWA LMPE-PPT20 mg/m³ STEL [LMPE-CT] | | | |
| | | | | |
| Magnesium oxide | 1309-48-4 | | | |
| ACGIH: | 10 mg/m ³ TWA inhalable fraction | | | |
| NIOSH: | 750 mg/m ³ IDLH fume | | | |
| OSHA (US): | 15 mg/m ³ TWA fume, total particulate | | | |
| Mexico: | 10 mg/m ³ TWA LMPE-PPT as Mg fume | | | |
| | | | | |
| Zinc oxide | 1314-13-2 | | | |
| ACGIH: | 2 mg/m ³ TWA respirable fraction | 10 mg/m ³ STEL respirable fraction | | |
| NIOSH: | 5 mg/m ³ TWA dust and fume | 10 mg/m ³ STEL fume | | |
| | 15 mg/m ³ Ceiling dust | 500 mg/m ³ IDLH | | |
| OSHA (US): | 5 mg/m ³ TWA fume; 15 mg/m3 TWA total dust; 5 mg/m ³ TWA respirable fraction | | | |
| Mexico: | 5 mg/m ³ TWA LMPE-PPT fume; 10 | mg/m ³ TWA LMPE-PPT dust | | |
| | 10 mg/m ³ STEL [LMPE-CT] fume | | | |
| | | | | |
| Toluene | 108-88-3 | | | |
| ACGIH: | H: 20 ppm TWA | | | |

Product #: 302323



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

| NIOSH: | 100 ppm TWA; 375 mg/m ³ TWA | 150 ppm STEL; 560 mg/m ³ STEL | | |
|--------------|---|---|--|--|
| | 500 ppm IDLH | | | |
| Europe: | 50 ppm TWA; 192 mg/m ³ TWA | 100 ppm STEL; 384 mg/m ³ STEL | | |
| | Possibility of significant uptake throu | igh the skin | | |
| OSHA (US): | 200 ppm TWA 300 ppm Ceiling | | | |
| Mexico: | 50 ppm TWA LMPE-PPT; 188 mg/m | ³ TWA LMPE-PPT | | |
| | Skin - potential for cutaneous absorpt | tion | | |
| | | | | |
| Acetone | 67-64-1 | | | |
| ACGIH: | 250 ppm TWA | 500 ppm STEL | | |
| NIOSH: | 250 ppm TWA; 590 mg/m ³ TWA | 2500 ppm IDLH (10% LEL) | | |
| Europe: | 500 ppm TWA; 1210 mg/m ³ TWA | | | |
| OSHA (US): | 1000 ppm TWA; 2400 mg/m ³ TWA | | | |
| Mexico: | o: 1000 ppm TWA LMPE-PPT; 2400 mg/m³ TWA LMPE-PPT 1260 ppm STEL [LMPE-CT]; 3000 mg/m³ STEL [LMPE-CT] | | | |
| | | | | |
| | | | | |
| Xylene | 1330-20-7 | | | |
| ACGIH: | 100 ppm TWA | 150 ppm STEL | | |
| Europe: | 50 ppm TWA (pure); 221 mg/m ³ TWA (pure) | 100 ppm STEL (pure); 442 mg/m ³ STEL (pure) | | |
| | Possibility of significant uptake throu | igh the skin | | |
| OSHA (US): | 100 ppm TWA; 435 mg/m ³ TWA | | | |
| Mexico: | Mexico:100 ppm TWA LMPE-PPT; 435 mg/m³ TWA LMPE-PPT150 ppm STEL [LMPE-CT]; 655 mg/m³ STEL [LMPE-CT] | | | |
| | | | | |
| | | | | |
| Ethylbenzene | 100-41-4 | | | |
| ACGIH: | 20 ppm TWA | | | |



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

| NIOSH: | 100 ppm TWA; 435 mg/m ³ TWA | 125 ppm STEL; 545 mg/m ³ STEL | |
|------------|--|--|--|
| | 800 ppm IDLH (10% LEL) | | |
| Europe: | 100 ppm TWA; 442 mg/m³ TWA200 ppm STEL; 884 mg/m³ STEL | | |
| | Possibility of significant uptake through the skin | | |
| OSHA (US): | 100 ppm TWA; 435 mg/m ³ TWA | | |
| Mexico: | 100 ppm TWA LMPE-PPT; 435 mg/m ³ TWA LMPE-PPT | | |
| | 125 ppm STEL [LMPE-CT]; 545 mg/m ³ STEL [LMPE-CT] | | |

Biological limit value

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

Engineering Controls

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

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear chemical safety goggles with a faceshield to protect against skin and eye contact when appropriate.

Skin Protection

Wear work clothes with long sleeves. Wear protective shoes.

Respiratory Protection

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

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | yellowish liquid | Physical State | liquid |
|------------------------|--------------------------|---------------------------|--------------------------|
| Odor | hydrocarbon | Color | yellowish |
| Odor Threshold | Not available | pH | Not available |
| Melting Point | -9547 °C (-139 53 °F) | Boiling Point | 56 - 137 °C (133-279 °F) |
| Freezing point | Not available | Evaporation Rate | 3.2 |
| Boiling Point Range | Not available | Flammability (solid, gas) | Not available |



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

| Autoignition | 230 °C (475 °F) | Flash Point | -20 °C (-4 °F) |
|--------------------------|------------------|--|----------------|
| Lower Explosive Limit | 1 % | Decomposition | Not available |
| Upper Explosive Limit | 12.8 % | Vapor Pressure | 54.1 mmHg |
| Vapor Density (air=1) | 3.2 | Specific Gravity (water=1) | Not available |
| Water Solubility | Negligible | Partition coefficient: n- octanol/water | Not available |
| Viscosity | 2500 cps | Solubility (Other) | Hydrocarbons |
| Density | 0.849 (relative) | VOC | 670 g/L |

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

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

Incompatible Materials Acids, bases, strong oxidizing agents

Hazardous decomposition products Oxides of carbon, oxides of nitrogen

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure



Material Name: VersiWeld Bonding Adhesive

Inhalation

May cause drowsiness or dizziness. May cause respiratory irritation.

Skin Contact

Causes skin irritation. May cause allergic skin reaction.

Eye Contact

Causes serious eye irritation.

Ingestion

May be fatal if swallowed and enters airways. May cause gastrointestinal irritation.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published: Polychloroprene (Mixture) Oral LD50 Rat 20000 mg/kg

Styrene butadiene polymer (Mixture) Oral LD50 Rat 6450 mg/kg

Chlorinated polypropylene (Mixture) Oral LD50 Rat 5000 mg/kg

Polyphenol antioxidant (Trade Secret) Oral LD50 Rat >5000 mg/kg Dermal LD50 Rabbit >5000 mg/kg Inhalation LC50 Rat >165 mg/L 1 h

Magnesium oxide (1309-48-4) Oral LD50 Rat >5000 mg/kg

Zinc oxide (1314-13-2) Oral LD50 Rat >15000 mg/kg Inhalation LC50 Rat >5.7 mg/L

Toluene (108-88-3) Oral LD50 Rat >7000 mg/kg Dermal LD50 Rabbit 12 - 14 g/kg Inhalation LC50 Rat 30 - 35 mg/L

Solvent naphtha, petroleum, light aliphatic (64742-89-8) Oral LD50 Rat >2000 mg/kg Dermal LD50 Rat >2000 mg/kg Inhalation LC50 Rat >5000 ppm 1 hr



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

Acetone (67-64-1)

Oral LD50 Rat 5800 mg/kg Dermal LD50 Guinea pig >7246 mg/kg Inhalation LC50 Rat 32000 ppm 4 h

Xylene (1330-20-7) Oral LD50 Rat 4300 mg/kg Dermal LD50 Rabbit >2000 mg/kg Inhalation LC50 Rat 29.08 mg/L 4 h

Ethylbenzene (100-41-4) Oral LD50 Rat 3500 mg/kg Dermal LD50 Rabbit 15400 mg/kg Inhalation LC50 Rat 4000 ppm 4 hr

Immediate Effects

May be fatal if swallowed and enters airways. Cause skin irritation. Causes serious eye irritation. May cause allergic skin reaction. Causes damage to central nervous system, kidneys, liver, and respiratory system. May cause drowsiness or dizziness.

Delayed Effects

Suspected of causing cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure: central nervous system, respiratory system, blood, liver.

Irritation/Corrosivity Data

Causes skin irritation. Causes serious eye irritation.

Respiratory Sensitization

No data available.

Dermal Sensitization

May cause allergic skin reaction.

Component Carcinogenicity

| Polychloroprene | Mixture |
|-----------------|---|
| IARC: | Supplement 7 [1987]; Monograph 19 [1979] (Group 3 (not classifiable)) |
| | |
| Magnesium oxide | 1309-48-4 |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| | |
| Toluene | 108-88-3 |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

| IARC: | Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable)) |
|--------------|---|
| | |
| Acetone | 67-64-1 |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| | |
| Xylene | 1330-20-7 |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| IARC: | Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable)) |
| | |
| Ethylbenzene | 100-41-4 |
| ACGIH: | A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans |
| IARC: | Monograph 77 [2000] (Group 2B (possibly carcinogenic to humans)) |
| DFG: | Category 4 (no significant contribution to human cancer) |
| OSHA: | Present |

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure central nervous system, liver, respiratory system, kidneys

Specific Target Organ Toxicity - Repeated Exposure central nervous system, liver, respiratory system, blood

Aspiration hazard May be fatal if swallowed and enters airways.

Medical Conditions Aggravated by Exposure May cause allergic skin reaction. Aspiration into the lungs may cause chemical pneumonitis.

Additional Data

No additional information available.

Section 12 - ECOLOGICAL INFORMATION



Material Name: VersiWeld Bonding Adhesive

Ecotoxicity

Avoid release to the environment.

Component Analysis - Aquatic Toxicity

| Polyphenol antioxidant | Trade Secret |
|--|--|
| Fish: | LC50 96 h Oncorhynchus mykiss >0.2 mg/L [semi-static] |
| Algae: | EC50 72 h Pseudokirchneriella subcapitata >0.2 mg/L IUCLID |
| Invertebrate: | EC50 48 h Daphnia magna >0.2 mg/L IUCLID |
| Toluene | 108-88-3 |
| Fish: | LC50 96 h Pimephales promelas 15.22 - 19.05 mg/L [flow-through] (1 day old); LC50 96 h Pimephales promelas 12.6 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static]; LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static]; LC50 96 h Oryzias latipes 54 mg/L [static]; LC50 96 h Poecilia reticulata 28.2 mg/L [semi-static]; LC50 96 h Poecilia reticulata 50.87 - 70.34 mg/L [static] |
| Algae: | EC50 96 h Pseudokirchneriella subcapitata >433 mg/L IUCLID; EC50 72 h Pseudokirchneriella subcapitata 12.5 mg/L [static] EPA |
| Invertebrate: | EC50 48 h Daphnia magna 5.46 - 9.83 mg/L [static] EPA; EC50 48 h Daphnia magna 11.5 mg/L IUCLID |
| Solvent naphtha, petroleum, light aliphatic | 64742-89-8 |
| Algae: | EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID |
| | |
| Acetone | 67-64-1 |
| Fish: | LC50 96 h Oncorhynchus mykiss 4.74 - 6.33 mL/L; LC50 96 h Pimephales promelas 6210 - 8120 mg/L [static]; LC50 96 h Lepomis macrochirus 8300 mg/L |
| Invertebrate: | EC50 48 h Daphnia magna 10294 - 17704 mg/L [static] EPA; EC50 48 h Daphnia magna 12600 - 12700 mg/L IUCLID |



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

| Xylene | 1330-20-7 |
|---------------|--|
| Fish: | LC50 96 h Pimephales promelas 13.4 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 2.661 - 4.093 mg/L [static]; LC50 96 h Oncorhynchus mykiss 13.5 - 17.3 mg/L; LC50 96 h Lepomis macrochirus 13.1 - 16.5 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 19 mg/L; LC50 96 h Lepomis macrochirus 7.711 - 9.591 mg/L [static]; LC50 96 h Pimephales promelas 23.53 - 29.97 mg/L [static]; LC50 96 h Cyprinus carpio 780 mg/L [semi-static]; LC50 96 h Cyprinus carpio >780 mg/L; LC50 96 h Poecilia reticulata 30.26 - 40.75 mg/L [static] |
| Invertebrate: | EC50 48 h water flea 3.82 mg/L; LC50 48 h Gammarus lacustris 0.6 mg/L |
| | |
| Ethylbenzene | 100-41-4 |
| Fish: | LC50 96 h Oncorhynchus mykiss 11 - 18 mg/L [static]; LC50 96 h Oncorhynchus mykiss 4.2 mg/L [semi-static]; LC50 96 h Pimephales promelas 7.55 - 11 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 32 mg/L [static]; LC50 96 h Pimephales promelas 9.1 - 15.6 mg/L [static]; LC50 96 h Poecilia reticulata 9.6 mg/L [static] |
| Algae: | EC50 72 h Pseudokirchneriella subcapitata 4.6 mg/L IUCLID; EC50 96 h Pseudokirchneriella subcapitata >438 mg/L IUCLID; EC50 72 h Pseudokirchneriella subcapitata 2.6 - 11.3 mg/L [static] EPA; EC50 96 h Pseudokirchneriella subcapitata 1.7 - 7.6 mg/L [static] EPA |
| Invertebrate: | EC50 48 h Daphnia magna 1.8 - 2.4 mg/L IUCLID |

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information available.



