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Version: 5.0
Revision Date: 06/10/2019

SAFETY DATA SHEET

1. Identification

Material name: THIN PATCH

Material: TR5109650

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

| | |
|--|-------------------------|
| Acute toxicity (Inhalation - dust and mist) | Category 4 |
| Skin Corrosion/Irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 1 |
| Skin sensitizer | Category 1 |
| Carcinogenicity | Category 1A |
| Specific Target Organ Toxicity - Single Exposure | Category 3 ¹ |
| Specific Target Organ Toxicity - Repeated Exposure | Category 1 ² |

Target Organs

1. Respiratory tract irritation.
2. Lung

Unknown toxicity - Health

| | |
|--|---------|
| Acute toxicity, oral | 91.95 % |
| Acute toxicity, dermal | 98.27 % |
| Acute toxicity, inhalation, vapor | 99.95 % |
| Acute toxicity, inhalation, dust or mist | 100 % |

Label Elements

**Hazard Symbol:****Signal Word:**

Danger

Hazard Statement:

Harmful if inhaled.
 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:**

Use only outdoors or in a well-ventilated area. 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. 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 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% |
| Calcium salt | 7778-18-9 | 5 - <10% |
| Aluminum oxide | 1344-28-1 | 0 - <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: | Move to fresh air. |
| 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. |
| Eye contact: | 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. |
| Ingestion: | Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. |
| Personal Protection for First-aid Responders: | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |

Most important symptoms/effects, acute and delayed

| | |
|------------------|---|
| Symptoms: | 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. |
| Hazards: | No data available. |

Indication of immediate medical attention and special treatment needed

| | |
|-------------------|--------------------------|
| Treatment: | Symptoms may be delayed. |
|-------------------|--------------------------|

5. Fire-fighting measures

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

Suitable (and unsuitable) extinguishing media

| | |
|--|--|
| Suitable extinguishing media: | Use fire-extinguishing media appropriate for surrounding materials. |
| Unsuitable extinguishing media: | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical: | During fire, gases hazardous to health may be formed. |

**Special protective equipment and precautions for firefighters**

| | |
|--|---|
| Special fire fighting procedures: | No data available. |
| Special protective equipment for fire-fighters: | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |

6. Accidental release measures

| | |
|---|---|
| Personal precautions, protective equipment and emergency procedures: | 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. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes. 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)/ Silica Sand - Respirable fraction. | TWA | 0.025 mg/m ³ | US. ACGIH Threshold Limit Values (2011) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable dust. | TWA | 0.05 mg/m ³ | US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016) |
| | OSHA_A C T | 0.025 mg/m ³ | US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable dust. | PEL | 0.05 mg/m ³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable. | TWA | 2.4 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| | TWA | 0.1 mg/m ³ | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| Portland cement - Respirable fraction. | TWA | 1 mg/m ³ | US. ACGIH Threshold Limit Values (2011) |
| Portland cement - Total dust. | PEL | 15 mg/m ³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Portland cement - Respirable fraction. | PEL | 5 mg/m ³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Portland cement | TWA | 50 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| Calcium salt - Total | REL | 10 mg/m ³ | US. NIOSH: Pocket Guide to Chemical Hazards (2010) |
| Calcium salt - Respirable. | REL | 5 mg/m ³ | US. NIOSH: Pocket Guide to Chemical Hazards (2010) |
| Calcium salt - Total dust. | TWA | 15 mg/m ³ | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| Calcium salt - Respirable fraction. | TWA | 5 mg/m ³ | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| Calcium salt - Total dust. | TWA | 15 mg/m ³ | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008) |
| Calcium salt - Respirable fraction. | TWA | 5 mg/m ³ | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008) |
| Calcium salt | AN ESL | 5 µg/m ³ | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (03 2014) |
| | ST ESL | 50 µg/m ³ | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (03 2014) |
| Calcium salt - Inhalable fraction. | TWA | 10 mg/m ³ | US. ACGIH Threshold Limit Values (2011) |
| Calcium salt - Total dust. | PEL | 15 mg/m ³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Calcium salt - Respirable fraction. | PEL | 5 mg/m ³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Aluminum oxide - Respirable fraction. | TWA | 1 mg/m ³ | US. ACGIH Threshold Limit Values (2011) |
| | PEL | 5 mg/m ³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Aluminum oxide - Total dust. | PEL | 15 mg/m ³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Aluminum oxide - Respirable fraction. | TWA | 50 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016) |
| | TWA | 15 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016) |



