

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).

Date of Issue: 01/15/2020 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: L&M™ DURAGROUT™

1.2. Intended Use of the Product

Grout. For professional use only.

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

Company Company

LATICRETE International LATICRETE Canada ULC

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

Bethany, CT 06524 NOR-1A0 T (203)-393-0010 (833)-254-9255

www.laticrete.com

1.4. Emergency Telephone Number

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

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

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

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Skin Corr. 1C H314 Eve Dam. 1 H318 Skin Sens. 1 H317 Carc. 1A H350 STOT SE 3 H335 STOT RE 1 H372 Aquatic Acute 3 H402 Aquatic Chronic 3 H412

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.

H402 - Harmful to aquatic life.

H412 - Harmful to aquatic life with long lasting effects.

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

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

P260 - Do not breathe dust.

P264 - Wash hands, forearms and face thoroughly after handling.

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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 should not be allowed out of the workplace.

P273 - Avoid release to the environment.

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

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

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

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

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

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

P310 - Immediately call a POISON CENTER or doctor.

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

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

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

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

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

P405 - Store locked up.

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

2.3. Other Hazards

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

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

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Product Identifier	% *	GHS Ingredient Classification
Quartz	(CAS-No.) 14808-60-7	61 - 64	Carc. 1A, H350
			STOT SE 3, H335
			STOT RE 1, H372
Cement, portland, chemicals	(CAS-No.) 65997-15-1	36 - 38	Skin Irrit. 2, H315
			Eye Dam. 1, H318
			Skin Sens. 1, H317
			STOT SE 3, H335
Calcium oxide	(CAS-No.) 1305-78-8	20 - 27	Skin Irrit. 2, H315
			Eye Dam. 1, H318
			STOT SE 3, H335
			Aquatic Acute 3, H402
			Aquatic Chronic 3, H412
Limestone	(CAS-No.) 1317-65-3	1.8 - 2	Not classified
Silicic acid (H4SiO4), calcium salt (1:2)	(CAS-No.) 10034-77-2	1 - 2	Eye Irrit. 2A, H319
Calcium sulfate dihydrate	(CAS-No.) 13397-24-5	1.8 - 1.9	Not classified
Magnesium oxide (MgO)	(CAS-No.) 1309-48-4	1.08 - 1.14	Not classified
Palygorskite	(CAS-No.) 12174-11-7	0.07	Carc. 2, H351
Talc (Mg3H2(SiO3)4)	(CAS-No.) 14807-96-6	0.02 - 0.03	STOT RE 1, H372
Silica, amorphous	(CAS-No.) 7631-86-9	0.004 - 0.01	Not classified
Aluminum	(CAS-No.) 7429-90-5	0.0006 -	Flam. Sol. 1, H228
		0.002	Water-react. 2, H261

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			Comb. Dust
Formaldehyde	(CAS-No.) 50-00-0	0.0002 -	Flam. Liq. 4, H227
(Preservative)		0.001	Acute Tox. 3 (Oral), H301
			Acute Tox. 3 (Dermal), H311
			Acute Tox. 3 (Inhalation:gas), H331
			Skin Corr. 1B, H314
			Eye Dam. 1, H318
			Skin Sens. 1, H317
			Muta. 2, H341
			Carc. 1A, H350
			STOT SE 3, H335
			Aquatic Acute 2, H401
			Aquatic Chronic 3, H412
Chromium, ion (Cr6+)	(CAS-No.) 18540-29-9	0.00003 -	Skin Sens. 1, H317
		0.00004	Carc. 1B, H350
			Aquatic Acute 1, H400
			Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

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

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

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

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

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

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: May cause respiratory irritation. Skin sensitization. Causes severe skin burns and eye damage. Causes damage to organs (lungs) through prolonged or repeated exposure (Inhalation). May cause cancer (Inhalation).

Inhalation: May be corrosive to the respiratory tract. Dust may be harmful or cause irritation. 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.