Material Name: VersiWeld Bonding Adhesive

Section 13 - DISPOSAL CONSIDERATIONS

Product #: 302323

Disposal Methods

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

Section 14 - TRANSPORT INFORMATION

US DOT Information: Shipping Name:Adhesives Hazard Class: 3 UN/NA #: UN1133 Packing Group: II Required Label(s): 3 Additional information: Special Provisions (172.102): 149, B52, IB2, T4, TP1, TP8

IATA Information: UN#: UN1133

IMDG Information: UN#: UN1133

TDG Information: UN#: UN1133

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

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

| Toluene | 108-88-3 |
|-----------------|---|
| SARA 313: | 1 % de minimis concentration |
| CERCLA: | 1000 lb final RQ; 454 kg final RQ |
| | |
| Acetone | 67-64-1 |
| Acetone CERCLA: | 67-64-1 5000 lb final RQ; 2270 kg final RQ |



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

| SARA 313: | 1 % de minimis concentration |
|--------------|-----------------------------------|
| CERCLA: | 100 lb final RQ; 45.4 kg final RQ |
| Ethylbenzene | 100-41-4 |
| SARA 313: | 0.1 % de minimis concentration |
| CERCLA: | 1000 lb final RQ; 454 kg final RQ |

SARA Section 311/312 (40 CFR 370 Subparts B and C) Acute Health: Yes Chronic Health: Yes Fire: Yes Pressure: No Reactivity: No

U.S. State Regulations

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

| Component | CAS | CA | MA | MN | NJ | PA |
|---------------------------|-----------|-----|-----|-----|-----|-----|
| Styrene butadiene polymer | Mixture | No | Yes | Yes | Yes | Yes |
| Magnesium oxide | 1309-48-4 | Yes | Yes | Yes | Yes | Yes |
| Zinc oxide | 1314-13-2 | Yes | Yes | Yes | Yes | Yes |
| Toluene | 108-88-3 | Yes | Yes | Yes | Yes | Yes |
| Acetone | 67-64-1 | Yes | Yes | Yes | Yes | Yes |
| Xylene | 1330-20-7 | Yes | Yes | Yes | Yes | Yes |
| Ethylbenzene | 100-41-4 | Yes | Yes | Yes | Yes | Yes |

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

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

| Toluene | 108-88-3 |
|----------------|----------------------------------|
| Repro/Dev. Tox | developmental toxicity, 1/1/1991 |
| Ethylbenzene | 100-41-4 |
| Carc: | carcinogen, 6/11/2004 |

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



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

| Magnesium oxide | 1309-48-4 |
|-----------------|-----------|
| | 1 % |
| Zinc oxide | 1314-13-2 |
| | 1 % |
| Toluene | 108-88-3 |
| | 1 % |
| Acetone | 67-64-1 |
| | 1 % |
| Ethylbenzene | 100-41-4 |
| | 0.1 % |

Component Analysis - Inventory

Polychloroprene (Mixture)

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

Styrene butadiene polymer (Mixture)

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

Chlorinated polypropylene (Mixture)

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

Polyphenol antioxidant (Trade Secret)

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



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

Magnesium oxide (1309-48-4)

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

Zinc oxide (1314-13-2)

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

Toluene (108-88-3)

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

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

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

Acetone (67-64-1)

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

Xylene (1330-20-7)

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

Ethylbenzene (100-41-4)

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



Product #: 302323

Yellow dye (2481-94-9)

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

Section 16 - OTHER INFORMATION

HMIS Rating

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

NFPA Ratings

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

Summary of Changes

Revision Date: June 1, 2018 Revision Note: General Update

Key / Legend

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



Material Name: VersiWeld Bonding Adhesive

Product #: 302323

Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

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



Material Name: VersiWeld TPO Membrane and Related Accessories

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

VersiWeld TPO Membrane (Standard, GS, EU, HS, EXTRA, FleeceBACK and SAT, etc.); Non-Reinforced Flashing, Rib Profiles and accessories constructed from membrane including Coverstrip, Corners, Pipe Seals, Sealant Pockets, Tubing Wraps, etc.

Synonyms

Membrane, Tapes, Overlayment Strips and Accessories

Product Use

Roof and Waterproofing Membrane

Restrictions on Use For industrial use only.

Manufacturer Information

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

Section 2 - HAZARDS IDENTIFICATION

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

The products listed above are considered "articles" 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 products do not pose a hazard in the workplace or to the building occupants. Since these products or "articles" pose 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.



Material Name: VersiWeld TPO Membrane and Related Accessories

GHS Label Elements

Symbol(s) None required

Signal Word None required

Hazard Statement(s) None required

Precautionary Statement(s)

Prevention None required

Response

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 |
|--------------|----------------------------------|---------|
| 9010-79-1 | Propylene ethylene copolymer | >50 |
| Trade Secret | Flame retardants (non-hazardous) | >15 |
| Trade Secret | Stabilizers | >5 |

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

None known.

Inhalation

Inhalation of vapor from this product during heat welding may cause respiratory tract irritation.

Skin

Exposure to hot surfaces during heat welding may cause thermal burns.

Eyes

Vapor from this product during heat welding may irritate eyes.



Material Name: VersiWeld TPO Membrane and Related Accessories Ingestion

Cannot be ingested under normal circumstances.

Indication of any immediate medical attention and special treatment needed Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute None known Delayed None known

Note to Physicians Nothing known to note.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use dry chemical, carbon dioxide, or water spray.

Unsuitable Extinguishing Media None reported.

Special Hazards Arising from the Chemical

Oil bleeds from material when burning.

Hazardous Combustion Products

Toxic gases or vapors, such as carbon monoxide and other organic compounds may be released in a fire.

Advice for firefighters

Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

Fire Fighting Measures

Standard procedures for Class A fires. Use self-contained breathing apparatus (SCBA) and protective clothing for structural fire fighting.

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 Sweep up and dispose in accordance with all applicable regulations.

