

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).

Version: 3.2

Date of Issue: 02/01/2022 Revision Date: 01/01/2022

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Lafarge Blended Cement

Synonyms: MAXCEM®, SF™ Cement, Silica Fume Cement, TERRACEM™, TERCEM 3000®, TERRAFLOW™, POZZMOD PLUS®, FORTIPAVE®, FORTIMAX®, ONECEM®, LOWDENSE™, IL, IS, IP, IT, GUb, HEb, MSb, HSb, GULb, HELb, MSLb, HSLb, EcoPlanet®.

Intended Use of the Product 1.2.

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

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

Classification of the Substance or Mixture 2.1.

GHS-US/CA Classification

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

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

2.2. **Label Elements**

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA)





Signal Word (GHS-US/CA)

: Danger

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

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H335 - May cause respiratory irritation.

H350 - May cause cancer.

H372 - Causes damage to organs through prolonged or repeated exposure.

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.

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

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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.

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

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

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

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

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

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, provincial, territorial 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	5 - 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	<= 95	Not classified
Ashes, residues	(CAS-No.) 68131-74-8	<= 40	Eye Irrit. 2B, H320
Limestone	(CAS-No.) 1317-65-3	<= 20	Not classified
Kaolin	(CAS-No.) 1332-58-7	<= 20	Not classified
Gypsum (Ca(SO4).2H2O)	(CAS-No.) 13397-24-5	1 - 10	Not classified
Fumes, silica	(CAS-No.) 69012-64-2	<= 10	Not classified
Quartz	(CAS-No.) 14808-60-7	<= 10	Carc. 1A, H350
			STOT SE 3, H335
			STOT RE 1, H372
Flue dust, portland cement	(CAS-No.) 68475-76-3	<= 10	Skin Irrit. 2, H315
			Eye Dam. 1, H318
			Skin Sens. 1, H317
			STOT SE 3, H335

Full text of H-phrases: see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

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

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^{*}Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

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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. Causes damage to organs through prolonged or repeated exposure.

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: Causes severe irritation which will progress to chemical burns. May cause an allergic skin reaction. Concrete may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Unhardened concrete is capable of causing dermatitis by irritation and allergy. Concrete dust, in association with sweat and friction, can lead to skin irritation and dermatitis. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. 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.

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

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

Chronic Symptoms: May cause cancer. Causes damage to organs through prolonged or repeated exposure.

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. Calcium oxides.

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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.

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. Cutting, crushing or grinding crystalline silica-bearing materials may release respirable crystalline silica, a known carcinogen. Use all appropriate measures of dust control or suppression and Personal Protective.

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.

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

Incompatible Materials: 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.

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.

Cement, portland, chemicals (65997-15-1)		
Mexico	OEL TWA (mg/m³)	10 mg/m ³
Mexico	OEL STEL (mg/m³)	20 mg/m ³

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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)
		5 mg/m³ (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	10 mg/m³ (total dust)
		5 mg/m³ (respirable dust)
USA IDLH	US IDLH (mg/m³)	5000 mg/m ³
Alberta	OEL TWA (mg/m³)	10 mg/m ³
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/m ³
Nunavut	OEL TWA (mg/m³)	10 mg/m ³
Northwest Territories	OEL STEL (mg/m³)	20 mg/m ³
Northwest Territories	OEL TWA (mg/m³)	10 mg/m ³
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)
		5 mg/m³ (containing no Asbestos and <1% Crystalline
	OFI CTEL / / 3\	silica-respirable dust)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m³
Saskatchewan	OEL TWA (mg/m³)	10 mg/m³
Yukon	OEL STEL (mg/m³)	20 mg/m³
Yukon	OEL TWA (mg/m³)	30 mppcf
(10 mg/m ³
Limestone (1317-65-3)		/ 2
Mexico	OEL TWA (mg/m³)	10 mg/m³
Mexico	OEL STEL (mg/m³)	20 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust)
HCA NIGCH	AUGGU PEL /TIA/A) / / 2)	5 mg/m³ (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	10 mg/m³ (total dust)
Allonato	OFI TIMA (m. 1 3)	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)
Alassa Dansara and I	OFI TIMA (/3)	3 mg/m³ (respirable fraction)
New Brunswick	OEL TWA (mg/m³)	10 mg/m³ (particulate matter containing no Asbestos and
	051 6751 / 23	<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/m ³

