

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Lafarge Blended Cement

**Synonyms:** MaxCem®, SFTM Cement, Silica Fume Cement, TerraCem™, Tercem 3000™, Terraflow Cement, PozzMod Plus™, , FortiPave®, FortiMax™, OneCem, Type IS, IP, IT, GUB, HEb, MSb, HSb, MHb, LHb, GULb, MSLb, MHLb, HELb, HSLb.

### 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 North America Inc.

8700 West Bryn Mawr Avenue, Suite 300

Chicago, IL 60631

Information: 773-372-1000 (9am to 5pm CST)

email: [SDSinfo@Lafarge.com](mailto:SDSinfo@Lafarge.com)

Website: [www.lafarge-na.com](http://www.lafarge-na.com)

### 1.4. Emergency Telephone Number

**Emergency Number** : 1-800-451-8346 (3E Hotline)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

#### Classification (GHS-US)

Skin Irrit. 2 H315

Eye Dam. 1 H318

Skin Sens. 1 H317

Carc. 1A H350

STOT SE 3 H335

STOT RE 1 H372

Full text of H-phrases: see section 16

### 2.2. Label Elements

#### GHS-US Labeling

#### Hazard Pictograms (GHS-US)



#### Signal Word (GHS-US)

: Danger

#### Hazard Statements (GHS-US)

: 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.

**Precautionary Statements (GHS-US)** : P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe dust.

P264 - Wash hands, forearms, and 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.

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

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P302+P352 - IF ON SKIN: Wash with plenty of water.  
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.  
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

Causes severe skin burns and eye damage when mixed with water.

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) No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Not applicable

### 3.2. Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Cement, portland, chemicals	(CAS No) 65997-15-1	5-10,10-30, 30-60, 60-95	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Slags, ferrous metal, blast furnace	(CAS No) 65996-69-2	<0.1, 0.1-1, 1-5, 5- 10,10-30, 30-60, 60-95	Not classified
Ashes, residues	(CAS No) 68131-74-8	<0.1, 0.1-1, 1-5, 5- 10,10-30, 30-40	Eye Irrit. 2B, H320
Limestone	(CAS No) 1317-65-3	<0.1, 0.1-1, 1-5, 5- 10,10-20	Not classified
Kaolin	(CAS No) 1332-58-7	<0.1, 0.1-1, 1-5, 5- 10,10-20	Eye Irrit. 2B, H320
Gypsum CaSO <sub>4</sub> .2H <sub>2</sub> O	(CAS No) 13397-24-5	1-5, 5 - 10	Not classified
Fumes, silica	(CAS No) 69012-64-2	<0.1, 0.1-1, 1-5, 5- 10	Not classified
Quartz	(CAS No) 14808-60-7	<0.1, 0.1-1, 1-5, 5- 10	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Flue dust, portland cement	(CAS No) 68475-76-3	<0.1, 0.1-1, 1-5, 5- 10	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335

Multiple WHMIS ranges have been utilized to account for varying concentration.

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 if possible).

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**Inhalation:** Move person to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not subside.

**Skin Contact:** For wet mixture: Rinse for at least 60 minutes with water. For dry mixture: Rinse with water for at least 15 minutes. Wash with cool water and a pH neutral soap or a mild skin detergent. Seek medical attention for rash, irritation, dermatitis, and prolonged unprotected exposures to wet cement, cement mixtures, or liquids from wet cement.

**Eye Contact:** Rinse eyes thoroughly with water for at least 60 minutes, including under lids, to remove all particles. Seek medical attention for abrasions.

**Ingestion:** Do not induce vomiting. Rinse mouth. Seek medical attention or contact poison control center immediately.

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

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

**Inhalation:** Breathing dust may cause nose, throat or lung irritation, including choking, depending on the degree of exposure. Inhalation of high levels of dust can cause chemical burns to the nose, throat and lungs. Risk of injury depends on duration and level of exposure.

**Silicosis:** This product contains trace amounts of crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a seriously disabling and fatal lung disease.

