

Metro Mix 240
 Metro Mix 240 AE
 Block Fill Grout Coarse
 Block Fill Grout Fine
 Shotcrete 300V
 Baybridge Shotcrete
 Shotcrete 3:1 (with fiber)
 Shotcrete 3:1
 Shotcrete M4:1

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name 1. Metro Mix 240
 2. Metro Mix 240 AE
 3. Block Fill Grout Coarse
 4. Block Fill Grout Fine
 5. Shotcrete 300V
 6. Baybridge Shotcrete
 7. Shotcrete 3:1 (with fiber)
 8. Shotcrete 3:1
 9. Shotcrete M4:1

Product Use: Various.

Manufacturer/Supplier: Bonsal American, Inc.
 8201 Arrowridge Blvd.
 Charlotte, NC
 28273

Phone Number: (800) 334-0784 Tech Service 8:00 to 5:00 Eastern, Mon.-Fri.

Emergency Phone: CHEMTREC 800-424-9300
 INTERNATIONAL + -01-703-527-3887

Date of Preparation: April 28, 2009

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION

A natural chemical reaction during hydration develops sufficient heat to cause severe burns in the event of contact with skin. These burns may possibly result in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin.

Potential Health Effects: See Section 11 for more information.

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

- Eye:** Irritating to eyes. May cause burns in the presence of moisture.
- Skin:** May cause skin irritation. May cause burns in the presence of moisture.
- Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Metro Mix 240
 Metro Mix 240 AE
 Block Fill Grout Coarse
 Block Fill Grout Fine
 Shotcrete 300V
 Baybridge Shotcrete
 Shotcrete 3:1 (with fiber)
 Shotcrete 3:1
 Shotcrete M4:1

Inhalation: May cause respiratory tract irritation.

Chronic Effects: Prolonged or repeated contact may dry skin and cause irritation.

Signs and Symptoms: Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin.

Medical Conditions Aggravated By Exposure: Asthma. Allergies.

Target Organs: Skin, eyes, gastrointestinal tract, respiratory system.

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

This product is a hazardous chemical as defined by NOM-018-STPS-2000.

Potential Environmental Effects: No ecological consideration when used according to directions. Normal dilution of this product to drains, sewers, septic systems and treatment plants is not considered environmentally harmful. See Section 12 for more information.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	UN Number	H / F / R / Special*	CAS #	Wt. %
Silica, crystalline, quartz	Not available.	Not available.	14808-60-7	60 - 100
Portland cement	Not available.	2/0/0	65997-15-1	10 - 30
	Not available.	Not available.	68131-74-8	
Pozzolan	Not available.	Not available.	7631-86-9	3 - 7
	Not available.	Not available.	65996-69-2	

* Per NOM-018-STPS-2000

Section 4: FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.

Skin Contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).

Note to Physicians: Symptoms may not appear immediately.

Metro Mix 240
Metro Mix 240 AE
Block Fill Grout Coarse
Block Fill Grout Fine
Shotcrete 300V
Baybridge Shotcrete
Shotcrete 3:1 (with fiber)
Shotcrete 3:1
Shotcrete M4:1

Section 5: FIRE FIGHTING MEASURES

Flammability: Not flammable by WHMIS/OSHA criteria.

Means of Extinguishing:

Suitable Extinguishing Media: Treat for surrounding material.

Unsuitable Extinguishing Media: Not available.

Products of Combustion: May include, and are not limited to: oxides of carbon.

Explosion Data:

Sensitivity to Mechanical Impact: Not available.

Sensitivity to Static Discharge: Not available.

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

Section 6: ACCIDENTAL RELEASE MEASURES

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

Environmental Precautions: If large quantities enter a waterway, advise local authorities.

Methods for Containment: Contain spill, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Clean-Up: Vacuum or sweep material and place in a disposal container.

Other Information: Not available.

Section 7: HANDLING AND STORAGE

Handling:

Avoid contact with skin and eyes. Do not swallow. Good housekeeping is important to prevent accumulation of dust. Avoid generating and breathing dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Handle and open container with care. When using do not eat or drink. Wash hands before eating, drinking, or smoking.