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

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

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

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

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 suitable for surrounding type of fire.

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

5.2. Special Hazards Arising From the Substance or Mixture

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

Explosion Hazard: Product is not explosive.

Reactivity: 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. Calcium oxide reacts with water to form corrosive calcium hydroxide, with evolution of much heat. Temperatures as high as 800° C (1472 °F) have been reached with addition of water (moisture in air or soil).

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, CO₂). Metal oxide fumes. Silica compounds. Sulfur oxides.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

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

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.

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6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

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 direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in original container or corrosive resistant and/or lined container.

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

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

7.3. Specific End Use(s)

Grout. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

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

Quartz (14808-60-7)		
USA ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable particulate matter)
USA ACGIH	ACGIH chemical category	A2 - Suspected Human Carcinogen
USA OSHA	OSHA PEL (TWA) (mg/m³)	50 μg/m³ (Respirable crystalline silica)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³ (respirable dust)
USA IDLH	US IDLH (mg/m³)	50 mg/m³ (respirable dust)
Alberta	OEL TWA (mg/m³)	0.025 mg/m³ (respirable particulate)
British Columbia	OEL TWA (mg/m³)	0.025 mg/m³ (respirable)
Manitoba	OEL TWA (mg/m³)	0.025 mg/m³ (respirable particulate matter)
New Brunswick	OEL TWA (mg/m³)	0.1 mg/m³ (respirable fraction)
Newfoundland & Labrador	OEL TWA (mg/m³)	0.025 mg/m³ (respirable particulate matter)
Nova Scotia	OEL TWA (mg/m³)	0.025 mg/m³ (respirable particulate matter)
Nunavut	OEL TWA (mg/m³)	0.05 mg/m³ (respirable fraction (Silica - crystalline)

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Northwest Territories	OEL TWA (mg/m³)	0.05 mg/m³ (respirable fraction (Silica - crystalline)
Ontario	OEL TWA (mg/m³)	0.1 mg/m³ (designated substances regulation-respirable
		(Silica, crystalline)
Prince Edward Island	OEL TWA (mg/m³)	0.025 mg/m³ (respirable particulate matter)
Québec	VEMP (mg/m³)	0.1 mg/m³ (respirable dust)
Saskatchewan	OEL TWA (mg/m³)	0.05 mg/m³ (respirable fraction (Silica - crystalline
		(Trydimite removed))
Yukon	OEL TWA (mg/m³)	300 particle/mL (Silica - Quartz, crystalline)
Cement, portland, chemical	s (65997-15-1)	
USA ACGIH	ACGIH TWA (mg/m³)	1 mg/m³ (particulate matter containing no asbestos and
	, , ,	<1% crystalline silica, respirable particulate matter)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
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/m³
British Columbia	OEL TWA (mg/m³)	1 mg/m³ (particulate matter containing no Asbestos and
		<1% Crystalline silica-respirable particulate)
Manitoba	OEL TWA (mg/m³)	1 mg/m³ (particulate matter containing no Asbestos and
aess	322 1 1171 (1118) 111 7	<1% Crystalline silica, respirable particulate matter-
		particulate matter, respirable particulate matter)
New Brunswick	OEL TWA (mg/m³)	10 mg/m³ (particulate matter containing no Asbestos and
The Branowick	322 1 1171 (1118) 111 7	<1% Crystalline silica)
Newfoundland & Labrador	OEL TWA (mg/m³)	1 mg/m³ (particulate matter containing no Asbestos and
	322 1 1171 (1118) 111 7	<1% Crystalline silica, respirable particulate matter-
		particulate matter, respirable particulate matter)
Nova Scotia	OEL TWA (mg/m³)	1 mg/m³ (particulate matter containing no Asbestos and
1.000	0== : (8,)	<1% Crystalline silica, respirable particulate matter-
		particulate matter, 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/m³
Northwest Territories	OEL TWA (mg/m³)	10 mg/m³
Ontario	OEL TWA (mg/m³)	1 mg/m³ (containing no Asbestos and <1% Crystalline
	0== : (8,)	silica-respirable)
Prince Edward Island	OEL TWA (mg/m³)	1 mg/m³ (particulate matter containing no Asbestos and
1 111100 201101 0 1310110	322 1 1171 (1118) 111 7	<1% Crystalline silica, respirable particulate matter-
		particulate matter, respirable particulate matter)
Québec	VEMP (mg/m³)	10 mg/m³ (containing no Asbestos and <1% Crystalline
Quesco	V2 (g/ /	silica-total dust)
		5 mg/m³ (containing no Asbestos and <1% Crystalline
		silica-respirable dust)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m³
Saskatchewan	OEL TWA (mg/m³)	10 mg/m ³
Yukon	OEL STEL (mg/m³)	20 mg/m³
Yukon	OEL TWA (mg/m³)	30 mppcf
· anon		10 mg/m ³
Calcium oxide (1305-78-8)	1	···o/ ···
	ACCIH T\\\\\ \ma\/\ma\/\ma\\	2 mg/m ³
USA ACGIH	ACGIH TWA (mg/m³)	2 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m³

