# Cement

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: 01/01/2022 Date of Issue: 02/01/2022 Version: 4.2

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Lafarge Cement

**Synonyms:** Cement, Portland Cement, Hydraulic Cement, Oil Well Cement, Antique White Cement, Portland Limestone Cement, Portland Cement Type I, IA, IE, I/II, II, IIA, II L.A., III, IIIA, IV, IVA, V, VA, 10, 20, 30, 40, 50, GU, GUL, MS, MSL, HE, HEL, HS, HSL, OWH, OWG, OW Class G HSR, ONECEM®, INFINICEM®, EcoPlanet®

**Note:** This SDS covers many types of hydraulic cement. Individual composition of hazardous constituents will vary between types of hydraulic cement.

### 1.2. Intended Use of the Product

Cement is used as a binder in concrete and mortars that are widely used in construction. Cement is distributed in bags, totes and bulk shipment.

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

**Company** – Lafarge Canada

Western Canada
#300 115 Quarry Park Road SE
Calgary, AB T2C 5G9
Phone: (403) 225-5400

Eastern Canada
6509 Airport Road
Mississauga, ON L4V 157
Phone: (905) 738-7070

Website:www.lafarge.ca

### 1.4. Emergency Telephone Number

**Emergency Number** : Chemtel 1-800-255-3924 (24 hours)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

**GHS-US/CA Classification**

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

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

### 2.2. Label Elements

**GHS-US/CA Labeling**

**Hazard Pictograms (GHS-US/CA)** :

GHS05 GHS07 GHS08

**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).

**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 other exposed areas thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.
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.
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. Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) or sensitivity to hexavalent chromium can be aggravated by exposure.

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

No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixture

| Name | Product Identifier | % * | GHS Ingredient Classification |
|---|---|---|---|
| Cement, portland, chemicals | (CAS-No.) 65997-15-1 | 100 | Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>STOT SE 3, H335 |
| Limestone | (CAS-No.) 1317-65-3 | <= 15 | Not classified |
| Gypsum (Ca(SO4).2H2O) | (CAS-No.) 13397-24-5 | 2 - 10 | Not classified |
| Calcium oxide | (CAS-No.) 1305-78-8 | <= 5 | Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>STOT SE 3, H335<br>Aquatic Acute 3, H402 |
| Magnesium oxide (MgO) | (CAS-No.) 1309-48-4 | <= 4 | Not classified |
| Quartz | (CAS-No.) 14808-60-7 | <= 0.2 | Carc. 1A, H350<br>STOT SE 3, H335<br>STOT RE 1, H372 |

Full text of H-phrases: see Section 16.

*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%).

## 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:** Remove contaminated clothing. Immediately flush skin with plenty of water for at least 30 minutes and continue flushing throughout emergency transport, if needed. Immediately call a poison center or physician. Wash contaminated clothing before reuse.

**Eye Contact:** Get medical attention immediately and begin flushing eyes with plenty of water for at least 30 minutes and continue flushing eyes throughout emergency transport. Immediately call a poison center or physician. Occasionally lift the upper and lower eyelids during flushing. Remove any contact lenses, if possible. Chemical burns should be treated promptly by a physician.

**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 severe skin burns and eye damage. Skin sensitization. May cause cancer.

**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:** 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) potentially 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. May cause an allergic skin reaction.

**Eye Contact:** Potentially causes permanent damage to the cornea, iris, or conjunctiva. Airborne dust may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of dry powder or with wet cement 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.

**Chronic Symptoms:** May cause cancer.

### 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:** Water spray, dry chemical, foam, carbon dioxide.

**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:** May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

### 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**: Silicon oxides.

**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.

#### 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. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant.

### 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. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Heavy material- proper lifting methods or equipment.

**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. Do not get in eyes, on skin, or on clothing. Handle empty containers with care because they may still present a hazard. Do not breathe dust. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

**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 away from incompatible materials. Store in original container or corrosive resistant and/or lined container.

**Incompatible Materials:** Acids. Oxidizers. Ammonium salts. Aluminum metal. Diazomethane. Phosphorus.

**Storage Temperature:** Unlimited.

### 7.3. Specific End Use(s)

Cement is used as a binder in concrete and mortars that are widely used in construction. Cement is distributed in bags, totes and bulk shipment.

