

MATERIAL SAFETY DATA SHEET



Bonstone Materials Corporation

Date Issued: 02/08/2011

MSDS No: 204

Revision No: New MSDS

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT DESCRIPTION: Historic Restoration Mortar, Powder
PRODUCT CODE: HRM

MANUFACTURER

Bonstone Materials Corporation
 707 Swan Drive
 Mukwonago WI 53149
Emergency Contact: Mike Beckmann
Product Stewardship: 262-363-9877

24 HR. EMERGENCY TELEPHONE NUMBERS

Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Light colored powder

IMMEDIATE CONCERNS: Lime is commonly a light colored powder that poses little immediate hazard. A single short term exposure to the dry powder is not likely to cause serious harm. However, exposure of sufficient duration to wet lime can cause serious, potentially irreversible tissue (skin or eye) destruction in the form of chemical (caustic) burns. The same type of tissue destruction can occur if wet or moist areas of the body are exposed for sufficient duration to dry lime.

POTENTIAL HEALTH EFFECTS

EYES: Exposure to airborne dust may cause immediate or delayed irritation or inflammation. I contact by large amounts of dry powder or splashes of what lime may cause effects ranging from moderate to eye irritation to chemical burns or blindness.

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

INGESTION: Can burn mouth, throat and stomach.

INHALATION: Exposure to lime may cause irritation to the moist mucous membranes of the nose, throat, and upper respiratory system. It may also leave unpleasant deposits in the nose.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes eye irritation.

SKIN: Contact causes skin irritation.

INGESTION: Ingestion of this material can cause mouth, throat, esophageal, and gastrointestinal tract irritation.

INHALATION: May cause respiratory sensitization or asthma in susceptible individuals. Excessive exposure may cause irritation upper respiratory tract.

ACUTE TOXICITY: Excessive exposure to airborne dust may reduce visibility and/or cause unpleasant deposits in the eyes, ears and nose. Irritation to skin or mucous membranes can occur by direct mechanical action or by rigorous skin cleaning necessary for removal of dust.

CHRONIC EFFECTS: This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, he seriously disabling and fatal lung disease. See note to physicians in section 4 for further information.

Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease is 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.

CARCINOGENICITY: Lime is not listed as a carcinogen by NTP, OSHA, or IARC. It may, however, contain trace amounts of substances listed as carcinogens by these organizations.

Crystalline silica, a contaminate in lime, is now classified by IARC as a known human carcinogen (Group I). NTP has characterized respirable silica as "reasonably anticipated to be [a] carcinogen".

MEDICAL CONDITIONS AGGRAVATED: Persons with existing pulmonary disorders must avoid breathing any dust generated during the use of this product.

CANCER STATEMENT: This product contains trace amounts of crystalline silica which is classified by IARC and NTP as known human carcinogen.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS	EINECS
Calcium Carbonate	Trade secret	000471-34-1	207-439-9
Silica, Crystalline	0.35	014808-60-7	238-878-4
Fly ash	Trade secret	68131-74-8	
Hydrated Dolomite Lime	Trade secret	1317-65-3	

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

INGESTION: If swallowed, do NOT induce vomiting. Give victim a glass of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

NOTES TO PHYSICIAN: The three types of silicosis include:

* 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).

* Accelerated silicosis-- occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years). Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis.

* Acute silicosis-- results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels.

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.

5. FIRE FIGHTING MEASURES

FLAMMABLE LIMITS: 0 to 0

FLAMMABLE CLASS: NA = Not Applicable

EXTINGUISHING MEDIA: NA = Not Applicable

FIRE FIGHTING EQUIPMENT: Firefighters and others who may be exposed to products of combustion should wear full firefighting turnout gear and self-contained breathing apparatus. Firefighting equipment should be thoroughly decontaminated after use.

HAZARDOUS DECOMPOSITION PRODUCTS: NA = Not Applicable

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Vacuum or sweep up material and place in a disposal container.

GENERAL PROCEDURES: Evacuate nonessential personnel.
Where proper protective equipment.
Eliminate all sources of ignition and ventilate the area.
Stop discharge, if safe to do so.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid contact with eyes, skin, and clothing.

HANDLING: Avoid breathing (dust, vapor, mist, gas).

STORAGE: Store in a cool dry place.