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USA NIOSH	NIOSH REL (TWA) (mg/m³)	2 mg/m³
USA IDLH	US IDLH (mg/m³)	25 mg/m³
Alberta	OEL TWA (mg/m³)	2 mg/m³
British Columbia	OEL TWA (mg/m³)	2 mg/m³
Manitoba	OEL TWA (mg/m³)	2 mg/m³
New Brunswick	OEL TWA (mg/m³)	2 mg/m³
Newfoundland & Labrador	OEL TWA (mg/m³)	2 mg/m³
Nova Scotia	OEL TWA (mg/m³)	2 mg/m³
Nunavut	OEL STEL (mg/m³)	4 mg/m³
Nunavut	OEL TWA (mg/m³)	2 mg/m ³
Northwest Territories	OEL STEL (mg/m³)	4 mg/m³
Northwest Territories	OEL TWA (mg/m³)	2 mg/m³
Ontario	OEL TWA (mg/m³)	2 mg/m ³
Prince Edward Island	OEL TWA (mg/m³)	2 mg/m ³
Québec	VEMP (mg/m³)	2 mg/m³
Saskatchewan	OEL STEL (mg/m³)	4 mg/m ³
Saskatchewan	OEL TWA (mg/m³)	2 mg/m³
Yukon	OEL STEL (mg/m³)	4 mg/m³
Yukon	OEL TWA (mg/m³)	2 mg/m³
Limestone (1317-65-3)	, ,	1 5
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust)
	331,711 22 (1 117.1) (1118,111)	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
British Columbia	OEL STEL (mg/m³)	20 mg/m³ (total)
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (total dust)
	, ,	3 mg/m³ (respirable fraction)
New Brunswick	OEL TWA (mg/m³)	10 mg/m³ (particulate matter containing no Asbestos and
		<1% Crystalline silica)
Nunavut	OEL STEL (mg/m³)	20 mg/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
Québec	VEMP (mg/m³)	10 mg/m³ (Limestone, containing no Asbestos and <1%
		Crystalline silica-total dust)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m 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/m ³
Calcium sulfate dihydrate (13397-24-5)		
USA ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ (inhalable particulate matter (Calcium sulfate)
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust)
		5 mg/m³ (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	10 mg/m³ (total dust)
		5 mg/m³ (respirable dust)
Alberta	OEL TWA (mg/m³)	10 mg/m³ (Calcium sulphate)
British Columbia	OEL STEL (mg/m³)	20 mg/m³ (total)
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (total dust)
		3 mg/m³ (respirable fraction)
		10 mg/m³ (regulated under Calcium sulfate-inhalable)
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	200	1.2 / 2/1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1
Manitoba	OEL TWA (mg/m³)	10 mg/m³ (inhalable particulate matter (Calcium sulfate)
Newfoundland & Labrador	OEL TWA (mg/m³)	10 mg/m³ (inhalable particulate matter (Calcium sulfate)
Nova Scotia	OEL TWA (mg/m³)	10 mg/m³ (inhalable particulate matter (Calcium sulfate)
Ontario	OEL TWA (mg/m³)	10 mg/m³ (inhalable (Calcium sulfate)
Prince Edward Island	OEL TWA (mg/m³)	10 mg/m³ (inhalable particulate matter (Calcium sulfate)
Québec	VEMP (mg/m³)	10 mg/m³ (containing no Asbestos and <1% Crystalline
		silica-total dust)
		5 mg/m³ (containing no Asbestos and <1% Crystalline
Saskatchewan	OEL STEL /mg/m³\	silica-respirable dust) 20 mg/m³
Saskatchewan	OEL STEL (mg/m³) OEL TWA (mg/m³)	10 mg/m³
Yukon	OEL TWA (flig/fli) OEL STEL (mg/m³)	20 mg/m ³
Yukon	OEL TWA (mg/m³)	30 mppcf
Tukon	OEL TWA (IIIg/III)	10 mg/m ³
NA	200 40 4)	10 mg/m
Magnesium oxide (MgO) (13		10 mg/m3 (inhalahla mantianlata matt
USA ACCIU	ACCIII shamisal satagasi	10 mg/m³ (inhalable particulate matter)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (fume, total particulate)
USA IDLH	US IDLH (mg/m³)	750 mg/m³ (fume)
Alberta	OEL TWA (mg/m³)	10 mg/m³ (fume)
British Columbia	OEL STEL (mg/m³)	10 mg/m³ (respirable dust and fume)
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (fume, inhalable)
B. G. and St. and L. and	OFI TIMA (/3)	3 mg/m³ (respirable dust and fume)
Manitoba	OEL TWA (mg/m³) OEL TWA (mg/m³)	10 mg/m³ (inhalable particulate matter)
New Brunswick		10 mg/m³ (fume)
Newfoundland & Labrador	OEL TWA (mg/m³)	10 mg/m³ (inhalable particulate matter)
Nova Scotia	OEL TWA (mg/m³)	10 mg/m³ (inhalable particulate matter)
Nunavut	OEL STEL (mg/m³)	20 mg/m³ (inhalable fraction)
Nunavut	OEL TWA (mg/m³)	10 mg/m³ (inhalable fraction)
Northwest Territories	OEL STEL (mg/m³)	20 mg/m³ (inhalable fraction) 10 mg/m³ (inhalable fraction)
Northwest Territories	OEL TWA (mg/m³)	9. 1
Ontario	OEL TWA (mg/m³)	10 mg/m³ (inhalable)
Prince Edward Island	OEL TWA (mg/m³) VEMP (mg/m³)	10 mg/m³ (inhalable particulate matter) 10 mg/m³ (fume)
Québec Saskatchewan	OEL STEL (mg/m³)	20 mg/m³ (inhalable fraction)
Saskatchewan	, ,	10 mg/m³ (inhalable fraction)
	OEL TWA (mg/m³)	
Yukon Yukon	OEL STEL (mg/m³) OEL TWA (mg/m³)	10 mg/m³ (fume) 10 mg/m³ (fume)
	OEL TWA (IIIg/III)	TO HIS/HI (Tullie)
Palygorskite (12174-11-7)	\/\(\tau\) \/ \(\tau\) \/ \(\tau\) \/ \(\tau\) \(\tau\)	4 Fibrary Land Commission (Fibrary 1994)
Québec	VEMP (mg/m³)	1 fibers/cm³ (respirable (Fibres - Natural Mineral Fibres)
Talc (Mg3H2(SiO3)4) (14807	-	
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 containing no
LICA NIOCH	NIOCH DEL (TMA) (ma/m³)	asbestos fibers
USA NIOSH	NIOSH REL (TWA) (mg/m³)	2 mg/m³ (containing no Asbestos and <1% Quartz-
LICA IDI H	LICIDI H /mg/m³\	respirable dust)
USA IDLH Alberta	US IDLH (mg/m³) OEL TWA (mg/m³)	1000 mg/m³ (containing no asbestos and <1% quartz) 2 mg/m³ (respirable particulate)
British Columbia	OEL TWA (mg/m³) OEL TWA (mg/m³)	2 mg/m³ (respirable particulate) 2 mg/m³ (particulate matter containing no Asbestos and
BIRISH COMMIDIA	OLL I WA (IIIB/III)	2 mg/m² (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

