

MATERIAL SAFETY DATA SHEET

MSDS # 2028 Maxi-Mix Portland Lime Sand

IMPORTANT: Read this MSDS before handling or disposing of this product. This product safety information is provided to help our customers with health, safety and/or environmental matters. We have taken reasonable effort to ensure that the test methods and sources for this data are correct and reliable, however, we give no warranty, expressed or implied, regarding its correctness. Since conditions or methods of handling and using this product are beyond our control, we do not assume responsibility and expressly disclaim liability for damages resulting from or connected with the handling, storage, use or disposal of the product.

SECTION 1 PRODUCT AND MANUFACTURER'S INFORMATION

Manufacturer/Supplier: Maxi-Mix
Address: 8105 Esquesing Line,
Milton, Ontario
L9T 2X9
Emergency Phone: (905) 876-3477
Product Name: Portland / Lime (Various colours)
Chemical Name: Not applicable
Trade Name: Type O, N, S, M
Chemical Family: Not applicable
Formula: Portland cement, hydrated lime and sand

SECTION 2 PREPARATION INFORMATION

Reviewed By: David Warren
Phone Number: (905) 876-3477
Date of Revision: December 4, 2012

SECTION 3 HAZARDOUS INGREDIENTS

<i>Component</i>	<i>CAS #</i>	<i>%(by Wt)</i>	<i>OSHA-PEL, TWA (mg/m³)</i>	<i>ACGIH-TLV, TWA (mg/m³)</i>
Portland Cement	65997-15-1	10-30	15 (T); 5 (R)	1 (R)
Crystalline Silica	14808-60-7	75-92	(10/[%SiO ₂ +2]) (R)** (30/[%SiO ₂ +2]) (T)**	0.025 (R)
Calcium Hydroxide	1305-62-0	0.5-1.5	15 (T); 5 (R)	5 (T)
Calcium Oxide	1305-78-8	0.5-1.5	5	2
Chromates	7440-47-3	Trace	0.1 (CrO ₃)	0.1 (CrO ₃)

(T) = Total Dust:(R) = Respirable Fraction

*Sand may contain varying concentrations of Quartz (Crystalline Silica)

** 29 CFR 1910.1000 Table Z-3 Mineral Dusts

Hazardous Ingredients	Approximate Concentration	CAS Number	Exposure Limits (mg/m ³)					
			OSHA PEL (TWA) 8/40h	ACGIH TLV (TWA) 8/40h	RSST VEMP (TWA) 8/40h	MSHA PEL (TWA) 8/40h	NIOSH REL (TWA) 10/40h	NIOSH IDLH
(Complex Mixture)	(% by weight)							
Calcium Magnesium Hydroxide	2 to 10	39445-23-3	N/A	N/A	N/A	N/A	N/A	N/A
Calcium Magnesium	2 to 10	58398-71-3	N/A	N/A	N/A	N/A	N/A	N/A

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Hydroxide Oxide								
Calcium Hydroxide	1 to 6	1305-62-0	15 (tot. dust) 5 resp dust	5	5	5	N/A	N/A
Magnesium Hydroxide	0 to 4	1309-42-8	N/A	N/A	N/A	N/A	N/A	N/A
Magnesium Oxide	1 to 4	1309-48-4	10	10	10	10	N/A	N/A
Crystalline Silica, Quartz	0 to 0.1 Or 0 to 0.1 (Note1)	14808-60-7	30(%SiO ₂) +2 (T) 10(%SiO ₂) +2 (R)	0.025 (R)	0.1 (R)	30(%SiO ₂) +2 (T) 10(%SiO ₂) +2 (R)	0.05(R)	50

(Note 1): Concentration of crystalline silica in a series of lime products will vary from source to source. It was not detected on some samples (<0.1% w/w). Therefore two ranges are being disclosed. (Note2): ACGIH TLY Version 1973 has been adopted by the Mine Safety Health Administration (MSHA) as the regulatory Exposure Standard. (Note 3): (T) Total Dust; (R): Respirable Dust.

Additionally, trace amounts of chromium and nickel compounds may be present.

Status under the Canadian Environmental Protection Act: Not Listed.

Status under the Canadian Workplace Hazardous Materials Information System (WHMIS): Portland cement and lime are) considered to be a hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations (CPR). These products have been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Emergency Overview

Portland cement and lime are corrosive. Short-term exposure to the dry powder is unlikely to cause harm. However, exposure of sufficient duration to wet or dry mortar can cause serious, potentially irreversible tissue (skin or eye) destruction in the form of chemical (caustic) burns, including third degree burns.

May also contain:

Component	TLV-TWA (8H)	%(by Wt.)	CAS #
Black Iron Oxide	5 mg/m ³	<1.0	131-61-9
Cobalt Blue	0.5 mg/m ³	<1.0	1345-16-0 and 68187-11-1
Chromium Oxide Green	0.5 mg/m ³	<1.0	1308-38-9
Yellow Iron Oxide	10 mg/m ³	<1.0	51274-00-1
Red Iron Oxide	5 mg/m ³	<1.0	1332-37-2

SECTION 4 PHYSICAL DATA

Boiling Point: Not applicable
Specific Gravity: > 1.0
Vapor Pressure: Not applicable
Evaporation Rate: Not applicable
Solubility In Water: Slight
Appearance: Coloured sand mixture
Odor: Not applicable

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Physical State: Solid Powder
pH in water(ASTM D1293-95): 12 to 13
Vapour Density: Not Applicable

SECTION 5 FIRE AND EXPLOSION DATA

Flash Point: N/A
Lower Explosive Limit: None
Upper Explosive Limit: None
Auto Ignition Temperature: Not Combustible
Hazardous Combustion Products: None
Unusual Fire and Explosion Products: None
Flammable Limits: N/A
Extinguishing Media: Not Flammable
Special Fire Fighting Procedures: None
Although Portland cement and lime pose no fire-related hazards, a self-contained breathing apparatus is recommended to limit exposure to combustion products when fighting any fire.