| | | | |
|------------------------------|-----|----------------------|---|
| | TWA | 5 mg/m ³ | US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016) |
| Aluminum oxide - Total dust. | TWA | 15 mg/m ³ | US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016) |

| Chemical name | Type | Exposure Limit Values | Source |
|---|------|-------------------------|---|
| Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction. | TWA | 0.025 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction. | TWA | 0.10 mg/m ³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable dust. | TWA | 0.1 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Portland cement - Total dust. | TWA | 10 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Portland cement - Respirable dust. | TWA | 5 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Portland cement - Respirable. | TWA | 1 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2017) |
| Portland cement - Respirable fraction. | TWA | 1 mg/m ³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (08 2017) |
| Calcium salt | TWA | 10 mg/m ³ | Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009) |
| Calcium salt - Inhalable | TWA | 10 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Calcium salt - Inhalable fraction. | TWA | 10 mg/m ³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Calcium salt - Total dust. | TWA | 10 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Calcium salt - Respirable dust. | TWA | 5 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |



| Chemical name | Type | Exposure Limit Values | Source |
|---|------|-------------------------|---|
| Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction. | TWA | 0.025 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction. | TWA | 0.10 mg/m ³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable dust. | TWA | 0.1 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Portland cement - Total dust. | TWA | 10 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Portland cement - Respirable dust. | TWA | 5 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Portland cement - Respirable. | TWA | 1 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2017) |
| Portland cement - Respirable fraction. | TWA | 1 mg/m ³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (08 2017) |
| Calcium salt | TWA | 10 mg/m ³ | Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009) |
| Calcium salt - Inhalable | TWA | 10 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Calcium salt - Inhalable fraction. | TWA | 10 mg/m ³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Calcium salt - Total dust. | TWA | 10 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Calcium salt - Respirable dust. | TWA | 5 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Clay - Respirable. | TWA | 2 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Clay - Respirable dust. | TWA | 5 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Clay - Respirable fraction. | TWA | 2 mg/m ³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (08 2017) |
| Talc - Respirable. | TWA | 2 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Talc - Respirable dust. | TWA | 3 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Talc | TWA | 2 Fibers/cc | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (08 2017) |
| Talc - Respirable fraction. | TWA | 2 mg/m ³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (08 2017) |
| Calcium oxide | TWA | 2 mg/m ³ | 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/m ³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Calcium oxide | TWA | 2 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work |



| | | | |
|--|------|----------|---|
| | | | Environment) (09 2017) |
| Magnesium oxide - Respirable dust and/or fume. - as Mg | 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) |
| Magnesium oxide - Inhalable fume. | 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) |
| Magnesium oxide - Respirable dust and/or fume. - as Mg | 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) |
| Magnesium oxide - Inhalable fraction. | TWA | 10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Magnesium oxide - Fume. - as Mg | TWA | 10 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Calcium Carbonate (Limestone) - Total dust. | STEL | 20 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| | TWA | 10 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |



| | | | |
|--|------|----------|---|
| Calcium Carbonate (Limestone) - Respirable fraction. | TWA | 3 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Calcium Carbonate (Limestone) - Total dust. | TWA | 10 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (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) (11 2010) |
| Aluminum oxide - Inhalable fraction. | TWA | 10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015) |
| Aluminum oxide - Respirable fraction. | TWA | 3 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015) |
| Aluminum oxide - Total dust. - as Al | TWA | 10 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Iron 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) (07 2007) |
| Iron oxide - Dust. - as Fe | 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) |
| Iron oxide - Fume. - as Fe | 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) |
| Iron 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) (07 2007) |
| Iron oxide - Fume. - as Fe | 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) |
| Iron oxide - Respirable fraction. | TWA | 5 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Iron oxide - Total dust. | TWA | 10 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| Iron oxide - Dust and fume. - as Fe | TWA | 5 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017) |
| 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) (11 2010) |
| Titanium dioxide - Total dust. | TWA | 10 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - |



| | | |
|--|--|--|
| | | Regulation Respecting the Quality of the Work Environment) (09 2017) |
|--|--|--|

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

Individual protection measures, such as personal protective equipment

General information: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

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: Use suitable protective gloves if risk of skin contact.

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

Respiratory Protection: 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 |
| Upper/lower limit on flammability or explosive limits | |
| Flammability limit - upper (%): | No data available. |
| Flammability limit - lower (%): | No data available. |



| | |
|---|----------------------|
| Explosive limit - upper (%): | No data available. |
| Explosive limit - lower (%): | No data available. |
| Vapor pressure: | No data available. |
| Vapor density: | No data available. |
| Relative density: | 2.6 |
| Solubility(ies) | |
| 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 harmful if swallowed. |

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:** ATEmix: 2,014.98 mg/kg**Dermal****Product:** Not classified for acute toxicity based on available data.**Inhalation****Product:** ATEmix: 1.9 mg/l**Repeated dose toxicity****Product:** No data available.**Skin Corrosion/Irritation****Product:** No data available.**Specified substance(s):**

Calcium salt in vivo (Rabbit): Not irritant

Aluminum oxide in vivo (Rabbit): Not irritant

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

Calcium salt Rabbit, 72 hrs: Not irritating

Aluminum oxide Rabbit, 24 hrs: Not irritating

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

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

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

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

Crystalline Silica
(Quartz)/ Silica Cancer
Sand

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: No data available.

**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**Calcium salt LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): > 1,970 mg/l
Mortality**Aquatic Invertebrates****Product:** No data available.**Chronic hazards to the aquatic environment:****Fish****Product:** No data available.**Aquatic Invertebrates****Product:** No data available.**Toxicity to Aquatic Plants****Product:** No data available.**Persistence and Degradability****Biodegradation****Product:** No data available.**BOD/COD Ratio****Product:** No data available.**Bioaccumulative potential****Bioconcentration Factor (BCF)****Product:** No data available.**Partition Coefficient n-octanol / water (log Kow)****Product:** No data available.**Mobility in soil:** No data available.**Other adverse effects:** No data available.



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)

| <u>Chemical Identity</u> | <u>OSHA hazard(s)</u> |
|--------------------------|-----------------------|
| Crystalline Silica | kidney effects |
| (Quartz)/ Silica Sand | 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
- Acute toxicity (any route or exposure)



Skin Corrosion or Irritation
Serious eye damage or eye irritation
Respiratory or Skin Sensitization
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

| <u>Chemical Identity</u> | <u>Threshold Planning Quantity</u> |
|---|------------------------------------|
| Crystalline Silica (Quartz)/ Silica Sand | 10000 lbs |
| Portland cement | 10000 lbs |
| Calcium salt | 10000 lbs |
| Aluminum oxide | 10000 lbs |

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

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

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

Chemical Identity

Crystalline Silica (Quartz)/ Silica Sand
Portland cement
Calcium salt

US. Massachusetts RTK - Substance List

Chemical Identity

Crystalline Silica (Quartz)/ Silica Sand
Portland cement
Calcium salt

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Crystalline Silica (Quartz)/ Silica Sand
Portland cement
Calcium salt



US. Rhode Island RTK

Chemical Identity

Crystalline Silica (Quartz)/ Silica Sand
Portland cement

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

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

| | |
|-----------------------------|--------------------|
| Revision Date: | 06/10/2019 |
| Version #: | 5.0 |
| 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.

