



ArcusStone®

# Material Safety Data Sheet

Date: 7.1.08

## 1. Product and Company Information

Product Name: **ArcusStonecoat™**

HMIS Classifications: **Health: 1 Flammability: 0 Physical Hazard: 0**

Personal Protection: E (safety glasses, gloves, and dust respirator)

Product Use: Limestone decorative coating that is trowel or spray applied or used in the production of cast architectural elements.

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## 2. Composition / Information on Hazardous Ingredients

Ingredients	CAS#	OSHA PEL (mg/m3)	ACGIH-TLV (mg/m3)	Cal/OSHA PEL (mg/m3)
Portland Cement	65997-15-1	5	5	5
Limestone (crushed)	01317-65-3	5	5	5
Silica Sand, crystalline	14808-60-7	10	0.1	0.1
		%SiO <sub>2</sub> +2	(respirable)	
Hydrated Lime	01305-62-0	5	5	5
Acrylic Polymer	Trade Secret	none	none	none

Trace Elements: Trace amounts of naturally occurring, potentially harmful chemicals may be detected during chemical analysis. Examples would include trace amounts of magnesium oxide, potassium and sodium sulfate compounds, and trace metal compounds.

## 3. Hazards Identification

### Routes of exposure:

Skin contact: Yes

Skin Absorption: No

Eye Contact: Yes

Inhalation: Yes

Ingestion: Yes

### Emergency Overview:

Signs and symptoms of overexposure may include shortness of breath, coughing, reddened irritated eyes, and skin rash. Immediately remove subject from work environment and seek medical attention if symptoms persist.

### Potential Health Effects:

When mixing product, individuals may experience temporary shortness of breath, coughing, eye watering and irritation, skin rash.

#### 4. First Aid Measures

**Skin:** Wash contaminated areas thoroughly with soap and water immediately and repeatedly for at least 5 minutes. Consult Physician if irritation persists.

**Eyes:** Immediately flush eyes with clean water and continue for at least 15 minutes. Seek medical help immediately.

**Ingestion:** Consult a physician immediately and have the subject drink plenty of water. Do not induce vomiting.

**For Gross Inhalation:** Immediately move subject to fresh air, give oxygen or artificial respiration as needed. Get prompt medical attention.

#### 5. Fire Fighting Measures

Flammable: Not flammable or combustible.

Means of Extinction: N/A

Flashpoint (° C): N/A

Upper Flammable Limit (% by volume): N/A

Lower Flammable Limit (% by volume): N/A

Auto ignition Temperature (° C): Will not auto ignite

Explosion Data – Sensitivity to Impact: Will not explode

Explosion Data – Sensitivity to Static Discharge: N/A

Hazardous Combustion Products: None

(NFPA): N/A

#### 6. Accidental Release Measures

Leak and Spill Procedures:

Ventilate area. If dry and not otherwise contaminated, sweep and use vacuum to collect product and place in covered container for disposal. Can be treated as common waste for disposal in accordance with local, state, and federal regulations.

#### 7. Handling and Storage

Handling Procedures and Equipment:

Provide adequate ventilation while handling and avoid breathing dust. Do not allow product to contact water until time of use. To avoid possible back strain or other injury when handling product, use a back brace and lift with the legs, keeping back straight. Use a hand truck, pallet jack, or fork lift to move bagged material.

Storage Requirements:

Store in manufacturer's unopened original bags in dry areas not in direct contact with concrete slabs or earth, out of direct sunlight, precipitation, and weather exposure. Rotate stock. Product shelf life is one year from date of manufacture.

#### 8. Exposure Control / Personal Protection

Exposure Limits:

ACGIH TLV: No TLV assigned to this product. Review Section 2 for product component TLV information. Minimize exposure in accordance with good hygiene practice. Following work, workers should shower with soap and water. Precautions must be observed as burns can occur with little warning as little heat is sensed.

OSHA PEL: No TLV assigned to this product. Review Section 2 for product component OSHA PEL information.

Other: NIOSH has recommended that the permissible exposure limit be .05 micrograms respirable free silica per cubic meter of air (0.05mg / M3) averaged over a work shift of up to 10 hours per day, 40 hours per week.

The NIOSH Criteria for a Recommended Standard Occupational Exposure to Crystalline Silica should be consulted for more detailed information.

Engineering Controls:

General - N/A

Local Exhaust - Control airborne dust using local exhaust, if necessary.

Other - N/A

Personal Protective Equipment:

Eye - Chemical tight splash goggles (ANSI Z-87,1 or approved equal) is required.

Respiratory - Use of an appropriate OSHA, MSHA or NIOSH approved respirator in poorly ventilated areas is required.

Hand - Latex, vinyl, rubber, or other impervious gloves or barrier cream is recommended.

Other - Provide means of rinsing eyes (eyewash station) in case of emergency. Handlers of the product should shower with soap and water after work.

## 9. Physical and Chemical Properties

Physical State: Powder and aggregates

Odor and Appearance: No distinct odor. Off-white powder with aggregate. Odor

Threshold (ppm): N/A

Specific Gravity (H<sub>2</sub>O =1): 2.8 to 3.15

Vapor Density (air=1): N/A Vapor

Pressure (mmHg): N/A Evaporation

Rate (Ether = 1): N/A Boiling Point:

N/A

Freezing Point: N/A

pH (in water): 10-12

Coefficient of Water / Oil Distribution: N/A

(Solubility in Water): Slight.

