

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous

Products Regulation (February 11, 2015).

Revision Date: 08/24/2020 Date of Issue: 12/17/2019 Version: 2.0

## **SECTION 1: IDENTIFICATION**

## **Product Identifier**

**Product Form:** Mixture

Product Name: 1500 Sanded Grout

Product Code: 1524-0025-2 (115), 1544-0025-2 (105, 108, 110, 120, 130), 1588-0025-2 (100, 108)

### Intended Use of the Product

Grout. For professional use only.

#### 1.3. Name, Address, and Telephone of the Responsible Party

Company Company

**LATICRETE International** LATICRETE Canada ULC

1 Laticrete Park. N PO Box 129, Emeryville, Ontario, Canada

Bethany, CT 06524 T (203)-393-0010 (833)-254-9255

www.laticrete.com

#### **Emergency Telephone Number** 1.4.

**Emergency Number**: For Chemical Emergency call ChemTel Inc. day or night:

(800)255-3924 (North America) (800)-099-0731 (Mexico)

+1 (813)248-0585 (International - collect calls accepted)

## **SECTION 2: HAZARDS IDENTIFICATION**

#### Classification of the Substance or Mixture 2.1.

### **GHS-US/CA Classification**

Skin Corr. 1C H314 Eye Dam. 1 H318 Skin Sens. 1 H317 Carc. 1A H350 STOT SE 3 H335 STOT RE 1 H372

Full text of hazard classes and H-statements: see section 16

### **Label Elements**

**GHS-US/CA Labeling** 

Hazard Pictograms (GHS-US/CA)







Signal Word (GHS-US/CA) : Danger

Hazard Statements (GHS-US/CA) : H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage. H335 - May cause respiratory irritation. H350 - May cause cancer (Inhalation).

H372 - Causes damage to organs (lungs) through prolonged or repeated exposure

(Inhalation).

Precautionary Statements (GHS-US/CA): P201 - Obtain special instructions before use.

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

P260 - Do not breathe dust.

P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product.

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

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

P280 - Wear protective gloves, protective clothing, and eye protection.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

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

P310 - Immediately call a POISON CENTER or doctor.

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

P321 - Specific treatment (see section 4 on this SDS).

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

### 2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

## 2.4. Unknown Acute Toxicity (GHS-US/CA)

No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Not applicable

## 3.2. Mixture

| Name                                | Product Identifier    | % *         | <b>GHS Ingredient Classification</b> |
|-------------------------------------|-----------------------|-------------|--------------------------------------|
| Quartz                              | (CAS-No.) 14808-60-7  | 65 - 68     | Carc. 1A, H350                       |
|                                     |                       |             | STOT SE 3, H335                      |
|                                     |                       |             | STOT RE 1, H372                      |
| Cement, portland, chemicals         | (CAS-No.) 65997-15-1  | 27 - 30     | Skin Irrit. 2, H315                  |
|                                     |                       |             | Eye Dam. 1, H318                     |
|                                     |                       |             | Skin Sens. 1, H317                   |
|                                     |                       |             | STOT SE 3, H335                      |
| Calcium oxide                       | (CAS-No.) 1305-78-8   | 15 - 21     | Skin Irrit. 2, H315                  |
|                                     |                       |             | Eye Dam. 1, H318                     |
|                                     |                       |             | STOT SE 3, H335                      |
|                                     |                       |             | Aquatic Acute 3, H402                |
|                                     |                       |             | Aquatic Chronic 3, H412              |
| Titanium dioxide                    | (CAS-No.) 13463-67-7  | 0.2 - 4     | Carc. 2, H351                        |
| Kaolin                              | (CAS-No.) 1332-58-7   | 2.6 - 3.5   | Not classified                       |
| Limestone                           | (CAS-No.) 1317-65-3   | 1.3 - 2.2   | Not classified                       |
| Silicic acid (H4SiO4), calcium salt | (CAS-No.) 10034-77-2  | 0.8 - 1.5   | Eye Irrit. 2A, H319                  |
| (1:2)                               |                       |             |                                      |
| Calcium sulfate dihydrate           | (CAS-No.) 13397-24-5  | 1.3 -1.5    | Not classified                       |
| Magnesium oxide (MgO)               | (CAS-No.) 1309-48-4   | 0.8 - 0.9   | Not classified                       |
| Silica, amorphous                   | (CAS-No.) 7631-86-9   | 0.13 - 0.14 | Not classified                       |
| Aluminum oxide (Al2O3)              | (CAS-No.) 1344-28-1   | 0.03 - 0.04 | Not classified                       |
| Silica, amorphous, precipitated and | (CAS-No.) 112926-00-8 | 0.01 - 0.04 | Not classified                       |
| gel                                 |                       |             |                                      |
| Boron oxide (B2O3)                  | (CAS-No.) 1303-86-2   | 0.01 - 0.03 | Repr. 1B, H360                       |

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| Fluorine             | (CAS-No.) 7782-41-4  | <= 0.0025            | Acute Tox. 1 (Inhalation), H330<br>Skin Corr. 1, H314<br>Eye Dam. 1, H318<br>STOT SE 3, H335 |
|----------------------|----------------------|----------------------|--|
| Iron oxide (Fe2O3)   | (CAS-No.) 1309-37-1  | 0.0001 -<br>0.001    | Comb. Dust   |
| Chromium, ion (Cr6+) | (CAS-No.) 18540-29-9 | 0.00002 -<br>0.00003 | Skin Sens. 1, H317 Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410              |

Full text of H-phrases: see section 16

## **SECTION 4: FIRST AID MEASURES**

### 4.1. Description of First-aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

**Skin Contact:** Immediately remove contaminated clothing. Immediately flush skin with plenty of water for at least 30 minutes. Get immediate medical advice/attention.

**Eye Contact:** Immediately rinse with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

## 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure. Skin sensitization. Causes damage to organs (lungs) through prolonged or repeated exposure (Inhalation). May cause cancer (Inhalation).

Inhalation: Irritation of the respiratory tract and the other mucous membranes. May be corrosive to the respiratory tract. The three types of silicosis include: 1) Simple chronic silicosis – which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD); 2) Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years); 3) Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels. Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures.

**Skin Contact:** May cause an allergic skin reaction. Causes severe irritation which will progress to chemical burns. Concrete may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Exposure of sufficient duration to wet concrete can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. A skin exposure may be hazardous even if there is no pain or discomfort. Unhardened concrete is capable of causing dermatitis by irritation and allergy. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Irritant dermatitis is caused by the physical properties of concrete including alkalinity and abrasion. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) present in concrete. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with wet concrete. Others may develop allergic dermatitis after years of repeated contact with wet concrete.

**Eye Contact:** Causes permanent damage to the cornea, iris, or conjunctiva. Concrete may cause immediate or delayed irritation or inflammation. Eye contact with wet concrete can cause moderate eye irritation, chemical burns and blindness. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

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<sup>\*</sup>Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

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Chronic Symptoms: Causes damage to organs (lungs) through prolonged or repeated exposure (Inhalation). Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica. May cause cancer by inhalation. Repeated or prolonged exposure to titanium dioxide dust via inhalation is suspected of causing cancer of the respiratory tract.

## 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## **SECTION 5: FIRE-FIGHTING MEASURES**

## 5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Quartz (silica) will dissolve in hydroflouric acid producing a corrosive gas, silicon tetrafluoride. Calcium oxide reacts with water to form corrosive calcium hydroxide, with evolution of much heat. Temperatures as high as 800° C (1472 °F) have been reached with addition of water (moisture in air or soil). Portland Cement reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution until reaction is substantially complete.

### 5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection. **Hazardous Combustion Products**: Carbon oxides (CO, CO<sub>2</sub>). Sulfur oxides. Metal oxides. Silicon oxides. Formaldehyde. Nitrogen oxides.

### 5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood. Avoid generating dust.

### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Recover the product by vacuuming, shoveling or sweeping. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Cautiously neutralize spilled solid.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

### **SECTION 7: HANDLING AND STORAGE**

### 7.1. Precautions for Safe Handling

Additional Hazards When Processed: May release corrosive vapors.

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**Precautions for Safe Handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact with eyes, skin and clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Handle empty containers with care because they may still present a hazard. Avoid creating or spreading dust.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in original container or corrosive resistant and/or lined container.

**Incompatible Materials:** Reactive or incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt.

Portland cement is highly alkaline and will react with acids to produce a violent, heat-generating reaction. Toxic gases or vapors may be given off depending on the acid involved. Reacts with acids, aluminum metals and ammonium salts. Aluminum powder and other alkali and alkaline earth elements will react in wet mortar or concrete, liberating hydrogen gas. Limestone ignites on contact with fluorine and is incompatible with acids, alum, ammonium salts, and magnesium. Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silicates dissolve readily in hydrofluoric acid producing a corrosive gas — silicon tetrafluoride.