COMMENTS: Keep lime dry until used. Normal temperatures and pressures do not affect the material. Promptly removed dusty clothing or clothing which is wet with cement fluids and launder before reuse. Wash thoroughly after exposure to dust or hydrated lime mixtures or fluids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		SupplierOEL	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Calcium Carbonate	TWA	15		10			
Silica, Crystalline	TWA	NL ppm ^[1]	(0.1) mg/m ³ ^[1]	NL ppm	(0.1) mg/m ³	NL ppm	NL mg/m ³
	STEL	NL ppm	NL mg/m ³	NL ppm	NL mg/m ³	NL ppm	NL mg/m ³
Footnotes:							
1. NL = Not Listed							

ENGINEERING CONTROLS: If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

SKIN: Prevention is essential to avoiding potentially severe skin injury. Avoid contact with hydrated lime cement. If contact occurs, promptly wash affected area with soap and water. Where prolonged exposure to hydrated lime products might occur, where impervious clothing and gloves to eliminate skin contact. Wear sturdy boots that are impervious to water to eliminate foot and ankle exposure.

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

Periodically wash areas contacted by lime or by lime-based fluids with a pH neutral soap. Wash again at the end of work. If irritation occurs, immediately wash the affected area and seek treatment. If clothing becomes saturated with hydrated lime, it should be removed and replaced with clean dry clothing.

RESPIRATORY: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements

must be followed whenever workplace conditions warrant a respirator's use.

WORK HYGIENIC PRACTICES: Provide readily accessible eyewash stations and safety showers. Wash at the end of each work shift and before eating, smoking, or using the toilet.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

COMMENTS: Avoid breathing any (dust, vapor, mist, gas) that may be generated when grinding cured material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Boiling Point (°C)	Freezing Point (°C)	Solubility in Water	Specific Gravity
Calcium Carbonate			Negligible	2.71
Silica, Crystalline	2230	1710		2.65
Fly ash	1000		Slightly soluble (less than 5%)	2.5
Hydrated Dolomite Lime				2.35

PHYSICAL STATE: Solid

ODOR: None.

APPEARANCE: Gritty powder of various colors, earthen odor

COLOR: Buff (tan)

SPECIFIC GRAVITY: 2.636

(VOC): = 0 (no VOC's)

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

STABILITY: Stable.

POLYMERIZATION: Product will not undergo polymerization.

INCOMPATIBLE MATERIALS: Maleic anhydride, phosphorus, Nitroethane, nitromethane, Nitroparafins, Nitropropane.

Note: attacks some metals.

11. TOXICOLOGICAL INFORMATION

SKIN EFFECTS: May cause severe injury to skin following prolonged or repeated contact, and may cause skin sensitization or other allergic responses.

CARCINOGENICITY

Chemical Name	NTP Status	IARC Status	OSHA Status	Other
Silica, Crystalline	Yes	Y1=Carcinogenic to humans	No	ACGIH: A2=Confirmed human carcinogen

Notes: The International Agency for Research on Cancer (IARC) has concluded that crystalline silica, inhaled in the form of quartz or cristobalite from occupational sources, is carcinogenic to humans (Group 1). [IARC

Monographs on the Evaluation of Carcinogenic Risks to Humans, "Silica, Some Silicates, Coal Dust and para--Aramiod Fibrils," Vol. 68, 1997.] The National Toxicology Program (NTP) has concluded that respirable crystalline silica, primarily quartz dusts occurring in industrial and occupational settings, is known to be a human carcinogen.

12. ECOLOGICAL INFORMATION

COMMENTS: None known.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Recover, reclaim or recycle when practical. Dispose of in accordance with federal, state and local regulations. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements be be more restrictive or otherwise different from federal laws and regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

OTHER SHIPPING INFORMATION: Not regulated by DOT

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Immediate health hazard, delayed health hazard.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Silica, Crystalline	014808-60-7

TSCA STATUS: All components of this product are either listed or exempt from listing in the TSCA inventory.

STATES WITH SPECIAL REQUIREMENTS

Chemical Name	Requirements
Silica, Crystalline	CA, MA, PA: Crystalline Silica is on the Right-to-know lists for these states.

CALIFORNIA PROPOSITION 65

Chemical Name	Wt. %	Listed
Silica, Crystalline	0.35	● Cancer
Fly ash	Trade secret	● Cancer
Hydrated Dolomite Lime	Trade secret	● Cancer

16. OTHER INFORMATION

APPROVED BY: Mike Beckmann **TITLE:** President

INFORMATION CONTACT: Mike Beckmann

REVISION SUMMARY: New MSDS

MANUFACTURER DISCLAIMER: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a

guidance for safe handling, use, processing, storage, transportation, disposal and release and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or any process, unless specified in the text.



