Ready-Mix Concrete

Safety Data Sheet

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SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Ready-Mix Concrete

Synonyms: Portland Cement Product: Mixture cementitious material, aggregates, water

1.2. Intended Use of the Product

Various

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

Company J.D.M. Materials
851 County Line Rd
Huntingdon Valley, PA 19006
T 1-215-357-5505
www.jdm-inc.com

Manufacturer
J.D.M. Materials-Concrete Operations

1.4. Emergency Telephone Number

Emergency Number : 1-800-284-1046

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
Aquatic Acute 3	H402

Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

GHS05 GHS07 GHS08

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 (Inhalation).
H372 - Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).
H402 - Harmful to aquatic life.

Precautionary Statements (GHS-US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, and eye protection.
P302+P352+P362+P364 - If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse.
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.
P403+P233+P405 - Store in a well-ventilated place. Keep container tightly closed. 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 those with pre-existing eye, skin, or respiratory conditions. Wet cement on unprotected skin, whether direct or through saturated clothing, can cause severe, third degree caustic burns.

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)
Limestone	(CAS No) 1317-65-3	25 - 70	Not classified
Calcium hydroxide	(CAS No) 1305-62-0	2 - 5, 5 - 10, 10 - 25	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 3, H402
Cement, portland, chemicals	(CAS No) 65997-15-1	10 - 20	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Ashes, residues	(CAS No) 68131-74-8	< 0.1, 0.1 - 1, 1 - 5, 5 - 10, 10 - 20	Eye Irrit. 2B, H320
Quartz	(CAS No) 14808-60-7	3 - 7	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372

Full text of H-phrases: see section 16
More than one of the ranges of concentration prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition.

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: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

Eye Contact: Rinse cautiously with water for at least 60 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 medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. Skin sensitization. May cause cancer (Inhalation). Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).

Inhalation: Cough, dyspnea (breathing difficulty), wheezing; decreased pulmonary function, progressive respiratory symptoms (silicosis). Accelerated Silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five years of the initial exposure. The progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that the lung lesions appear earlier and the progression is more rapid.
Acute Silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis can be fatal.

Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction. When this product is wet it is corrosive.

Eye Contact: Redness, pain, swelling, itching, burning, tearing, and blurred vision. Causes permanent damage to the cornea, iris, or conjunctiva.

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

Chronic Symptoms: Pre-existing lung diseases such as emphysema or asthma may be aggravated by exposure to dusts. Pulmonary function may be reduced by inhalation of respirable crystalline silica. Also lung scarring produced by such inhalation may lead to a progressive massive fibrosis of the lung which may aggravate other pulmonary conditions and diseases and which increases susceptibility to pulmonary tuberculosis. Progressive massive fibrosis may be accompanied by right heart enlargement, heart failure, and pulmonary failure. Smoking aggravates the effects of exposure. 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.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO_2).

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: Reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution until reaction is substantially complete. May react vigorously with strong acids.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Do not allow run-off from fire fighting to enter drains or water sources. Do not breathe fumes or vapors from fire. 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: Thermal decomposition generates: Carbon oxides (CO, CO_2). Calcium oxides. Magnesium oxides.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not breathe dust. Do not get in eyes, on skin, or on clothing.

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: 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.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain and collect as any solid. Avoid generation of dust during clean-up of spills.

Methods for Cleaning Up: Avoid generation of dust during clean-up of spills. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Vacuum must be fitted with HEPA filter to prevent release of particulates during clean-up. Transfer spilled material to a suitable container for disposal. Use only non-sparking tools.

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: Wet cement is corrosive. Take appropriate precautions to prevent unnecessary contact.

Precautions for Safe Handling: Do not get in eyes, on skin, or on clothing. Do not breathe dust. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Use good housekeeping practices during storage, transfer, handling, to avoid excessive dust accumulation. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product.

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 cool, dry place. Keep away from moisture, extremely high or low temperatures, ignition sources, and incompatible materials.

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.

