

# SAFETY DATA SHEET

## 1. Identification

**Material name:** SURFLEX LIGHT REFLECTIVE

**Material:** 166B 50

**Recommended use and restriction on use**

**Recommended use:** Cement, Portland, chemicals

**Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor Information**

Euclid Admixture Canada Inc.

2835 Grand-Allee

Saint Hubert QC J4T 2R4

CA

**Contact person:**

EH&S Department

**Telephone:**

(450)465-2233

**Emergency telephone number:**

1-800-424-9300 (US); 1-613-996-6666 (Canada)

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

|   |                         |
|---|-------------------------|
| Skin Corrosion/Irritation                             | Category 2              |
| Serious Eye Damage/Eye Irritation                     | Category 1              |
| Skin sensitizer                                       | Category 1              |
| Carcinogenicity                                       | Category 1A             |
| Specific Target Organ Toxicity -<br>Single Exposure   | Category 3 <sup>1</sup> |
| Specific Target Organ Toxicity -<br>Repeated Exposure | Category 1 <sup>2</sup> |

#### Target Organs

1. Respiratory tract irritation.
2. Lung

#### Unknown toxicity - Health

|   |         |
|---|---------|
| Acute toxicity, oral                        | 97.55 % |
| Acute toxicity, dermal                      | 100 %   |
| Acute toxicity, inhalation, vapor           | 100 %   |
| Acute toxicity, inhalation, dust<br>or mist | 35.87 % |

### Label Elements

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:** Causes skin irritation.  
 Causes serious eye damage.  
 May cause an allergic skin reaction.  
 May cause cancer.  
 May cause respiratory irritation.  
 Causes damage to organs through prolonged or repeated exposure.

**Precautionary Statements**

**Prevention:** Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

**Response:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Immediately call a POISON CENTER/doctor. Specific treatment (see on this label). Wash contaminated clothing before reuse.

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

**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):** None.

### 3. Composition/information on ingredients

**Mixtures**

| Chemical Identity                        | CAS number | Content in percent (%)* |
|--|------------|-------------------------|
| Crystalline Silica (Quartz)/ Silica Sand | 14808-60-7 | 50 - <100%              |
| Portland cement                          | 65997-15-1 | 20 - <50%               |
| Titanium dioxide                         | 13463-67-7 | 1 - <5%                 |

|                  |           |           |
|------------------|-----------|-----------|
| Aluminum oxide   | 1344-28-1 | 0.1 - <1% |
| Amorphous silica | 7631-86-9 | 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

|  |   |
|--|---|
| <b>Inhalation:</b>                                   | Move to fresh air.  |
| <b>Skin Contact:</b>                                 | 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. |
| <b>Eye contact:</b>                                  | Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.  |
| <b>Ingestion:</b>                                    | Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.  |
| <b>Personal Protection for First-aid Responders:</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.   |

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

|                  |   |
|------------------|---|
| <b>Symptoms:</b> | Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing. Respiratory tract irritation. |
| <b>Hazards:</b>  | No data available.  |

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

|                   |                          |
|-------------------|--------------------------|
| <b>Treatment:</b> | Symptoms may be delayed. |
|-------------------|--------------------------|

#### 5. Fire-fighting measures

|                              |   |
|------------------------------|---|
| <b>General Fire Hazards:</b> | No unusual fire or explosion hazards noted. |
|------------------------------|---|

##### Suitable (and unsuitable) extinguishing media

|  |  |
|--|--|
| <b>Suitable extinguishing media:</b>   | Use fire-extinguishing media appropriate for surrounding materials.    |
| <b>Unsuitable extinguishing media:</b> | Do not use water jet as an extinguisher, as this will spread the fire. |

|  |   |
|--|---|
| <b>Specific hazards arising from the chemical:</b> | During fire, gases hazardous to health may be formed. |
|--|---|

##### Special protective equipment and precautions for fire-fighters

|  |                    |
|--|--------------------|
| <b>Special fire-fighting procedures:</b> | 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:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

**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:** Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

**Environmental Precautions:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

### Handling

**Technical measures (e.g. Local and general ventilation):** 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.

**Safe handling advice:** 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. 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 get in eyes. Wash hands thoroughly after handling. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.

**Contact avoidance measures:** No data available.

**Hygiene measures:** Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not get in eyes. 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.