## 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), Canadian provincial governments, or the Mexican government.

| **Quartz (14808-60-7)** | | |
|---|---|---|
| **Mexico** | OEL TWA (mg/m³) | 0.1 mg/m³ (respirable fraction) |
| **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 |
| **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) |
| **Northwest Territories** | OEL TWA (mg/m³) | 0.05 mg/m³ (respirable fraction) |
| **Ontario** | OEL TWA (mg/m³) | 0.1 mg/m³ (designated substances regulation-respirable) |
| **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) |
| **Yukon** | OEL TWA (mg/m³) | 300 particle/mL |

| **Limestone (1317-65-3)** | | |
|---|---|---|
| **Mexico** | OEL TWA (mg/m³) | 10 mg/m³ |
| **Mexico** | OEL STEL (mg/m³) | 20 mg/m³ |
| **USA OSHA** | OSHA PEL (TWA) (mg/m³) | 15 mg/m³ (total dust)<br>5 mg/m³ (respirable fraction) |
| **USA NIOSH** | NIOSH REL (TWA) (mg/m³) | 10 mg/m³ (total dust)<br>5 mg/m³ (respirable dust) |
| **Alberta** | OEL TWA (mg/m³) | 10 mg/m³ |
| **British Columbia** | OEL STEL (mg/m³) | 20 mg/m³ (total dust) |
| **British Columbia** | OEL TWA (mg/m³) | 10 mg/m³ (total dust)<br>3 mg/m³ (respirable fraction) |
| **New Brunswick** | OEL TWA (mg/m³) | 10 mg/m³ (particulate matter containing no Asbestos and <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 (Limestone, containing no Asbestos and <1% Crystalline silica-total 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<br>10 mg/m³ |

| **Cement, portland, chemicals (65997-15-1)** | | |
|---|---|---|
| **Mexico** | OEL TWA (mg/m³) | 10 mg/m³ |
| **Mexico** | OEL STEL (mg/m³) | 20 mg/m³ |
| **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 |
| **USA OSHA** | OSHA PEL (TWA) (mg/m³) | 15 mg/m³ (total dust)<br>5 mg/m³ (respirable fraction) |
| **USA NIOSH** | NIOSH REL (TWA) (mg/m³) | 10 mg/m³ (total dust)<br>5 mg/m³ (respirable dust) |
| **USA IDLH** | US IDLH (mg/m³) | 5000 mg/m³ |
| **Alberta** | OEL TWA (mg/m³) | 10 mg/m³ |

| | | |
|---|---|---|
| **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 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 matter) |
| **Nova Scotia** | OEL TWA (mg/m³) | 1 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica-respirable particulate matter) |
| **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 |
| **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 matter) |
| **Québec** | VEMP (mg/m³) | 10 mg/m³ (containing no Asbestos and <1% Crystalline silica-total dust)<br>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<br>10 mg/m³ |

| **Gypsum (Ca(SO4).2H2O) (13397-24-5)** | | |
|---|---|---|
| **Mexico** | OEL TWA (mg/m³) | 10 mg/m³ (inhalable fraction) |
| **USA ACGIH** | ACGIH TWA (mg/m³) | 10 mg/m³ (inhalable particulate matter) |
| **USA OSHA** | OSHA PEL (TWA) (mg/m³) | 15 mg/m³ (total dust)<br>5 mg/m³ (respirable fraction) |
| **USA NIOSH** | NIOSH REL (TWA) (mg/m³) | 10 mg/m³ (total dust)<br>5 mg/m³ (respirable dust) |
| **Alberta** | OEL TWA (mg/m³) | 10 mg/m³ |
| **British Columbia** | OEL STEL (mg/m³) | 20 mg/m³ (total dust) |
| **British Columbia** | OEL TWA (mg/m³) | 10 mg/m³ (total dust)<br>3 mg/m³ (respirable fraction) |
| **Manitoba** | OEL TWA (mg/m³) | 10 mg/m³ (inhalable particulate matter) |
| **Newfoundland & Labrador** | OEL TWA (mg/m³) | 10 mg/m³ (inhalable particulate matter) |
| **Nova Scotia** | OEL TWA (mg/m³) | 10 mg/m³ (inhalable particulate matter) |
| **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 (containing no Asbestos and <1% Crystalline silica-total dust)<br>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<br>10 mg/m³ |

| **Calcium oxide (1305-78-8)** | | |
|---|---|---|
| **Mexico** | OEL TWA (mg/m³) | 2 mg/m³ |
| **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/m³ |
| **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/m³ |
| **Nunavut** | OEL STEL (mg/m³) | 4 mg/m³ |
| **Nunavut** | OEL TWA (mg/m³) | 2 mg/m³ |
| **Northwest Territories** | OEL STEL (mg/m³) | 4 mg/m³ |
| **Northwest Territories** | OEL TWA (mg/m³) | 2 mg/m³ |
| **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 |

| **Magnesium oxide (MgO) (1309-48-4)** | | |
|---|---|---|
| **Mexico** | OEL TWA (mg/m³) | 10 mg/m³ (fume) |
| **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)<br>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) |

### 8.2. Exposure Controls

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

**Personal Protective Equipment:** Gloves. Protective clothing. Protective goggles. Insufficient ventilation and/or dust generation: wear respiratory protection.

