

SAFETY DATA SHEET

1. Identification

Material name: VULKEM 116 LV BRONZE 30 CTG/CS
Material: 426719L 323

Recommended use and restriction on use

Recommended use: Sealant
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Tremco U.S Sealants
3735 Green Road
Beachwood OH 44122
US

Contact person: EH&S Department
Telephone: 216-292-5000
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

| | |
|---|-------------|
| Acute toxicity (Inhalation - vapor) | Category 4 |
| Acute toxicity (Inhalation - dust and mist) | Category 2 |
| Respiratory sensitizer | Category 1 |
| Skin sensitizer | Category 1 |
| Germ Cell Mutagenicity | Category 1B |
| Carcinogenicity | Category 1A |

Unknown toxicity - Health

| | |
|--|---------|
| Acute toxicity, oral | 35.77 % |
| Acute toxicity, dermal | 39.1 % |
| Acute toxicity, inhalation, vapor | 97.2 % |
| Acute toxicity, inhalation, dust or mist | 98.95 % |

Environmental Hazards

| | |
|--|------------|
| Acute hazards to the aquatic environment | Category 2 |
|--|------------|

Unknown toxicity - Environment

| | |
|--|---------|
| Acute hazards to the aquatic environment | 77.62 % |
| Chronic hazards to the aquatic environment | 100 % |

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Fatal if inhaled.
Harmful if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause genetic defects.
May cause cancer.
Toxic to aquatic life.

Precautionary Statement:

Prevention: Do not breathe dust or mists. Use only outdoors or in a well-ventilated area. [In case of inadequate ventilation] wear respiratory protection. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Immediately call a POISON CENTER/doctor. Specific treatment is urgent (see this label). Wash contaminated clothing before reuse.

Storage: Store in well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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

3. Composition/information on ingredients

Mixtures

| Chemical Identity | CAS number | Content in percent (%)* |
|--------------------------------|------------|-------------------------|
| Calcium Carbonate (Limestone) | 1317-65-3 | 10 - 30% |
| ** | ** | 3 - 7% |
| Heavy aromatic naphtha | 64742-94-5 | 1 - 5% |
| Aromatic petroleum distillates | 64742-95-6 | 1 - 5% |
| 4,4'-Methylene | 101-68-8 | 1 - 5% |

| | | |
|--|------------|----------|
| bis(phenylisocyanate) | | |
| 1,2,4-Trimethylbenzene | 95-63-6 | 1 - 5% |
| Polymethylene polyphenyl isocyanate | 9016-87-9 | 0.1 - 1% |
| 1,3,5-Trimethylbenzene | 108-67-8 | 0.1 - 1% |
| Crystalline Silica (Quartz)/ Silica Sand | 14808-60-7 | 0.1 - 1% |
| Iron oxide | 1309-37-1 | 0.1 - 1% |

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Trade secret information: ** A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

- Ingestion:** Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.
- Inhalation:** Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.
- Skin Contact:** If skin irritation occurs: Get medical advice/attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
- Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. Evacuate area. See Section 8 of the SDS for Personal Protective Equipment. Keep upwind. Keep unauthorized personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Methods and material for containment and cleaning up: Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

| Chemical Identity | type | Exposure Limit Values | Source |
|--|------|-----------------------|---|
| Calcium Carbonate (Limestone) - Total dust. | PEL | 15 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Calcium Carbonate (Limestone) - Respirable fraction. | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| ** | TWA | 10 mg/m3 | US. ACGIH Threshold Limit Values (03 2015) |
| | TWA | 3 mg/m3 | US. ACGIH Threshold Limit Values (03 2015) |

| | | | |
|--|---------|---|---|
| | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| | PEL | 15 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| | TWA | 15 mg/m3 | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| | TWA | 50 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| | TWA | 5 mg/m3 | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| | TWA | 15 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| Heavy aromatic naphtha - Non-aerosol. - as total hydrocarbon vapor | TWA | 200 mg/m3 | US. ACGIH Threshold Limit Values (03 2014) |
| Heavy aromatic naphtha | PEL | 100 ppm 400 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| 4,4'-Methylene bis(phenylisocyanate) | TWA | 0.005 ppm | US. ACGIH Threshold Limit Values (2011) |
| | Ceiling | 0.02 ppm 0.2 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| 1,2,4-Trimethylbenzene | TWA | 25 ppm | US. ACGIH Threshold Limit Values (2011) |
| Polymethylene polyphenyl isocyanate | TWA | 0.005 ppm | US. ACGIH Threshold Limit Values (2011) |
| | Ceiling | 0.02 ppm 0.2 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| 1,3,5-Trimethylbenzene | TWA | 25 ppm | US. ACGIH Threshold Limit Values (2011) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction. | TWA | 0.025 mg/m3 | US. ACGIH Threshold Limit Values (2011) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable. | TWA | 2.4 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| | TWA | 0.1 mg/m3 | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| Crystalline Silica (Quartz)/ Silica Sand - Total dust. | TWA | 0.3 mg/m3 | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| Iron oxide - Respirable fraction. | TWA | 5 mg/m3 | US. ACGIH Threshold Limit Values (2011) |
| Iron oxide - Fume. | PEL | 10 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) |

