

# SAFETY DATA SHEET

## 1. Identification

**Material name:** Vulkem® 350FC - SL  
**Material:** 880370 805

### Recommended use and restriction on use

**Recommended use:** Coatings  
**Restrictions on use:** Not known.

### Manufacturer/Importer/Supplier/Distributor Information

Tremco CPG Inc. - 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

#### Physical Hazards

Flammable liquids Category 4

#### Health Hazards

Acute toxicity (Inhalation - vapor) Category 3  
Acute toxicity (Inhalation - dust and mist) Category 3  
Skin Corrosion/Irritation Category 2  
Serious Eye Damage/Eye Irritation Category 2A  
Respiratory sensitizer Category 1  
Skin sensitizer Category 1  
Germ Cell Mutagenicity Category 2  
Carcinogenicity Category 1A  
Toxic to reproduction Category 1B  
Specific Target Organ Toxicity - Single Exposure Category 3<sup>1</sup>  
Specific Target Organ Toxicity - Repeated Exposure Category 2<sup>2</sup>

#### Target Organs

1. Respiratory tract irritation.
2. hearing

#### Unknown toxicity - Health

Acute toxicity, oral 10.27 %  
Acute toxicity, dermal 12.23 %

Acute toxicity, inhalation, vapor 73.72 %  
Acute toxicity, inhalation, dust or mist 67.72 %

**Environmental Hazards**

Acute hazards to the aquatic environment Category 3  
Chronic hazards to the aquatic environment Category 2

**Unknown toxicity - Environment**

Acute hazards to the aquatic environment 73.29 %  
Chronic hazards to the aquatic environment 52.38 %

**Label Elements**

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:** Combustible liquid.  
Toxic if inhaled.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
Suspected of causing genetic defects.  
May cause cancer.  
May damage fertility or the unborn child.  
May cause respiratory irritation.  
May cause damage to organs through prolonged or repeated exposure.  
Harmful to aquatic life.  
Toxic to aquatic life with long lasting effects.

**Precautionary Statements**

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Use personal protective equipment as required. [In case of inadequate ventilation] wear respiratory protection. Wear protective

gloves/protective clothing/eye protection/face protection.

- Response:** Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. In case of fire: Use... to extinguish. Collect spillage.
- Storage:** Store in a 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.

**Hazard(s) not otherwise classified (HNOC):** Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.

### 3. Composition/information on ingredients

#### Mixtures

| Chemical Identity                        | CAS number | Content in percent (%)* |
|--|------------|-------------------------|
| Isophorone Diisocyanate                  | 4098-71-9  | 10 - <25%               |
| Xylene                                   | 1330-20-7  | 1 - <5%                 |
| Hydrotreated heavy naphthenic distillate | 64742-52-5 | 1 - <5%                 |
| Hydrotreated light naphthenic distillate | 64742-53-6 | 1 - <5%                 |
| Phenolphthalein                          | 77-09-8    | 1 - <3%                 |
| Titanium dioxide                         | 13463-67-7 | 1 - <5%                 |
| Ethylbenzene                             | 100-41-4   | 1 - <2.5%               |
| Diisodecyl phthalate                     | 26761-40-0 | 0.3 - <1%               |
| Amorphous silica                         | 7631-86-9  | 0.1 - <1%               |
| Ethylene glycol                          | 107-21-1   | 0.1 - <1%               |
| Petroleum distillates                    | 64742-47-8 | 0.1 - <1%               |
| Calcium oxide                            | 1305-78-8  | 0.1 - <1%               |

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

### 4. First-aid measures

#### Description of necessary first-aid measures

- 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:** Get medical 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.

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| <b>Eye contact:</b>                                  | Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.                                     |
| <b>Ingestion:</b>                                    | Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.   |
| <b>Personal Protection for First-aid Responders:</b> | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |

**Most important symptoms/effects, acute and delayed**

|                  |   |
|------------------|---|
| <b>Symptoms:</b> | Respiratory tract irritation. Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. |
| <b>Hazards:</b>  | No data available.  |

**Indication of immediate medical attention and special treatment needed**

|                   |                          |
|-------------------|--------------------------|
| <b>Treatment:</b> | Symptoms may be delayed. |
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**5. Fire-fighting measures**

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| <b>General Fire Hazards:</b> | Move containers from fire area if you can do so without risk. |
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**Suitable (and unsuitable) extinguishing media**

