

**SECTION 1: IDENTIFICATION****1.1. Product Identifier****Product Form:** Mixture**Product Name:** Portland Cement, Portland Limestone Cement**Chemical Name:** Calcium compounds, calcium silicate compounds, and other calcium compounds containing iron and aluminum make up the majority of this product.**Synonyms:** Cement, ASTM/AASHTO Types I, II, III, V, Hydraulic Cement, CSA Type GU, GUb, GUL, MS, MH, MHL, HE, HEL, LH, LHL, HS, NYSDOT Type VI**1.2. Intended Use of the Product****Use of the Substance/Mixture:** Building materials, construction, a basic ingredient in concrete.**1.3. Name, Address, and Telephone of the Responsible Party**

Lehigh White Cement Company LLC

1601 Forum Place, Suite 1110, West Palm Beach, FL 33401

(561) 812-7450

**1.4. Emergency Telephone Number****Emergency Number:** For Chemical Emergency Call CHEMTREC day or night  
Within USA and Canada: 1.800.424.9300  
Mexico: 1.800.681.9531  
Outside USA and Canada: 1.703.527.3887 (collect calls accepted)**SECTION 2: HAZARDS IDENTIFICATION****2.1. Classification of the Substance or Mixture**

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

**2.2. Label Elements****GHS-US Labeling****Hazard Pictograms (GHS-US):****Signal Word (GHS-US):**

Danger

**Hazard Statements (GHS-US):**

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 (lung/respiratory system) through prolonged or repeated exposure (Inhalation).

**Precautionary Statements (GHS-US):**

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.

P270 - Do not eat, drink or smoke when using this product.

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

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

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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/shower.  
 P304+P340 - If inhaled: Remove person to fresh air and keep at rest in a position 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.  
 P363 - Wash contaminated clothing 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, and international regulations.

**2.3. Other Hazards**

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

**2.4. Unknown Acute Toxicity (GHS-US)**

No data available

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substance**

Not applicable

**3.2. Mixture**

Name	Synonyms	Product Identifier	%	GHS US classification
Cement, portland, chemicals	Portland cement / Silicate, portland cement / Cement (Portland) / Cement kiln dust / Cement Portland	(CAS-No.) 65997-15-1	≤ 100	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Calcium oxide silicate (Ca3O(SiO4))	Calcium oxide silicate / Tricalcium silicate / Tricalcium silicon pentaoxide / Calcium oxide silicate (Ca3 O(SiO4))	(CAS-No.) 12168-85-3	55 – 75	Not classified
Limestone	Chalk / Limestone (A noncombustible solid characteristic of sedimentary rock. It consists primarily of calcium carbonate.) / Natural calcium carbonate / Marble / Calcium carbonate / Limestone (sedimentary rock) / Calcite / Limestone ground / Ground limestone	(CAS-No.) 1317-65-3	≤ 25	Not classified
Silicic acid (H4SiO4), calcium salt (1:2)	Dicalcium silicate / Silicic acid (H4SiO4), calcium salt / Silicic acid, calcium salt (1:2) / Calcium silicate / Silicic acid dicalcium salt	(CAS-No.) 10034-77-2	5 – 20	Eye Irrit. 2A, H319
Aluminum calcium oxide (Al2Ca3O6)	Aluminate (AlO33-), calcium (2:3) / Aluminate, (AlO33-), calcium (2:3) / Dialuminium tricalcium hexaoxide / Aluminate, calcium (2:3) / Calcium aluminate / Aluminate(3-), calcium (2:3) / Calcium-aluminum oxide	(CAS-No.) 12042-78-3	4 – 15	Eye Irrit. 2A, H319

Gypsum (Ca(SO <sub>4</sub> ).2H <sub>2</sub> O)	Gypsum	(CAS-No.) 13397-24-5	2 – 10	Not classified
Particulates not otherwise classified (PNOC)	Nuisance particulates / Particulates not otherwise regulated / Particulates, n.o.s. / Dust, nuisance dust and particulates / Dusts, non-specific	(CAS-No.) Not applicable	1 – 5	Not classified
Magnesium oxide (MgO)	Calcined magnesite / Magnesia	(CAS-No.) 1309-48-4	1 – 3	Not classified
Aluminium dicalcium iron pentaoxide	Aluminum calcium iron oxide (AlCa <sub>2</sub> FeO <sub>5</sub> ) / Aluminum calcium iron oxide	(CAS-No.) 12068-35-8	1 – 2	Eye Irrit. 2A, H319
Quartz	Quartz (SiO <sub>2</sub> ) / Silica, crystalline, quartz / Crystalline silica, quartz / .alpha.-Quartz / Silica, crystalline, .alpha.-quartz	(CAS-No.) 14808-60-7	≤ 1	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372