SECTION 6 TOXICOLOGICAL PROPERTIES

Potential Health Effects

Relevant routes of exposure: eye contact, skin contact, inhalation, and ingestion.

Effects Resulting from Eye Contact:

Exposure to airborne dust may cause immediate or delayed irritation or inflammation. Eye contact by larger amounts of dry powder or splashes of wet mortar may cause effects ranging from moderate eye irritation to chemical burns and blindness. Such exposures require immediate first aid (see Section 4) and medical attention to prevent significant damage to the eye.

Effects Resulting from Skin Contact:

Discomfort or pain cannot be relied upon to alert a person to a hazardous skin exposure. Consequently, the only effective means of avoiding skin injury or illness involves minimizing skin contact, particularly contact with wet cement. Exposed persons may not feel discomfort until hours after the exposure, and injury has occurred.

Exposure to dry mortar may cause drying of the skin with consequent mild irritation or more significant effects attributable to aggravation of other conditions. Skin contact with wet or dry cement products may cause more severe skin effects including thickening, cracking or fissuring of the skin. Prolonged skin contact can cause severe chemical burns. Some ultra-sensitive individuals may exhibit an allergic response upon exposure to portland cement and lime mortar, possibly due to trace amounts of chromium (hexavalent chromium salts). The response may appear in a variety of forms ranging from mild rash to severe skin ulcers. Persons already sensitized may react to their first contact with the product; others might experience this effect only after years of contact with cement products.

Effects Resulting from Inhalation:

Exposure to portland cement /lime/sand mortar may cause irritation to the moist membranes of the nose, throat, and upper respiratory system. Inhalation may also aggravate pre-existing upper respiratory and lung diseases.

It may also leave unpleasant deposits in the nose.

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Portland cement/lime/sand mortar may contain small amounts of free crystalline silica. Prolonged exposure to respirable free crystalline silica may aggravate other lung conditions. It also may cause delayed lung injury including silicosis, a disabling and potentially fatal lung disease, and/or other diseases.

Effects Resulting from Ingestion:

Although small quantities of dust are not known to be harmful, ill effects are possible if larger quantities are accidentally consumed.

Engulfment Hazard:

Cement can build up or adhere to the walls of a confined space such as a silo, bin, bulk truck, or other container or vessel. The material can be detached, collapse or fall unexpectedly. To prevent burial or suffocation, do NOT enter a confined space without precautions appropriate to Confined Spaces.

Effects of Overexposure:

Inhalation: Irritation of the upper respiratory tract may result from overexposure.
Skin and Eyes: Possible skin irritation. Eye irritant, flush with large amounts of water.
Ingestion: N/A

SECTION 7 REACTIVITY DATA

Stability: Stable
Polymerization: Will not occur
Materials to Avoid: None known

Hazardous Decomposition Products: Will not spontaneously occur. Adding water produces (Caustic) calcium hydroxide.
Conditions to Acid: Unintentional contact with water
Incompatibility: Portland cement and hydrated lime are alkaline and are incompatible with acids, ammonium salts and aluminum metal.

SECTION 8 PREVENTIVE MEASURES

Spill Procedure: Normal housekeeping. Avoid breathing dust. Avoid contact with water.
Disposal Procedure: Follow federal, provincial/state and local laws and regulations.
Ventilation: Ventilate as needed in confined areas.
Gloves: Minimise skin contact. Use protective gloves when handling material.

Skin Protection:

Prevention is essential to avoiding potentially severe skin injury. Avoid contact with unhardened (wet) Portland/lime/sand mortar products. If contact occurs, promptly wash affected area with soap and water. In case of severe contact, provide emergency showers. Clothing saturated with wet concrete products should be promptly removed and replaced with clean dry clothing. Where prolonged exposure to cement products might occur, wear impervious clothing and cut/abrasion-

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resistant (Heavyweight Nitrile coated Safety cuff) gloves to eliminate skin contact. Where required, wear boots that are impervious to water to eliminate foot and ankle exposure.

Do not rely solely on barrier creams; barrier creams should not be used in place of gloves.

Periodically wash areas contacted by dry mortar, by wet cement, or by concrete fluids with a mild soap. If irritation occurs, immediately wash the affected area and seek treatment.

Respiratory Protection:

Avoid actions that cause dust to become airborne. Use local or general ventilation to control exposures below applicable exposure limits.

Use NIOSH-approved respirators (N95 rating or greater) for silica and dust, if an exposure limit is exceeded, or when dust causes discomfort or irritation.

Ventilation:

Use local exhaust where practicable, or general dilution ventilation to control exposure within applicable limits.

Eye Protection:

Wear ANSI- or CSA-approved safety glasses with side shields or goggles. Provide emergency eyewash stations. In extremely dusty environments and unpredictable environments wear unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when working with Portland cement/lime/sand mortars or fresh cement products.

SECTION 9 FIRST AID PROCEDURES

Eyes:

Immediately flush eyes thoroughly with water. Continue flushing eyes for at least 15 minutes, including under lids, to remove all particles. Call physician immediately.

Skin:

Wash skin with cool water and mild soap or a detergent intended for use on skin. Seek medical treatment in all cases of prolonged exposure to wet cement, cement mixtures, liquids from fresh cement products, or prolonged wet skin exposure to dry cement.

Inhalation of Airborne Dust:

Remove to fresh air. Seek medical help if coughing and other symptoms do not subside. Inhalation of gross amounts of Portland cement/lime/sand mortar requires immediate medical attention.

Ingestion:

Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately.