Material Safety Data Sheet

Date: 7.1.08

1. Product and Company Information

Product Name: **Acrylic Admixture**

HMIS Classifications: **Health: 1** **Flammability: 0** **Physical Hazard: 0**
Personal Protection: E (safety glasses, gloves, and dust respirator)

Product Use: **Liquid acrylic resin emulsion in water that is added to ArcusStone® materials to increase bonding and flexural strength.**

ArcusStone Products, LLC **Office 415.339.4060 Fax 415.339.4065**
180 Harbor Drive, Suite 200
Sausalito, CA 94965 **www.arcusstone.com**

2. Composition / Information on Hazardous Ingredients

Ingredients	%	CAS#	ACGIH -TWA (ppm)
Ammonia	<0.4	7664-41-7	10

OSHA Hazardous Communication Standard 29 CFR 1910.1200 allows the MSDS information as to other non-hazardous components to be unlisted if they are considered proprietary, therefore, identities of proprietary ingredients in this product are not listed here.

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 include headache, dizziness, mild nausea, shortness of breath, coughing and irritated, watery eyes. Immediately remove subject from work environment and seek medical attention in emergency or extreme cases.

Potential Health Effects:

Harmful effects, if any, would be due to the effects of ethylene glycol, but overexposure should not occur as concentrations in the product are <1%. Inhalation of vapors may cause slight irritation in respiratory tract, and repeated or prolonged exposure to low concentrations of vapor may cause sore throat, which is transient.

4. First Aid Measures

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

Eyes: In the event of direct contact, rinse / flood eyes with clean water immediately and repeatedly for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: Immediately consult a physician. Induce vomiting only as directed by medical personnel.

For Gross Inhalation: Immediately move subject to fresh air. Seek immediate medical attention.

5. Fire Fighting Measures

Flammable: Not flammable or combustible.

Means of Extinction: Use water, foam, dry chemical or carbon dioxide on dried film.

Flashpoint: non-flammable in liquid state.

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

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

Auto ignition Temperature: Will not auto ignite.

Explosion Data – Sensitivity to Impact: Will not explode.

Explosion Data – Sensitivity to Static Discharge: Possibility of pressure buildup in closed containers. Use water stream to cool before opening.

Hazardous Combustion Products: N/A

NFPA: Non-combustible classification.

6. Accidental Release Measures

Leak and Spill Procedures:

Stop leak and ventilate area. Construct a containment dike to limit the spread of material. Mix with a dry soil or other non-reactive absorbent and place in container then dispose of as common waste. Flush contaminated area with water as soon as possible before material dries. Wear butyl rubber gloves, footwear and clothing if cleaning up larger spills.

Product is not considered a hazardous waste under EPA Hazardous Waste Regulation 40 CFR 261. For disposal, see Section 13 “Disposal Considerations”.

7. Handling and Storage

Handling Procedures and Equipment:

Handle with adequate ventilation and avoid direct and prolonged breathing of vapors. Do not eat, drink, smoke, or otherwise allow wet product to contact mucus membranes or skin while handling. To avoid possible back strain or other injury, use a back brace, hand truck, pallet jack, or fork lift to move material containers.

Storage Requirements:

Store unopened in manufacturer’s original pails out of direct sunlight, extreme heat or cold, precipitation, and weather exposure. Rotate stock. Do not stack more than 2 pallets in height. Product shelf life is one year from date of manufacture, in unopened containers. Store where temperature is between 40 ° and 100 ° F. (4.5 ° and 38 ° C). Do not freeze. Discard if product becomes frozen or laden with ice crystals.

8. Exposure Control / Personal Protection

Exposure Limits:
ACGIH -TWA: 10
OSHA PEL: No TLV assigned to this product.

Engineering Controls:
General - None required.
Local Exhaust - Ventilate if needed using mechanical means.

Personal Protective Equipment:
Eye - Chemical tight splash goggles (ANSI Z-87,1, or approved equal) required.
Respiratory - Not normally required if good ventilation is maintained. Use of an appropriate OSHA MSHA or NIOSH approved respirator in poorly ventilated areas is required.
Hand - Latex, vinyl, or rubber gloves are recommended but not required.
Other - Provide means of rinsing eyes (eyewash station) in case of emergency.

9. Physical and Chemical Properties

Physical State: Liquid.
Odor and Appearance: Milky white with slight ammonia odor.
Odor Threshold (ppm): no designation.
Specific Gravity (H2O = 1): 1.0 to 1.1
Vapor Density (air =1): no designation.
Vapor Pressure (mmHg): 17 @ 68 ° F (20 ° C)
Evaporation Rate (Ether = 1): no designation.
Boiling Point: 212 ° F (100 ° C)
Freezing Point: 32 ° F (0 ° C)
Melting Point: N/A
pH (in water): 10-12
Coefficient of Water / Oil Distribution: 75% (water).
(Solubility in Water): Dilutable.
Molecular Weight: Mixture.

10. Stability and Reactivity

Chemical Stability:

Stable at ambient temperatures, however, at temperatures above 350 ° F (177 ° C) polymer decomposition may occur.

Incompatibility with other substances:

None

Reactivity:

Acrylic monomer may be yielded under incomplete combustion of dried product; however, hazardous polymerization will not occur.

11. Toxicological Information

Effects of Acute Exposure:
Can cause slight irritation to the eyes, skin, and upper respiratory system, headache, dizziness, and mild nausea.

Effects of Chronic Exposure:
Vapors can cause inflammation of the lining tissue of the interior nose, throat, and upper respiratory system.

Irritancy of Product:
Exposure can affect the skin, eyes and mucous membranes.

Respiratory Sensitization:
Mild and temporary sore throat may occur with extended inhalation of vapors in poorly ventilated areas.

Carcinogenicity:
No carcinogens in concentrations of 0.1% or greater under OSHA, NTP, IARC, AGCIH, and Calif. Prop. 65.

NTP – Not classified
OSHA regulated – Not as a carcinogen
IARC Monographs – No
Calif. Prop. 65 - No

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 small quantities < 100 gallons (378.5 L) to municipal or industrial wastewater treatment plants, with prior approval from these authorities and in accordance with local, state, provincial, and federal regulations. For > 100 gallons (378.5l), disposal through a licensed disposal facility is recommended.

14. Transport Information

PIN - N/A
TDG - N/A
DOT - Classified as Non-hazardous, not regulated. Keep from freezing.
IMO - N/A
ICAO - N/A
IATA - Not regulated.

15. Regulatory Information

WHMIS Classification – N/A
OSHA – N/A
SARA – product does not contain any toxic chemicals subject to reporting requirements of Sec. 313 of The Superfund Amendments and Reauthorization Act of 1986.
TSCA – N/A

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
SiO0 - 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.