| | | | |
|--|--|--|-----------|
| | | | (02 2006) |
|--|--|--|-----------|

| Chemical name | type | Exposure Limit Values | Source |
|---|-------|-----------------------|---|
| Diisodecyl phthalate | TWAEV | 5 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Calcium Carbonate (Limestone) - Total dust. | STEL | 20 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| | TWA | 10 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |

| | | | |
|--|---------|------------------------|---|
| Calcium Carbonate (Limestone) - Respirable fraction. | TWA | 3 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Calcium Carbonate (Limestone) - Total dust. | TWA | 10 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Polyethylene - Respirable fraction. | TWA | 3 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013) |
| Polyethylene - Total dust. | TWA | 10 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013) |
| Polyethylene - Respirable particles. | TWAEV | 3 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Polyethylene - Inhalable | TWAEV | 10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Polyethylene - Total dust. | TWA | 10 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011) |
| Heavy aromatic naphtha - Non-aerosol. - as total hydrocarbon vapor | TWA | 200 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013) |
| Heavy aromatic naphtha - Non-aerosol. - as total hydrocarbon vapor | TWAEV | 200 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Heavy aromatic naphtha | TWA | 400 ppm 1,590 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011) |
| 4,4'-Methylene bis(phenylisocyanate) | CEILING | 0.01 ppm | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| | TWA | 0.005 ppm | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |

| | | | | |
|--------------------------------------|---------|-----------|-------------|---|
| 4,4'-Methylene bis(phenylisocyanate) | TWAEV | 0.005 ppm | | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| | CEV | 0.02 ppm | | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| 4,4'-Methylene bis(phenylisocyanate) | TWA | 0.005 ppm | 0.051 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| 1,2,4-Trimethylbenzene | TWA | 25 ppm | | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| 1,2,4-Trimethylbenzene | TWAEV | 25 ppm | | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| 1,2,4-Trimethylbenzene | TWA | 25 ppm | 123 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Polymethylene polyphenyl isocyanate | TWA | 0.005 ppm | | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| | CEILING | 0.01 ppm | | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| | TWA | 0.005 ppm | | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| | CEILING | 0.01 ppm | | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Polymethylene polyphenyl isocyanate | TWAEV | 0.005 ppm | | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| | CEV | 0.02 ppm | | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |

| | | | | |
|---|-------|-----------|-------------|---|
| Polymethylene polyphenyl isocyanate | TWA | 0.005 ppm | 0.051 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| 1,3,5-Trimethylbenzene | TWA | 25 ppm | | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| 1,3,5-Trimethylbenzene | TWAEV | 25 ppm | | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| 1,3,5-Trimethylbenzene | TWA | 25 ppm | 123 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction. | TWA | | 0.025 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable. | TWAEV | | 0.10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable dust. | TWA | | 0.1 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |

Appropriate Engineering Controls

Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required.

Eye/face protection: Wear goggles/face shield.

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

| |
|--|
| 9. Physical and chemical properties |
|--|

Appearance

| | |
|--|---|
| Physical state: | solid |
| Form: | Paste |
| Color: | Red brown |
| Odor: | Mild |
| Odor threshold: | No data available. |
| pH: | No data available. |
| Melting point/freezing point: | No data available. |
| Initial boiling point and boiling range: | No data available. |
| Flash Point: | 99 °C 210 °F(ISO 3679 (seta closed)) |
| Evaporation rate: | Slower than n-Butyl Acetate |
| Flammability (solid, gas): | No |
| Upper/lower limit on flammability or explosive limits | |
| Flammability limit - upper (%): | No data available. |
| Flammability limit - lower (%): | No data available. |
| Explosive limit - upper (%): | No data available. |
| Explosive limit - lower (%): | No data available. |
| Vapor pressure: | No data available. |
| Vapor density: | Vapors are heavier than air and may travel along the floor and in the bottom of containers. |
| Relative density: | 1.16 |
| Solubility(ies) | |
| Solubility in water: | Insoluble in water |
| Solubility (other): | No data available. |
| Partition coefficient (n-octanol/water): | No data available. |
| Auto-ignition temperature: | No data available. |
| Decomposition temperature: | No data available. |
| Viscosity: | No data available. |

| |
|-------------------------------------|
| 10. Stability and reactivity |
|-------------------------------------|

| | |
|--|---|
| Reactivity: | No data available. |
| Chemical Stability: | Material is stable under normal conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | Avoid heat or contamination. |
| Incompatible Materials: | Alcohols. Amines. Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases. Water, moisture. |

Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Ingestion: May be ingested by accident. Ingestion may cause irritation and malaise.

Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

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

Eye contact: Eye contact is possible and should be avoided.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product: ATEmix: 14,456.28 mg/kg

Dermal Product: ATEmix: 13,286.82 mg/kg

Inhalation Product: ATEmix: 17.97 mg/l
ATEmix: 0.37 mg/l

Repeated dose toxicity Product: No data available.

Skin Corrosion/Irritation Product: No data available.

Specified substance(s):

| | |
|--------------------------------------|--|
| Heavy aromatic naphtha | in vivo (Rabbit): Experimental result, Key study |
| Aromatic petroleum distillates | in vivo (Rabbit): Experimental result, Key study |
| 4,4'-Methylene bis(phenylisocyanate) | in vivo (Rabbit): Read-across based on grouping of substances (category approach), Key study |

| | |
|------------------------|---|
| 1,2,4-Trimethylbenzene | in vivo (Rabbit): Read-across from supporting substance (structural analogue or surrogate), Key study |
| 1,3,5-Trimethylbenzene | in vivo (Rabbit): Experimental result, Key study |
| Iron oxide | in vivo (Rabbit): Experimental result, Weight of Evidence study |

Serious Eye Damage/Eye Irritation**Product:** No data available.**Specified substance(s):**

| | |
|--------------------------------------|---|
| Heavy aromatic naphtha | in vivo (Rabbit, 24 - 72 hrs): Not irritating |
| Aromatic petroleum distillates | in vivo (Rabbit, 24 - 72 hrs): Not irritating |
| 4,4'-Methylene bis(phenylisocyanate) | in vivo (Rabbit, 24 - 72 hrs): Not irritating |
| 1,2,4-Trimethylbenzene | in vivo (Rabbit, 30 min): Not irritating |
| Iron oxide | in vivo (Rabbit, 1 - 72 hrs): Not irritating |

Respiratory or Skin Sensitization**Product:** May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause sensitization by inhalation.**Carcinogenicity****Product:** No data available.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

| | |
|--|---|
| Crystalline Silica (Quartz)/ Silica Sand | Overall evaluation: Carcinogenic to humans. |
|--|---|

US. National Toxicology Program (NTP) Report on Carcinogens:

| | |
|--|-------------------------------|
| Crystalline Silica (Quartz)/ Silica Sand | Known To Be Human Carcinogen. |
|--|-------------------------------|

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

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

| |
|-----------------------------------|
| 12. Ecological information |
|-----------------------------------|

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

1,2,4-Trimethylbenzene LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 7.19 - 8.28 mg/l Mortality

1,3,5-Trimethylbenzene LC 50 (Goldfish (*Carassius auratus*), 96 h): 9.89 - 15.05 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

1,2,4-Trimethylbenzene LC 50 (Scud (*Elasmopus pectinicus*), 24 h): 4.89 - 5.62 mg/l Mortality

1,3,5-Trimethylbenzene EC 50 (Water flea (*Daphnia magna*), 24 h): 50 mg/l Intoxication

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

| | |
|--------------------------------|---|
| Heavy aromatic naphtha | NOAEL (Oncorhynchus mykiss, 28 d): 0.098 mg/l QSAR QSAR, Key study |
| Aromatic petroleum distillates | LL 50 (Pimephales promelas, 14 d): 5.2 mg/l Experimental result, Supporting study EC 50 (Daphnia magna, 21 d): 10 mg/l Other, Key study NOAEL (Pimephales promelas, 14 d): 2.6 mg/l Experimental result, Supporting study NOAEL (Daphnia magna, 21 d): 2.6 mg/l Other, Key study |
| Iron oxide | LOAEL (Salvelinus fontinalis, 35 Weeks): 12 mg/l Experimental result, Supporting study NOAEL (Salvelinus fontinalis, 35 Weeks): 6 mg/l Experimental result, Supporting study NOAEL (Pimephales promelas, 33 d): 1 mg/l Experimental result, Supporting study LOAEL (Pimephales promelas, 12 Months): 1.5 mg/l Experimental result, Supporting study NOAEL (Pimephales promelas, 33 d): 1.6 mg/l Experimental result, Supporting study |

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in Soil:

No data available.

Other Adverse Effects:

Toxic to aquatic organisms.

| |
|------------------------------------|
| 13. Disposal considerations |
|------------------------------------|

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Chemical Identity

P-chlorobenzotrifluoride

Reportable quantity

De minimis concentration: 1.0% One-Time Export Notification only.