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		<1% Crystalline silica-particulate matter, respirable
Name Danier and all	OFI TMA (mag/mg3)	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-particulate matter, respirable
		particulate matter)
Nova Scotia	OEL TWA (mg/m³)	2 mg/m³ (particulate matter containing no Asbestos and
		<1% Crystalline silica-particulate matter, respirable
		particulate matter)
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 (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-particulate matter, respirable
		particulate matter)
Québec	VEMP (mg/m³)	3 mg/m³ (respirable dust)
Saskatchewan	OEL TWA (mg/m³)	2 mg/m³ (respirable fraction)
Yukon	OEL TWA (mg/m³)	20 mppcf
Silica, amorphous (7631-86-	9)	
USA OSHA	OSHA PEL (TWA) (mg/m³)	6 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	20 mppcf (80mg/m ³ /%SiO ₂)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	6 mg/m ³
USA IDLH	US IDLH (mg/m³)	3000 mg/m³
Yukon	OEL TWA (mg/m³)	300 particle/mL (as measured by Konimeter
		instrumentation (Silica)
		20 mppcf (as measured by Impinger instrumentation
		(Silica)
		2 mg/m³ (respirable mass (Silica)
Aluminum (7429-90-5)		
USA ACGIH	ACGIH TWA (mg/m³)	1 mg/m³ (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)	10 mg/m³ (dust)
British Columbia	OEL TWA (mg/m³)	1 mg/m³ (respirable)
Manitoba	OEL TWA (mg/m³)	1 mg/m³ (respirable particulate matter)
New Brunswick	OEL TWA (mg/m³)	10 mg/m³ (metal dust)
Newfoundland & Labrador	OEL TWA (mg/m³)	1 mg/m³ (respirable particulate matter)
Nova Scotia	OEL TWA (mg/m³)	1 mg/m³ (respirable particulate matter)
Nunavut	OEL STEL (mg/m³)	20 mg/m³ (metal-dust)
Nunavut	OEL TWA (mg/m³)	10 mg/m³ (metal-dust)
Northwest Territories	OEL STEL (mg/m³)	20 mg/m³ (metal-dust)
Northwest Territories	OEL TWA (mg/m³)	10 mg/m³ (metal-dust)
Ontario	OEL TWA (mg/m³)	1 mg/m³ (respirable)
Prince Edward Island	OEL TWA (mg/m³)	1 mg/m³ (respirable particulate matter)
Québec	VEMP (mg/m³)	10 mg/m³
Saskatchewan	OEL STEL (mg/m³)	20 mg/m³ (dust)
Saskatchewan	OEL TWA (mg/m³)	10 mg/m³ (dust)