Full text of H-phrases: see section 16

**Other Components:** Cement is made from materials mined from the earth and processed using energy provided by fuels. Additional materials, such as kiln dust and limestone may also be introduced into the cement manufacturing process. A chemical analysis of cement may reveal trace amounts of naturally occurring but potentially harmful chemical compounds that are below reportable levels such as free crystalline silica, organic compounds, potassium and sodium compounds, heavy metals including cadmium, chromium (including hexavalent chromium), nickel and lead. Other trace constituents may include calcium oxide (also known as free lime or quick lime) and organic compounds from grinding aids such as amine acetate salts, glycols and 1,2-ethanediol.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

**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).

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

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

**First-aid Measures After 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.

**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

**Symptoms/Injuries:** May cause respiratory irritation. Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation). Skin sensitization. Causes skin irritation. Causes severe skin burns and eye damage.

**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) 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:** Concrete may cause immediate or delayed irritation or inflammation. Eye contact with wet concrete can cause moderate eye irritation, chemical burns and blindness. Eye contact with large amounts of concrete dust can cause moderate eye irritation and abrasion. 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 by inhalation. Causes damage to organs (lungs, Respiratory system.) 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.

### 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, fog, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, or dry chemical.

**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.

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

**Reactivity:** Wet portland cement is alkaline. As such it is incompatible with acids, ammonium salts and phosphorus. Quartz (silica) will dissolve in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride. 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:** Carbon oxides (CO, CO<sub>2</sub>). Sulfur oxides. Metal oxides. Crystalline silica exists in several forms, the most common of which is quartz. If crystalline silica (quartz) is heated to more than 870°C (1598 °F), it can change to a form of crystalline silica known as tridymite, and if crystalline silica (quartz) is heated to more than 1470°C (2678 °F), it can change to a form of crystalline silica known as cristobalite. The OSHA PEL for crystalline silica as tridymite and cristobalite is one-half of the OSHA PEL for crystalline silica (quartz).

## 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.

**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.

**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. Handle empty containers with care because they may still present a hazard.

**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 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:** Oxidizers. Acids. Aluminum. Amines. Alkalis.

**7.3. Specific End Use(s)**

Building materials, construction, a basic ingredient in concrete.

**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), or OSHA (PEL).

<b>Cement, portland, chemicals (65997-15-1)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter)
<b>USA ACGIH</b>	ACGIH chemical category	Not Classifiable as a Human Carcinogen
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	5000 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
<b>USA OSHA</b>	OSHA PEL (TWA) (ppm)	50 mppcf (<1% Crystalline silica) (See 29 CFR 1910.1000 TABLE Z-3)

<b>Gypsum (Ca(SO4).2H2O) (13397-24-5)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable particulate matter (Calcium sulfate))
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)

<b>Limestone (1317-65-3)</b>		
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)

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<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
<b>Particulates not otherwise classified (PNO) (Not applicable)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> Respirable fraction 10 mg/m <sup>3</sup> Total Dust
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> Respirable fraction 15 mg/m <sup>3</sup> Total Dust
<b>USA OSHA</b>	OSHA PEL (TWA) (ppm)	15 mppcf (respirable fraction) 50 mppcf (total dust) See 29 CFR 1910.1000 Table Z-3
<b>Quartz (14808-60-7)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable particulate matter)
<b>USA ACGIH</b>	ACGIH chemical category	A2 - Suspected Human Carcinogen
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (respirable dust)
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup> (respirable dust)
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	50 µg/m <sup>3</sup> (Respirable crystalline silica)
<b>USA OSHA</b>	OSHA PEL (TWA) (ppm)	(250)/(%SiO <sub>2</sub> +5) mppcf TWA (respirable fraction) (10)/(%SiO <sub>2</sub> +2) mg/m <sup>3</sup> TWA (respirable fraction) (For any operations or sectors for which the respirable crystalline silica standard, 1910.1053, is stayed or otherwise not in effect, See 20 CFR 1910.1000 TABLE Z-3)
<b>Magnesium oxide (MgO) (1309-48-4)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable particulate matter)
<b>USA ACGIH</b>	ACGIH chemical category	Not Classifiable as a Human Carcinogen
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	750 mg/m <sup>3</sup> (fume)
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (fume, total particulate)

## 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: 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.

**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

**Physical State:** Solid  
**Appearance:** White Powder  
**Odor:** Odorless

<b>Odor Threshold:</b>	No data available
<b>pH:</b>	> 11.5 [Conc. (% w/w): 1%]
<b>Evaporation Rate:</b>	No data available
<b>Melting Point:</b>	No data available
<b>Freezing Point:</b>	No data available
<b>Boiling Point:</b>	> 1000 °C (1832 °F)
<b>Flash Point:</b>	Not combustible
<b>Auto-ignition Temperature:</b>	No data available
<b>Decomposition Temperature:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Vapor Pressure:</b>	No data available
<b>Relative Vapor Density at 20°C:</b>	No data available
<b>Relative Density:</b>	2.3 – 3.1
<b>Solubility:</b>	Water: 0.1 – 1 % Slightly soluble
<b>Partition Coefficient: N-Octanol/Water:</b>	No data available
<b>Viscosity:</b>	No data available