### 7.3. Specific End Use(s)

Grout. For professional use only.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

| Quartz (14808-60-7)        |                         |  |
|----------------------------|-------------------------|--|
| USA ACGIH                  | ACGIH TWA (mg/m³)       | 0.025 mg/m³ (respirable particulate matter)            |
| USA ACGIH                  | ACGIH chemical category | A2 - Suspected Human Carcinogen                        |
| USA OSHA                   | OSHA PEL (TWA) (mg/m³)  | 50 μg/m³ (Respirable crystalline silica)               |
| USA NIOSH                  | NIOSH REL (TWA) (mg/m³) | 0.05 mg/m³ (respirable dust)                           |
| USA IDLH                   | US IDLH (mg/m³)         | 50 mg/m³ (respirable dust)                             |
| Alberta                    | OEL TWA (mg/m³)         | 0.025 mg/m³ (respirable particulate)                   |
| British Columbia           | OEL TWA (mg/m³)         | 0.025 mg/m³ (respirable)                               |
| Manitoba                   | OEL TWA (mg/m³)         | 0.025 mg/m³ (respirable particulate matter)            |
| New Brunswick              | OEL TWA (mg/m³)         | 0.1 mg/m³ (respirable fraction)                        |
| Newfoundland & Labrador    | OEL TWA (mg/m³)         | 0.025 mg/m³ (respirable particulate matter)            |
| Nova Scotia                | OEL TWA (mg/m³)         | 0.025 mg/m³ (respirable particulate matter)            |
| Nunavut                    | OEL TWA (mg/m³)         | 0.05 mg/m³ (respirable fraction (Silica - crystalline) |
| Northwest Territories      | OEL TWA (mg/m³)         | 0.05 mg/m³ (respirable fraction (Silica - crystalline) |
| Ontario                    | OEL TWA (mg/m³)         | 0.1 mg/m³ (designated substances regulation-respirable |
|                            |                         | (Silica, crystalline)                                  |
| Prince Edward Island       | OEL TWA (mg/m³)         | 0.025 mg/m³ (respirable particulate matter)            |
| Québec                     | VEMP (mg/m³)            | 0.1 mg/m³ (respirable dust)                            |
| Saskatchewan               | OEL TWA (mg/m³)         | 0.05 mg/m³ (respirable fraction (Silica - crystalline  |
|                            |                         | (Trydimite removed))                                   |
| Yukon                      | OEL TWA (mg/m³)         | 300 particle/mL (Silica - Quartz, crystalline)         |
| Cement, portland, chemical | s (65997-15-1)          |  |
| USA ACGIH                  | ACGIH TWA (mg/m³)       | 1 mg/m³ (particulate matter containing no asbestos and |
|                            |                         | <1% crystalline silica, respirable particulate matter) |
| USA ACGIH                  | ACGIH chemical category | Not Classifiable as a Human Carcinogen                 |

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|---|-------------------------|---|
| USA OSHA                                    | OSHA PEL (TWA) (mg/m³)  | 15 mg/m³ (total dust)   |
|   |                         | 5 mg/m³ (respirable fraction)   |
| USA NIOSH                                   | NIOSH REL (TWA) (mg/m³) | 10 mg/m³ (total dust)   |
|   |                         | 5 mg/m³ (respirable dust)   |
| USA IDLH                                    | US IDLH (mg/m³)         | 5000 mg/m <sup>3</sup>  |
| Alberta                                     | OEL TWA (mg/m³)         | 10 mg/m <sup>3</sup>  |
| British Columbia                            | OEL TWA (mg/m³)         | 1 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica-respirable particulate)   |
| Manitoba                                    | OEL TWA (mg/m³)         | 1 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate matterparticulate matter, respirable particulate matter)  |
| New Brunswick                               | OEL TWA (mg/m³)         | 10 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica)   |
| Newfoundland & Labrador                     | OEL TWA (mg/m³)         | 1 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate matterparticulate matter, respirable particulate matter)  |
| Nova Scotia                                 | OEL TWA (mg/m³)         | 1 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate matter-particulate matter, respirable particulate matter) |
| Nunavut                                     | OEL STEL (mg/m³)        | 20 mg/m <sup>3</sup>  |
| Nunavut                                     | OEL TWA (mg/m³)         | 10 mg/m <sup>3</sup>  |
| Northwest Territories                       | OEL STEL (mg/m³)        | 20 mg/m <sup>3</sup>  |
| Northwest Territories                       | OEL TWA (mg/m³)         | 10 mg/m <sup>3</sup>  |
| Ontario                                     | OEL TWA (mg/m³)         | 1 mg/m³ (containing no Asbestos and <1% Crystalline silica-respirable)  |
| Prince Edward Island                        | OEL TWA (mg/m³)         | 1 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate matterparticulate matter, respirable particulate matter)  |
| Québec                                      | VEMP (mg/m³)            | 10 mg/m³ (containing no Asbestos and <1% Crystalline silica-total dust) 5 mg/m³ (containing no Asbestos and <1% Crystalline silica-respirable dust)             |
| Saskatchewan                                | OEL STEL (mg/m³)        | 20 mg/m <sup>3</sup>  |
| Saskatchewan                                | OEL TWA (mg/m³)         | 10 mg/m³  |
| Yukon                                       | OEL STEL (mg/m³)        | 20 mg/m³  |
| Yukon                                       | OEL TWA (mg/m³)         | 30 mppcf<br>10 mg/m <sup>3</sup>  |
| Calcium oxide (1305-78-8)                   |                         |   |
| USA ACGIH                                   | ACGIH TWA (mg/m³)       | 2 mg/m³   |
| USA OSHA                                    | OSHA PEL (TWA) (mg/m³)  | 5 mg/m³   |
| USA NIOSH                                   | NIOSH REL (TWA) (mg/m³) | 2 mg/m³   |
| USA IDLH                                    | US IDLH (mg/m³)         | 25 mg/m³  |
| Alberta                                     | OEL TWA (mg/m³)         | 2 mg/m³   |
| British Columbia                            | OEL TWA (mg/m³)         | 2 mg/m <sup>3</sup>   |
| Manitoba                                    | OEL TWA (mg/m³)         | 2 mg/m³   |
| New Brunswick                               | OEL TWA (mg/m³)         | 2 mg/m³   |
| Newfoundland & Labrador                     | OEL TWA (mg/m³)         | 2 mg/m³   |
| Nova Scotia                                 | OEL TWA (mg/m³)         | 2 mg/m <sup>3</sup>   |
| Nunavut                                     | OEL STEL (mg/m³)        | 4 mg/m <sup>3</sup>   |
| Nunavut                                     | OEL TWA (mg/m³)         | 2 mg/m <sup>3</sup>   |
| Northwest Territories                       | OEL STEL (mg/m³)        | 4 mg/m <sup>3</sup>   |
| Northwest Territories                       | OEL TWA (mg/m³)         | 2 mg/m <sup>3</sup>   |
| TOTAL PETITOTIES                            | JELIWA (IIIS/III /      | 2 mg/m  |

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|-----------------------------|-------------------------|---|
| Ontario                     | OEL TWA (mg/m³)         | 2 mg/m³   |
| Prince Edward Island        | OEL TWA (mg/m³)         | 2 mg/m³   |
| Québec                      | VEMP (mg/m³)            | 2 mg/m³   |
| Saskatchewan                | OEL STEL (mg/m³)        | 4 mg/m³   |
| Saskatchewan                | OEL TWA (mg/m³)         | 2 mg/m³   |
| Yukon                       | OEL STEL (mg/m³)        | 4 mg/m³   |
| Yukon                       | OEL TWA (mg/m³)         | 2 mg/m³   |
| Titanium dioxide (13463-67- | 7)                      |   |
| USA ACGIH                   | ACGIH TWA (mg/m³)       | 10 mg/m³  |
| USA ACGIH                   | ACGIH chemical category | Not Classifiable as a Human Carcinogen                                  |
| USA OSHA                    | OSHA PEL (TWA) (mg/m³)  | 15 mg/m³ (total dust)   |
| USA NIOSH                   | NIOSH REL (TWA) (mg/m³) | 2.4 mg/m³ (CIB 63-fine)   |
|                             | , , , ,                 | 0.3 mg/m³ (CIB 63-ultrafine, including engineered                       |
|                             |                         | nanoscale)  |
| USA IDLH                    | US IDLH (mg/m³)         | 5000 mg/m <sup>3</sup>  |
| Alberta                     | OEL TWA (mg/m³)         | 10 mg/m³  |
| British Columbia            | OEL TWA (mg/m³)         | 10 mg/m³ (total dust)   |
|                             | ]                       | 3 mg/m³ (respirable fraction)   |
| Manitoba                    | OEL TWA (mg/m³)         | 10 mg/m <sup>3</sup>  |
| New Brunswick               | OEL TWA (mg/m³)         | 10 mg/m³  |
| Newfoundland & Labrador     | OEL TWA (mg/m³)         | 10 mg/m³  |
| Nova Scotia                 | OEL TWA (mg/m³)         | 10 mg/m <sup>3</sup>  |
| Nunavut                     | OEL STEL (mg/m³)        | 20 mg/m³  |
| Nunavut                     | OEL TWA (mg/m³)         | 10 mg/m³  |
| Northwest Territories       | OEL STEL (mg/m³)        | 20 mg/m³  |
| Northwest Territories       | OEL TWA (mg/m³)         | 10 mg/m <sup>3</sup>  |
| Ontario                     | OEL TWA (mg/m³)         | 10 mg/m³  |
| Prince Edward Island        | OEL TWA (mg/m³)         | 10 mg/m³  |
| Québec                      | VEMP (mg/m³)            | 10 mg/m³ (containing no Asbestos and <1% Crystalline                    |
| 4.000                       |                         | silica-total dust)  |
| Saskatchewan                | OEL STEL (mg/m³)        | 20 mg/m³  |
| Saskatchewan                | OEL TWA (mg/m³)         | 10 mg/m <sup>3</sup>  |
| Yukon                       | OEL STEL (mg/m³)        | 20 mg/m <sup>3</sup>  |
| Yukon                       | OEL TWA (mg/m³)         | 30 mppcf  |
|                             | - ( 3,  /               | 10 mg/m³  |
| Kaolin (1332-58-7)          | I                       | 1 0,  |
| USA ACGIH                   | ACGIH TWA (mg/m³)       | 2 mg/m³ (particulate matter containing no asbestos and                  |
| OSA ACCIII                  | / (mg/m /               | <1% crystalline silica, respirable particulate matter)                  |
| USA ACGIH                   | ACGIH chemical category | Not Classifiable as a Human Carcinogen                                  |
| USA OSHA                    | OSHA PEL (TWA) (mg/m³)  | 15 mg/m³ (total dust)   |
|                             | (                       | 5 mg/m³ (respirable fraction)   |
| USA NIOSH                   | NIOSH REL (TWA) (mg/m³) | 10 mg/m³ (total dust)   |
| 35,111,3511                 | \                       | 5 mg/m³ (respirable dust)   |
| Alberta                     | OEL TWA (mg/m³)         | 2 mg/m³ (respirable)  |
| British Columbia            | OEL TWA (mg/m³)         | 2 mg/m³ (particulate matter containing no Asbestos and                  |
|                             |                         | <1% Crystalline silica-respirable particulate)                          |
| Manitoba                    | OEL TWA (mg/m³)         | 2 mg/m³ (particulate matter containing no Asbestos and                  |
|                             | (                       | <1% Crystalline silica, respirable particulate matter-                  |
|                             |                         | particulate matter, respirable particulate matter)                      |
| New Brunswick               | OEL TWA (mg/m³)         | 2 mg/m³ (particulate matter containing no Asbestos and                  |
|                             | (                       | <1% Crystalline silica, respirable fraction)                            |
|                             | I                       |   |

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|                              |   | cording to the Hazardous Products Regulation (February 11, 2015).         |
|------------------------------|---|---|
| Newfoundland & Labrador      | OEL TWA (mg/m³)                                 | 2 mg/m³ (particulate matter containing no Asbestos and                    |
|                              |   | <1% Crystalline silica, respirable particulate matter-                    |
|                              |   | particulate matter, respirable particulate matter)                        |
| Nova Scotia                  | OEL TWA (mg/m³)                                 | 2 mg/m³ (particulate matter containing no Asbestos and                    |
|                              |   | <1% Crystalline silica, respirable particulate matter-                    |
|                              |   | particulate matter, respirable particulate matter)                        |
| Nunavut                      | OEL STEL (mg/m³)                                | 4 mg/m³ (respirable fraction)   |
| Nunavut                      | OEL TWA (mg/m³)                                 | 2 mg/m³ (respirable fraction)   |
| Northwest Territories        | OEL STEL (mg/m³)                                | 4 mg/m³ (respirable fraction)   |
| Northwest Territories        | OEL TWA (mg/m³)                                 | 2 mg/m³ (respirable fraction)   |
| Ontario                      | OEL TWA (mg/m³)                                 | 2 mg/m³ (containing no Asbestos and <1% Crystalline                       |
|                              |   | silica-respirable)  |
| Prince Edward Island         | OEL TWA (mg/m³)                                 | 2 mg/m³ (particulate matter containing no Asbestos and                    |
|                              |   | <1% Crystalline silica, respirable particulate matter-                    |
|                              |   | particulate matter, respirable particulate matter)                        |
| Québec                       | VEMP (mg/m³)                                    | 5 mg/m³ (containing no Asbestos and <1% Crystalline                       |
|                              |   | silica-respirable dust)   |
| Saskatchewan                 | OEL STEL (mg/m³)                                | 4 mg/m³ (respirable fraction)   |
| Saskatchewan                 | OEL TWA (mg/m³)                                 | 2 mg/m³ (respirable fraction)   |
| Yukon                        | OEL STEL (mg/m³)                                | 20 mg/m <sup>3</sup>  |
| Yukon                        | OEL TWA (mg/m³)                                 | 30 mppcf  |
|                              |   | 10 mg/m <sup>3</sup>  |
| Calcium sulfate dihydrate (1 | .3397-24-5)                                     |   |
| USA ACGIH                    | ACGIH TWA (mg/m³)                               | 10 mg/m³ (inhalable particulate matter (Calcium sulfate)                  |
| USA OSHA                     | OSHA PEL (TWA) (mg/m³)                          | 15 mg/m³ (total dust)   |
|                              | , , , ,   | 5 mg/m³ (respirable fraction)   |
| USA NIOSH                    | NIOSH REL (TWA) (mg/m³)                         | 10 mg/m³ (total dust)   |
|                              | , , , , ,                                       | 5 mg/m³ (respirable dust)   |
| Alberta                      | OEL TWA (mg/m³)                                 | 10 mg/m³ (Calcium sulphate)   |
| British Columbia             | OEL STEL (mg/m³)                                | 20 mg/m³ (total)  |
| British Columbia             | OEL TWA (mg/m³)                                 | 10 mg/m³ (total dust)   |
|                              |   | 3 mg/m³ (respirable fraction)   |
|                              |   | 10 mg/m³ (regulated under Calcium sulfate-inhalable)                      |
| Manitoba                     | OEL TWA (mg/m³)                                 | 10 mg/m³ (inhalable particulate matter (Calcium sulfate)                  |
| Newfoundland & Labrador      | OEL TWA (mg/m³)                                 | 10 mg/m³ (inhalable particulate matter (Calcium sulfate)                  |
| Nova Scotia                  | OEL TWA (mg/m³)                                 | 10 mg/m³ (inhalable particulate matter (Calcium sulfate)                  |
| Ontario                      | OEL TWA (mg/m³)                                 | 10 mg/m³ (inhalable (Calcium sulfate)                                     |
| Prince Edward Island         | OEL TWA (mg/m³)                                 | 10 mg/m³ (inhalable particulate matter (Calcium sulfate)                  |
| Québec                       | VEMP (mg/m³)                                    | 10 mg/m³ (containing no Asbestos and <1% Crystalline                      |
|                              |   | silica-total dust)  |
|                              |   | 5 mg/m³ (containing no Asbestos and <1% Crystalline                       |
|                              |   | silica-respirable dust)   |
| Saskatchewan                 | OEL STEL (mg/m³)                                | 20 mg/m³  |
| Saskatchewan                 | OEL TWA (mg/m³)                                 | 10 mg/m³  |
| Yukon                        | OEL STEL (mg/m³)                                | 20 mg/m³  |
| Yukon                        | OEL TWA (mg/m³)                                 | 30 mppcf  |
|                              |   | 10 mg/m³  |
| Limestone (1317-65-3)        |   |   |
|                              |   |   |
| USA OSHA                     | OSHA PEL (TWA) (mg/m³)                          | 15 mg/m³ (total dust)   |
| USA OSHA                     | OSHA PEL (TWA) (mg/m³)                          |   |
| USA NIOSH                    | OSHA PEL (TWA) (mg/m³)  NIOSH REL (TWA) (mg/m³) | 15 mg/m³ (total dust) 5 mg/m³ (respirable fraction) 10 mg/m³ (total dust) |