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Formaldehyde (50-00-0)	ACCULTURA (
USA ACGIH	ACGIH TWA (ppm)	0.1 ppm
USA ACGIH	ACGIH STEL (ppm)	0.3 ppm
USA ACGIH	ACGIH chemical category	dermal sensitizer,Confirmed Human Carcinogen
USA OSHA	OSHA PEL (TWA) (ppm)	0.75 ppm
USA OSHA	OSHA PEL (STEL) (ppm)	2 ppm (see 29 CFR 1910.1048)
USA NIOSH	NIOSH REL (TWA) (ppm)	0.016 ppm
USA NIOSH	NIOSH REL (ceiling) (ppm)	0.1 ppm
USA IDLH	US IDLH (ppm)	20 ppm
Alberta	OEL Ceiling (mg/m³)	1.3 mg/m³
Alberta	OEL Ceiling (ppm)	1 ppm
Alberta	OEL TWA (mg/m³)	0.9 mg/m ³
Alberta	OEL TWA (ppm)	0.75 ppm
British Columbia	OEL Ceiling (ppm)	1 ppm
British Columbia	OEL TWA (ppm)	0.3 ppm
Manitoba	OEL STEL (ppm)	0.3 ppm
Manitoba	OEL TWA (ppm)	0.1 ppm
New Brunswick	OEL STEL (ppm)	1.5 ppm
New Brunswick	OEL TWA (ppm)	0.5 ppm
Newfoundland & Labrador	OEL STEL (ppm)	0.3 ppm
Newfoundland & Labrador	OEL TWA (ppm)	0.1 ppm
Nova Scotia	OEL STEL (ppm)	0.3 ppm
Nova Scotia	OEL TWA (ppm)	0.1 ppm
Nunavut	OEL Ceiling (ppm)	0.3 ppm
Northwest Territories	OEL Ceiling (ppm)	0.3 ppm
Ontario	OEL Ceiling (ppm)	1.5 ppm
Ontario	OEL STEL (ppm)	1 ppm
Prince Edward Island	OEL STEL (ppm)	0.3 ppm
Prince Edward Island	OEL TWA (ppm)	0.1 ppm
Québec	PLAFOND (mg/m³)	3 mg/m³
Québec	PLAFOND (ppm)	2 ppm
Saskatchewan	OEL Ceiling (ppm)	0.3 ppm
Yukon	OEL Ceiling (mg/m³)	3 mg/m³
Yukon	OEL Ceiling (ppm)	2 ppm
Chromium, ion (Cr6+) (1854)	0-29-9)	
USA OSHA	OSHA PEL (TWA) (mg/m³)	5 μg/m³
<u> </u>	, ,, 0, ,	, · · ·