**9.2. Other Information** No additional information available

### SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Wet portland cement is alkaline. As such it is incompatible with acids, ammonium salts and phosphorus. Quartz (silica) will dissolve in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride. 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:** Extremely high or low temperatures, and incompatible materials. Avoid creating or spreading dust.
- 10.5. Incompatible Materials:** Oxidizers. Acids. Aluminum. Amines. Alkalis.
- 10.6. Hazardous Decomposition Products:** Not expected to decompose under ambient conditions.

### SECTION 11: TOXICOLOGICAL INFORMATION

**11.1. Information on Toxicological Effects**

**Acute Toxicity (Oral):** Not classified

**Acute Toxicity (Dermal):** Not classified

**Acute Toxicity (Inhalation):** Not classified

<b>Quartz (14808-60-7)</b>	
<b>LD50 Oral Rat</b>	> 5000 mg/kg
<b>LD50 Dermal Rat</b>	> 5000 mg/kg
<b>Magnesium oxide (MgO) (1309-48-4)</b>	
<b>LD50 Oral Rat</b>	3870 mg/kg

**Skin Corrosion/Irritation:** Causes severe skin burns.

**pH:** > 11.5 [Conc. (% w/w): 1%]

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

**pH:** > 11.5 [Conc. (% w/w): 1%]

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

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** May cause cancer (Inhalation).

<b>Quartz (14808-60-7)</b>	
<b>IARC group</b>	1
<b>National Toxicology Program (NTP) Status</b>	Known Human Carcinogens.
<b>OSHA Hazard Communication Carcinogen List</b>	In OSHA Hazard Communication Carcinogen list.

**Reproductive Toxicity:** Not classified

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

**Specific Target Organ Toxicity (Repeated Exposure):** Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).

**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) 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:** Concrete may cause immediate or delayed irritation or inflammation. Eye contact with wet concrete can cause moderate eye irritation, chemical burns and blindness. Eye contact with large amounts of concrete dust can cause moderate eye irritation and abrasion. 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 by inhalation. Causes damage to organs (lungs, Respiratory system.) 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.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology – General** Not classified.

### 12.2. Persistence and Degradability

<b>Portland Cement</b>	
<b>Persistence and Degradability</b>	Not established.

### 12.3. Bioaccumulative Potential

<b>Portland Cement</b>	
<b>Bioaccumulative Potential</b>	Not established.



**12.4. Mobility in Soil** No additional information 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, 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.

**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

**SECTION 15: REGULATORY INFORMATION**

**15.1. US Federal Regulations**

<b>Portland Cement</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Health hazard - Specific target organ toxicity (single or repeated exposure) Health hazard - Carcinogenicity Health hazard - Respiratory or skin sensitization Health hazard - Skin corrosion or Irritation Health hazard - Serious eye damage or eye irritation
<b>Cement, portland, chemicals (65997-15-1)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Calcium oxide silicate (Ca3O(SiO4)) (12168-85-3)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Silicic acid (H4SiO4), calcium salt (1:2) (10034-77-2)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Aluminum calcium oxide (Al2Ca3O6) (12042-78-3)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Aluminium dicalcium iron pentaoxide (12068-35-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Limestone (1317-65-3)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Quartz (14808-60-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Magnesium oxide (MgO) (1309-48-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

**15.2. US State Regulations**

<b>Cement, portland, chemicals (65997-15-1)</b>
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
<b>Gypsum (Ca(SO4).2H2O) (13397-24-5)</b>

# Portland Cement Safety Data Sheet

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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

### 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

### 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

### California Proposition 65



**WARNING:** This product can expose you to Lead, 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](http://www.P65Warnings.ca.gov).

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Quartz (14808-60-7)	X			
Lead (7439-92-1)	X	X	X	X

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

**Date of Preparation or Latest Revision:** November 11, 2020

**Other Information:** This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

### GHS Full Text Phrases:

Carc. 1A	Carcinogenicity Category 1A
Carc. 1B	Carcinogenicity Category 1B
Comb. Dust	Combustible Dust
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Lact.	Reproductive toxicity (Lact.)
Repr. 1A	Reproductive toxicity Category 1A
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
H335	May cause respiratory irritation
H350	May cause cancer

# Portland Cement Safety Data Sheet

## Safety Data Sheet

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H360	May damage fertility or the unborn child
H362	May cause harm to breast-fed children
H372	Causes damage to organs through prolonged or repeated exposure

*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.*

SDS US (GHS HazCom)