7.3. Specific End Use(s)

Various

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/m³)	10 mg/m³
Mexico	OEL STEL (mg/m³)	20 mg/m³
USA ACGIH	ACGIH TWA (mg/m³)	1 mg/m³ (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)
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/m³
Alberta	OEL TWA (mg/m³)	10 mg/m³
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (total particulate matter containing no Asbestos and <1% Crystalline silica-total particulate) 3 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 fraction)
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 fraction)
Nova Scotia	OEL TWA (mg/m³)	1 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica-respirable fraction)
Nunavut	OEL TWA (mg/m³)	5 mg/m³ (respirable mass) 10 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	5 mg/m³ (respirable mass) 10 mg/m³ (total mass)
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 fraction)
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 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/m³

Limestone (1317-65-3)		
Mexico	OEL TWA (mg/m³)	10 mg/m³
Mexico	OEL STEL (mg/m³)	20 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust) 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
British Columbia	OEL STEL (mg/m³)	20 mg/m³ (total dust)
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 TWA (mg/m³)	5 mg/m³ (respirable mass) 10 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	5 mg/m³ (respirable mass) 10 mg/m³ (total mass)
Québec	VEMP (mg/m³)	10 mg/m³ (Limestone, containing no Asbestos and <1% Crystalline silica-total dust)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m³
Saskatchewan	OEL TWA (mg/m³)	10 mg/m³
Yukon	OEL STEL (mg/m³)	20 mg/m³
Yukon	OEL TWA (mg/m³)	30 mppcf 10 mg/m³

Quartz (14808-60-7)		
Mexico	OEL TWA (mg/m³)	0.1 mg/m³ (respirable fraction)
USA ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
USA ACGIH	ACGIH chemical category	A2 - Suspected Human Carcinogen

USA OSHA	OSHA PEL (STEL) (mg/m³)	250 mppcf/%SiO_2+5, 10mg/m³/%SiO_2+2
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 fraction)
New Brunswick	OEL TWA (mg/m³)	0.1 mg/m³ (respirable fraction)
Newfoundland & Labrador	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
Nova Scotia	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
Nunavut	OEL TWA (mg/m³)	0.1 mg/m³ (respirable mass) 0.3 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	0.1 mg/m³ (respirable mass) 0.3 mg/m³ (total mass)
Ontario	OEL TWA (mg/m³)	0.10 mg/m³ (designated substances regulation-respirable)
Prince Edward Island	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
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

Calcium hydroxide (1305-62-0)		
Mexico	OEL TWA (mg/m³)	5 mg/m³
USA ACGIH	ACGIH TWA (mg/m³)	5 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	5 mg/m³
Alberta	OEL TWA (mg/m³)	5 mg/m³
British Columbia	OEL TWA (mg/m³)	5 mg/m³
Manitoba	OEL TWA (mg/m³)	5 mg/m³
New Brunswick	OEL TWA (mg/m³)	5 mg/m³
Newfoundland & Labrador	OEL TWA (mg/m³)	5 mg/m³
Nova Scotia	OEL TWA (mg/m³)	5 mg/m³
Nunavut	OEL STEL (mg/m³)	10 mg/m³
Nunavut	OEL TWA (mg/m³)	5 mg/m³
Northwest Territories	OEL STEL (mg/m³)	10 mg/m³
Northwest Territories	OEL TWA (mg/m³)	5 mg/m³
Ontario	OEL TWA (mg/m³)	5 mg/m³
Prince Edward Island	OEL TWA (mg/m³)	5 mg/m³
Québec	VEMP (mg/m³)	5 mg/m³
Saskatchewan	OEL STEL (mg/m³)	10 mg/m³
Saskatchewan	OEL TWA (mg/m³)	5 mg/m³
Yukon	OEL STEL (mg/m³)	10 mg/m³
Yukon	OEL TWA (mg/m³)	5 mg/m³

Particulates not otherwise classified (PNOC) (RR-00072-6)		
USA ACGIH	ACGIH TWA (mg/m³)	3 mg/m^3 Respirable fraction 10 mg/m^3 Total Dust
USA OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m^3 Respirable fraction 15 mg/m^3 Total Dust
Alberta	OEL TWA (mg/m³)	10 mg/m³ (total) 3 mg/m³ (respirable)
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (total dust) 3 mg/m³ (respirable fraction)
Manitoba	OEL TWA (mg/m³)	10 mg/m³ (inhalable particles, recommended)

		3 mg/m³ (respirable particles, recommended)
New Brunswick	OEL TWA (mg/m³)	3 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction) 10 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica, inhalable fraction)
Newfoundland & Labrador	OEL TWA (mg/m³)	10 mg/m³ (inhalable particles, recommended) 3 mg/m³ (respirable particles, recommended)
Nova Scotia	OEL TWA (mg/m³)	10 mg/m³ (inhalable particles, recommended) 3 mg/m³ (respirable particles, recommended)
Nunavut	OEL TWA (mg/m³)	5 mg/m³ (respirable mass) 10 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	5 mg/m³ (respirable mass) 10 mg/m³ (total mass)
Ontario	OEL TWA (mg/m³)	10 mg/m³ (inhalable) 3 mg/m³ (respirable)
Prince Edward Island	OEL TWA (mg/m³)	10 mg/m³ (inhalable particles, recommended) 3 mg/m³ (respirable particles, recommended)
Québec	VEMP (mg/m³)	10 mg/m³ (including dust, inert or nuisance particulates; containing no Asbestos and <1% Crystalline silica-total dust)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m³ (insoluble or poorly soluble-inhalable fraction) 6 mg/m³ (insoluble or poorly soluble-respirable fraction)
Saskatchewan	OEL TWA (mg/m³)	10 mg/m³ (insoluble or poorly soluble-inhalable fraction) 3 mg/m³ (insoluble or poorly soluble-respirable fraction)