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| Alberta                     | OEL TWA (mg/m³)         | ccording To The Hazardous Products Regulation (February 11, 2015).  10 mg/m³ |
|-----------------------------|-------------------------|--|
| British Columbia            | OEL STEL (mg/m³)        | 20 mg/m³ (total)   |
| British Columbia            | OEL TWA (mg/m³)         | 10 mg/m³ (total dust)  |
|                             | - ( 3, )                | 3 mg/m³ (respirable fraction)  |
| New Brunswick               | OEL TWA (mg/m³)         | 10 mg/m³ (particulate matter containing no Asbestos and                      |
|                             | ( 3, ,                  | <1% Crystalline silica)  |
| Nunavut                     | OEL STEL (mg/m³)        | 20 mg/m <sup>3</sup>   |
| Nunavut                     | OEL TWA (mg/m³)         | 10 mg/m <sup>3</sup>   |
| Northwest Territories       | OEL STEL (mg/m³)        | 20 mg/m <sup>3</sup>   |
| Northwest Territories       | OEL TWA (mg/m³)         | 10 mg/m <sup>3</sup>   |
| Québec                      | VEMP (mg/m³)            | 10 mg/m³ (Limestone, containing no Asbestos and <1%                          |
|                             | , -,                    | Crystalline silica-total dust)   |
| Saskatchewan                | OEL STEL (mg/m³)        | 20 mg/m <sup>3</sup>   |
| Saskatchewan                | OEL TWA (mg/m³)         | 10 mg/m³   |
| Yukon                       | OEL STEL (mg/m³)        | 20 mg/m <sup>3</sup>   |
| Yukon                       | OEL TWA (mg/m³)         | 30 mppcf   |
|                             |                         | 10 mg/m <sup>3</sup>   |
| Magnesium oxide (MgO) (13   |                         |  |
| USA ACGIH                   | ACGIH TWA (mg/m³)       | 10 mg/m³ (inhalable particulate matter)                                      |
| USA ACGIH                   | ACGIH chemical category | Not Classifiable as a Human Carcinogen                                       |
| USA OSHA                    | OSHA PEL (TWA) (mg/m³)  | 15 mg/m³ (fume, total particulate)   |
| USA IDLH                    | US IDLH (mg/m³)         | 750 mg/m³ (fume)   |
| Alberta                     | OEL TWA (mg/m³)         | 10 mg/m³ (fume)  |
| British Columbia            | OEL STEL (mg/m³)        | 10 mg/m³ (respirable dust and fume)  |
| British Columbia            | OEL TWA (mg/m³)         | 10 mg/m³ (fume, inhalable)   |
|                             |                         | 3 mg/m³ (respirable dust and fume)   |
| Manitoba                    | OEL TWA (mg/m³)         | 10 mg/m³ (inhalable particulate matter)                                      |
| New Brunswick               | OEL TWA (mg/m³)         | 10 mg/m³ (fume)  |
| Newfoundland & Labrador     | OEL TWA (mg/m³)         | 10 mg/m³ (inhalable particulate matter)                                      |
| Nova Scotia                 | OEL TWA (mg/m³)         | 10 mg/m³ (inhalable particulate matter)                                      |
| Nunavut                     | OEL STEL (mg/m³)        | 20 mg/m³ (inhalable fraction)  |
| Nunavut                     | OEL TWA (mg/m³)         | 10 mg/m³ (inhalable fraction)  |
| Northwest Territories       | OEL STEL (mg/m³)        | 20 mg/m³ (inhalable fraction)  |
| Northwest Territories       | OEL TWA (mg/m³)         | 10 mg/m³ (inhalable fraction)  |
| Ontario                     | OEL TWA (mg/m³)         | 10 mg/m³ (inhalable)   |
| Prince Edward Island        | OEL TWA (mg/m³)         | 10 mg/m³ (inhalable particulate matter)                                      |
| Québec                      | VEMP (mg/m³)            | 10 mg/m³ (fume)  |
| Saskatchewan                | OEL STEL (mg/m³)        | 20 mg/m³ (inhalable fraction)  |
| Saskatchewan                | OEL TWA (mg/m³)         | 10 mg/m³ (inhalable fraction)  |
| Yukon                       | OEL STEL (mg/m³)        | 10 mg/m³ (fume)  |
| Yukon                       | OEL TWA (mg/m³)         | 10 mg/m³ (fume)  |
| Silica, amorphous (7631-86- |                         |  |
| USA OSHA                    | OSHA PEL (TWA) (mg/m³)  | 6 mg/m <sup>3</sup>  |
| USA OSHA                    | OSHA PEL (TWA) (ppm)    | 20 mppcf (80mg/m³/%SiO <sub>2</sub> )  |
| USA NIOSH                   | NIOSH REL (TWA) (mg/m³) | 6 mg/m <sup>3</sup>  |
| USA IDLH                    | US IDLH (mg/m³)         | 3000 mg/m <sup>3</sup>   |
| Yukon                       | OEL TWA (mg/m³)         | 300 particle/mL (as measured by Konimeter                                    |
|                             |                         | instrumentation (Silica)   |
|                             |                         | 20 mppcf (as measured by Impinger instrumentation                            |
|                             |                         | (Silica)   |
|                             |                         | 2 mg/m³ (respirable mass (Silica)  |
| Aluminum oxide (Al2O3) (13  |                         |  |