HRM Liquid Latex Binder

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Manufactured for: Bonstone Materials Corporation CHEMTREC: 800-424-9300
707 Swan Drive
Mukwonago, WI 53149

Product Trade Name: HRM Liquid Latex Binder

SECTION II - HAZARDOUS INGREDIENTS

	CAS NO	AMT (%)	OSHA PEL	ACHIH TLV
No Hazardous Ingredients				

SECTION III - PHYSICAL DATA

Boiling Point:	212°F
Specific Gravity:	1.02
Vapor Pressure (mmHg):	17 @ 20°C
Vapor Density (AIR=1):	Heavier
pH:	9.2 - 10.0
Percent Volatile By Volume (%):	72
Solubility in Water:	Dilutable
Evaporation Rate:	Less than 1, water
Appearance and Odor:	Milky white liquid, mild acrylic odor.

SECTION IV - FIRE AND EXPLOSION HAZARD

Flash Point: Non-Applicable
Extinguishing Media: Non-Applicable
Special Fire Fighting Procedures: Wear MSHA/NIOSH approved self-contained breathing apparatus and full protective gear.
Unusual Fire and Explosion Hazards: Acrylic emulsions will not burn. They may spatter if temperature exceeds boiling point (212°F). Dried polymer films are capable of burning.

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value: See Section II
Effects of Over Exposure:
Eye Contact: Direct contact may irritate eyes.
Skin Contact: Prolonged or repeated contact may irritate skin.
Inhalation: Inhalation of vapor or mist can cause headache, nausea and may irritate the nose, throat or lungs.
Ingestion: A single dose of this product is practically non-toxic.
EMERGENCY AND FIRST AID PROCEDURES:
EYES: Flush eyes with copious amounts of water for at least 15 minutes. Contact a Physician if redness or irritation persists.
SKIN: Wash thoroughly with soap and water. If irritation persists or develops contact a Physician.
INHALATION: Remove person to fresh air. If cough or respiratory symptoms develop or persist (irritation of nose, throat or lungs) consult a Physician.
INGESTION: Give patient 1-2 glasses of water to drink and seek medical attention. Never give anything by mouth to an unconscious person.

SECTION VI - REACTIVITY DATA

Stability: Stable
Incompatibility: Not applicable.
Hazardous Decomposition Products: None Known.
Hazardous Polymerization: Will not occur.
Conditions to Avoids: Not applicable.

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled: Surfaces may be slippery, use caution. Dike and contain spill with inert material (sand, absorbent, earth, etc.). Transfer liquid to containers for recovery or disposal. Transfer solid diking/absorbent material to separate containers for disposal. Keep spills and runoff out of sewers and bodies of water.

WASTE DISPOSAL METHOD: Contact local municipal, state, or federal agencies to ensure compliance of disposal methods with current regulations.

NOTE: Empty containers can have residues, gases or mists and are subject to proper waste disposal.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Not required if good ventilation is maintained. Use appropriate MSHA/NIOSH respirator when dusts or mists are generated for the types and concentrations of air contaminants encountered.

Ventilation: Mechanical: Local ventilation to keep exposure below the OSHA PEL for nuisance dusts or for the appropriate PEL when incorporated into another product

Protective Gloves: Impervious gloves are recommended.

Eye Protection: Close fitting splash proof chemical goggles.

Other Protective Equipment: Long trousers, long-sleeved shirt, and appropriate footwear recommended to avoid skin contact.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing: **Keep from freezing, product may coagulate.** If frozen, thaw at room temperature. **If solids are coagulated or "crystallized" product is unusable.** Keep out of direct sunlight.

Other Precautions: DO NOT USE IN AREAS WITH LIMITED AIR CIRCULATION.

SECTION X - PREPARATION DATE OF MSDS

Occupational Health & Safety Dept.

Date: 02/21/11

Supersedes: 12/06/93

DISCLAIMER

The information contained herein is based on the data available to us and is believed to be correct. However, **Bonstone Materials Corporation** makes no warranty, expressed or implied from the use there of. **Bonstone Materials Corporation** assumes no responsibility for injury from the use of the product described herein.