8.2. Exposure Controls

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

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

Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye Protection: Chemical goggles or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

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, unless color pigment has been added
Odor	:	Odorless
Odor Threshold	:	Not available
pH	:	10 - 14 (in water)
Evaporation Rate	:	Not available
Melting Point	:	Not available
Freezing Point	:	Not available
Boiling Point	:	Not available
Flash Point	:	Does not burn
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	:	1.5 - 2.9
Solubility	:	0.1 % in water
Partition Coefficient: N-Octanol/Water	:	Not available
Viscosity	:	Varies
Explosion Data – Sensitivity to Mechanical Impact	:	Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	:	Not expected to present an explosion hazard due to static discharge

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution until reaction is substantially complete. May react vigorously with strong acids.

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.

10.5. Incompatible Materials: Wet cement and cement clinker 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: Thermal decomposition generates: Carbon oxides (CO, CO_2). Calcium oxides. Magnesium oxides.

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: 10 - 14

Serious Eye Damage/Irritation: Causes serious eye damage

pH: 10 - 14

Respiratory or Skin Sensitization: May cause an allergic skin reaction

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: May cause cancer (Inhalation).

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

Reproductive Toxicity: Not classified

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

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Cough, dyspnea (breathing difficulty), wheezing; decreased pulmonary function, progressive respiratory symptoms (silicosis). Accelerated Silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five years of the initial exposure. The progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that the lung lesions appear earlier and the progression is more rapid. Acute Silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis can be fatal

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction. When this product is wet it is corrosive

Symptoms/Injuries After Eye Contact: Redness, pain, swelling, itching, burning, tearing, and blurred vision. Causes permanent damage to the cornea, iris, or conjunctiva

Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract

Chronic Symptoms: Pre-existing lung diseases such as emphysema or asthma may be aggravated by exposure to dusts. Pulmonary function may be reduced by inhalation of respirable crystalline silica. Also lung scarring produced by such inhalation may lead to a progressive massive fibrosis of the lung which may aggravate other pulmonary conditions and diseases and which increases susceptibility to pulmonary tuberculosis. Progressive massive fibrosis may be accompanied by right heart enlargement, heart failure, and pulmonary failure. Smoking aggravates the effects of exposure. 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 hydroxide (1305-62-0)	
LD50 Oral Rat	7340 mg/kg
Ashes, residues (68131-74-8)	
LD50 Oral Rat	> 2000 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

Calcium hydroxide (1305-62-0)	
LC50 Fish 1	50.6 mg/l

12.2. Persistence and Degradability

Ready-Mix Concrete	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

Ready-Mix Concrete	
Bioaccumulative Potential	Not established.
Calcium hydroxide (1305-62-0)	
BCF Fish 1	(no bioaccumulation)

12.4. Mobility in Soil

Not available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Sewage Disposal Recommendations: Do not empty into drains. Do not dispose of waste into sewer.

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.

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

Ready-Mix Concrete	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

Cement, portland, chemicals (65997-15-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

Limestone (1317-65-3)
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	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

Calcium hydroxide (1305-62-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

Ashes, residues (68131-74-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

15.2. US State Regulations

Quartz (14808-60-7)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.

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

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

Calcium hydroxide (1305-62-0)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

15.3. Canadian Regulations

Ready-Mix Concrete	
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

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

Limestone (1317-65-3)	
Listed on the Canadian NDSL (Non-Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

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 Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Calcium hydroxide (1305-62-0)	
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 B - Toxic material causing other toxic effects

Ashes, residues (68131-74-8)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

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 : 07/21/2015

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

GHS Full Text Phrases:

Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Carc. 1A	Carcinogenicity Category 1A
Eye Dam. 1	Serious eye damage/eye irritation Category 1
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
H402	Harmful to aquatic life

Party Responsible for the Preparation of This Document

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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.

NA GHS SDS