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| <b>Suitable extinguishing media:</b>   | Use fire-extinguishing media appropriate for surrounding materials. |
| <b>Unsuitable extinguishing media:</b> | Avoid water in straight hose stream; will scatter and spread fire.  |

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| <b>Specific hazards arising from the chemical:</b> | During fire, gases hazardous to health may be formed. |
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**Special protective equipment and precautions for firefighters**

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| <b>Special fire fighting procedures:</b>               | No data available.   |
| <b>Special protective equipment for fire-fighters:</b> | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |

**6. Accidental release measures**

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| <b>Personal precautions, protective equipment and emergency procedures:</b> | ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). 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. |
|---|--|

- Accidental release measures:** In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.
- Methods and material for containment and cleaning up:** Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.
- Environmental Precautions:** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer.

## 7. Handling and storage

### Handling

- Technical measures (e.g. Local and general ventilation):** Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.
- Safe handling advice:** Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes. Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
- Contact avoidance measures:** No data available.
- Hygiene measures:** Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Avoid contact with eyes. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin. Contaminated work clothing should not be allowed out of the workplace.

### Storage

- Safe storage conditions:** Store locked up. Store in a well-ventilated place. Store in a cool place.
- Safe packaging materials:** No data available.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

| Chemical Identity       | Type | Exposure Limit Values | Source   |
|-------------------------|------|-----------------------|--|
| Isophorone Diisocyanate | TWA  | 0.005 ppm             | US. ACGIH Threshold Limit Values, as amended (2011)            |
| Xylene                  | STEL | 150 ppm 655 mg/m3     | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010) |
|                         | REL  | 100 ppm 435 mg/m3     | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010) |
|                         | STEL | 150 ppm 655 mg/m3     | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010) |

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|--|---------|---------|--|--|
|  | REL     | 100 ppm | 435 mg/m3                                      | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)   |
|  | STEL    | 150 ppm | 655 mg/m3                                      | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)   |
|  | REL     | 100 ppm | 435 mg/m3                                      | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)   |
|  | STEL    | 150 ppm | 655 mg/m3                                      | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)   |
|  | TWA     | 100 ppm | 435 mg/m3                                      | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)   |
|  | TWA     | 100 ppm | 435 mg/m3                                      | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)                     |
|  | STEL    | 150 ppm | 655 mg/m3                                      | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)                     |
|  | ST ESL  |         | 350 µg/m3                                      | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)  |
|  | ST ESL  |         | 80 ppb   | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)  |
|  | AN ESL  |         | 42 ppb   | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)  |
|  | AN ESL  |         | 180 µg/m3                                      | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)  |
|  | STEL    | 150 ppm | 655 mg/m3                                      | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010) |
|  | Ceiling | 300 ppm |  | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010) |
|  | TWA PEL | 100 ppm | 435 mg/m3                                      | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010) |
|  | TWA     | 100 ppm |  | US. ACGIH Threshold Limit Values, as amended (2011)  |
|  | STEL    | 150 ppm |  | US. ACGIH Threshold Limit Values, as amended (2011)  |
|  | PEL     | 100 ppm | 435 mg/m3                                      | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)                |
| Hydrotreated heavy naphthenic distillate                       | PEL     | 500 ppm | 2,000 mg/m3                                    | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)                |
| Hydrotreated heavy naphthenic distillate - Mist.               | PEL     |         | 5 mg/m3  | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)                |
| Hydrotreated heavy naphthenic distillate - Inhalable fraction. | TWA     |         | 5 mg/m3  | US. ACGIH Threshold Limit Values, as amended (03 2014)   |
| Hydrotreated light naphthenic distillate                       | PEL     | 500 ppm | 2,000 mg/m3                                    | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)                |
| Hydrotreated light naphthenic distillate - Mist.               | PEL     |         | 5 mg/m3  | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)                |
| Hydrotreated light naphthenic distillate - Inhalable fraction. | TWA     |         | 5 mg/m3  | US. ACGIH Threshold Limit Values, as amended (03 2014)   |
| Titanium dioxide   | TWA     |         | 10 mg/m3                                       | US. ACGIH Threshold Limit Values, as amended (2011)  |
| Titanium dioxide - Total dust.                                 | PEL     |         | 15 mg/m3                                       | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)                |
| Titanium dioxide - Respirable fraction.                        | TWA     |         | 15 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)  |
| Titanium dioxide - Total dust.                                 | TWA     |         | 15 mg/m3                                       | US. OSHA Table Z-3 (29 CFR 1910.1000), as  |