**Carcinogenicity:** Cement contains trace amounts of crystalline silica and hexavalent chromium which are classified by IARC and NTP as known human carcinogens.

**Autoimmune Disease:** 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.

**Tuberculosis:** Silicosis increases the risk of tuberculosis.

**Renal Disease:** Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica.

**Skin Contact:** Cement may cause dry skin, discomfort, irritation, severe burns, and dermatitis.

**Burns:** Exposure of sufficient duration to wet cement, or to dry cement on moist areas of the body, 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.

**Dermatitis:** Cement 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 cement including alkalinity and abrasion. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) present in cement. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with cement. Others may develop allergic dermatitis after years of repeated contact with cement.

**Eye Contact:** 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:** Do not ingest cement. Although ingestion of small quantities of cement is not known to be harmful, large quantities can cause distress to the digestive tract. May cause chemical burns in the mouth, throat, stomach, and digestive tract.

**Chronic Symptoms:** Causes damage to organs through prolonged or repeated exposure. If dust is generated, repeated exposure through inhalation may cause cancer or lung disease.

### 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 flammable.

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

**Reactivity:** May react violently with incompatible materials.

### 5.3. Advice for Firefighters

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

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

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**Hazardous Combustion Products:** Irritating or toxic fumes (or gases).

### 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.

#### 6.1.1. For Non-Emergency Personnel

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

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

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

**Emergency Procedures:** Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

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

**For Containment:** Place spilled material into a container. Avoid actions that cause the cement to become airborne. Avoid inhalation of cement and contact with skin. Wear appropriate protective equipment. Scrape wet cement and place in container. Allow material to dry or solidify before disposal. Do not wash cement down sewage and drainage systems or into bodies of water (e.g. streams).

**Methods for Cleaning Up:** Avoid actions that cause dust to become airborne during clean-up such as dry sweeping or using compressed air. Use HEPA vacuum or thoroughly wet with water to clean-up dust. Use PPE described in Section 8.

### 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. For further information refer to section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** Cutting, crushing or grinding hardened cement, concrete, or other crystalline silica-bearing materials will release respirable crystalline silica. Use all appropriate measures of dust control or suppression, and Personal Protective Equipment (PPE) described in Section 8 below.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Promptly remove and launder clothing that is dusty or wet with cement. Thoroughly wash skin after exposure to dust or wet cement.

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

**Technical Measures:** Ensure adequate ventilation.

**Storage Conditions:** Store tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep bulk and bagged cement dry until used. Stack bagged material in a secure manner to prevent falling. Bagged cement is heavy and poses risks such as sprains and strains to the back, arms, shoulders, and legs during lifting and mixing. Handle with care and use appropriate control measures.

### 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), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Cement, portland, chemicals (65997-15-1)		
Mexico	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Mexico	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)

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<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>Alberta</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>British Columbia</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total particulate matter containing no Asbestos and <1% Crystalline silica-total particulate)
<b>Manitoba</b>	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica-respirable fraction)
<b>New Brunswick</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica)
<b>Newfoundland &amp; Labrador</b>	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica-respirable fraction)
<b>Nova Scotia</b>	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica-respirable fraction)
<b>Nunavut</b>	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable mass)
<b>Northwest Territories</b>	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable mass)
<b>Ontario</b>	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (containing no Asbestos and <1% Crystalline silica-respirable)
<b>Prince Edward Island</b>	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica-respirable fraction)
<b>Québec</b>	VEMP (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (containing no Asbestos and <1% Crystalline silica-total dust)
<b>Saskatchewan</b>	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
<b>Saskatchewan</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>Yukon</b>	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
<b>Yukon</b>	OEL TWA (mg/m <sup>3</sup> )	30 mppcf
<b>Limestone (1317-65-3)</b>		
<b>Mexico</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>Mexico</b>	OEL STEL (mg/m <sup>3</sup> )	20 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 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>Alberta</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>British Columbia</b>	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup> (total dust)
<b>British Columbia</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust)
<b>New Brunswick</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica)
<b>Nunavut</b>	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable mass)
<b>Northwest Territories</b>	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable mass)
<b>Québec</b>	VEMP (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Limestone, containing no Asbestos and <1% Crystalline silica-total dust)
<b>Saskatchewan</b>	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
<b>Saskatchewan</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>Yukon</b>	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
<b>Yukon</b>	OEL TWA (mg/m <sup>3</sup> )	30 mppcf
<b>Gypsum CaSO4.2H2O (13397-24-5)</b>		
<b>Mexico</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable fraction)
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable fraction)
<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 NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust)