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|--|---|---|
| USA ACGIH  | ACGIH TWA (mg/m³)   | 10 mg/m³  |
| USA OSHA   | OSHA PEL (TWA) (mg/m³)  | 15 mg/m³ (total dust)   |
|  | 051 7144 / / 21   | 5 mg/m³ (respirable fraction)   |
| Alberta  | OEL TWA (mg/m³)   | 10 mg/m³  |
| New Brunswick  | OEL TWA (mg/m³)   | 10 mg/m³ (particulate matter containing no Asbestos and   |
|  | OFI (TEL / / 3)   | <1% Crystalline silica)   |
| Nunavut  | OEL STEL (mg/m³)  | 20 mg/m³  |
| Nunavut  | OEL TWA (mg/m³)   | 10 mg/m³  |
| Northwest Territories  | OEL STEL (mg/m³)  | 20 mg/m³  |
| Northwest Territories  | OEL TWA (mg/m³)   | 10 mg/m³  |
| Québec   | VEMP (mg/m³)  | 10 mg/m³ (containing no Asbestos and <1% Crystalline silica-total dust)   |
| Saskatchewan   | OEL STEL (mg/m³)  | 20 mg/m <sup>3</sup>  |
| Saskatchewan   | OEL TWA (mg/m³)   | 10 mg/m <sup>3</sup>  |
| Yukon  | OEL STEL (mg/m³)  | 20 mg/m³ (Al2O3)  |
| Yukon  | OEL TWA (mg/m³)   | 30 mppcf (Al2O3)  |
| IUNUII   | OLL I WA (IIIB/III )  | 10 mg/m³ (Al2O3)  |
| Cilian amanushawa muasinitat   | had and sal (112026 00 0)   | 10 mg/m (Ai2O3)   |
| Silica, amorphous, precipitat  |   | 4 (3 (+-+-1)  |
| British Columbia   | OEL TWA (mg/m³)   | 4 mg/m³ (total) 1.5 mg/m³ (respirable)  |
| New Brunswick  | OEL TWA (mg/m³)   | 1.5 fig/fir (respirable)  10 mg/m³ (Silica - amorphous, precipitated silica and silica  |
| New Bruitswick   | OEL I WA (IIIg/III )  | gel)  |
| Nunavut  | OEL STEL (mg/m³)  | 20 mg/m³ (Silica amorphous)   |
| Nunavut  | OEL TWA (mg/m³)   | 10 mg/m³ (Silica amorphous)   |
| Northwest Territories  | OEL STEL (mg/m³)  | 20 mg/m³ (Silica amorphous)   |
| Northwest Territories  | OEL TWA (mg/m³)   | 10 mg/m³ (Silica amorphous)   |
| Québec   | VEMP (mg/m³)  | 6 mg/m³ (containing no Asbestos and <1% Crystalline   |
| Quesee   | V 2.1411 (1118) 111 )   | silica-respirable dust)   |
| Saskatchewan   | OEL STEL (mg/m³)  | 20 mg/m³ (Silica amorphous)   |
| Saskatchewan   | OEL TWA (mg/m³)   | 10 mg/m³ (Silica amorphous)   |
| Boron oxide (B2O3) (1303-86  | · <del>-</del> ·  |   |
|  | ACGIH TWA (mg/m³)   | 10 mg/m³  |
| USA ACGIH  |   | 1 10 mg/m <sup>-</sup>  |
| USA ACGIH<br>USA OSHA  | , , ,   | 10 mg/m³ 15 mg/m³ (total dust)  |
| USA OSHA   | OSHA PEL (TWA) (mg/m³)  | 15 mg/m³ (total dust)   |
| USA OSHA<br>USA NIOSH  | OSHA PEL (TWA) (mg/m³)<br>NIOSH REL (TWA) (mg/m³)   | 15 mg/m³ (total dust)<br>10 mg/m³   |
| USA OSHA<br>USA NIOSH<br>USA IDLH  | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³)  | 15 mg/m³ (total dust)<br>10 mg/m³<br>2000 mg/m³   |
| USA OSHA<br>USA NIOSH  | OSHA PEL (TWA) (mg/m³)  NIOSH REL (TWA) (mg/m³)  US IDLH (mg/m³)  OEL TWA (mg/m³)   | 15 mg/m³ (total dust) 10 mg/m³ 2000 mg/m³ 10 mg/m³  |
| USA OSHA USA NIOSH USA IDLH Alberta  | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³)  | 15 mg/m³ (total dust) 10 mg/m³ 2000 mg/m³ 10 mg/m³ 10 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia   | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³) OEL TWA (mg/m³)  | 15 mg/m³ (total dust) 10 mg/m³ 2000 mg/m³ 10 mg/m³  |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba  | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³) OEL TWA (mg/m³) OEL TWA (mg/m³)  | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba New Brunswick  | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³) OEL TWA (mg/m³) OEL TWA (mg/m³) OEL TWA (mg/m³)  | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba New Brunswick Newfoundland & Labrador  | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³)  | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba New Brunswick Newfoundland & Labrador Nova Scotia  | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³)  | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba New Brunswick Newfoundland & Labrador Nova Scotia Nunavut  | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³)  | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  20 mg/m³  20 mg/m³  20 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba New Brunswick Newfoundland & Labrador Nova Scotia Nunavut Nunavut  | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³)  | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  20 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba New Brunswick Newfoundland & Labrador Nova Scotia Nunavut Nunavut Northwest Territories  | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³) OEL STEL (mg/m³) OEL STEL (mg/m³)  | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  20 mg/m³  20 mg/m³  20 mg/m³  20 mg/m³  20 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba New Brunswick Newfoundland & Labrador Nova Scotia Nunavut Nunavut Northwest Territories Northwest Territories  | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³) OEL STEL (mg/m³) OEL STEL (mg/m³) OEL STEL (mg/m³)   | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  20 mg/m³  20 mg/m³  10 mg/m³  20 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba New Brunswick Newfoundland & Labrador Nova Scotia Nunavut Nunavut Northwest Territories Ontario  | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³) OEL STEL (mg/m³) OEL TWA (mg/m³) OEL TWA (mg/m³) OEL TWA (mg/m³) OEL TWA (mg/m³)   | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  20 mg/m³  20 mg/m³  10 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba New Brunswick Newfoundland & Labrador Nova Scotia Nunavut Nunavut Northwest Territories Northwest Territories Ontario Prince Edward Island                     | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³) OEL STEL (mg/m³) OEL STEL (mg/m³) OEL TWA (mg/m³)  | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  20 mg/m³  20 mg/m³  10 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba New Brunswick Newfoundland & Labrador Nova Scotia Nunavut Nunavut Northwest Territories Northwest Territories Ontario Prince Edward Island Québec              | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³) OEL STEL (mg/m³) OEL TWA (mg/m³)   | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  20 mg/m³  20 mg/m³  10 mg/m³   |
| USA OSHA USA NIOSH USA IDLH Alberta British Columbia Manitoba New Brunswick Newfoundland & Labrador Nova Scotia Nunavut Nunavut Northwest Territories Northwest Territories Ontario Prince Edward Island Québec Saskatchewan | OSHA PEL (TWA) (mg/m³) NIOSH REL (TWA) (mg/m³) US IDLH (mg/m³) OEL TWA (mg/m³) OEL STEL (mg/m³) OEL TWA (mg/m³) | 15 mg/m³ (total dust)  10 mg/m³  2000 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  10 mg/m³  20 mg/m³  20 mg/m³  10 mg/m³  10 mg/m³  20 mg/m³  10 mg/m³  20 mg/m³ |

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|-----------------------------|--|---|
| USA ACGIH                   | ACGIH TWA (ppm)  | 0.1 ppm   |
| USA ACGIH                   | ACGIH Ceiling (ppm)  | 0.5 ppm   |
| USA OSHA                    | OSHA PEL (TWA) (mg/m³)                                     | 0.2 mg/m <sup>3</sup>                                     |
| USA OSHA                    | OSHA PEL (TWA) (ppm)                                       | 0.1 ppm   |
| USA NIOSH                   | NIOSH REL (TWA) (mg/m³)                                    | 0.2 mg/m <sup>3</sup>                                     |
| USA NIOSH                   | NIOSH REL (TWA) (ppm)                                      | 0.1 ppm   |
| USA IDLH                    | US IDLH (ppm)  | 25 ppm  |
| Alberta                     | OEL STEL (mg/m³)   | 3.1 mg/m <sup>3</sup>                                     |
| Alberta                     | OEL STEL (ppm)   | 2 ppm   |
| Alberta                     | OEL TWA (mg/m³)  | 1.6 mg/m <sup>3</sup>                                     |
| Alberta                     | OEL TWA (ppm)  | 1 ppm   |
| British Columbia            | OEL TWA (ppm)  | 0.1 ppm   |
| Manitoba                    | OEL Ceiling (ppm)  | 0.5 ppm   |
| Manitoba                    | OEL TWA (ppm)  | 0.1 ppm   |
| New Brunswick               | OEL STEL (mg/m³)   | 3.1 mg/m <sup>3</sup>                                     |
| New Brunswick               | OEL STEL (ppm)   | 2 ppm   |
| New Brunswick               | OEL TWA (mg/m³)  | 1.6 mg/m <sup>3</sup>                                     |
| New Brunswick               | OEL TWA (ppm)  | 1 ppm   |
| Newfoundland & Labrador     | OEL Ceiling (ppm)  | 0.5 ppm   |
| Newfoundland & Labrador     | OEL TWA (ppm)  | 0.1 ppm   |
| Nova Scotia                 | OEL Ceiling (ppm)  | 0.5 ppm   |
| Nova Scotia                 | OEL TWA (ppm)  | 0.1 ppm   |
| Nunavut                     | OEL STEL (ppm)   | 2 ppm   |
| Nunavut                     | OEL TWA (ppm)  | 1 ppm   |
| Northwest Territories       | OEL STEL (ppm)   | 2 ppm   |
| Northwest Territories       | OEL TWA (ppm)  | 1 ppm   |
| Ontario                     | OEL STEL (ppm)   | 2 ppm   |
| Ontario                     | OEL TWA (ppm)  | 1 ppm   |
| Prince Edward Island        | OEL Ceiling (ppm)  | 0.5 ppm   |
| Prince Edward Island        | OEL TWA (ppm)  | 0.1 ppm   |
| Québec                      | VEMP (mg/m³)   | 0.2 mg/m <sup>3</sup>                                     |
| Québec                      | VEMP (ppm)   | 0.1 ppm   |
| Saskatchewan                | OEL STEL (ppm)   | 2 ppm   |
| Saskatchewan                | OEL TWA (ppm)  | 1 ppm   |
| Yukon                       | OEL STEL (mg/m³)   | 4 mg/m³   |
| Yukon                       | OEL STEL (ppm)   | 2 ppm   |
| Yukon                       | OEL TWA (mg/m³)  | 2 mg/m³   |
| Yukon                       | OEL TWA (ppm)  | 1 ppm   |
| Iron oxide (Fe2O3) (1309-37 |  |   |
| USA ACGIH                   | ACGIH TWA (mg/m³)  | 5 mg/m³ (respirable particulate matter)                   |
| USA ACGIH                   | ACGIH chemical category                                    | Not Classifiable as a Human Carcinogen                    |
| USA OSHA                    | OSHA PEL (TWA) (mg/m³)                                     | 10 mg/m³ (fume)   |
|                             |  | 15 mg/m³ (total dust (Rouge)                              |
| LICA NILOCUI                | NIOCH DEL /TVA/AV / /3V                                    | 5 mg/m³ (respirable fraction (Rouge)                      |
| USA NIOSH                   | NIOSH REL (TWA) (mg/m³)                                    | 5 mg/m³ (dust and fume)                                   |
| USA IDLH                    | US IDLH (mg/m³)  | 2500 mg/m³ (dust and fume)                                |
| Alberta                     | OEL TWA (mg/m³)  | 5 mg/m³ (respirable)                                      |
| British Columbia            | OEL STEL (mg/m³)   | 10 mg/m³ (fume)   |
| British Columbia            | OEL TWA (mg/m³)  | 10 mg/m³ (regulated under Rouge-total particulate (Rouge) |
|                             |  | 3 mg/m³ (regulated under Rouge: particulate matter        |
|                             |  | containing no Asbestos and <1% Crystalline silica-        |
| 08/24/2020                  | EN (English US)  | Containing no Aspestos and <1% Crystainne sinca-          |