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|   |      |  | amended (03 2016)   |
| Titanium dioxide - Respirable fraction.                           | TWA  | 5 mg/m3  | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                             |
| Titanium dioxide - Total dust.                                    | TWA  | 50 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                             |
| Ethylbenzene  | TWA  | 20 ppm   | US. ACGIH Threshold Limit Values, as amended (2011)                                     |
|   | PEL  | 100 ppm 435 mg/m3                              | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| Amorphous silica  | TWA  | 20 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)                                |
|   | TWA  | 0.8 mg/m3                                      | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)                                |
| Ethylene glycol - Aerosol, inhalable.                             | STEL | 10 mg/m3                                       | US. ACGIH Threshold Limit Values, as amended (03 2017)                                  |
| Ethylene glycol - Vapor fraction                                  | TWA  | 25 ppm   | US. ACGIH Threshold Limit Values, as amended (03 2017)                                  |
|   | STEL | 50 ppm   | US. ACGIH Threshold Limit Values, as amended (03 2017)                                  |
| Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor | TWA  | 200 mg/m3                                      | US. ACGIH Threshold Limit Values, as amended (2011)                                     |
|   | TWA  | 200 mg/m3                                      | US. ACGIH Threshold Limit Values, as amended (2011)                                     |
| Calcium oxide   | TWA  | 2 mg/m3  | US. ACGIH Threshold Limit Values, as amended (2011)                                     |
|   | PEL  | 5 mg/m3  | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |

| Chemical name           | Type    | Exposure Limit Values | Source  |
|-------------------------|---------|-----------------------|---|
| Isophorone Diisocyanate | 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) |
| Isophorone Diisocyanate | TWA     | 0.005 ppm             | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)  |
|                         | CEV     | 0.02 ppm              | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)  |
| Isophorone Diisocyanate | TWA     | 0.005 ppm 0.045 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Xylene                  | TWA     | 100 ppm 434 mg/m3     | Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)   |
|                         | STEL    | 150 ppm 651 mg/m3     | Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)   |
| Xylene                  | TWA     | 100 ppm               | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|                         | STEL    | 150 ppm               | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |

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| Xylene   | TWA  | 100 ppm           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
|  | STEL | 150 ppm           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Xylene   | STEL | 150 ppm 651 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
|  | TWA  | 100 ppm 434 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Hydrotreated heavy naphthenic distillate - Mist.               | TWA  | 0.2 mg/m3         | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013) |
|  | TWA  | 1 mg/m3           | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013) |
| Hydrotreated heavy naphthenic distillate - Inhalable fraction. | TWA  | 5 mg/m3           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)  |
| Hydrotreated heavy naphthenic distillate - Mist.               | STEL | 10 mg/m3          | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
|  | TWA  | 5 mg/m3           | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Hydrotreated light naphthenic distillate - Mist.               | TWA  | 0.2 mg/m3         | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|  | TWA  | 1 mg/m3           | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013) |
| Hydrotreated light naphthenic distillate - Mist.               | STEL | 10 mg/m3          | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Hydrotreated light naphthenic distillate - Inhalable fraction. | TWA  | 5 mg/m3           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)  |
|  | TWA  | 5 mg/m3           | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |



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| Titanium dioxide - 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) (07 2007) |
| Titanium dioxide - 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) |
| Titanium dioxide                        | TWA     | 10 mg/m3          | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Titanium dioxide - Total dust.          | TWA     | 10 mg/m3          | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Ethylbenzene                            | TWA     | 20 ppm            | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011) |
| Ethylbenzene                            | TWA     | 20 ppm            | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)  |
| Ethylbenzene                            | STEL    | 125 ppm 543 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
|   | TWA     | 100 ppm 434 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Diisodecyl phthalate                    | TWA     | 5 mg/m3           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Amorphous silica - Total                | TWA     | 4 mg/m3           | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Amorphous silica - Respirable.          | TWA     | 1.5 mg/m3         | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Amorphous silica - Respirable dust.     | TWA     | 6 mg/m3           | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Ethylene glycol - Vapor.                | CEILING | 50 ppm            | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Ethylene glycol - Aerosol.              | CEILING | 100 mg/m3         | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Ethylene glycol - Particulate.          | 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) |
|   | 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) |