**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, NIOSH 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

| | | |
|---|---|---|
| **Physical State** | : | Solid |
| **Appearance** | : | Gray, Off White or White Powder |
| **Odor** | : | Odorless |
| **Odor Threshold** | : | Not available |
| **pH** | : | 12 - 13 (in water) |
| **Evaporation Rate** | : | Not available |
| **Melting Point** | : | Not available |
| **Freezing Point** | : | Not available |
| **Boiling Point** | : | > 1000 °C (> 1832 °F) |
| **Flash Point** | : | Not available |
| **Auto-ignition Temperature** | : | Not available |
| **Decomposition Temperature** | : | Not available |
| **Flammability (solid, gas)** | : | Not available |
| **Lower Flammable Limit** | : | Not available |
| **Upper Flammable Limit** | : | Not available |
| **Vapor Pressure** | : | Not available |
| **Relative Vapor Density at 20°C** | : | Not available |
| **Specific Gravity** | : | 3.15 (Water = 1) |
| **Solubility** | : | Water: 0.1 - 1 % (slightly soluble) |
| **Partition Coefficient: N-Octanol/Water** | : | Not available |
| **Viscosity** | : | Not available |

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity:** May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

**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:** Incompatible materials.

**10.5. Incompatible Materials:** Acids. Oxidizers. Ammonium salts. Aluminum metal. Diazomethane. Phosphorus.

**10.6. Hazardous Decomposition Products:** None expected under normal conditions of use.

## 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.

**pH:** 12 - 13 (in water)

**Eye Damage/Irritation:** Causes serious eye damage.

**pH:** 12 - 13 (in water)

**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):** Not classified

**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 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:** 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) potentially 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. May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** Potentially causes permanent damage to the cornea, iris, or conjunctiva. Airborne dust may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of dry powder or with wet cement 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:** May cause cancer.

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

| | |
|---|---|
| **LD50 Oral Rat** | 3870 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. |

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General:** High pH (alkalinity) of product may be harmful to aquatic life.

| **Calcium oxide (1305-78-8)** | |
|---|---|
| **LC50 Fish 1** | 50.6 mg/l |

### 12.2. Persistence and Degradability

| **Trinity® White Cement** | |
|---|---|
| **Persistence and Degradability** | Not established. |

### 12.3. Bioaccumulative Potential

| **Trinity® White Cement** | |
|---|---|
| **Bioaccumulative Potential** | Not established. |

| **Calcium oxide (1305-78-8)** | |
|---|---|
| **BCF Fish 1** | (no bioaccumulation) |

### 12.4. Mobility in Soil

Not available

### 12.5. Other Adverse Effects

**Other Information:** Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

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

**Additional Information:** Container may remain hazardous when empty. Continue to observe all precautions.

**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.

**14.1. In Accordance with DOT** Not regulated for transport

**14.2. In Accordance with IMDG** Not regulated for transport

**14.3. In Accordance with IATA** Not regulated for transport

**14.4. In Accordance with TDG** Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

| **Trinity® White Cement** | |
|---|---|
| **SARA Section 311/312 Hazard Classes** | Health hazard - Serious eye damage or eye irritation<br>Health hazard - Specific target organ toxicity (single or repeated exposure)<br>Health hazard - Carcinogenicity<br>Health hazard - Skin corrosion or Irritation<br>Health hazard - Respiratory or skin sensitization |

| **Quartz (14808-60-7)** |
|---|
| 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 |

| **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

**Magnesium oxide (MgO) (1309-48-4)**
Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. US State Regulations

**Quartz (14808-60-7)**

| | |
|---|---|
| **U.S. - California - Proposition 65 - Carcinogens List** | WARNING: This product contains chemicals known to the State of California to cause cancer. |

**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

**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

**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

**Gypsum (Ca(SO4).2H2O) (13397-24-5)**
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

**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

### 15.3. Canadian Regulations

**Quartz (14808-60-7)**
Listed on the Canadian DSL (Domestic Substances List)

**Limestone (1317-65-3)**
Listed on the Canadian NDSL (Non-Domestic Substances List)

**Cement, portland, chemicals (65997-15-1)**
Listed on the Canadian DSL (Domestic Substances List)

**Gypsum (Ca(SO4).2H2O) (13397-24-5)**
Listed on the Canadian DSL (Domestic Substances List)

**Calcium oxide (1305-78-8)**
Listed on the Canadian DSL (Domestic Substances List)

**Magnesium oxide (MgO) (1309-48-4)**
Listed on the Canadian DSL (Domestic Substances List)

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

**Date of Preparation or Latest Revision** : January 1, 2022

**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:**

| | |
|---|---|
| Aquatic Acute 3 | Hazardous to the aquatic environment - Acute Hazard Category 3 |
| Carc. 1A | Carcinogenicity Category 1A |
| Eye Dam. 1 | Serious eye damage/eye irritation Category 1 |
| 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 |
| H335 | May cause respiratory irritation |
| H350 | May cause cancer |
| H372 | Causes damage to organs through prolonged or repeated exposure |
| H402 | Harmful to aquatic life |

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