8.2. Exposure Controls

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

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











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.

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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 : Gray Powder

Odor : None

Odor Threshold Not available рH Not available Not available **Evaporation Rate Melting Point** Not available **Freezing Point** Not available **Boiling Point** Not available **Flash Point** Not available **Auto-ignition Temperature** Not available **Decomposition Temperature** Not available Flammability (solid, gas) Not available **Lower Flammable Limit** Not available **Upper Flammable Limit** Not available **Vapor Pressure** Not available

Relative Vapor Density at 20°C : Not available Relative Density : Not available

Specific Gravity : 2.65

Solubility : Water: Insoluble
Partition Coefficient: N-Octanol/Water : Not available
Viscosity : Not 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. Calcium oxide reacts with water to form corrosive calcium hydroxide, with evolution of much heat. Temperatures as high as 800° C (1472 °F) have been reached with addition of water (moisture in air or soil).
- **10.2.** Chemical Stability: Stable under recommended handling and storage conditions (see section 7).
- **10.3.** Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
- **10.4. Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, and incompatible materials. Dust accumulation (to minimize explosion hazard).
- **10.5. Incompatible Materials:** Reactive or incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt.

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

10.6. Hazardous Decomposition Products: Thermal decomposition generates: Corrosive vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

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Acute Toxicity (Dermal): Not classified
Acute Toxicity (Inhalation): Not classified
LD50 and LC50 Data: Not available

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

Eye Damage/Irritation: Causes serious eye damage.

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

Germ Cell Mutagenicity: Not classified **Carcinogenicity:** May cause cancer.