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|---|---------|--------|-----------|---|
| Ethylene glycol - Vapor and mist.                                 | CEILING | 50 ppm | 127 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Ethylene glycol - Aerosol, inhalable.                             | STEL    |        | 10 mg/m3  | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)  |
| Petroleum distillates - 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) (07 2007) |
| Petroleum distillates   | TWA     |        | 525 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor | TWA     |        | 200 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
|   | TWA     |        | 200 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |

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|---------------------------------------|------|-------------------|---|
| Calcium oxide                         | TWA  | 2 mg/m3           | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Calcium oxide                         | TWA  | 2 mg/m3           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Calcium oxide                         | TWA  | 2 mg/m3           | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Aluminum oxide - Respirable.          | TWA  | 1 mg/m3           | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Aluminum oxide - 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) |
| Aluminum oxide - 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) |
| Aluminum oxide - Respirable fraction. | TWA  | 1 mg/m3           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Aluminum oxide - Inhalable fraction.  | TWA  | 10 mg/m3          | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)  |
| Aluminum oxide - Respirable fraction. | TWA  | 3 mg/m3           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)  |
| Aluminum oxide - Total dust. - as Al  | TWA  | 10 mg/m3          | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Toluene                               | TWA  | 20 ppm            | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Toluene                               | TWA  | 20 ppm            | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Toluene                               | TWA  | 50 ppm 188 mg/m3  | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Diisodecyl phthalate (mixed Is)       | TWA  | 5 mg/m3           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (08 2017)  |
| Stoddard solvent (Mineral Spirits)    | STEL | 580 mg/m3         | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|                                       | TWA  | 290 mg/m3         | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Stoddard solvent (Mineral Spirits)    | TWA  | 100 ppm           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Stoddard solvent (Mineral Spirits)    | TWA  | 100 ppm 525 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Zirconium dioxide - as Zr             | STEL | 10 mg/m3          | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|                                       | TWA  | 5 mg/m3           | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation                               |

|                                    |      |                 |   |
|------------------------------------|------|-----------------|---|
|                                    |      |                 | 296/97, as amended) (07 2007)   |
| Zirconium dioxide - as Zr          | TWA  | 5 mg/m3         | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
|                                    | STEL | 10 mg/m3        | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Zirconium dioxide - as Zr          | TWA  | 5 mg/m3         | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
|                                    | STEL | 10 mg/m3        | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Carbon Black - Inhalable           | TWA  | 3 mg/m3         | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011) |
| Carbon Black - Inhalable fraction. | TWA  | 3 mg/m3         | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)  |
| Carbon Black                       | TWA  | 3.5 mg/m3       | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| p-Dioxane                          | TWA  | 20 ppm          | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| p-Dioxane                          | TWA  | 20 ppm          | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| p-Dioxane                          | TWA  | 20 ppm 72 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (12 2008)   |
| Dibutyl tin dilaurate - as Sn      | STEL | 0.2 mg/m3       | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|                                    | TWA  | 0.1 mg/m3       | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Dibutyl tin dilaurate - as Sn      | TWA  | 0.1 mg/m3       | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Dibutyl tin dilaurate - as Sn      | STEL | 0.2 mg/m3       | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
|                                    | TWA  | 0.1 mg/m3       | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Methanol                           | TWA  | 200 ppm         | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Methanol                           | TWA  | 200 ppm         | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
|                                    | STEL | 250 ppm         | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|                                    | STEL | 250 ppm         | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |

|                        |      |         |           |   |
|------------------------|------|---------|-----------|---|
| Methanol               | STEL | 250 ppm | 328 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
|                        | TWA  | 200 ppm | 262 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Allyl glycidyl ether   | TWA  | 1 ppm   |           | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Allyl glycidyl ether   | TWA  | 1 ppm   |           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Allyl glycidyl ether   | STEL | 10 ppm  | 47 mg/m3  | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
|                        | TWA  | 5 ppm   | 23 mg/m3  | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| 1,3,5-Trimethylbenzene | TWA  | 25 ppm  |           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| 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 | TWA  | 25 ppm  | 123 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| 1,2,4-Trimethylbenzene | TWA  | 25 ppm  | 123 mg/m3 | Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)   |
| 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 | TWA  | 25 ppm  |           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| 1,2,4-Trimethylbenzene | TWA  | 25 ppm  | 123 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Naphthalene            | STEL | 15 ppm  |           | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|                        | TWA  | 10 ppm  |           | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Naphthalene            | TWA  | 10 ppm  |           | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Naphthalene            | TWA  | 10 ppm  | 52 mg/m3  | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
|                        | STEL | 15 ppm  | 79 mg/m3  | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |

|   |      |                  |   |
|---|------|------------------|---|
| Propylene oxide   | TWA  | 2 ppm            | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Propylene oxide   | TWA  | 2 ppm            | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)  |
| Propylene oxide   | TWA  | 20 ppm 48 mg/m3  | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable<br>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)/<br>Silica Sand - Respirable<br>fraction. | TWA  | 0.10 mg/m3       | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)  |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable dust.        | TWA  | 0.1 mg/m3        | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
| Benzene   | STEL | 2.5 ppm          | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|   | TWA  | 0.5 ppm          | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Benzene   | TWA  | 0.5 ppm          | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)  |
|   | STEL | 2.5 ppm          | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)  |
| Benzene   | TWA  | 1 ppm 3 mg/m3    | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |
|   | STEL | 5 ppm 15.5 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)   |

### Biological Limit Values

| Chemical Identity   | Exposure Limit Values          | Source              |
|---|--------------------------------|---------------------|
| Xylene (Methylhippuric acids:<br>Sampling time: End of shift.)                                      | 1.5 g/g (Creatinine in urine)  | ACGIH BEI (03 2013) |
| Ethylbenzene (Sum of<br>mandelic acid and<br>phenylglyoxylic acid:<br>Sampling time: End of shift.) | 0.15 g/g (Creatinine in urine) | ACGIH BEI (02 2014) |

### Appropriate Engineering Controls

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

### Individual protection measures, such as personal protective equipment

**Eye/face protection:** Wear safety glasses with side shields (or goggles).

### Skin Protection

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

|                                  |   |
|----------------------------------|---|
| <b>Skin and Body Protection:</b> | Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.  |
| <b>Respiratory Protection:</b>   | 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. |
| <b>Hygiene measures:</b>         | Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Avoid contact with eyes. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin. Contaminated work clothing should not be allowed out of the workplace.  |

## 9. Physical and chemical properties

### Appearance

|  |   |
|--|---|
| <b>Physical state:</b>                                       | liquid  |
| <b>Form:</b>   | liquid  |
| <b>Color:</b>  | Gray  |
| <b>Odor:</b>   | Mild petroleum/solvent  |
| <b>Odor threshold:</b>                                       | No data available.  |
| <b>pH:</b>   | No data available.  |
| <b>Melting point/freezing point:</b>                         | No data available.  |
| <b>Initial boiling point and boiling range:</b>              | No data available.  |
| <b>Flash Point:</b>  | 65 °C 149 °F(Setaflash Closed Cup)  |
| <b>Evaporation rate:</b>                                     | Slower than Ether   |
| <b>Flammability (solid, gas):</b>                            | No  |
| <b>Upper/lower limit on flammability or explosive limits</b> |   |
| <b>Flammability limit - upper (%):</b>                       | No data available.  |
| <b>Flammability limit - lower (%):</b>                       | No data available.  |
| <b>Explosive limit - upper:</b>                              | No data available.  |
| <b>Explosive limit - lower:</b>                              | No data available.  |
| <b>Vapor pressure:</b>                                       | No data available.  |
| <b>Vapor density:</b>  | Vapors are heavier than air and may travel along the floor and in the bottom of containers. |
| <b>Relative density:</b>                                     | 1.05  |
| <b>Solubility(ies)</b>                                       |   |
| <b>Solubility in water:</b>                                  | Practically Insoluble   |
| <b>Solubility (other):</b>                                   | No data available.  |
| <b>Partition coefficient (n-octanol/water):</b>              | No data available.  |

|                                   |                    |
|-----------------------------------|--------------------|
| <b>Auto-ignition temperature:</b> | No data available. |
| <b>Decomposition temperature:</b> | No data available. |
| <b>Viscosity:</b>                 | No data available. |

## 10. Stability and reactivity

|  |  |
|--|--|
| <b>Reactivity:</b>                         | No data available.   |
| <b>Chemical Stability:</b>                 | Material is stable under normal conditions.  |
| <b>Possibility of hazardous reactions:</b> | No data available.   |
| <b>Conditions to avoid:</b>                | Heat, sparks, flames.  |
| <b>Incompatible Materials:</b>             | Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases. |
| <b>Hazardous Decomposition Products:</b>   | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.              |

## 11. Toxicological information

### Information on likely routes of exposure

|                      |   |
|----------------------|---|
| <b>Inhalation:</b>   | In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes. |
| <b>Skin Contact:</b> | Causes skin irritation. May cause an allergic skin reaction.                                  |
| <b>Eye contact:</b>  | Causes serious eye irritation.  |
| <b>Ingestion:</b>    | May be ingested by accident. Ingestion may cause irritation and malaise.                      |

### Symptoms related to the physical, chemical and toxicological characteristics

|                      |                    |
|----------------------|--------------------|
| <b>Inhalation:</b>   | No data available. |
| <b>Skin Contact:</b> | No data available. |
| <b>Eye contact:</b>  | No data available. |
| <b>Ingestion:</b>    | No data available. |

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

|                            |                        |
|----------------------------|------------------------|
| <b>Oral Product:</b>       | ATEmix: 5,944.53 mg/kg |
| <b>Dermal Product:</b>     | ATEmix: 6,676.36 mg/kg |
| <b>Inhalation Product:</b> | ATEmix: 3.53 mg/l      |



ATEmix : 0.72 mg/l

**Repeated dose toxicity**

**Product:**

No data available.

**Skin Corrosion/Irritation**

**Product:**

No data available.

**Specified substance(s):**

|  |  |
|--|--|
| Xylene                                   | in vivo (Rabbit): Moderate irritant<br>in vivo (Rat): Slightly irritating , 24 h |
| Hydrotreated heavy naphthenic distillate | in vivo (Rabbit): Category 2 , 24 - 72 h   |
| Hydrotreated light naphthenic distillate | in vivo (Rabbit): Not irritant , 24 - 72 h                                       |
| Phenolphthalein                          | In vitro Irritant , 42 min   |
| Titanium dioxide                         | in vivo (Rabbit): Not irritant , 24 h  |
| Amorphous silica                         | in vivo (Rabbit): Not irritant , 24 h  |
| Ethylene glycol                          | in vivo (Rabbit): Not irritant , 8 d   |
| Petroleum distillates                    | in vivo (Rabbit): Irritating , 24 - 72 h   |
| Calcium oxide                            | in vivo (Rabbit): Not irritant , 24 - 72 h                                       |

**Serious Eye Damage/Eye Irritation**

**Product:**

No data available.

**Specified substance(s):**

|  |                                       |
|--|---------------------------------------|
| Xylene                                   | Rabbit, 24 hrs: Moderately irritating |
| Hydrotreated heavy naphthenic distillate | Rabbit, 24 hrs: Not irritating        |
| Hydrotreated light naphthenic distillate | Rabbit, 24 hrs: Not irritating        |
| Phenolphthalein                          | Slightly irritating                   |
| Titanium dioxide                         | Rabbit, 24 hrs: Not irritating        |
| Ethylbenzene                             | Rabbit, 7 d: Slightly irritating      |

Ethylene glycol                      Rabbit, 24 hrs: Not irritating  
Petroleum distillates                Rabbit, 24 - 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:**

Hydrotreated light naphthenic distillate      Overall evaluation: Not classifiable as to carcinogenicity to humans.  
Phenolphthalein                                      Overall evaluation: Possibly carcinogenic to humans.  
Titanium dioxide                                      Overall evaluation: Possibly carcinogenic to humans.  
Ethylbenzene    Overall evaluation: Possibly carcinogenic to humans.

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

Hydrotreated light naphthenic distillate  
Phenolphthalein                                      Reasonably Anticipated to be a Human Carcinogen.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**  
**Product:**                                No data available.

**In vivo**  
**Product:**                                No data available.

**Reproductive toxicity**

**Product:**                                May damage fertility or the unborn child.

**Specific Target Organ Toxicity - Single Exposure**

**Product:**                                No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:**                                No data available.

**Target Organs**

Specific Target Organ Toxicity - Single Exposure: Respiratory tract irritation.  
Specific Target Organ Toxicity - Repeated Exposure: hearing

**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):**

|  |   |
|--|---|
| Xylene                                   | LC 50 (Fathead minnow (Pimephales promelas), 96 h): 13.41 mg/l Mortality                          |
| Hydrotreated heavy naphthenic distillate | LL 50 (Pimephales promelas, 96 h): > 100 mg/l Experimental result, Key study                      |
| Hydrotreated light naphthenic distillate | LL 50 (Pimephales promelas, 96 h): > 100 mg/l Experimental result, Key study                      |
| Ethylbenzene                             | LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 4.2 mg/l Mortality             |
| Diisodecyl phthalate                     | LC 50 (Fathead minnow (Pimephales promelas), 96 h): > 0.47 mg/l Mortality                         |
| Ethylene glycol                          | LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 36,000 - 47,000 mg/l Mortality |
| Petroleum distillates                    | LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 2.9 mg/l Mortality             |

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

|  |  |
|--|--|
| Hydrotreated heavy naphthenic distillate | LL 50 (Gammarus pulex, 72 h): > 10,000 mg/l Experimental result, Key study |
|  | LL 50 (Gammarus pulex, 96 h): > 10,000 mg/l Experimental result, Key study |
|  | LL 50 (Gammarus pulex, 48 h): > 10,000 mg/l Experimental result, Key study |
|  | NOAEL (Daphnia magna, 48 h): >= 10,000 mg/l Experimental result, Key study |
|  | LL 50 (Gammarus pulex, 24 h): > 10,000 mg/l Experimental result, Key study |
|  | Hydrotreated light naphthenic distillate                                   |

|                      |   |
|----------------------|---|
|                      | EC 50 (Daphnia magna, 48 h): > 10,000 mg/l Experimental result, Key study     |
|                      | LL 50 (Gammarus pulex, 72 h): > 10,000 mg/l Experimental result, Key study    |
|                      | EC 50 (Daphnia magna, 24 h): > 10,000 mg/l Experimental result, Key study     |
| Titanium dioxide     | EC 50 (Water flea (Daphnia magna), 48 h): > 1,000 mg/l Intoxication           |
| Ethylbenzene         | EC 50 (Water flea (Daphnia magna), 48 h): 1.37 - 4.4 mg/l Intoxication        |
| Diisodecyl phthalate | EC 50 (Opossum shrimp (Americamysis bahia), 96 h): > 0.08 mg/l Mortality      |
| Ethylene glycol      | LC 50 (Water flea (Ceriodaphnia dubia), 48 h): 11,700 - 16,600 mg/l Mortality |

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Hydrotreated heavy naphthenic distillate NOAEL (Oncorhynchus mykiss):  $\geq$  1,000 mg/l QSAR QSAR, Supporting study

Hydrotreated light naphthenic distillate NOAEL (Oncorhynchus mykiss):  $\geq$  1,000 mg/l QSAR QSAR, Supporting study

Ethylene glycol NOAEL (Pimephales promelas, 7 d): 15,380 mg/l Experimental result, Weight of Evidence study

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

Hydrotreated heavy naphthenic distillate NOAEL (Daphnia magna):  $\geq$  1,000 mg/l Experimental result, Supporting study

NOAEL (Daphnia magna): 10 mg/l Experimental result, Key study

NOAEL (Daphnia magna):  $\geq$  1,000 mg/l Experimental result, Supporting study

NOAEL (Daphnia magna):  $\geq$  1 mg/l Experimental result, Supporting study

EC 50 (Daphnia magna): > 1,000 mg/l Experimental result, Supporting study

Hydrotreated light naphthenic distillate NOAEL (Daphnia magna): 10 mg/l Experimental result, Key study

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**Specified substance(s):**

Hydrotreated heavy naphthenic distillate 2 - 4 % (28 d) Detected in water. Experimental result, Supporting study  
2 - 8 % (28 d) Detected in water. Experimental result, Supporting study  
31 % (28 d) Detected in water. Read-across based on grouping of substances (category approach), Supporting study  
31 % (28 d) Detected in water. Experimental result, Supporting study

Hydrotreated light naphthenic distillate 2 - 4 % (28 d) Detected in water. Experimental result, Supporting study  
31 % (28 d) Detected in water. Experimental result, Supporting study  
31 % (28 d) Detected in water. Read-across based on grouping of substances (category approach), Supporting study  
2 - 8 % (28 d) Detected in water. Experimental result, Supporting study

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential****Bioconcentration Factor (BCF)**

**Product:** No data available.

**Specified substance(s):**

Ethylene glycol Crayfish (Procambarus), Bioconcentration Factor (BCF): 0.42 (Flow through)

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Specified substance(s):**

Phenolphthalein Log Kow: 2.41

Ethylbenzene Log Kow: 3.15

Ethylene glycol Log Kow: -1.36

**Mobility in soil:** No data available.

**Other adverse effects:** Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.

**13. Disposal considerations**

**Disposal methods:** 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)**

None present or none present in regulated quantities.