**Safe packaging materials:** No data available.

## 8. Exposure controls/personal protection

**Control Parameters**  
**Occupational Exposure Limits**



| Chemical Identity  | Type     | Exposure Limit Values                           | Source   |
|--|----------|---|--|
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable dust.     | TWA      | 0.05 mg/m3                                      | US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended (03 2016) |
|  | OSHA_ACT | 0.025 mg/m3                                     | US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended (03 2016) |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable dust.     | PEL      | 0.05 mg/m3                                      | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (03 2016)  |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable.          | TWA      | 2.4 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)                                 |
|  | TWA      | 0.1 mg/m3                                       | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)                                 |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable fraction. | TWA      | 0.025 mg/m3                                     | US. ACGIH Threshold Limit Values, as amended (02 2020)                                   |
| Portland cement - Respirable fraction.                             | TWA      | 1 mg/m3   | US. ACGIH Threshold Limit Values, as amended (2011)                                      |
| Portland cement - Total dust.                                      | PEL      | 15 mg/m3  | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)  |
| Portland cement - Respirable fraction.                             | PEL      | 5 mg/m3   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)  |
| Portland cement  | TWA      | 50 millions of particles per cubic foot of air  | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)                                 |
| Titanium dioxide   | TWA      | 10 mg/m3  | US. ACGIH Threshold Limit Values, as amended (2008)                                      |
| 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 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)                              |
| Aluminum oxide - Respirable fraction.                              | TWA      | 1 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)  |
| Aluminum oxide - Total dust.                                       | PEL      | 15 mg/m3  | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)  |
|  | TWA      | 50 millions of particles per cubic foot of air  | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                              |
| Aluminum oxide - 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)                              |
|  | TWA      | 5 mg/m3   | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                              |
| Aluminum oxide - Total dust.                                       | TWA      | 15 mg/m3  | US. OSHA Table Z-3 (29 CFR 1910.1000), as  |



|  |     |  |   |
|--|-----|--|---|
|  |     |  | amended (03 2016)   |
| Aluminum oxide - Inhalable particles.    | TWA | 10 mg/m3                                       | US. ACGIH Threshold Limit Values, as amended (01 2021)      |
| Aluminum oxide - Respirable particles.   | TWA | 3 mg/m3  | US. ACGIH Threshold Limit Values, as amended (01 2021)      |
| Amorphous silica - Inhalable particles.  | TWA | 10 mg/m3                                       | US. ACGIH Threshold Limit Values, as amended (01 2021)      |
| Amorphous silica - Respirable particles. | TWA | 3 mg/m3  | US. ACGIH Threshold Limit Values, as amended (01 2021)      |
| Amorphous silica - Respirable fraction.  | TWA | 5 mg/m3  | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016) |
| Amorphous silica - Total dust.           | TWA | 15 mg/m3                                       | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016) |
|  | TWA | 50 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016) |
| Amorphous silica - Respirable fraction.  | TWA | 15 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016) |



| Chemical name   | Type | Exposure Limit Values | Source  |
|---|------|-----------------------|---|
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable<br>fraction. | TWA  | 0.10 mg/m3            | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)  |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable dust.        | TWA  | 0.1 mg/m3             | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)   |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable<br>fraction. | TWA  | 0.025 mg/m3           | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Biological<br>Substances, Occupational Health and Safety<br>Regulation 296/97, as amended) (06 2020) |
| Portland cement - Total dust.   | TWA  | 10 mg/m3              | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)   |
| Portland cement - Respirable<br>dust.                                 | TWA  | 5 mg/m3               | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)   |
| Portland cement -<br>Respirable.                                      | TWA  | 1 mg/m3               | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Biological<br>Substances, Occupational Health and Safety<br>Regulation 296/97, as amended) (06 2017) |
| Portland cement - Respirable<br>fraction.                             | TWA  | 1 mg/m3               | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(08 2017)  |
| Titanium dioxide - Total dust.  | TWA  | 10 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Biological<br>Substances, Occupational Health and Safety<br>Regulation 296/97, as amended) (07 2007) |
| Titanium dioxide - Respirable<br>fraction.                            | TWA  | 3 mg/m3               | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Biological<br>Substances, Occupational Health and Safety<br>Regulation 296/97, as amended) (07 2007) |
| Titanium dioxide  | TWA  | 10 mg/m3              | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(11 2010)  |
| Titanium dioxide - Total dust.  | TWA  | 10 mg/m3              | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)   |
| Aluminum oxide - Respirable<br>fraction.                              | TWA  | 1 mg/m3               | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(11 2010)  |
| Aluminum oxide - Inhalable<br>fraction.                               | TWA  | 10 mg/m3              | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)  |
| Aluminum oxide - Respirable<br>fraction.                              | TWA  | 3 mg/m3               | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)  |
| Aluminum oxide - Total dust.<br>- as Al                               | TWA  | 10 mg/m3              | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)   |
| Aluminum oxide - Respirable.  | TWA  | 1.0 mg/m3             | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Biological<br>Substances, Occupational Health and Safety<br>Regulation 296/97, as amended) (06 2020) |
| Aluminum oxide - Total dust.  | TWA  | 10 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Biological<br>Substances, Occupational Health and Safety<br>Regulation 296/97, as amended) (06 2020) |
| Aluminum oxide - Inhalable<br>particles.                              | TWA  | 10 mg/m3              | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(01 2020)  |
| Aluminum oxide - Respirable<br>particles.                             | TWA  | 3 mg/m3               | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(01 2020)  |
| Aluminum oxide - Respirable   | TWA  | 3 mg/m3               | Canada. British Columbia OELs. (Occupational  |