## 10. Stability and Reactivity

Chemical Stability:

Stable

Incompatibility with other substances:

It is compatible with most other materials; however, it contains Portland cement which is alkaline. As such, it is incompatible with acids, ammonium salts, and other powerful oxidizing agents, and aluminum metal. The product also contains silica, which will dissolve in hydrofluoric acid and produce a corrosive gas, silica tetrafluoride.

Reactivity:

Store in dry conditions. Damp storage or unintentional water contact with other liquids will cause chemical processes to take place which will render the product ineffective.

Hazardous Decomposition Products: Hazardous Polymerization will not occur. Hazardous decomposition will not occur. Contact with water will start hydration process and produce calcium hydroxide.

## 11. Toxicological Information

### Effects of Acute Exposure:

Can dry the skin and may cause mild alkali burns. Dust can irritate the eyes and upper respiratory system. Toxic effects in animals include alveolar damage with pulmonary edema.

### Effects of Chronic Exposure:

Dust can cause inflammation of the lining tissue of the interior nose and inflammation of the cornea. Hypersensitive individuals may develop an allergic dermatitis. Excessive inhalation of silica dust may result in respiratory disease, including silicosis, pneumoconiosis, pulmonary fibrosis, and possibly cancer.

### Irritancy of Product:

Skin Sensitization - Classified as a nuisance dust by OSHA. Exposure can affect the skin, eyes and mucous membranes.

Respiratory Sensitization - The product contains silica particles that may be broken down to the respirable range during shipping, handling, or use, and thus may be inhaled.

### Carcinogenicity:

The International Agency for Research on Cancer (IARC) has evaluated in Volume 68, IARC Monographs of the Evaluation of the Carcinogenic Risk to Humans, "Silica and Some Silicates"... (1997) that there is "sufficient evidence" for the carcinogenicity of crystalline silica with respect to humans, in the forms of quartz or cristobalite from occupational sources. The presence of crystalline silica which may result in exposures requires the following warning pursuant to California Proposition 65: Warning: This product contains chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

NTP - Not classified

OSHA regulated - Not as a carcinogen

IARC Monographs - Yes

Calif. Prop. 65 - Yes

## 12. Ecological Information

Aquatic Toxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Not available.

Toxicity of Products of Biodegradation: Not available.

## 13. Disposal Considerations

### Waste Disposal:

Can be disposed as common waste, in accordance with local, state, provincial, and federal regulations. Product is not classified as a hazardous waste under RCRA (40CFR 261) or CERCLA (40CFR 117 & 302).

## 14. Transport Information

PIN - Not available TDG

- Not hazardous DOT -

Not hazardous IMO -

Not available

ICAO - Not available

## 15. Regulatory Information

WHMIS Classification - Not available.

OSHA - 29 CFR 1910.1200 considered hazardous and should be included in employers' hazard communication program.

SARA - Title III Sections 311 and 312 qualifies as hazardous substance with delayed health effects. Not subject to reporting requirements under Section 313.

TSCA - Some ingredients are on the TSCA inventory list.

## 16. Other Information

### Abbreviations:

ACGIH - American Conference of Governmental Hygienists

ANSI - American National Standards Institute

C - Celsius

Cal/OSHA - Calif. Division of Occupational Health Administration

CARB - California Air Resources Board

CAS - Chemical Abstract Service

CERCLA - Comprehensive Environmental Response and Liability Act (Superfund) of 1980

CFR 49 - Title 49 of the Code of Federal Regulations

DOT - Department of Transportation EPA -

Environmental Protection Agency F -

Fahrenheit

HMIS - Hazardous Materials Identification System IARC -

International Agency for Research on Cancer IATA -

International Air Transport Association

ICAO - International Civil Aviation Organization

IMO - International Maritime Organization

M3 - Cubic Meter

Mg - milligram

MSDS - Material Safety Data Sheet

N/A - Not Applicable

N/E - Not Established

NFPA - National Fire Protection Association

NIOSH - National Institute of Occupational Safety and Health

NTP - National Toxicity Program

OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit

RCRA - Resource Conservation and Recovery Act of 1976

SARA - Superfund Amendments and Reauthorization Act of 1986

SCAQMD - South Coast Air Quality Management District

SiO<sub>2</sub> - Crystalline Silica (quartz)

TGD - Transportation of Dangerous Goods Act of 1992 (Canadian) TLV -

Threshold Limit Values

TSCA - Toxic Substances Control Act of 1976

TWA - Time Weighted Average

WHMIS - Workplace Hazardous Materials Information System

### Statement:

While the information provided in this MSDS is believed to provide a useful summary of the hazards of this product as it is commonly used, the MSDS cannot anticipate and provide all of the information that might be needed in every situation. In particular, product users who have not had the benefit of proper training in the application of the product may be using it in a manner that this MSDS does not address or that may be hazardous. The information herein is given in good faith but no warranty, expressed or implied, is made. ArcusStone Products LLC accepts no responsibility for any harmful effects which may be caused by exposure to crystalline silica contained in this product. Customers / users must comply with all applicable health and safety laws, regulations and orders covering crystalline silica.