Concrete Mix

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Date of issue: 05/17/2017 Revision date: 05/17/2017 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixtures

Product name : Concrete Mix, Sand Mix, Homecrete Concrete Mix, Homecrete Sand Mix, Shotcrete, Ready mix concrete, Ready mix stucco, Ready mix grout, Gunite

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Construction use.

1.3. Details of the supplier of the safety data sheet

Manufacturer
Shaw Resources
Nova Scotia Sand & Gravel Operation
901 Sandy Desert Road
Shubenacadie, NS, B0N 2H0
T: 902-758-4730 (7:00am to 5:00pm AST, Mon-Fri)
Shipping Office Fax Number: 902-758-1365

Distributor
Add the name, address and tel. number of the US manufacturer or importer who operates in the US

1.4. Emergency telephone number

Emergency number : 902-758-4730 (7:00am to 5:00pm AST, Mon-Fri)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

GHS classification

Skin Corr. 1A
Eye Dam. 1
Carc. 1A
STOT SE 3
STOT RE 1
(H)HNOC 1

2.2. Label elements

GHS labelling

Hazard pictograms (GHS) :

GHS05 GHS07 GHS08

Signal word (GHS) : Danger

Hazard statements (GHS) : Causes severe skin burns and eye damage. May cause cancer. May cause respiratory irritation. Causes damage to lungs through prolonged or repeated exposure. Causes severe damage to the respiratory tract.

Precautionary statements (GHS) : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed: rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If exposed or concerned: Get medical advice/attention. Store in a well-ventilated place. Keep container tightly closed. Dispose in a safe manner in accordance with local/national regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Quartz	(CAS-No.) 14808-60-7	60 - 95
Cement, portland, chemicals	(CAS-No.) 65997-15-1	10 - 55
Gypsum (Ca(SO4).2H2O)	(CAS-No.) 13397-24-5	2 - 10
Limestone	(CAS-No.) 1317-65-3	0.5 - 10
Calcium oxide	(CAS-No.) 1305-78-8	0.5 - 5
Magnesium oxide (MgO)	(CAS-No.) 1309-48-4	0.1 - 4

Comments : The concentrations listed represent actual ranges that result from batch variability.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER or doctor.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : Causes severe damage to the respiratory tract. Symptoms of exposure may include cough, sore throat, nasal congestion, sneezing, wheezing and shortness of breath. Prolonged inhalation of respirable crystalline silica above certain concentrations may cause lung diseases including silicosis and lung cancer. The extent and severity of lung injury depends on duration and level of exposure.

Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

Reactivity : Sand in mix dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride and oxygen difluoride.

5.3. Advice for firefighters

Firefighting instructions : Do not apply water directly at source of leak.

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Dust and particulate matter should be vacuumed with a filtered vacuum or wet swept where vacuuming is not feasible. Do not use compressed air or dry sweeping as a means of cleaning. Place in appropriate disposal container. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not breathe dust, mist. Do not swallow. Good housekeeping is important to prevent accumulation of dust. Avoid generating dust. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.

Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Keep away from incompatible materials.

Incompatible materials : Strong oxidizers. Hydrofluoric Acid.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable particulate matter)
OSHA	OSHA PEL (TWA) (mg/m³)	50 µg/m³
IDLH	US IDLH (mg/m³)	50 mg/m³ (respirable dust)
NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³ (respirable dust)

Cement, portland, chemicals (65997-15-1)		
ACGIH	ACGIH TWA (mg/m³)	1 mg/m³ (particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter)
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)
IDLH	US IDLH (mg/m³)	5000 mg/m³
NIOSH	NIOSH REL (TWA) (mg/m³)	10 mg/m³ (total dust) 5 mg/m³ (respirable dust)

Gypsum (Ca(SO4).2H2O) (13397-24-5)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ (inhalable particulate matter)
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)
NIOSH	NIOSH REL (TWA) (mg/m³)	10 mg/m³ (total dust) 5 mg/m³ (respirable dust)

Limestone (1317-65-3)		
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)

Limestone (1317-65-3)		
NIOSH	NIOSH REL (TWA) (mg/m³)	10 mg/m³ (total dust) 5 mg/m³ (respirable dust)

Calcium oxide (1305-78-8)		
ACGIH	ACGIH TWA (mg/m³)	2 mg/m³
OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m³
IDLH	US IDLH (mg/m³)	25 mg/m³
NIOSH	NIOSH REL (TWA) (mg/m³)	2 mg/m³

Magnesium oxide (MgO) (1309-48-4)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ (inhalable particulate matter)
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (fume, total particulate)
IDLH	US IDLH (mg/m³)	750 mg/m³ (fume)

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Hand protection : Wear suitable gloves resistant to chemical penetration.

Eye protection : Wear eye/face protection.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Granular powder

Colour : Light grey

Odour : None

Odour threshold : No data available

pH : 10 - 13

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Relative evaporation rate (butylacetate=1) : No data available

Flammability (solid, gas) : Not flammable.

Vapour pressure : No data available

Relative vapour density at 20 °C : No data available

Relative density : No data available

Solubility : No data available

Partition coefficient n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive limits : No data available

Explosive properties : No data available

Oxidising properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Sand in mix dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride and oxygen difluoride.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Moisture. Incompatible materials.

10.5. Incompatible materials

Wet cement is alkaline and incompatible with acid, ammonium salts and aluminum metal. Strong oxidizers. Hydrofluoric Acid.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Silica dissolves in hydrofluoric acid producing a corrosive gas - silicon tetrafluoride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.

Acute toxicity (dermal) : Not classified.

Acute toxicity (inhalation) : Not classified.

Quartz (14808-60-7)	
LD50 oral rat	500 mg/kg

Skin corrosion/irritation : Causes severe skin burns.
pH: 10 - 13

Serious eye damage/irritation : Causes serious eye damage.
pH: 10 - 13

Respiratory or skin sensitisation : Not classified.

Germ cell mutagenicity : Not classified.

Carcinogenicity : May cause cancer.

Quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity : Not classified.

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : Causes damage to lungs through prolonged or repeated exposure. Respirable crystalline silica in the form of quartz or cristobalite from occupational sources is listed by the International Agency for Research on Cancer (IARC) and National Toxicology Program (NTP) as a lung carcinogen. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease, which may be disabling. While there may be a factor of individual susceptibility to a given exposure to respirable silica dust, the risk of contracting silicosis and the severity of the disease is clearly related to the amount of dust exposure and the length of time (usually years) of exposure.

Aspiration hazard : Not classified.

Symptoms/effects after inhalation : Causes severe damage to the respiratory tract. Symptoms of exposure may include cough, sore throat, nasal congestion, sneezing, wheezing and shortness of breath. Prolonged inhalation of respirable crystalline silica above certain concentrations may cause lung diseases including silicosis and lung cancer. The extent and severity of lung injury depends on duration and level of exposure.

Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Calcium oxide (1305-78-8)	
LC50 fish 1	1070 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])

12.2. Persistence and degradability

Concrete Mix	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Concrete Mix	
Bioaccumulative potential	Not established.

Calcium oxide (1305-78-8)	
BCF fish 1	(no bioaccumulation)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)

In accordance with DOT/TDG

Not regulated

SECTION 15: Regulatory information

15.1. Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product contains Crystalline Silica, Quartz and may also contain other chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16: Other information

Revision date	:	05/17/2017
Other information	:	None.
Prepared by	:	Nexreg Compliance Inc. www.Nexreg.com

SDS HazCom 2012 - WHMIS 2015 (NexReg)

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