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Northwest Territories	OEL TWA (mg/m³)	10 mg/m ³
Québec	VEMP (mg/m³)	10 mg/m³ (Limestone, containing no Asbestos and <1%
Quebec	VEIVIF (IIIg/III)	Crystalline silica-total dust)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m ³
Saskatchewan	OEL TWA (mg/m³)	10 mg/m ³
Yukon	OEL TWA (IIIg/III) OEL STEL (mg/m³)	20 mg/m³
Yukon	OEL TWA (mg/m³)	30 mppcf
TUKOII	OLL TWA (IIIg/III)	10 mg/m ³
W1:- (4222 FO 7)		10 Hig/III
Kaolin (1332-58-7)	OFI TIMA (10 1 3
Mexico	OEL TWA (mg/m³)	10 mg/m³
Mexico	OEL STEL (mg/m³)	20 mg/m ³
USA ACGIH	ACGIH TWA (mg/m³)	2 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)
	, ,, ,	5 mg/m³ (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	10 mg/m³ (total dust)
		5 mg/m³ (respirable dust)
Alberta	OEL TWA (mg/m³)	2 mg/m³ (respirable)
British Columbia	OEL TWA (mg/m³)	2 mg/m³ (particulate matter containing no Asbestos and
		<1% Crystalline silica-respirable particulate)
Manitoba	OEL TWA (mg/m³)	2 mg/m³ (particulate matter containing no Asbestos and
		<1% Crystalline silica-respirable particulate matter)
New Brunswick	OEL TWA (mg/m³)	2 mg/m³ (particulate matter containing no Asbestos and
		<1% Crystalline silica, respirable fraction)
Newfoundland & Labrador	OEL TWA (mg/m³)	2 mg/m³ (particulate matter containing no asbestos and
		<1% crystalline silica, respirable fraction)
Nova Scotia	OEL TWA (mg/m³)	2 mg/m³ (particulate matter containing no Asbestos and
		<1% Crystalline silica-respirable particulate matter)
Nunavut	OEL STEL (mg/m³)	4 mg/m³ (respirable fraction)
Nunavut	OEL TWA (mg/m³)	2 mg/m³ (respirable fraction)
Northwest Territories	OEL STEL (mg/m³)	4 mg/m³ (respirable fraction)
Northwest Territories	OEL TWA (mg/m³)	2 mg/m³ (respirable fraction)
Ontario	OEL TWA (mg/m³)	2 mg/m³ (containing no Asbestos and <1% Crystalline
		silica-respirable)
Prince Edward Island	OEL TWA (mg/m³)	2 mg/m³ (particulate matter containing no Asbestos and
		<1% Crystalline silica-respirable particulate matter)
Québec	VEMP (mg/m³)	5 mg/m³ (containing no Asbestos and <1% Crystalline
		silica-respirable dust)
Saskatchewan	OEL STEL (mg/m³)	4 mg/m³ (respirable fraction)
Saskatchewan	OEL TWA (mg/m³)	2 mg/m³ (respirable fraction)
Yukon	OEL STEL (mg/m³)	20 mg/m³
Yukon	OEL TWA (mg/m³)	30 mppcf 10 mg/m ³
Gypsum (Ca(SO4).2H2O) (13	397-24-5)	···o; ···
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)
	, , , , , , , ,	5 mg/m³ (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	10 mg/m³ (total dust)
	, , , , ,	5 mg/m³ (respirable dust)
Alberta	OEL TWA (mg/m³)	10 mg/m ³
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British Columbia	OEL STEL (mg/m³)	20 mg/m³ (total dust)
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (total dust)
Difficial Columbia	(mg/m)	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
	V = (6/ /	silica-total dust)
		5 mg/m³ (containing no Asbestos and <1% Crystalline
		silica-respirable dust)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m ³
Saskatchewan	OEL TWA (mg/m³)	10 mg/m ³
Yukon	OEL STEL (mg/m³)	20 mg/m ³
Yukon	OEL TWA (mg/m³)	30 mppcf
	,	10 mg/m³
Fumes, silica (69012-64-2)		
Mexico	OEL TWA (mg/m³)	2 mg/m³
	- (3, ,	10 mg/m³ (inhalable particulate)
		3 mg/m³ (respirable particulate)
British Columbia	OEL TWA (mg/m³)	4 mg/m³ (total dust)
	, ,	1.5 mg/m³ (respirable dust)
New Brunswick	OEL TWA (mg/m³)	2 mg/m³ (respirable fraction)
Nunavut	OEL TWA (mg/m³)	2 mg/m³ (respirable fraction)
Northwest Territories	OEL TWA (mg/m³)	2 mg/m³ (respirable fraction)
Ontario	OEL TWA (mg/m³)	2 mg/m³ (respirable)
Québec	VEMP (mg/m³)	2 mg/m³ (containing no Asbestos and <1% Crystalline
		silica-respirable dust)
Saskatchewan	OEL TWA (mg/m³)	2 mg/m³ (respirable fraction)
Quartz (14808-60-7)		
Mexico	OEL TWA (mg/m³)	0.1 mg/m ³ (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