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

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

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

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Quartz (14808-60-7)		
LD50 Oral Rat	> 5000 mg/kg	
LD50 Dermal Rat	> 5000 mg/kg	
Calcium oxide (1305-78-8)		
LD50 Oral Rat	> 2000 mg/kg	
LD50 Dermal Rabbit	> 2500 mg/kg	
Magnesium oxide (MgO) (1309-48-4)		
LD50 Oral Rat	3870 mg/kg	
Silica, amorphous (7631-86-9)		
LD50 Oral Rat	7900 mg/kg	

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LD50 Dermal Rabbit	> 2000 mg/kg (No deaths)
Formaldehyde (50-00-0)	
LD50 Oral Rat	100 mg/kg
LD50 Dermal Rat	270 mg/kg
ATE US/CA (gas)	700.00 ppmV/4h
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.
Palygorskite (12174-11-7)	
IARC Group	2B, 3
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
Talc (Mg3H2(SiO3)4) (14807-96-6)	
IARC Group	3
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity.
Silica, amorphous (7631-86-9)	
IARC Group	3
Formaldehyde (50-00-0)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
OSHA Specifically Regulated Carcinogen List	In OSHA Specifically Regulated Carcinogen list.
Chromium, ion (Cr6+) (18540-29-9)	
IARC Group	1
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
OSHA Specifically Regulated Carcinogen List	In OSHA Specifically Regulated Carcinogen list.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Harmful to aquatic life with long lasting effects.

Calcium oxide (1305-78-8)	
LC50 Fish 1	50.6 mg/l
Talc (Mg3H2(SiO3)4) (14807-96-6)	
LC50 Fish 1	> 100 g/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])
Silica, amorphous (7631-86-9)	
LC50 Fish 1	5000 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	7600 mg/l (Exposure time: 48 h - Species: Ceriodaphnia dubia)
Formaldehyde (50-00-0)	
LC50 Fish 1	22.6 - 25.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	2 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	1510 μg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	11.3 - 18 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
NOEC Chronic Crustacea	1 mg/l
Chromium, ion (Cr6+) (18540-29-9)	
LC50 Fish 1	36.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
LC50 Fish 2	7.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

12.2. Persistence and Degradability

	•
L&M™ DURAGROUT™	
Persistence and Degradability	May cause long-term adverse effects in the environment.

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12.3. Bioaccumulative Potential

L&M™ DURAGROUT™			
Bioaccumulative Potential	Not established.		
Calcium oxide (1305-78-8)			
BCF Fish 1	(no bioaccumulation)		
Talc (Mg3H2(SiO3)4) (14807-96-6)			
BCF Fish 1	(no known bioaccumulation)		
Silica, amorphous (7631-86-9)			
BCF Fish 1	(no bioaccumulation expected)		
Formaldehyde (50-00-0)			
Log Pow	0.35 (at 25 °C)		

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, territorial, provincial, and international regulations.

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

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

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
 14.2. In Accordance with IMDG
 14.3. In Accordance with IATA
 14.4. In Accordance with TDG
 Not regulated for transport
 Not regulated for transport
 Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

L&M™ DURAGROUT™			
SARA Section 311/312 Hazard Classes	Health hazard - Specific target organ toxicity (single or repeated exposure) Health hazard - Carcinogenicity Health hazard - Respiratory or skin sensitization Health hazard - Serious eye damage or eye irritation Health hazard - Skin corrosion or Irritation		
Quartz (14808-60-7)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			
Cement, portland, chemicals (65997-15-1)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			
Calcium oxide (1305-78-8)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			
Limestone (1317-65-3)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			
Silicic acid (H4SiO4), calcium salt (1:2) (10034-77-2)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			
Magnesium oxide (MgO) (1309-48-4)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			