|  |      |          |  |
|--|------|----------|--|
| fraction.                                |      |          | Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)  |
| Amorphous silica - Respirable fraction.  | TWA  | 3 mg/m3  | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020) |
| Amorphous silica - Inhalable fraction.   | TWA  | 10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)   |
| Amorphous silica - Respirable particles. | TWA  | 3 mg/m3  | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)   |
| Amorphous silica - Total dust.           | TWA  | 10 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)  |
| Amorphous silica - Respirable fraction.  | TWA  | 3 mg/m3  | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)   |
| Amorphous silica - Total dust.           | TWA  | 10 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020) |
| Amorphous silica - Inhalable particles.  | TWA  | 10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)   |
| Zirconium dioxide - as Zr                | STEL | 10 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological 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 Biological 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)  |





|   |     |          |  |
|---|-----|----------|--|
| Zirconium dioxide - Respirable fraction.  | TWA | 3 mg/m3  | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)   |
| Zirconium dioxide - Total dust.           | TWA | 10 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (04 2019)  |
| Zirconium dioxide - Inhalable fraction.   | TWA | 10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)   |
| Zirconium dioxide - Inhalable particles.  | TWA | 10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)   |
| Zirconium dioxide - Respirable fraction.  | TWA | 3 mg/m3  | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020) |
| Zirconium dioxide - Total dust.           | TWA | 10 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020) |
| Zirconium dioxide - Respirable particles. | TWA | 3 mg/m3  | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)   |

**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****Eye/face protection:**

Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

**Skin Protection****Hand Protection:**

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

**Skin and Body Protection:**

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:**

In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

**Hygiene measures:**

Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not get in eyes. 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****Physical state:**

solid

**Form:**

Powder

**Color:**

Gray

**Odor:**

Odorless



|  |                      |
|--|----------------------|
| 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:   | No data available.   |
| Evaporation rate:  | No data available.   |
| Flammability (solid, gas):                                   | No                   |
| <b>Upper/lower limit on flammability or explosive limits</b> |                      |
| 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:   | No data available.   |
| Relative density:  | 2.8                  |
| <b>Solubility(ies)</b>                                       |                      |
| Solubility in water:   | Miscible with 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:             | No data available.  |
| 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

|               |   |
|---------------|---|
| Inhalation:   | In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes. |
| Skin Contact: | Causes skin irritation. May cause an allergic skin reaction.                                  |
| Eye contact:  | Causes serious eye damage.  |

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

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

**Inhalation:** No data available.

**Skin Contact:** No data available.

**Eye contact:** No data available.

**Ingestion:** No data available.

**Information on toxicological effects**

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

**Oral**

**Product:** Not classified for acute toxicity based on available data.

**Specified substance(s):**

Crystalline Silica  
(Quartz)/ Silica Sand LD 50: > 2,000 mg/kg

Titanium dioxide LD 50 (Rat): > 5,000 mg/kg

Aluminum oxide LD 50 (Rat): > 10,000 mg/kg

Amorphous silica LD 50 (Rat): > 5,000 mg/kg

**Dermal**

**Product:** Not classified for acute toxicity based on available data.

**Specified substance(s):**

Amorphous silica LD 50 (Rabbit): > 5,000 mg/kg

**Inhalation**

**Product:** Not classified for acute toxicity based on available data.

**Specified substance(s):**

Crystalline Silica  
(Quartz)/ Silica Sand LC 50: > 5.0 mg/l

Titanium dioxide LC 50 (Rat): 3.43 mg/l

Aluminum oxide LC 50 (Rat): 7.6 mg/l

Amorphous silica LC 50 (Rat): > 2.08 mg/l

**Repeated dose toxicity**

**Product:** No data available.

**Skin Corrosion/Irritation**

**Product:** No data available.

**Specified substance(s):**

|                  |  |
|------------------|--|
| Titanium dioxide | in vivo (Rabbit): Not irritant , 24 h      |
| Aluminum oxide   | in vivo (Rabbit): Not irritant , 24 - 72 h |
| Amorphous silica | in vivo (Rabbit): Not irritant , 48 h      |