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		5 mg/m <sup>3</sup> (respirable dust)
<b>Alberta</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>British Columbia</b>	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup> (total dust)
<b>British Columbia</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust)
<b>Manitoba</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable fraction)
<b>Newfoundland &amp; Labrador</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable fraction)
<b>Nova Scotia</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable fraction)
<b>Nunavut</b>	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable mass)
<b>Northwest Territories</b>	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable mass)
<b>Ontario</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable)
<b>Prince Edward Island</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable fraction)
<b>Québec</b>	VEMP (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (containing no Asbestos and <1% Crystalline silica-total dust)
<b>Saskatchewan</b>	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
<b>Saskatchewan</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>Yukon</b>	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
<b>Yukon</b>	OEL TWA (mg/m <sup>3</sup> )	30 mppcf
<b>Fumes, silica (69012-64-2)</b>		
<b>Mexico</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> 10 mg/m <sup>3</sup> (inhalable particulate) 3 mg/m <sup>3</sup> (respirable particulate)
<b>British Columbia</b>	OEL TWA (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup> (total)
<b>New Brunswick</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (respirable fraction)
<b>Ontario</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (respirable)
<b>Québec</b>	VEMP (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (containing no Asbestos and <1% Crystalline silica-respirable dust)
<b>Saskatchewan</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (respirable fraction)
<b>Quartz (14808-60-7)</b>		
<b>Mexico</b>	OEL TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup> (respirable fraction)
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable fraction)
<b>USA OSHA</b>	OSHA PEL (STEL) (mg/m <sup>3</sup> )	250 mppcf/%SiO <sub>2</sub> +5, 10mg/m <sup>3</sup> /%SiO <sub>2</sub> +2
<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>Alberta</b>	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable particulate)
<b>British Columbia</b>	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable)
<b>Manitoba</b>	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable fraction)
<b>New Brunswick</b>	OEL TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup> (respirable fraction)
<b>Newfoundland &amp; Labrador</b>	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable fraction)
<b>Nova Scotia</b>	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable fraction)
<b>Nunavut</b>	OEL TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup> (respirable mass)
<b>Northwest Territories</b>	OEL TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup> (respirable mass)
<b>Ontario</b>	OEL TWA (mg/m <sup>3</sup> )	0.10 mg/m <sup>3</sup> (designated substances regulation-respirable)
<b>Prince Edward Island</b>	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable fraction)
<b>Québec</b>	VEMP (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup> (respirable dust)
<b>Saskatchewan</b>	OEL TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (respirable fraction)
<b>Yukon</b>	OEL TWA (mg/m <sup>3</sup> )	300 particle/mL
<b>Kaolin (1332-58-7)</b>		
<b>Mexico</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>Mexico</b>	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)

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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>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>Alberta</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (respirable)
<b>British Columbia</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica-respirable particulate)
<b>Manitoba</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica-respirable fraction)
<b>New Brunswick</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)
<b>Newfoundland &amp; Labrador</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica-respirable fraction)
<b>Nova Scotia</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica-respirable fraction)
<b>Nunavut</b>	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable mass)
<b>Northwest Territories</b>	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable mass)
<b>Ontario</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (containing no Asbestos and <1% Crystalline silica-respirable)
<b>Prince Edward Island</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica-respirable fraction)
<b>Québec</b>	VEMP (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (containing no Asbestos and <1% Crystalline silica-respirable dust)
<b>Saskatchewan</b>	OEL STEL (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup> (respirable fraction)
<b>Saskatchewan</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (respirable fraction)
<b>Yukon</b>	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
<b>Yukon</b>	OEL TWA (mg/m <sup>3</sup> )	30 mppcf

## 8.2. Exposure Controls

**Appropriate Engineering Controls:** Ensure adequate ventilation, especially in confined areas: Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. 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.