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Talc (Mg3H2(SiO3)4) (14807-96-6)				
Listed on the United States TSCA (Toxic Substances Control Act) inventory				
Silica, amorphous (7631-86-9)				
Listed on the United States TSCA (Toxic Substances Control Act) inventory				
Aluminum (7429-90-5)				
Listed on the United States TSCA (Toxic Substances Control Act) inventory				
Subject to reporting requirements of United States SARA Section 313				
SARA Section 313 - Emission Reporting	1 % (dust or fume only)			
Formaldehyde (50-00-0)				
Listed on the United States TSCA (Toxic Substances Control Act) inventory				
Listed on the United States SARA Section 302				
Subject to reporting requirements of United States SARA Section 313				
CERCLA RQ	100 lb			

15.2. US State Regulations

SARA Section 313 - Emission Reporting

SARA Section 302 Threshold Planning Quantity (TPQ)

California Proposition 65



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

500 lb

0.1 %

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Quartz (14808-60-7)	X			
Palygorskite (12174-11-7)	Х			
Formaldehyde (50-00-0)	Х			
Chromium, ion (Cr6+) (18540-	X	Х		
29-9)				

Quartz (14808-60-7)

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

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

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

Calcium oxide (1305-78-8)

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

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

Calcium sulfate dihydrate (13397-24-5)

- 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

Talc (Mg3H2(SiO3)4) (14807-96-6)

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

Silica, amorphous (7631-86-9)

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

Aluminum (7429-90-5)

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

Formaldehyde (50-00-0)

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

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

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

15.3. Canadian Regulations

Quartz (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

Calcium oxide (1305-78-8)

Listed on the Canadian DSL (Domestic Substances List)

Limestone (1317-65-3)

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

Calcium sulfate dihydrate (13397-24-5)

Listed on the Canadian DSL (Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

Talc (Mg3H2(SiO3)4) (14807-96-6)

Listed on the Canadian DSL (Domestic Substances List)

Silica, amorphous (7631-86-9)

Listed on the Canadian DSL (Domestic Substances List)

Aluminum (7429-90-5)

Listed on the Canadian DSL (Domestic Substances List)

Formaldehyde (50-00-0)

Listed on the Canadian DSL (Domestic Substances List)

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

Date of Preparation or Latest

Revision

: 01/15/2020

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:

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	A such a basis is a / d assume 1). Cash a such a 2	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3	
Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3	
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3	
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1	
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2	
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3	
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1	
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3	
Carc. 1A	Carcinogenicity Category 1A	
Carc. 1B	Carcinogenicity Category 1B	
Carc. 2	Carcinogenicity Category 2	
Comb. Dust	Combustible Dust	
Eye Dam. 1	Serious eye damage/eye irritation Category 1	
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A	
Flam. Liq. 4	Flammable liquids Category 4	
Flam. Sol. 1	Flammable solids Category 1	
Muta. 2	Germ cell mutagenicity Category 2	
Skin Corr. 1B	Skin corrosion/irritation Category 1B	
Skin Corr. 1C	Skin corrosion/irritation Category 1C	
Skin Irrit. 2	Skin corrosion/irritation Category 2	
Skin Sens. 1	Skin sensitization, Category 1	
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1	
STOT SE 3	Specific target organ toxicity (single exposure) Category 3	
Water-react. 2	Substances and mixtures which in contact with water emit flammable gases Category 2	
H227	Combustible liquid	
H228	Flammable solid	
H261	In contact with water releases flammable gas	
H301	Toxic if swallowed	
H311	Toxic in contact with skin	
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	
H331	Toxic if inhaled	
H335	May cause respiratory irritation	
H341	Suspected of causing genetic defects	
H350	May cause cancer	
H351	Suspected of causing cancer	
H372	Causes damage to organs through prolonged or repeated exposure	
H400	Very toxic to aquatic life	
H401	Toxic to aquatic life	
H402	Harmful to aquatic life	
H410	Very toxic to aquatic life with long lasting effects	
H412	Harmful to aquatic life with long lasting effects	
	In avuidage and is intended to describe the product for the numbers of health safety and	

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.

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