**Serious Eye Damage/Eye Irritation**

**Product:** No data available.

**Specified substance(s):**

|                  |                                   |
|------------------|-----------------------------------|
| Titanium dioxide | Rabbit, 24 - 72 hrs: Not irritant |
| Aluminum oxide   | Rabbit, 24 hrs: Not irritant      |
| Amorphous silica | Rabbit, 24 - 72 hrs: Not irritant |

**Respiratory or Skin Sensitization**

**Product:** No data available.

**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

|  |  |
|--|--|
| Crystalline Silica<br>(Quartz)/ Silica<br>Sand | Overall evaluation: Carcinogenic to humans.          |
| Titanium dioxide                               | Overall evaluation: Possibly carcinogenic to humans. |

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

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

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

|  |        |
|--|--------|
| Crystalline Silica<br>(Quartz)/ Silica<br>Sand | Cancer |
|--|--------|

## 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.

### Target Organs

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

Specific Target Organ Toxicity - Repeated Exposure: Lung

**Aspiration Hazard**  
**Product:** No data available.

**Other effects:** Constituents of this product may include crystalline silica which, if in inhalable form, may cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline silica is also listed by the NTP as a known human carcinogen. Constituents may also contain asbestiform or non-asbestiform tremolite or other silicates as impurities, and above de minimis exposure to these impurities in inhalable form may be carcinogenic or cause other serious lung problems.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

**Fish**  
**Product:** No data available.

#### Specified substance(s):

Titanium dioxide LC 50 (Pimephales promelas, 96 h): 8.2 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study

Aluminum oxide LC 50 (Pimephales promelas, 96 h): 1.16 mg/l Experimental result, Weight

of Evidence study

#### Aquatic Invertebrates

**Product:** No data available.

#### Specified substance(s):

Titanium dioxide LC 50 (Daphnia magna, 48 h): > 100 mg/l experimental result Experimental result, Weight of Evidence study

Aluminum oxide EC 50 (Ceriodaphnia dubia, 48 h): 1.5 mg/l experimental result Experimental result, Weight of Evidence study

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

#### Aquatic Invertebrates

**Product:** No data available.

#### Specified substance(s):

Titanium dioxide NOAEL (Daphnia magna): 100 mg/l experimental result Experimental result, Supporting study

Aluminum oxide NOAEL (Daphnia magna): 1.89 mg/l experimental result Experimental result, Weight of Evidence study

#### 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:** No data available.

### 13. Disposal considerations

|                                |   |
|--------------------------------|---|
| <b>Disposal methods:</b>       | Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. |
| <b>Contaminated Packaging:</b> | No data available.  |

### 14. Transport information

**TDG:**

Not Regulated

**CFR / DOT:**

Not Regulated

**IMDG:**

Not Regulated

**Further Information:**

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

### 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**

**Chemical Identity**

Crystalline Silica  
(Quartz)/ Silica Sand

**OSHA hazard(s)**

kidney effects  
lung effects  
immune system effects  
Cancer

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

None present or none present in regulated quantities.

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

### Hazard categories

Immediate (Acute) Health Hazards  
Delayed (Chronic) Health Hazard  
Skin Corrosion or Irritation  
Serious eye damage or eye irritation  
Respiratory or Skin Sensitization  
Carcinogenicity  
Specific target organ toxicity (single or repeated exposure)

### 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.

### US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

Not regulated.

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

None present or none present in regulated quantities.

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

None present or none present in regulated quantities.

## US State Regulations

### US. California Proposition 65



#### WARNING

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

## 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) : 0 g/l

VOC Method 310 : 0.00 %



**Inventory Status:**

|  |  |
|--|--|
| Australia AICS:                          | All components in this product are 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: | All components in this product are listed on or exempt from the Inventory.             |
| Korea Existing Chemicals Inv. (KECI):    | All components in this product are 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:      | All components in this product are 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. |
| Mexico INSQ:                             | 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.

Taiwan Chemical Substance Inventory:

One or more components in this  
product are not listed on or exempt  
from the Inventory.

|  |
|--|
| <b>16. Other information, including date of preparation or last revision</b> |
|--|

**Revision Date:** 11/16/2022

**Version #:** 3.1

**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.