**Hand Protection:** Protective Gloves.

**Eye Protection:** Wear approved safety goggles when handling dust or wet cement to prevent contact with eyes. Wearing contact lenses when using cement, under dusty conditions, is not recommended.

**Skin and Body Protection:** Wear gloves, boot covers and protective clothing impervious to water to prevent skin contact.

**Respiratory Protection:** Wear a NIOSH approved respirator that is properly fitted and is in good condition when exposed to dust above exposure limits.

**Consumer Exposure Controls:** Do not eat, drink, or smoke during use

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Gray or white powder
Odor	: None
Odor Threshold	: Not available
pH	: 12 - 13

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<b>Evaporation Rate</b>	: Not available
<b>Melting Point</b>	: Not available
<b>Freezing Point</b>	: None, solid
<b>Boiling Point</b>	: > 1000 °C (1832 °F)
<b>Flash Point</b>	: Not available
<b>Auto-ignition Temperature</b>	: Not available
<b>Decomposition Temperature</b>	: Not available
<b>Flammability (solid, gas)</b>	: Not available
<b>Lower Flammable Limit</b>	: Not available
<b>Upper Flammable Limit</b>	: Not available
<b>Vapor Pressure</b>	: Not available
<b>Relative Vapor Density at 20 °C</b>	: Not available
<b>Relative Density</b>	: Not available
<b>Specific Gravity</b>	: 3 - 3.2
<b>Solubility</b>	: Water: Slightly (0.1 - 1.0%)
<b>Partition Coefficient: N-Octanol/Water</b>	: Not available
<b>Viscosity</b>	: None, solid
<b>Explosion Data – Sensitivity to Mechanical Impact</b>	: Not expected to present an explosion hazard due to mechanical impact.
<b>Explosion Data – Sensitivity to Static Discharge</b>	: Not expected to present an explosion hazard due to static discharge.

## SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** May react violently with incompatible materials.
- 10.2. Chemical Stability:** Stable. Keep dry until use. Avoid contact with incompatible materials.
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Incompatible materials.
- 10.5. Incompatible Materials:** Wet cement is alkaline and is incompatible with acids, ammonium salts and aluminum metal. Cement dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Cement reacts with water to form silicates and calcium hydroxide. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.
- 10.6. Hazardous Decomposition Products:** In fire, irritating or toxic fumes may be present.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects - Product

**Acute Toxicity:** Not classified

**LD50 and LC50 Data:** Not available

**Skin Corrosion/Irritation:** Causes skin irritation.

**pH:** 12 - 13

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

**pH:** 12 - 13

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

**Germ Cell Mutagenicity:** Not classified

**Teratogenicity:** Not available

**Carcinogenicity:** May cause cancer.

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

**Reproductive Toxicity:** Not classified

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

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Breathing dust may cause nose, throat or lung irritation, including choking, depending on the degree of exposure. Inhalation of high levels of dust can cause chemical burns to the nose, throat and lungs. Risk of injury depends on duration and level of exposure.

**Silicosis:** This product contains trace amounts of crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a seriously disabling and fatal lung disease.



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**Carcinogenicity:** Cement contains trace amounts of crystalline silica and hexavalent chromium which are classified by IARC and NTP as known human carcinogens.

**Autoimmune Disease:** 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.

**Tuberculosis:** Silicosis increases the risk of tuberculosis.

**Renal Disease:** Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica.

**Symptoms/Injuries After Skin Contact:** Cement may cause dry skin, discomfort, irritation, severe burns, and dermatitis.