Environmental Precautions



Material Name: VersiWeld TPO Membrane and Related Accessories

Provide adequate ventilation during heat welding.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

None known. Suggest wearing protective gloves. Wash thoroughly after handling. KEEP OUT OF REACH OF CHILDREN.

Conditions for Safe Storage, Including any Incompatibilities

This product may react with strong oxidizing agents and should not be stored near such materials. Best to store rolls in areas protected by automatic sprinklers. Store product below 60°C (140°F) to prevent roll sticking at installation

Incompatible Materials

Strong oxidizing agents

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

No known exposure limits

Biological limit value

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

Engineering Controls

Provide adequate ventilation. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Sunglasses which filter out ultraviolet light are strongly recommended since the white surface is highly reflective to sunlight.

Skin Protection

Work boots and work clothing recommended.

Respiratory Protection

A respiratory protection program that meets OSHA 1910.134, ANSI Z88.2 and / or CSA Z94.4-93 requirements must be followed whenever workplace conditions warrant use of a respirator.

Glove Recommendations

Wear protective gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | White-on-black sheet; (white may be replaced by tan, gray, etc.) | Physical State | solid |
|------------|--|----------------|-------|
|------------|--|----------------|-------|



Material Name: VersiWeld TPO Membrane and Related Accessories

| Odor | Slight waxy odor | Color | Black or white |
|----------------------------|--------------------------------|-------------------------------|----------------|
| Odor Threshold | Not available | рН | Not available |
| Melting Point | Not available | Boiling Point | Not available |
| Freezing point | >120 | Evaporation Rate | Not available |
| Boiling Point Range | Not available | Flammability (solid, gas) | Not available |
| Autoignition | >357 °C | Flash Point | >329 °C |
| Vapor Density (air=1) | Not available | Vapor Pressure | Not available |
| Water Solubility | Practically insoluble in water | Specific Gravity (water=1) | 0.95 - 1.05 |
| Viscosity | Not available | Solubility (Other) | Not available |

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Keep away from heat, sparks or open flame.

Incompatible Materials None known

Hazardous decomposition products

Gases or vapors such as carbon monoxide, carbon dioxide, or oxides of nitrogen, and other organic compounds may be released in a fire.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

Unlikely under normal conditions.



Material Name: VersiWeld TPO Membrane and Related Accessories

Skin Contact Unlikely under normal conditions.

Eye Contact Unlikely under normal conditions. **Ingestion** Unlikely under normal conditions.

Acute and Chronic Toxicity No data available.

Immediate Effects No immediate effects known.

Delayed Effects No delayed effects known.

Irritation/Corrosivity Data My cause skin irritation with repeated contact. No other effects known.

Respiratory Sensitization No data available.

Dermal Sensitization No data available.

Component Carcinogenicity No data available.

Germ Cell Mutagenicity No data available.

Reproductive Toxicity No data available.

Specific Target Organ Toxicity - Single Exposure No data available.

Specific Target Organ Toxicity - Repeated Exposure No data available.

Aspiration hazard No data available.

Medical Conditions Aggravated by Exposure No data available.

Additional Data No additional information available.



Material Name: VersiWeld TPO Membrane and Related Accessories

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity No data available.

Component Analysis - Aquatic Toxicity No data available.

Persistence and Degradability No information available for the product.

Bioaccumulative Potential No information available for the product.

Mobility No information available for the product.

Other Toxicity No additional information available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

(1) Recycle / reprocess; (2) Incineration including energy recovery of waste material in a permitted facility in accordance with local, state or federal regulations; (3) Landfilling in a licensed facility in accordance with local, state or federal regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information: UN/NA #: Not regulated

IATA Information: UN#: Not regulated

TDG Information: UN#: Not regulated



Material Name: VersiWeld TPO Membrane and Related Accessories

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan: None

SARA Section 311/312 (40 CFR 370 Subparts B and C) Acute Health: No Chronic Health: No Fire: No Pressure: No Reactivity: No

U.S. State Regulations

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

None known.

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

None known.

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:

None known.

Component Analysis - Inventory

Finished product is not hazardous. Component analysis not required.

Section 16 - OTHER INFORMATION

HMIS Rating

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

NFPA Ratings

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

Summary of Changes Revision Date: August 20, 2019 Revision Note: General Update



Material Name: VersiWeld TPO Membrane and Related Accessories Key / Legend

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

Other Information

Disclaimer:

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



Material Name: TPO Primer

Product #: 310471

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name TPO Primer Chemical Family Primer, mixture Restrictions on Use For industrial use only.

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

Section 2 - HAZARDS IDENTIFICATION

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

Flammable Liquids - Category 2 Skin Corrosion/Irritation - Category 2 Serious Eye Damage/Eye Irritation - Category 2A Skin Sensitization - Category 1A Carcinogenicity - Category 2 Specific Target Organ Toxicity - Single Exposure - Category 3

GHS Label Elements

Symbol(s)



Signal Word Danger

Hazard Statement(s) Highly flammable liquid and vapor Causes skin irritation



Material Name: TPO Primer

Product #: 310471

Causes serious eye irritation May cause allergic skin reaction Suspected of causing cancer May cause drowsiness or dizziness

Precautionary Statement(s)

Prevention

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Keep container tightly closed Keep away from heat/sparks/open flame/hot surfaces - No smoking Ground/Bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting equipment Take precautionary measures against static discharge Use only non-sparking tools Use only outdoors or in a well-ventilated area Wear protective gloves/protective clothing/eye protection/face protection Avoid breathing dust/fume/gas/mist/vapours/spray Wash thoroughly after handling Contaminated work clothing must not be allowed out of the workplace

Response

In case of fire: Use appropriate media to extinguish IF exposed or concerned: Get medical advice/attention IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER if you feel unwell IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower If skin irritation or rash occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse Specific treatment (see label)

Storage

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

Disposal

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

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS



Material Name: TPO Primer

Product #: 310471

| CAS | Component Name | Percent |
|--------------|---|---------|
| 64742-89-8 | Solvent naphtha, petroleum, light aliphatic | 10-30 |
| Trade Secret | Isophorone Diisocyanate | 0.1-1 |
| 108-88-3 | Toluene | 40-70 |
| Trade Secret | Chlorinated polypropylene | 0.5-1.5 |
| Trade Secret | Heat reactive phenolic resin | 0.1-1 |
| Trade Secret | Isophorondiamine-isobutyraldimine | 0.1-1 |

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

IF exposed or concerned: Get medical advice/attention.

Inhalation

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

Skin

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

Eyes

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

Ingestion

If swallowed, get medical attention.

Indication of any immediate medical attention and special treatment needed Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

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

Delayed

May cause allergic skin reaction. Suspected of causing cancer.