**US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)**

None present or none present in regulated quantities.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended**

| <u>Chemical Identity</u>                    | <u>OSHA hazard(s)</u>  |
|---|--|
| Crystalline Silica<br>(Quartz)/ Silica Sand | kidney effects<br>lung effects<br>immune system effects<br>Cancer  |
| Benzene                                     | Blood<br>respiratory tract irritation<br>Central nervous system<br>Flammability<br>Cancer<br>Skin<br>Aspiration<br>Eye |

**CERCLA Hazardous Substance List (40 CFR 302.4):**

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| Xylene                   | 100 lbs.                   |
| Ethylbenzene             | 1000 lbs.                  |
| Ethylene glycol          | 5000 lbs.                  |
| Toluene                  | 1000 lbs.                  |
| p-Dioxane                | 100 lbs.                   |
| Methanol                 | 5000 lbs.                  |
| Naphthalene              | 100 lbs.                   |
| Propylene oxide          | 100 lbs.                   |
| Benzene                  | 10 lbs.                    |

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

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

Flammable (gases, aerosols, liquids, or solids)  
Acute toxicity (any route or exposure)  
Skin Corrosion or Irritation  
Serious eye damage or eye irritation  
Respiratory or Skin Sensitization  
Germ Cell Mutagenicity  
Carcinogenicity  
Reproductive toxicity  
Specific target organ toxicity (single or repeated exposure)  
Hazards Not Otherwise Classified (HNOC)

**US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances**

Not regulated.

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

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| Propylene oxide          | lbs                        |

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

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

**US State Regulations**

**US. California Proposition 65**



**WARNING**

Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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

| <u>Chemical Identity</u>                 |
|--|
| Isophorone Diisocyanate                  |
| Xylene                                   |
| Hydrotreated heavy naphthenic distillate |
| Hydrotreated light naphthenic distillate |
| Phenolphthalein                          |
| Titanium dioxide                         |
| Ethylbenzene                             |

**US. Massachusetts RTK - Substance List**

| <u>Chemical Identity</u>                 |
|--|
| Isophorone Diisocyanate                  |
| Xylene                                   |
| Hydrotreated heavy naphthenic distillate |
| Hydrotreated light naphthenic distillate |
| Titanium dioxide                         |
| Ethylbenzene                             |
| p-Dioxane                                |
| Propylene oxide                          |
| Crystalline Silica (Quartz)/ Silica Sand |

### **US. Pennsylvania RTK - Hazardous Substances**

#### **Chemical Identity**

Isophorone Diisocyanate  
Xylene  
Hydrotreated heavy naphthenic distillate  
Hydrotreated light naphthenic distillate  
Titanium dioxide  
Ethylbenzene

### **US. Rhode Island RTK**

#### **Chemical Identity**

Isophorone Diisocyanate  
Xylene  
Hydrotreated heavy naphthenic distillate  
Hydrotreated light naphthenic distillate  
Titanium dioxide  
Ethylbenzene

### **International regulations**

#### **Montreal protocol**

Not applicable

#### **Stockholm convention**

Not applicable

#### **Rotterdam convention**

Not applicable

#### **Kyoto protocol**

Not applicable

#### **VOC:**

Regulatory VOC (less water and  
exempt solvent) : 98 g/l

VOC Method 310 : 8.96 %



**Inventory Status:**

|  |  |
|--|--|
| Australia AICS:                          | One or more components in this product are not listed on or exempt from the Inventory. |
| Canada DSL Inventory List:               | 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. |
| Ontario Inventory:                       | 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. |
| Japan (ENCS) List:                       | 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. |
| Korea Existing Chemicals Inv. (KECI):    | One or more components in this product are not listed on or exempt from the Inventory. |
| Mexico INSQ:                             | One or more components in this product are not 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. |
| Philippines PICCS:                       | One or more components in this product are not listed on or exempt from the Inventory. |
| Taiwan Chemical Substance Inventory:     | One or more components in this   |

product are not listed on or exempt from the Inventory.

US TSCA Inventory:

One or more components in this product are not 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.

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

**Revision Date:** 01/13/2021

**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.