**Burns:** Exposure of sufficient duration to wet cement, or to dry cement on moist areas of the body, 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.

**Dermatitis:** Cement 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 cement including alkalinity and abrasion. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) present in cement. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with cement. Others may develop allergic dermatitis after years of repeated contact with cement.

**Symptoms/Injuries After Eye Contact:** 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:** Do not ingest cement. Although ingestion of small quantities of cement is not known to be harmful, large quantities can cause distress to the digestive tract. May cause chemical burns in the mouth, throat, stomach, and digestive tract.

**Chronic Symptoms:** Causes damage to organs through prolonged or repeated exposure. If dust is generated, repeated exposure through inhalation may cause cancer or lung disease.

### 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
Ashes, residues (68131-74-8)	
LD50 Oral Rat	> 2000 mg/kg
Slags, ferrous metal, blast furnace (65996-69-2)	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rat	> 4000 mg/kg
LC50 Inhalation Rat	> 230.1 mg/m <sup>3</sup> (Exposure Time: 6 h; Species: Wistar)
Kaolin (1332-58-7)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 5000 mg/kg
Quartz (14808-60-7)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.

## SECTION 12: ECOLOGICAL INFORMATION

- 12.1. Toxicity** No additional information available
- 12.2. Persistence and Degradability** Not available
- 12.3. Bioaccumulative Potential** Not available
- 12.4. Mobility in Soil** Not available
- 12.5. Other Adverse Effects** Not available

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### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, state, Fnational, provincial, territorial and international regulations.

### SECTION 14: TRANSPORT INFORMATION

- 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

<b>Lafarge Blended Cement</b>	
<b>SARA Section 313 - Emission Reporting</b>	This product may contain constituents listed under SARA (Title III) Section 313, but not in amounts requiring supplier notification under 40 CFR Part 372 Subpart C.
<b>Cement, portland, chemicals (65997-15-1)</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>Fumes, silica (69012-64-2)</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>Flue dust, portland cement (68475-76-3)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Ashes, residues (68131-74-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Slags, ferrous metal, blast furnace (65996-69-2)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Kaolin (1332-58-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

#### 15.2. US State Regulations

<b>Quartz (14808-60-7)</b>	
<b>U.S. - California - Proposition 65 - Carcinogens List</b>	WARNING: This product contains chemicals known to the State of California to cause cancer.
<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>Limestone (1317-65-3)</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 CaSO4.2H2O (13397-24-5)</b>	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Quartz (14808-60-7)</b>	
U.S. - Massachusetts - Right To Know List	

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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

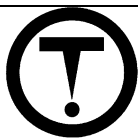
U.S. - New Jersey - Right to Know Hazardous Substance List

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

## 15.3. Canadian Regulations

### **Lafarge Blended Cement**

WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material
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### **Cement, portland, chemicals (65997-15-1)**

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

WHMIS Classification	Class E - Corrosive Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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### **Limestone (1317-65-3)**

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

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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### **Fumes, silica (69012-64-2)**

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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### **Quartz (14808-60-7)**

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
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### **Flue dust, portland cement (68475-76-3)**

Listed on the Canadian DSL (Domestic Substances List)

### **Ashes, residues (68131-74-8)**

Listed on the Canadian DSL (Domestic Substances List)

### **Slags, ferrous metal, blast furnace (65996-69-2)**

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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### **Kaolin (1332-58-7)**

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

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

**Revision Date** : 04/21/2015

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

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### GHS Full Text Phrases:

Carc. 1A	Carcinogenicity Category 1A
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
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
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H320	Causes eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure

### Party Responsible for the Preparation of This Document

Lafarge North America Inc.  
+1 773-372-1000 (9am to 5pm CST)

An electronic version of this SDS is available at: [www.lafarge-na.com](http://www.lafarge-na.com) under the Sustainability and Products sections. Please direct any inquiries regarding the content of this SDS to [SDSinfo@Lafarge.com](mailto:SDSinfo@Lafarge.com).

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