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|--|---|---|
|  |   | respirable particulate (Rouge)                                      |
|  |   | 5 mg/m³ (dust and fume)   |
| Manitoba                                     | OEL TWA (mg/m³)   | 5 mg/m³ (respirable particulate matter)                             |
| New Brunswick                                | OEL TWA (mg/m³)   | 5 mg/m³ (particulate matter containing no Asbestos and              |
|  |   | <1% Crystalline silica, dust and fume)                              |
|  |   | 10 mg/m³ (regulated under Rouge-particulate matter                  |
|  |   | containing no Asbestos and <1% Crystalline silica)                  |
| Newfoundland & Labrador                      | OEL TWA (mg/m³)   | 5 mg/m³ (respirable particulate matter)                             |
| Nova Scotia                                  | OEL TWA (mg/m³)   | 5 mg/m³ (respirable particulate matter)                             |
| Nunavut                                      | OEL STEL (mg/m³)  | 10 mg/m³ (dust and fume)  |
|  |   | 20 mg/m³ (regulated under Rouge)                                    |
| Nunavut                                      | OEL TWA (mg/m³)   | 5 mg/m³ (dust and fume)   |
|  |   | 10 mg/m³ (regulated under Rouge)                                    |
| Northwest Territories                        | OEL STEL (mg/m³)  | 10 mg/m³ (dust and fume)  |
|  | , 3, ,  | 20 mg/m³ (regulated under Rouge)                                    |
| Northwest Territories                        | OEL TWA (mg/m³)   | 5 mg/m³ (dust and fume)   |
|  |   | 10 mg/m³ (regulated under Rouge)                                    |
| Ontario                                      | OEL TWA (mg/m³)   | 5 mg/m³ (respirable)  |
| Prince Edward Island                         | OEL TWA (mg/m³)   | 5 mg/m³ (respirable particulate matter)                             |
| Québec                                       | VEMP (mg/m³)  | 5 mg/m³ (dust and fume)   |
| Quebec                                       | VEIVII (IIIB/III )                                      | 10 mg/m³ (containing no Asbestos and <1% Crystalline                |
|  |   | silica, regulated under Rouge-total dust)                           |
| Saskatchewan                                 | OEL STEL (mg/m³)  | 10 mg/m³ (dust and fume)  |
| Suskuteriewan                                | 022 3722 (mg/m )  | 20 mg/m³ (regulated under Rouge)                                    |
| Saskatchewan                                 | OEL TWA (mg/m³)   | 5 mg/m³ (dust and fume)   |
| Jaskatchewan                                 | OLL I WA (IIIg/III )                                    | 10 mg/m³ (regulated under Rouge)                                    |
| Yukon  | OEL STEL (mg/m³)  | 10 mg/m (fegulated dider Rodge)                                     |
| TUROII                                       | OLL STEE (IIIg/III )                                    | 20 mg/m³ (regulated under Rouge)                                    |
| Yukon  | OEL TWA (mg/m³)   | 5 mg/m³ (fume)  |
| TUROII                                       | OLL TWA (IIIg/III )                                     | 30 mppcf (regulated under Rouge)                                    |
|  |   | 10 mg/m³ (regulated under Rouge)                                    |
| Characters in a (CaCa) (1954                 | 0.20.0)   | 10 mg/m (regulated under Rouge)                                     |
| Chromium, ion (Cr6+) (1854                   |   | F/3   |
| USA OSHA                                     | OSHA PEL (TWA) (mg/m³)                                  | 5 μg/m³   |
|  | lassified (PNOC) (Not applicable)                       |   |
| USA ACGIH                                    | ACGIH TWA (mg/m³)                                       | 3 mg/m <sup>3</sup> Respirable fraction                             |
|  |   | 10 mg/m <sup>3</sup> Total Dust                                     |
| USA OSHA                                     | OSHA PEL (TWA) (mg/m³)                                  | 5 mg/m³ Respirable fraction   |
|  |   | 15 mg/m³ Total Dust   |
| Alberta                                      | OEL TWA (mg/m³)   | 10 mg/m³ (total)  |
|  |   | 3 mg/m³ (respirable)  |
| British Columbia                             | OEL TWA (mg/m³)   | 10 mg/m³ (including nuisance dusts-total dust)                      |
|  |   | 3 mg/m³ (including nuisance dusts-respirable fraction)              |
| Manitoba                                     | OEL TWA (mg/m³)   | 10 mg/m³ (inhalable particles, recommended)                         |
|  |   | 3 mg/m³ (respirable particles, recommended)                         |
| New Brunswick                                | OEL TWA (mg/m³)   | 3 mg/m³ (particulate matter containing no Asbestos and              |
|  |   | <1% Crystalline silica, respirable fraction)                        |
|  |   | 10 mg/m³ (particulate matter containing no Asbestos and             |
|  |   | <1% Crystalline silica, inhalable fraction)                         |
| Newfoundland & Labrador                      | OEL TWA (mg/m³)   | 10 mg/m³ (inhalable particles, recommended)                         |
|  |   | 3 mg/m³ (respirable particles, recommended)                         |
|  | •   |   |
| Nova Scotia                                  | OEL TWA (mg/m³)   | 10 mg/m³ (inhalable particles, recommended)                         |

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| Nunavut                      | OEL STEL (mg/m³) | 20 mg/m³ (insoluble or poorly soluble-inhalable fraction) |
|------------------------------|------------------|---|
|                              |                  | 6 mg/m³ (insoluble or poorly soluble-respirable fraction) |
| Nunavut                      | OEL TWA (mg/m³)  | 10 mg/m³ (insoluble or poorly soluble-inhalable fraction) |
|                              |                  | 3 mg/m³ (insoluble or poorly soluble-respirable fraction) |
| <b>Northwest Territories</b> | OEL STEL (mg/m³) | 20 mg/m³ (insoluble or poorly soluble-inhalable fraction) |
|                              |                  | 6 mg/m³ (insoluble or poorly soluble-respirable fraction) |
| <b>Northwest Territories</b> | OEL TWA (mg/m³)  | 10 mg/m³ (insoluble or poorly soluble-inhalable fraction) |
|                              |                  | 3 mg/m³ (insoluble or poorly soluble-respirable fraction) |
| Ontario                      | OEL TWA (mg/m³)  | 10 mg/m³ (inhalable)                                      |
|                              |                  | 3 mg/m³ (respirable)                                      |
| Prince Edward Island         | OEL TWA (mg/m³)  | 10 mg/m³ (inhalable particles, recommended)               |
|                              |                  | 3 mg/m³ (respirable particles, recommended)               |
| Québec                       | VEMP (mg/m³)     | 10 mg/m³ (including dust, inert or nuisance particulates- |
|                              |                  | total dust)   |
| Saskatchewan                 | OEL STEL (mg/m³) | 20 mg/m³ (insoluble or poorly soluble-inhalable fraction) |
|                              |                  | 6 mg/m³ (insoluble or poorly soluble-respirable fraction) |
| Saskatchewan                 | OEL TWA (mg/m³)  | 10 mg/m³ (insoluble or poorly soluble-inhalable fraction) |
|                              |                  | 3 mg/m³ (insoluble or poorly soluble-respirable fraction) |

### 8.2. Exposure Controls

**Appropriate Engineering Controls:** Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

**Personal Protective Equipment:** Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Face shield.



**Physical State** 









Solid

Materials for Protective Clothing: Chemically resistant materials and fabrics. Corrosion-proof clothing.

Hand Protection: Wear protective gloves.