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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

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 or White Powder

Odor Odorless **Odor Threshold** Not available рΗ 12 - 13

Evaporation Rate Not available **Melting Point** Not available **Freezing Point** None, Solid

Boiling Point > 1000 °C (> 1832 °F)

Flash Point Not available Not available **Auto-ignition Temperature 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 **Relative Density** Not available Water: 0.1 - 1 %

Specific Gravity 3.0 - 3.2 (Water = 1) Solubility **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.

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- **10.5. Incompatible Materials:** 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: 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.

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: 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: Causes severe irritation which will progress to chemical burns. May cause an allergic skin reaction. Concrete may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Unhardened concrete is capable of causing dermatitis by irritation and allergy. Concrete dust, in association with sweat and friction, can lead to skin irritation and dermatitis. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. 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.

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

Chronic Symptoms: May cause cancer. Causes damage to organs through prolonged or repeated exposure.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

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/m³ (Exposure Time: 6 h; Species: Wistar)
Ashes, residues (68131-74-8)	
LD50 Oral Rat	> 2000 mg/kg
Kaolin (1332-58-7)	

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LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 5000 mg/kg
Quartz (14808-60-7)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 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: Not classified.

12.2. Persistence and Degradability

MaxCem®, FortiPave®, TerraCemTM, Tercem 3000TM, PlusTM, FortiMaxTM, LowDenseTM, SFTM Cement	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

MaxCem®, FortiPave®, TerraCemTM, Tercem 3000TM, PlusTM, FortiMaxTM, LowDenseTM, SFTM Cement		
Bioaccumulative Potential	Not established.	

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

Ashes, residues (68131-74-8)

MaxCem®, FortiPave®, TerraCemTM, Tercem 3000TM, PlusTM, FortiMaxTM, LowDenseTM, SFTM Cement	
SARA Section 311/312 Hazard Classes	Health hazard - Serious eye damage or eye irritation
	Health hazard - Specific target organ toxicity (single or repeated
	exposure)
	Health hazard - Skin corrosion or Irritation
	Health hazard - Carcinogenicity
Cement, portland, chemicals (65997-15-1)	
Listed on the United States TSCA (Toxic Substances Control Ac	t) inventory
Slags, ferrous metal, blast furnace (65996-69-2)	
Listed on the United States TSCA (Toxic Substances Control Ac	t) inventory

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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).

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

Kaolin (1332-58-7)

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

Fumes, silica (69012-64-2)

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

Quartz (14808-60-7)

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

Flue dust, portland cement (68475-76-3)

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

15.2. US State Regulations

Quartz ((14808-60-7)	١
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U.S. - California - Proposition 65 - Carcinogens List

WARNING: This product contains chemicals known to the State of California to cause cancer.

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

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

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

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

Fumes, silica (69012-64-2)

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

15.3. Canadian Regulations

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

Listed on the Canadian DSL (Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

Ashes, residues (68131-74-8)

Listed on the Canadian DSL (Domestic Substances List)

Limestone (1317-65-3)

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

Kaolin (1332-58-7)

Listed on the Canadian DSL (Domestic Substances List)

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Gynsum	(Ca(SO4).	2H2O)	/12207	-24-51

Listed on the Canadian DSL (Domestic Substances List)

Fumes, silica (69012-64-2)

Listed on the Canadian DSL (Domestic Substances List)

Quartz (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

Flue dust, portland cement (68475-76-3)

Listed on the Canadian DSL (Domestic Substances List)

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

Date of Preparation or Latest

: January 1, 2022

Revision

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA

Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products

Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

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 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	
H320	Causes eye irritation	
H335	May cause respiratory irritation	
H350	May cause cancer	
H372	Causes damage to organs through prolonged or repeated exposure	

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