Storage:

Keep out of the reach of children. Store in dust-tight, dry, labeled containers. Keep containers closed when not in use. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Do not store in an area equipped with emergency water sprinklers. Use corrosion-resistant structural materials and lighting and ventilation systems in the storage area.

Metro Mix 240
 Metro Mix 240 AE
 Block Fill Grout Coarse
 Block Fill Grout Fine
 Shotcrete 300V
 Baybridge Shotcrete
 Shotcrete 3:1 (with fiber)
 Shotcrete 3:1
 Shotcrete M4:1

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Ingredient	Exposure Limits	
	OSHA-PEL	ACGIH-TLV
Silica, crystalline, quartz	((10 mg/m ³)/(%SiO ₂ +2) TWA (resp)); ((30 mg/m ³)/(%SiO ₂ +2) TWA (total)); ((250)/(%SiO ₂ +5) mppcf TWA (resp))	0.025 mg/m ³
Portland cement	15 mg/m ³ (total); 5 mg/m ³ (resp)	10 mg/m ³ (total)
Pozzolan	Not available. 80 mg/m ³ /%SiO ₂ Not available.	Not available. 10 mg/m ³ Not available.

Engineering Controls: When using product, provide local and general exhaust ventilation to keep airborne dust concentrations below exposure limits.

Personal Protective Equipment:

Eye/Face Protection: Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).

Hand Protection: Wear suitable gloves.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: A NIOSH approved dust mask or filtering facepiece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

General Hygiene Considerations: Handle according to established industrial hygiene and safety practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Powder.
Color:	Various.
Odour:	Characteristic.
Odour Threshold:	Not available.
Physical State:	Powder.
pH:	Not available.
Viscosity:	Not available.
Freezing Point:	Not available.
Boiling Point:	Not available.
Flash Point:	Not available.

Metro Mix 240
 Metro Mix 240 AE
 Block Fill Grout Coarse
 Block Fill Grout Fine
 Shotcrete 300V
 Baybridge Shotcrete
 Shotcrete 3:1 (with fiber)
 Shotcrete 3:1
 Shotcrete M4:1

Evaporation Rate: Not available.
Lower Flammability Limit: Not available.
Upper Flammability Limit: Not available.
Vapor Pressure: Not available.
Vapor Density: Not available.
Specific Gravity: Not available.
Solubility in Water: Not available.
Coefficient of Water/Oil Distribution: Not available.
Auto-ignition Temperature: Not available.
Percent Volatile, wt. %: Not available.
VOC content, wt. %: 0%, Not applicable; 0 wt, Not applicable.

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal storage conditions. Keep dry in storage.
Conditions of Reactivity: Heat. Incompatible materials. Moisture.
Incompatible Materials: None known.
Hazardous Decomposition Products: May include, and are not limited to: oxides of carbon.
Possibility of Hazardous Reactions: No dangerous reaction known under conditions of normal use.

Section 11: TOXICOLOGY INFORMATION

EFFECTS OF ACUTE EXPOSURE

Component Analysis

Ingredient	IDLH	LD ₅₀ (oral)	LC ₅₀
Silica, crystalline, quartz	Not available	500 mg/kg, rat	Not available.
Portland cement	Not available	Not available.	Not available.
Pozzolan	Not available	Not available.	Not available.
	3000 mg/m ³	Not available.	Not available.
	Not available	Not available.	Not available.

Eye: Irritating to eyes. May cause burns in the presence of moisture. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Skin: May cause skin irritation. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin.

Metro Mix 240
Metro Mix 240 AE
Block Fill Grout Coarse
Block Fill Grout Fine
Shotcrete 300V
Baybridge Shotcrete
Shotcrete 3:1 (with fiber)
Shotcrete 3:1
Shotcrete M4:1

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Inhalation: May cause respiratory tract irritation.

EFFECTS OF CHRONIC EXPOSURE

Target Organs: Lungs.

Chronic Effects: Hazardous by WHMIS/OSHA criteria.

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.