**Eye and Face Protection:** Chemical safety goggles and face shield. **Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

## 9.1. Information on Basic Physical and Chemical Properties

**Appearance** Varies Odor Not available **Odor Threshold** Not available рΗ Not available **Evaporation Rate** Not available **Melting Point** Not available **Freezing Point** Not available **Boiling Point** Not available **Flash Point** Not available **Auto-ignition Temperature** Not available Not available **Decomposition Temperature** Flammability (solid, gas) Not available

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**Lower Flammable Limit** Not available **Upper Flammable Limit** Not available **Vapor Pressure** Not available Relative Vapor Density at 20°C Not available **Relative Density** Not available **Specific Gravity** Not available Solubility Water: Insoluble Partition Coefficient: N-Octanol/Water Not available Viscosity Not available

## **SECTION 10: STABILITY AND REACTIVITY**

- **10.1. Reactivity:** Quartz (silica) will dissolve in hydroflouric acid producing a corrosive gas, silicon tetrafluoride. Calcium oxide reacts with water to form corrosive calcium hydroxide, with evolution of much heat. Temperatures as high as 800° C (1472 °F) have been reached with addition of water (moisture in air or soil). Portland Cement reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution until reaction is substantially complete.
- **10.2.** Chemical Stability: Stable under recommended handling and storage conditions (see section 7).
- **10.3.** Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
- **10.4.** Conditions to Avoid: Direct sunlight, extremely high or low temperatures, and incompatible materials.
- **10.5. Incompatible Materials:** Reactive or incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt.

Portland cement is highly alkaline and will react with acids to produce a violent, heat-generating reaction. Toxic gases or vapors may be given off depending on the acid involved. Reacts with acids, aluminum metals and ammonium salts. Aluminum powder and other alkali and alkaline earth elements will react in wet mortar or concrete, liberating hydrogen gas. Limestone ignites on contact with fluorine and is incompatible with acids, alum, ammonium salts, and magnesium. Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silicates dissolve readily in hydrofluoric acid producing a corrosive gas — silicon tetrafluoride.

**10.6. Hazardous Decomposition Products:** Not expected to decompose under ambient conditions. Thermal decomposition generates: Corrosive vapors.

### **SECTION 11: TOXICOLOGICAL INFORMATION**

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified
Acute Toxicity (Dermal): Not classified
Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

Carcinogenicity: May cause cancer (Inhalation).

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs (lungs) through prolonged or repeated exposure

(Inhalation).

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

**Aspiration Hazard:** Not classified

Symptoms/Injuries After Inhalation: Irritation of the respiratory tract and the other mucous membranes. May be corrosive to the respiratory tract. The three types of silicosis include: 1) Simple chronic silicosis – which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD); 2) Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years); 3) Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen

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levels. Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures.

Symptoms/Injuries After Skin Contact: May cause an allergic skin reaction. Causes severe irritation which will progress to chemical burns. Concrete may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Exposure of sufficient duration to wet concrete can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. A skin exposure may be hazardous even if there is no pain or discomfort. Unhardened concrete is capable of causing dermatitis by irritation and allergy. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Irritant dermatitis is caused by the physical properties of concrete including alkalinity and abrasion. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) present in concrete. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with wet concrete. Others may develop allergic dermatitis after years of repeated contact with wet concrete.

**Symptoms/Injuries After Eye Contact:** Causes permanent damage to the cornea, iris, or conjunctiva. Concrete may cause immediate or delayed irritation or inflammation. Eye contact with wet concrete can cause moderate eye irritation, chemical burns and blindness. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.

Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Chronic Symptoms: Causes damage to organs (lungs) through prolonged or repeated exposure (Inhalation). Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica. May cause cancer by inhalation. Repeated or prolonged exposure to titanium dioxide dust via inhalation is suspected of causing cancer of the respiratory tract.

### 11.2. Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

| Quartz (14808-60-7)                       |   |  |
|---|---|--|
| LD50 Oral Rat                             | > 5000 mg/kg                                  |  |
| LD50 Dermal Rat                           | > 5000 mg/kg                                  |  |
| Calcium oxide (1305-78-8)                 |   |  |
| LD50 Oral Rat                             | > 2000 mg/kg                                  |  |
| LD50 Dermal Rabbit                        | > 2500 mg/kg                                  |  |
| Titanium dioxide (13463-67-7)             |   |  |
| LD50 Oral Rat                             | > 10000 mg/kg                                 |  |
| Kaolin (1332-58-7)                        |   |  |
| LD50 Oral Rat                             | > 5000 mg/kg                                  |  |
| LD50 Dermal Rabbit                        | > 5000 mg/kg                                  |  |
| Magnesium oxide (MgO) (1309-48-4)         |   |  |
| LD50 Oral Rat                             | 3870 mg/kg                                    |  |
| Silica, amorphous (7631-86-9)             |   |  |
| LD50 Oral Rat                             | 7900 mg/kg                                    |  |
| LD50 Dermal Rabbit                        | > 2000 mg/kg                                  |  |
| Aluminum oxide (Al2O3) (1344-28-1)        |   |  |
| LD50 Oral Rat                             | > 15900 mg/kg                                 |  |
| LC50 Inhalation Rat                       | > 2.3 mg/l/4h                                 |  |
| Fluorine (7782-41-4)                      |   |  |
| LC50 Inhalation Rat                       | 185 ppm/1h                                    |  |
| Iron oxide (Fe2O3) (1309-37-1)            |   |  |
| LD50 Oral Rat                             | > 10000 mg/kg                                 |  |
| Quartz (14808-60-7)                       |   |  |
| IARC Group                                | 1   |  |
| National Toxicology Program (NTP) Status  | Known Human Carcinogens.                      |  |
| OSHA Hazard Communication Carcinogen List | In OSHA Hazard Communication Carcinogen list. |  |

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| Titanium dioxide (13463-67-7)                         |   |  |
|---|---|--|
| IARC Group  | 2B  |  |
| OSHA Hazard Communication Carcinogen List             | In OSHA Hazard Communication Carcinogen list.   |  |
| Silica, amorphous (7631-86-9)                         |   |  |
| IARC Group  | 3   |  |
| Silica, amorphous, precipitated and gel (112926-00-8) |   |  |
| IARC Group  | 3   |  |
| Iron oxide (Fe2O3) (1309-37-1)                        |   |  |
| IARC Group  | 3   |  |
| Chromium, ion (Cr6+) (18540-29-9)                     |   |  |
| IARC Group  | 1   |  |
| OSHA Hazard Communication Carcinogen List             | In OSHA Hazard Communication Carcinogen list.   |  |
| OSHA Specifically Regulated Carcinogen List           | In OSHA Specifically Regulated Carcinogen list. |  |

## **SECTION 12: ECOLOGICAL INFORMATION**

## 12.1. Toxicity

**Ecology - General:** Not classified.

| Calcium oxide (1305-78-8)                             |   |
|---|---|
| LC50 Fish 1   | 50.6 mg/l   |
| Silica, amorphous (7631-86-9)                         |   |
| LC50 Fish 1   | 5000 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static]) |
| EC50 Daphnia 1  | 7600 mg/l (Exposure time: 48 h - Species: Ceriodaphnia dubia)         |
| Aluminum oxide (Al2O3) (1344-28-1)                    |   |
| LC50 Fish 1   | > 100 mg/l  |
| EC50 Daphnia 1  | > 100 mg/l  |
| ErC50 (algae)   | > 100 mg/l  |
| NOEC (Acute)  | > 50 mg/l   |
| Silica, amorphous, precipitated and gel (112926-00-8) |   |
| LC50 Fish 1   | 10000 mg/l  |
| Iron oxide (Fe2O3) (1309-37-1)                        |   |
| LC50 Fish 1   | 100000 mg/l (Exposure time: 96 h - Species: Danio rerio [static])     |
| Chromium, ion (Cr6+) (18540-29-9)                     |   |
| LC50 Fish 1   | 36.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas)        |
| LC50 Fish 2   | 7.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)         |

## 12.2. Persistence and Degradability

| 1500 Sanded Grout             |                  |
|-------------------------------|------------------|
| Persistence and Degradability | Not established. |

## 12.3. Bioaccumulative Potential

| 1500 Sanded Grout             |                               |
|-------------------------------|-------------------------------|
| Bioaccumulative Potential     | Not established.              |
| Calcium oxide (1305-78-8)     |                               |
| BCF Fish 1                    | (no bioaccumulation)          |
| Silica, amorphous (7631-86-9) |                               |
| BCF Fish 1                    | (no bioaccumulation expected) |

## **12.4. Mobility in Soil** Not available

## 12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

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14.4.