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

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity

4,4'-Methylene
bis(phenylisocyanate)
Polymethylene
polyphenyl isocyanate

Reportable quantity

5000 lbs.
5000 lbs.
5000 lbs.
100 lbs.
100 lbs.
100 lbs.
1000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards
Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

| <u>Chemical Identity</u> | <u>Reportable quantity</u> | <u>Threshold Planning Quantity</u> |
|--------------------------|----------------------------|------------------------------------|
| 2,4-Toluene diisocyanate | 100 lbs. | 500 lbs. |
| Toluene-2,6-Diisocyanate | 100 lbs. | 100 lbs. |

SARA 304 Emergency Release Notification

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------------------|----------------------------|
| Diisodecyl phthalate | |
| 4,4'-Methylene bis(phenylisocyanate) | 5000 lbs. |
| Polymethylene polyphenyl isocyanate | 5000 lbs. |
| Cumene | 5000 lbs. |
| 2,4-Toluene diisocyanate | 100 lbs. |
| Xylene | 100 lbs. |
| Toluene-2,6-Diisocyanate | 100 lbs. |
| Ethylbenzene | 1000 lbs. |

SARA 311/312 Hazardous Chemical

| <u>Chemical Identity</u> | <u>Threshold Planning Quantity</u> |
|--|------------------------------------|
| 2,4-Toluene diisocyanate | 500lbs |
| Toluene-2,6-Diisocyanate | 100lbs |
| Calcium Carbonate (Limestone) | 500 lbs |
| Polyethylene | 500 lbs |
| Heavy aromatic naphtha | 500 lbs |
| Aromatic petroleum distillates | 500 lbs |
| 4,4'-Methylene bis(phenylisocyanate) | 500 lbs |
| 1,2,4-Trimethylbenzene | 500 lbs |
| Polymethylene polyphenyl isocyanate | 500 lbs |
| 1,3,5-Trimethylbenzene | 500 lbs |
| Crystalline Silica (Quartz)/ Silica Sand | 500 lbs |
| Iron oxide | 500 lbs |

SARA 313 (TRI Reporting)

| <u>Chemical Identity</u> |
|--------------------------------------|
| 4,4'-Methylene bis(phenylisocyanate) |
| 1,2,4-Trimethylbenzene |

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| Xylene | 100 lbs. |

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| 2,4-Toluene diisocyanate | 10000 lbs |
| Toluene-2,6-Diisocyanate | 10000 lbs |

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Calcium Carbonate (Limestone)
P-chlorobenzotrifluoride
Heavy aromatic naphtha
4,4'-Methylene bis(phenylisocyanate)
1,2,4-Trimethylbenzene
Crystalline Silica (Quartz)/ Silica Sand

US. Massachusetts RTK - Substance List

Chemical Identity

Calcium Carbonate (Limestone)
Heavy aromatic naphtha
4,4'-Methylene bis(phenylisocyanate)
1,2,4-Trimethylbenzene
Crystalline Silica (Quartz)/ Silica Sand
2,4-Toluene diisocyanate
Toluene-2,6-Diisocyanate

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Diisodecyl phthalate
Calcium Carbonate (Limestone)
Heavy aromatic naphtha
4,4'-Methylene bis(phenylisocyanate)
1,2,4-Trimethylbenzene

US. Rhode Island RTK

Chemical Identity

Diisodecyl phthalate
4,4'-Methylene bis(phenylisocyanate)
1,2,4-Trimethylbenzene

Other Regulations:

| | |
|--|--------|
| Regulatory VOC (less water and exempt solvent): | 49 g/l |
| VOC Method 310: | 2.79 % |

Inventory Status:

| | |
|----------------------------|--|
| Australia AICS: | One or more components in this product are not listed on or exempt from the Inventory. |
| Canada DSL Inventory List: | All components in this product are listed on or exempt from the Inventory. |
| EINECS, ELINCS or NLP: | One or more components in this product are not listed on or exempt from the Inventory. |

| | |
|--|--|
| Japan (ENCS) List: | One or more components in this product are not listed on or exempt from the Inventory. |
| China Inv. Existing Chemical Substances: | One or more components in this product are not listed on or exempt from the Inventory. |
| Korea Existing Chemicals Inv. (KECI): | One or more components in this product are not listed on or exempt from the Inventory. |
| Canada NDSL Inventory: | One or more components in this product are not listed on or exempt from the Inventory. |
| Philippines PICCS: | One or more components in this product are not listed on or exempt from the Inventory. |
| US TSCA Inventory: | All components in this product are listed on or exempt from the Inventory. |
| New Zealand Inventory of Chemicals: | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan ISHL Listing: | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan Pharmacopoeia Listing: | One or more components in this product are not listed on or exempt from the Inventory. |

16. Other information, including date of preparation or last revision**Revision Date:** 03/30/2016**Version #:** 1.0**Further Information:** No data available.**Disclaimer:** For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.