Material Name: TPO Primer

Section 5 - FIRE FIGHTING MEASURES

Product #: 310471

Extinguishing Media Suitable Extinguishing Media Dry chemical, foam or carbon dioxide. Water may be ineffective. Unsuitable Extinguishing Media Do not use high-pressure water streams.

Special Hazards Arising from the Chemical Highly flammable liquid and vapor.

Hazardous Combustion Products Carbon monoxide, carbon dioxide, oxides of nitrogen, aldehydes

Fire Fighting Measures

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

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Remove all sources of ignition. Avoid breathing vapors. Wear self-contained breathing apparatus and protective clothing. Ventilate the area. Use non-sparking tools. Large spills: Dike for later disposal. Cleanup Methods: Absorb with sand or other non-combustible material. Use clean non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal. Dispose in accordance with all applicable federal, state/regional and local laws and regulations.

Environmental Precautions

Avoid release to the environment. Collect spillage.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. KEEP OUT OF REACH OF CHILDREN.



Material Name: TPO Primer

Product #: 310471

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed Keep cool Store locked up Keep dry. Keep away from heat and ignition sources. Do not puncture or burn containers, even when empty. Empty containers may contain product residue.

Incompatible Materials

Strong oxidizing agents, acids, bases

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

| Toluene | 108-88-3 | | | | |
|------------|---------------------------------------|---|--|--|--|
| ACGIH: | 20 ppm TWA | | | | |
| NIOSH: | 100 ppm TWA; 375 mg/m3 TWA | 150 ppm STEL; 560 mg/m3 STEL | | | |
| | 500 ppm IDLH | | | | |
| Europe: | 50 ppm TWA; 192 mg/m3 TWA | 100 ppm STEL; 384 mg/m3 STEL | | | |
| | Possibility of significant uptake thr | ough the skin | | | |
| OSHA (US): | 200 ppm TWA | 300 ppm Ceiling | | | |
| Mexico: | 50 ppm TWA LMPE-PPT; 188 mg | 50 ppm TWA LMPE-PPT; 188 mg/m3 TWA LMPE-PPT | | | |
| | Skin - potential for cutaneous absor | rption | | | |

Biological limit value

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

Engineering Controls

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

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

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

Skin Protection

Wear appropriate chemical resistant clothing. Wear protective shoes.

Respiratory Protection

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



Material Name: TPO Primer

Glove Recommendations

Wear appropriate chemical resistant gloves.

| Appearance | orange to red liquid | Physical State | liquid |
|----------------------------|----------------------|--|------------------------------|
| Odor | characteristic | Color | orange to red |
| Odor Threshold | Not available | рН | Not available |
| Melting Point | -95 °C(-139°F) | Boiling Point | 111 - 141 °C(-232 -259°F) |
| Freezing point | Not available | Evaporation Rate | 2.7 |
| Boiling Point Range | Not available | Flammability (solid, gas) | Not available |
| Autoignition | 500 °C(932°F) | Flash Point | 4 °C(40°F) |
| Lower Explosive Limit | 0.9 | Decomposition | Not available |
| Upper Explosive Limit | 6.7 | Vapor Pressure | 19.3 mmHg |
| Vapor Density (air=1) | 3.4 | Specific Gravity (water=1) | Not available |
| Water Solubility | Insoluble | Partition coefficient: n- octanol/water | Not available |
| Viscosity | <200 cps | Solubility (Other) | Not available |
| Density | 0.75 - 0.81 | VOC | 645 g/L |

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Section 10 - STABILITY AND REACTIVITY

Reactivity No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Will not polymerize.

Product #: 310471



Material Name: TPO Primer

Conditions to Avoid

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

Incompatible Materials

Strong oxidizing agents, acids, bases

Hazardous decomposition products

Carbon monoxide, carbon dioxide, aldehydes

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause drowsiness or dizziness.

Skin Contact

May cause allergic skin reaction. Causes skin irritation.

Eve Contact

Causes serious eye irritation.

Ingestion

No information on significant adverse effects.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published: Solvent naphtha, petroleum, light aliphatic (64742-89-8) Oral LD50 Rat >2000 mg/kg Dermal LD50 Rat >2000 mg/kg Inhalation Rat >5000 ppm 1 hour

Isophorone Diisocyanate (Trade Secret) Oral LD50 Rat >20000 mg/kg Dermal LD50 Rabbit 4000 mg/kg Inhalation LC50 Rat 5 mg/l 4 h

Toluene (108-88-3) Oral LD50 >7000 mg/kg Dermal LD50 12 - 14 g/kg Inhalation LC50 30 - 35 mg/L

Chlorinated polypropylene (Trade Secret) Oral Rat 5000 mg/kg

Heat reactive phenolic resin (Trade Secret)

Product #: 310471



Material Name: TPO Primer

Product #: 310471

Oral LD50 Rat 2160 mg/kg Dermal Rabbit 1880 mg/kg

Isophorondiamine-isobutyraldimine (Trade Secret) Oral Rat 4150 mg/kg [OECD Test Guideline 401] Dermal Rat >5000 mg/kg [OECD Test Guideline 402]

Immediate Effects

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

Delayed Effects

May cause allergic skin reaction. Suspected of causing cancer.

Irritation/Corrosivity Data

Causes skin irritation. Causes serious eye irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

May cause allergic skin reaction.

Component Carcinogenicity

| Toluene | 108-88-3 |
|---------|---|
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| IARC: | Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable)) |

Germ Cell Mutagenicity

No information available for the product.

Tumorigenic Data

No data available

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure central nervous system

Specific Target Organ Toxicity - Repeated Exposure No target organs identified.

Aspiration hazard

No information available for the product.

Medical Conditions Aggravated by Exposure

No data available.