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Not regulated for transport

### **SECTION 13: DISPOSAL CONSIDERATIONS**

#### 13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

**Ecology - Waste Materials:** Avoid release to the environment.

## **SECTION 14: TRANSPORT INFORMATION**

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

In Accordance with DOT 14.1. Not regulated for transport 14.2. In Accordance with IMDG Not regulated for transport 14.3. In Accordance with IATA Not regulated for transport

## In Accordance with TDG **SECTION 15: REGULATORY INFORMATION**

#### **US Federal Regulations 15.1**.

**SARA Section 313 - Emission Reporting** 

Listed on the United States SARA Section 302

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Subject to reporting requirements of United States SARA Section 313

Boron oxide (B2O3) (1303-86-2)

Fluorine (7782-41-4)

| 1500 Sanded Grout  |  |
|--|--|
| SARA Section 311/312 Hazard Classes Health hazard - Specific target organ toxicity (single |  |
|  | exposure)  |
|  | Health hazard - Carcinogenicity                      |
|  | Health hazard - Respiratory or skin sensitization    |
|  | Health hazard - Serious eye damage or eye irritation |
|  | Health hazard - Skin corrosion or Irritation         |
| Quartz (14808-60-7)  |  |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory                  |  |
| Cement, portland, chemicals (65997-15-1)   |  |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory                  |  |
| Calcium oxide (1305-78-8)  |  |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory                  |  |
| Titanium dioxide (13463-67-7)  |  |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory                  |  |
| Kaolin (1332-58-7)   |  |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory                  |  |
| Silicic acid (H4SiO4), calcium salt (1:2) (10034-77-2)                                     |  |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory                  |  |
| Limestone (1317-65-3)  |  |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory                  |  |
| Magnesium oxide (MgO) (1309-48-4)  |  |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory                  |  |
| Silica, amorphous (7631-86-9)  |  |
| Listed on the United States TSCA (Toxic Substances Co                                      | ntrol Act) inventory                                 |
| Aluminum oxide (Al2O3) (1344-28-1)   |  |
| Listed on the United States TSCA (Toxic Substances Co                                      | ntrol Act) inventory                                 |
| Subject to reporting requirements of United States SAI                                     | RA Section 313                                       |

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1 % (fibrous forms)

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| CERCLA RQ   | 10 lb  |
|---|--------|
| SARA Section 302 Threshold Planning Quantity (TPQ)                        | 500 lb |
| SARA Section 313 - Emission Reporting                                     | 1%     |
| Iron oxide (Fe2O3) (1309-37-1)  |        |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |        |

### 15.2. US State Regulations

## **California Proposition 65**



**WARNING:** This product can expose you to Chromium, ion (Cr6+), which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

| Carcinogenicity | Developmental<br>Toxicity | Female Reproductive Toxicity | Male Reproductive<br>Toxicity |
|-----------------|---------------------------|------------------------------|-------------------------------|
| Х               | •                         | -                            |                               |
| Х               |                           |                              |                               |
| Х               | Х                         |                              |                               |
|                 | X<br>X<br>X               |                              |                               |

### Quartz (14808-60-7)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

### Cement, portland, chemicals (65997-15-1)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

### Calcium oxide (1305-78-8)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

### **Titanium dioxide (13463-67-7)**

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

## Kaolin (1332-58-7)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

### Calcium sulfate dihydrate (13397-24-5)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

## Limestone (1317-65-3)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

### Magnesium oxide (MgO) (1309-48-4)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

### Silica, amorphous (7631-86-9)

- U.S. Massachusetts Right To Know List
- U.S. Pennsylvania RTK (Right to Know) List

### Aluminum oxide (Al2O3) (1344-28-1)

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- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List

### Silica, amorphous, precipitated and gel (112926-00-8)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

### Boron oxide (B2O3) (1303-86-2)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

## Fluorine (7782-41-4)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List

### Iron oxide (Fe2O3) (1309-37-1)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

### Chromium, ion (Cr6+) (18540-29-9)

- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List

### 15.3. Canadian Regulations

### Quartz (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

### Cement, portland, chemicals (65997-15-1)

Listed on the Canadian DSL (Domestic Substances List)

### Calcium oxide (1305-78-8)

Listed on the Canadian DSL (Domestic Substances List)

#### **Titanium dioxide (13463-67-7)**

Listed on the Canadian DSL (Domestic Substances List)

#### Kaolin (1332-58-7)

Listed on the Canadian DSL (Domestic Substances List)

### Calcium sulfate dihydrate (13397-24-5)

Listed on the Canadian DSL (Domestic Substances List)

### Silicic acid (H4SiO4), calcium salt (1:2) (10034-77-2)

Listed on the Canadian DSL (Domestic Substances List)

### Limestone (1317-65-3)

Listed on the Canadian NDSL (Non-Domestic Substances List)

### Magnesium oxide (MgO) (1309-48-4)

Listed on the Canadian DSL (Domestic Substances List)

### Silica, amorphous (7631-86-9)

Listed on the Canadian DSL (Domestic Substances List)

### Aluminum oxide (Al2O3) (1344-28-1)

Listed on the Canadian DSL (Domestic Substances List)

### Silica, amorphous, precipitated and gel (112926-00-8)

Listed on the Canadian DSL (Domestic Substances List)

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Listed on the Canadian DSL (Domestic Substances List)

Fluorine (7782-41-4)

Listed on the Canadian DSL (Domestic Substances List)

Iron oxide (Fe2O3) (1309-37-1)

Listed on the Canadian DSL (Domestic Substances List)

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest** 

: 8/24/2020

Revision

Other Information

: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

### **GHS Full Text Phrases:**

| Acute Tox. 1 (Inhalation)     | Acute toxicity (inhalation) Category 1                           |
|-------------------------------|--|
| Acute Tox. 3 (Dermal)         | Acute toxicity (dermal) Category 3                               |
| Acute Tox. 3 (Inhalation:gas) | Acute toxicity (inhalation:gas) Category 3                       |
| Acute Tox. 3 (Oral)           | Acute toxicity (oral) Category 3                                 |
| Aquatic Acute 1               | Hazardous to the aquatic environment - Acute Hazard Category 1   |
| Aquatic Acute 2               | Hazardous to the aquatic environment - Acute Hazard Category 2   |
| Aquatic Acute 3               | Hazardous to the aquatic environment - Acute Hazard Category 3   |
| Aquatic Chronic 1             | Hazardous to the aquatic environment - Chronic Hazard Category 1 |
| Aquatic Chronic 3             | Hazardous to the aquatic environment - Chronic Hazard Category 3 |
| Carc. 1A                      | Carcinogenicity Category 1A                                      |
| Carc. 1B                      | Carcinogenicity Category 1B                                      |
| Carc. 2                       | Carcinogenicity Category 2                                       |
| Comb. Dust                    | Combustible Dust   |
| Eye Dam. 1                    | Serious eye damage/eye irritation Category 1                     |
| Eye Irrit. 2A                 | Serious eye damage/eye irritation Category 2A                    |
| Flam. Liq. 4                  | Flammable liquids Category 4                                     |
| Muta. 2                       | Germ cell mutagenicity Category 2                                |
| Repr. 1B                      | Reproductive toxicity Category 1B                                |
| Skin Corr. 1                  | Skin corrosion/irritation Category 1                             |
| Skin Corr. 1B                 | Skin corrosion/irritation Category 1B                            |
| Skin Corr. 1C                 | Skin corrosion/irritation Category 1C                            |
| Skin Irrit. 2                 | Skin corrosion/irritation Category 2                             |
| Skin Sens. 1                  | Skin sensitization, Category 1                                   |
| STOT RE 1                     | Specific target organ toxicity (repeated exposure) Category 1    |
| STOT SE 3                     | Specific target organ toxicity (single exposure) Category 3      |
| H314                          | Causes severe skin burns and eye damage                          |
| H315                          | Causes skin irritation   |
| H317                          | May cause an allergic skin reaction                              |
| H318                          | Causes serious eye damage  |
| H319                          | Causes serious eye irritation                                    |
| H330                          | Fatal if inhaled   |
| H335                          | May cause respiratory irritation                                 |
| H350                          | May cause cancer   |
| H351                          | Suspected of causing cancer                                      |
| H360                          | May damage fertility or the unborn child                         |

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| H372 | Causes damage to organs through prolonged or repeated exposure |
|------|--|
| H400 | Very toxic to aquatic life                                     |
| H402 | Harmful to aquatic life  |
| H410 | Very toxic to aquatic life with long lasting effects           |
| H412 | Harmful to aquatic life with long lasting effects              |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (Can, US)

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