Carcinogenicity: Hazardous by WHMIS/OSHA criteria.

Ingredient

Chemical Listed as Carcinogen or Potential Carcinogen *

Silica, crystalline, quartz
Portland cement

G-A2, I-1, N-1, CP65
Not listed.
Not listed.
I-3, N-1, CP65
Not listed.

Pozzolan

* See Section 15 for more information.

Mutagenicity: Not hazardous by WHMIS/OSHA criteria.

Reproductive Effects: Not hazardous by WHMIS/OSHA criteria.

Developmental Effects:

Teratogenicity: Not hazardous by WHMIS/OSHA criteria.

Embryotoxicity: Not hazardous by WHMIS/OSHA criteria.

Respiratory Sensitization: Not hazardous by WHMIS/OSHA criteria.

Skin Sensitization: Not hazardous by WHMIS/OSHA criteria.

Toxicologically Synergistic Materials: Not available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: No ecological consideration when used according to directions. Normal dilution of this product to drains, sewers, septic systems and treatment plants is not considered environmentally harmful.

Persistence / Degradability: Not available.

Bioaccumulation / Accumulation: Not available.

Mobility in Environment: Not available.

Metro Mix 240
 Metro Mix 240 AE
 Block Fill Grout Coarse
 Block Fill Grout Fine
 Shotcrete 300V
 Baybridge Shotcrete
 Shotcrete 3:1 (with fiber)
 Shotcrete 3:1
 Shotcrete M4:1

Section 13: DISPOSAL CONSIDERATIONS

Disposal Instructions:

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Section 14: TRANSPORTATION INFORMATION

DOT Classification

Not regulated

TDG Classification

Not regulated

NOM-004-SCT2-1994 Classification

Not regulated

Section 15: REGULATORY INFORMATION

Federal Regulations

Canadian: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

US: MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200).

Mexico: MSDS prepared pursuant to NOM-018-STPS-2000.

SARA Title III

Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Silica, crystalline, quartz	Not listed.	Not listed.	Not listed.	Not listed.
Portland cement	Not listed.	Not listed.	Not listed.	Not listed.
Pozzolan	Not listed.	Not listed.	Not listed.	Not listed.

State Regulations

California Proposition 65:

This product contains a chemical known to the state of California to cause cancer.

Global Inventories

Ingredient	Canada DSL/NDSL	USA TSCA
Silica, crystalline, quartz	DSL	Yes.
Portland cement	DSL	Yes.
Pozzolan	DSL	Yes.

Metro Mix 240
Metro Mix 240 AE
Block Fill Grout Coarse
Block Fill Grout Fine
Shotcrete 300V
Baybridge Shotcrete
Shotcrete 3:1 (with fiber)
Shotcrete 3:1
Shotcrete M4:1

HMIS - Hazardous Materials Identification System

Health - 2* Flammability - 0 Physical Hazard - 0

NFPA - National Fire Protection Association:

Health - 2 Fire - 0 Reactivity - 0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

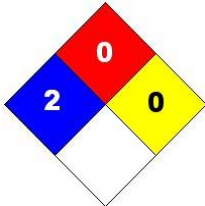
WHMIS Classification(s):

Class D2A - Carcinogenicity
Class D2A - Chronic Toxic Effects
Class D2B - Skin/Eye Irritant

WHMIS Hazard Symbols:



Mexico Classification:



Blue = Health Red = Flammability Yellow = Reactivity White = Special

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

OSHA (O) Occupational Safety and Health Administration.

ACGIH (G) American Conference of Governmental Industrial Hygienists.

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

IARC (I) International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

Metro Mix 240
Metro Mix 240 AE
Block Fill Grout Coarse
Block Fill Grout Fine
Shotcrete 300V
Baybridge Shotcrete
Shotcrete 3:1 (with fiber)
Shotcrete 3:1
Shotcrete M4:1

Section 16: OTHER INFORMATION

Disclaimer:

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

Expiry Date: April 28, 2012

Version #: 1.0

Prepared by: Nexreg Compliance Inc.
Phone: (519) 488-5126
www.nexreg.com