Material Name: TPO Primer

Section 12 - ECOLOGICAL INFORMATION

Product #: 310471

| Solvent naphtha, petroleum, light aliphatic | 64742-89-8 | | | | | |
|--|---|--|--|--|--|--|
| Algae: | EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID | | | | | |
| Isophorone Diisocyanate | Trade Secret | | | | | |
| Fish: | LC50 96 h Oncorhynchus mykiss 9.22 mg/L | | | | | |
| Invertebrate: | EC50 48 h Daphnia magna 6.14 mg/L IUCLID | | | | | |
| Toluene | 108-88-3 | | | | | |
| Fish: | LC50 96 h Pimephales promelas 15.22 - 19.05 mg/L [flow-through] (1 day old); LC50 96 h Pimephales promelas 12.6 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static]; LC50 96 h Oryzias latipes 54 mg/L [static]; LC50 96 h Poecilia reticulata 28.2 mg/L [semi-static]; LC50 96 h Poecilia reticulata 50.87 - 70.34 mg/L [static] | | | | | |
| Algae: | EC50 96 h Pseudokirchneriella subcapitata >433 mg/L IUCLID; EC50 72 h Pseudokirchneriella subcapitata 12.5 mg/L [static] EPA | | | | | |
| Invertebrate: | EC50 48 h Daphnia magna 5.46 - 9.83 mg/L [static] EPA; EC50 48 h Daphnia magna 11.5 mg/L IUCLID | | | | | |
| | | | | | | |
| Heat reactive phenolic resin | Trade Secret | | | | | |
| Fish: | LC50 96 h Pimephales promelas 0.25 mg/L [flow-through] | | | | | |
| Algae: | EC50 72 h Desmodesmus subspicatus 1.1 mg/L IUCLID; EC50 96 h Pseudokirchneriella subcapitata 1.9 mg/L IUCLID | | | | | |
| Invertebrate: | EC50 48 h Daphnia magna 0.07 - 0.12 mg/L [static] EPA | | | | | |



Material Name: TPO Primer

Product #: 310471

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

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

Section 14 - TRANSPORT INFORMATION

US DOT Information: Shipping Name: ADHESIVES Hazard Class: 3 UN/NA #: UN1133 Packing Group: II Required Label(s): 3

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

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

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

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

| Toluene | 108-88-3 |
|-----------|---|
| SARA 313: | 1 % de minimis concentration |
| CERCLA: | 1000 lb final RQ; 454 kg final RQ |
| TSCA 12b: | Section 4, 1% de minimus concentration (related to Hydrocarbons, C>4) |



Material Name: TPO Primer

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

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

U.S. State Regulations

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

| Component | CAS | CA | MA | MN | NJ | PA |
|-----------|----------|-----|-----|-----|-----|-----|
| Toluene | 108-88-3 | Yes | Yes | Yes | Yes | Yes |

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

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

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

Canadian WHMIS Ingredient Disclosure List (IDL)

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

| Toluene | 108-88-3 |
|---------|----------|
| | 1 % |

Component Analysis - Inventory

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

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

Isophorone Diisocyanate (Trade Secret)

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

Toluene (108-88-3)

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

Product #: 310471



Material Name: TPO Primer

Product #: 310471

Chlorinated polypropylene (Trade Secret)

| US | CA | EU | AU | РН | JP - ENCS | JP - ISHL | KR - KECI/KECL | KR - TCCA | CN | NZ | MX |
|----|-------|----|-----|-----|--------------|--------------|-------------------|--------------|-----|-----|----|
| Ye | s DSL | No | Yes | Yes | Yes | No | Yes | No | Yes | Yes | No |

Heat reactive phenolic resin (Trade Secret)

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

Isophorondiamine-isobutyraldimine (Trade Secret)

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

Section 16 - OTHER INFORMATION

HMIS Rating

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

NFPA Ratings

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

Summary of Changes

Revision Date: June 1, 2018 Revision Note: General Update

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD -Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA -Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency



Material Name: TPO Primer

Product #: 310471

for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts[™] - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH -Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

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



Material Name: Universal Single-Ply Sealant

Product #: 310131

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name: Universal Single-Ply Sealant Synonyms: Silyl Terminated Polyether Chemical Family: Mixture Product Use: Sealant Restrictions on Use: For industrial use only.

Manufacturer Information

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

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200. Hazardous classification: Irritant Category 2

GHS Label Elements

Symbol(s)



Signal Word: Warning

Hazard Statement(s)

H315 Causes skin irritation H317 May cause allergic skin reaction H318 Causes serious eye damage

Precautionary Statement(s)

P273 Avoid release into 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.



Material Name: Universal Single-Ply Sealant

Product #: 310131

P501 Dispose of contents/container in accordance with local regulation. **R-Phrases**R38 Irritating to skin.
R41 Risk 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.
Carcinogenity: This product contains no ingredient listed as a carcinogen on California Proposition 65 list.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| CAS | Component Name | Percent |
|-----------|----------------|---------|
| 1760-24-3 | Amino Silane | 1-3 |

Section 4 - FIRST AID MEASURES

Inhalation

An unlikely route of entry. Remove to fresh air. Consult a physician.

Skin

Clean product from affected area with Ethyl alcohol, then wash with soap and water.

Eyes

Flush with large amounts of water for at least 15 minutes. Consult a Physician if ill effects or irritation occurs.

Ingestion

An unlikely route of entry. Consult a physician.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Water, CO2, Dry Chemical, Foam.

Unusual Fire and Explosion Hazards: None



Material Name: Universal Single-Ply Sealant

Product #: 310131

Flashpoint: N/A.

Upper Falmmability Limit: N/A

Lower Flammability Limit: N/A

Auto Ignition Temperature: N/A

Sensitivity to Impact: N/A

Sensitivity to Static Discharge: N/A

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: Wear personal protective clothing and equipment, see 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 Requirments: Store in a cool dry area (this product polymerizes when in contact with moisture.)

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION



Material Name: Universal Single-Ply Sealant

Eye/face protection: Wear safety glasses or goggles to avoid eye contact.

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

Environmental Exposure Control: No specific controls are needed.

Hand Protection: Wear impervious gloves such as vinyl to minimize contact with skin.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | Paste, mild mint scent | Physical State | Water Solubility: Insoluble |
|--------------------------|-------------------------------|-------------------------------|--|
| Odor Threshold | N/A | рН | N/A |
| Melting Point | N/A | Flash Point | N/A |
| Freezing point | N/A | Flash Point Method | Based on FP of the most volatile component |
| Autoignition | N/A | Vapor Pressure | <1 |
| Lower Explosive Limit | N/A | Specific Gravity (water=1) | 0.97 |
| Upper Explosive Limit | N/A | % Volatile | 2.23% |
| Vapor Density (air=1) | >1 | VOC | 21.64 g/l |
| Density | 8.1 lbs./gal. (calculated) | | |

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Chemical Stability

Stable under normal conditions of use.

Conditions to Avoid

Product #: 310131



Material Name: Universal Single-Ply Sealant

Product #: 310131

None Known

Incompatible Materials None Known

Hazardous decomposition products

Thermal decomposition may produce toxic fumes of Carbon Monoxide (CO) and/or Carbon Dioxide (CO2).

Section 11 - TOXICOLOGICAL INFORMATION

Amino Silane (Refer to sections 2 and 3)

Oral: LD50 > 2,000 mg/kg. Remark: Very low order of toxicity. Skin Absorption: LD50 > 2,000 mg/kg. Remark: Very low order of toxicity. Inhalation: LC50 Not acutely Toxic.

Skin Direct Contact: Slight irritation

Eye Direct Contact: Severe irritation. Remark: Causes corneal injury.

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



Material Name: Universal Single-Ply Sealant Special shipping information: None

Product #: 310131

DOT: Not regulated

TDG: Not available

PIN: Not available

Section 15 - REGULATORY INFORMATION

Rotterdam Convention (PIC) Annex III: listed (Tributyl tin compounds (impurities) <2ppm)

U.S. 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.

California Proposition 65 Reproductive Toxins: This product does not contain any chemicals known by the State of California to cause reproductive harm.

Canadian WHMIS Classification- D2B

Section 16 - OTHER INFORMATION

HMIG Rating



Material Name: Universal Single-Ply Sealant

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

Summary of Changes

Revision Date: June 1, 2018 Revision Note: General Update

Key / Legend

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

Other Information

Disclaimer:

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

Product #: 310131



Material Name: Water Cut-Off Mastic

Product #: 302202

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name: Water Cut-Off Mastic Synonyms: Butyl Mastic Chemical Family: Mastic Product Use: Elastomeric sealer for Single-Ply Membranes Restrictions on Use: For industrial use only.

Manufacturer Information

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

Section 2 - HAZARDS IDENTIFICATION

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

Flammable Liquids - Category 2 Skin Corrosion/Irritation - Category 2 Specific Target Organ Toxicity - Single Exposure - Category 3

GHS Label Elements

Symbol(s)



Signal Word Danger

Hazard Statement(s) Highly flammable liquid and vapor Causes skin irritation May cause drowsiness or dizziness

Precautionary Statement(s)

Prevention

Keep container tightly closed Keep away from heat/sparks/open flame/hot surfaces - No smoking Ground/Bond container and receiving equipment



Material Name: Water Cut-Off Mastic

Product #: 302202

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

Response

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

Storage

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

Disposal

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

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

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Section 4 - FIRST AID MEASURES

Inhalation

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



Material Name: Water Cut-Off Mastic

Skin

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

Eyes

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

Ingestion

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

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

Causes skin irritation. May cause drowsiness or dizziness.

Delayed

No information on significant adverse effects.

Section 5 - FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

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

Hazardous Combustion Products

Oxides of carbon, aldehydes

Firefighting Measures

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

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

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



Material Name: Water Cut-Off Mastic

Environmental Precautions

Avoid release to the environment.

Product #: 302202

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

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

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed Keep cool Store locked up Keep away from heat and ignition sources. Keep away from incompatible materials. Do not cut, puncture, or weld on or near this container.

Incompatible Materials

Strong oxidizing agents, acids, bases

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

| Calcium carbonate | 1317-65-3 | | | | | |
|----------------------|--|-------------------------------------|--|--|--|--|
| NIOSH: | 10 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable dust | | | | | |
| OSHA (US): | 15 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirab | ble fraction | | | | |
| Mexico: | 10 mg/m ³ TWA LMPE-PPT | 20 mg/m ³ STEL [LMPE-CT] | | | | |
| Silica compound | Trade Secret | | | | | |
| OSHA (US): | 20 mppcf TWA; ((80)/(% SiO2) mg/m ³ TWA) | | | | | |
| Mexico: | 10 mg/m ³ TWA LMPE-PPT | | | | | |
| | | | | | | |
| Carbon compound | Trade Secret | | | | | |
| ACGIH: | 3 mg/m ³ TWA inhalable fraction | | | | | |



Material Name: Water Cut-Off Mastic

Product #: 302202

| NIOSH: | 3.5 mg/m ³ TWA; 0.1 mg/m ³ TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons) as PAH | | | | | | |
|------------------------|---|--|--|--|--|--|--|
| | 1750 mg/m ³ IDLH | | | | | | |
| OSHA (US): | 3.5 mg/m ³ TWA | | | | | | |
| Mexico: | 3.5 mg/m ³ TWA LMPE-PPT 7 mg/m ³ STEL [LMPE-CT] | | | | | | |
| Silica, crystalline | 14808-60-7 | | | | | | |
| ACGIH: | 0.025 mg/m ³ TWA respirable fraction | | | | | | |
| NIOSH: | 0.05 mg/m ³ TWA respirable dust 50 mg/m ³ IDLH respirable dust | | | | | | |
| OSHA (US): | $((30)/(\%SiO2 + 2) \text{ mg/m}^3 \text{ TWA})$ total dust; $((250)/(\%SiO2 + 5) \text{ mppcf TWA})$ respirable fraction; $((10)/(\%SiO2 + 2) \text{ mg/m}^3 \text{ TWA})$ respirable fraction | | | | | | |
| Mexico: | 0.1 mg/m ³ TWA LMPE-PPT respirable fraction | | | | | | |

Biological limit value

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

Engineering Controls

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

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

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

Skin Protection

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

Respiratory Protection

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

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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



Material Name: Water Cut-Off Mastic

Product #: 302202

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

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

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

Incompatible Materials Strong oxidizing agents, acids, bases.

Hazardous decomposition products Oxides of carbon, aldehydes

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation May cause drowsiness or dizziness.

Skin Contact

Causes skin irritation.



Material Name: Water Cut-Off Mastic

Product #: 302202

Eve Contact

May cause eye irritation.

Ingestion

May cause gastrointestinal irritation.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published: Carbon compound (Trade Secret)

Oral LD50 Rat >8000 mg/kg

Polyphenol antioxidant (Trade Secret) Oral LD50 Rat >5000 mg/kg Dermal LD50 Rabbit >5000 mg/kg

Severely hydrotreated paraffinic oil (Trade Secret) Oral LD50 Rat >5000 mg/kg Dermal LD50 Rabbit >2000 mg/kg

Polybutene (Trade Secret) Oral LD50 Rat >34600 mg/kg Dermal LD50 Rat >10250 mg/kg

Solvent naphtha, petroleum, light aliphatic (64742-89-8) Oral LD50 Rat >2000 mg/kg Dermal LD50 Rat >2000 mg/kg

Silica, crystalline (14808-60-7) Oral LD50 Rat 500 mg/kg

Immediate Effects

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

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

Causes skin irritation. May cause gastrointestinal irritation.

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

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



Material Name: Water Cut-Off Mastic

Product #: 302202

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

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

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

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

No data available.

Additional Data

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

Section 12 - ECOLOGICAL INFORMATION



Material Name: Water Cut-Off Mastic

Ecotoxicity

Avoid release to the environment.

Component Analysis - Aquatic Toxicity

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

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility No information available for the product.

Other Toxicity No additional information available.

Section 13 - DISPOSAL CONSIDERATIONS

Product #: 302202



Material Name: Water Cut-Off Mastic

Disposal Methods

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

Section 14 - TRANSPORT INFORMATION

US DOT Information: Shipping Name:ADHESIVES Hazard Class: 3 UN/NA #: UN1133 Packing Group: II Required Label(s): < 0.3 gal use Limited Quantity Label

IATA Information: Shipping Name:ADHESIVES Hazard Class: 3 UN#: UN1133 Packing Group: II Required Label(s): < 0.3 gal use Limited Quantity Label

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

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

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

SARA Section 311/312 (40 CFR 370 Subparts B and C) Acute Health: Yes Chronic Health: Yes Fire: Yes Pressure: No Reactivity: No

U.S. State Regulations

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

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



Material Name: Water Cut-Off Mastic

Product #: 302202

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

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

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

Canadian WHMIS Ingredient Disclosure List (IDL)

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

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

Component Analysis - Inventory

Calcium carbonate (1317-65-3)

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

Silica compound (Trade Secret)

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

Carbon compound (Trade Secret)

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

Polyphenol antioxidant (Trade Secret)

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

Severely hydrotreated paraffinic oil (Trade Secret)



Material Name: Water Cut-Off Mastic

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

Polybutene (Trade Secret)

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

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

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

Hydrous clay (Mixture)

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

Silica, crystalline (14808-60-7)

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

Section 16 - OTHER INFORMATION

HMIS Rating

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

NFPA Ratings

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

Summary of Changes

New SDS: March 6, 2015

Key / Legend

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

Product #: 302202



Material Name: Water Cut-Off Mastic

Product #: 302202

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

Other Information

Disclaimer:

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



Material Name: Weathered Membrane Cleaner

Product #: 304066

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name Weathered Membrane Cleaner Chemical Family Cleaner Product Use Cleaner Restrictions on Use For industrial use only

Manufacturer Information

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

Section 2 - HAZARDS IDENTIFICATION

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

Flammable Liquids - Category 2 Aspiration Hazard - Category 1 Skin Corrosion/Irritation - Category 2 Specific Target Organ Toxicity - Single Exposure - Category 3 Specific Target Organ Toxicity - Repeated Exposure - Category 1 (lungs,brain,kidneys,nervous system)

GHS Label Elements



Signal Word Danger Hazard Statement(s)



Material Name: Weathered Membrane Cleaner

Product #: 304066

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

Precautionary Statement(s)

Prevention

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

Response

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

Storage

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

Disposal

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

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| | CAS | Component Name | Percent | |
|--|-----|----------------|---------|--|
|--|-----|----------------|---------|--|



| Materia | al Name: Weathered Mei | Product # | 304066 | |
|---------|------------------------|---|--------|--|
| | 64742-89-8 | Solvent naphtha, petroleum, light aliphatic | 60-100 | |

Section 4 - FIRST AID MEASURES

Inhalation

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

Skin

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

Eyes

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

Ingestion

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

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

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

Delayed

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

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

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



Material Name: Weathered Membrane Cleaner

Product #: 304066

Hazardous Combustion Products

toxic gases: carbon monoxide, carbon dioxide.

Fire Fighting Measures

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

Special Protective Equipment and Precautions for Firefighters

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

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

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

Environmental Precautions

Avoid release to the environment. Collect spillage.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

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



Material Name: Weathered Membrane Cleaner

Product #: 304066

Conditions for Safe Storage, Including any Incompatibilities

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

Incompatible Materials

Strong acids, alkalies, oxidizing agents, chlorine, oxygen

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

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

Biological limit value

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

Engineering Controls

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

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

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

Skin Protection

Wear appropriate chemical resistant clothing.

Respiratory Protection

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

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | clear liquid | Physical State | liquid |
|----------------|------------------|----------------|---------------|
| Odor | hydrocarbon odor | Color | clear |
| Odor Threshold | Not available | рН | Not available |



Material Name: Weathered Membrane Cleaner

Product #: 304066

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

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

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

Incompatible Materials Strong acids, alkalies, oxidizing agents, chlorine, oxygen

Hazardous decomposition products

Releases toxic gases: carbon monoxide, carbon dioxide.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause drowsiness or dizziness.



Material Name: Weathered Membrane Cleaner

Skin Contact

Causes skin irritation.

Eye Contact

May cause eye irritation.

Ingestion

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

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

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

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

Oral LD50 Mouse 5000 mg/kg

Dermal LD50 Rabbit 3000 mg/kg

Product Toxicity Data

Product Analysis LD/LC 50 Toxicity Values

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

Immediate Effects

Causes skin irritation. May cause drowsiness or dizziness.

Delayed Effects

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

Irritation/Corrosivity Data

Causes skin irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

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

Germ Cell Mutagenicity

No information available for the product.

Tumorigenic Data No data available

Reproductive Toxicity No information available for the product. Product #: 304066



Material Name: Weathered Membrane Cleaner

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Specific Target Organ Toxicity - Single Exposure Central nervous system

Specific Target Organ Toxicity - Repeated Exposure lungs, brain, kidneys, liver, nervous system

Aspiration hazard

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

Medical Conditions Aggravated by Exposure

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

Section 12 - ECOLOGICAL INFORMATION

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

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

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

Component Waste Numbers

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

Section 14 - TRANSPORT INFORMATION

US DOT Information: Shipping Name:Paint Related Material Hazard Class: 3 UN/NA #: UN1263 Packing Group: II Required Label(s): 3 Additional information: Special provisions 149, B52, IB2, T4, TP1, TP8

IATA Information: Shipping Name:Paint Related Material Hazard Class: 3 UN#: UN1263 Packing Group: II



Material Name: Weathered Membrane Cleaner

Product #: 304066

Required Label(s): 3

TDG Information: Shipping Name:Paint Related Material Hazard Class: 3 UN#: UN1263 Packing Group: II Required Label(s): 3

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

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

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

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

U.S. State Regulations

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

Not listed under California Proposition 65

Canadian WHMIS Ingredient Disclosure List (IDL)

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

Component Analysis - Inventory

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

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

Section 16 - OTHER INFORMATION

HMIS Rating

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

NFPA Ratings

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



Material Name: Weathered Membrane Cleaner

Product #: 304066

Summary of Changes

Revision Date: June 1, 2018 Revision Note: General Update

Key / Legend

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

Other Information

Disclaimer:

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