

Product Identifier: MAD FARMER™ Silica™
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1. IDENTIFICATION

Product Name: Mad Farmer™ Silica™

Product Description: Clear to slightly hazy, colorless liquid having no characteristic odor. This product is used in the agricultural industries.

Information provided by: South Coast Horticultural Supply, Inc.
26895 Aliso Creek Road B685
Aliso Viejo, CA 92656

Telephone: (310) 947-6158

In case of emergency call: 911

For transportation Emergency call CHEMTREC: 800-424-9300

2. HAZARD(S) IDENTIFICATION

NPFA 704 DESIGNATION HAZARD RATING	
4= Extreme	
3= High	
2= Moderate	
1= Slight	
0= Insignificant	

Emergency Overview: A clear to slightly hazy, colorless, alkaline liquid having no characteristic odor. The liquid and mists can be irritating, possibly severely, to the eyes. The liquid and mists can cause slight to moderate irritation to the skin and respiratory tract. This product may be corrosive to Aluminum, Copper, Magnesium, Lead, Tin and Zinc. This product, when dried, forms a glass film, which can easily cut the skin.

POTENTIAL HEALTH EFFECTS

Inhalation: Inhalation of mists can be irritating to the nose, mouth, throat, mucous membranes and lungs. Symptoms of exposure may include sneezing, coughing, choking, shortness of breath, and chest discomfort or pain. Inhalation of high mist concentrations may cause lung damage and possible impairment of lung function.

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Eye Contact: Exposure to the mists or liquid can cause eye irritation, possibly severe. Symptoms of exposure may include tearing, redness, swelling and a painful burning sensation. Exposure may cause corneal damage or visual impairment, unless treated promptly.

Skin Contact: Exposure to the mists or liquid may cause slight to moderate skin irritation. Symptoms of exposure may include redness, swelling and discomfort, or an itching, burning sensation. No published reports indicate this product is absorbed through the intact skin.

Ingestion: Ingestion may cause irritation to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, abdominal discomfort or pain, diarrhea and possible bleeding or ulceration.

Chronic Hazards: The chronic health effects of exposure to this product are expected to be the same as for acute exposure.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS#	OSHA Hazard	WT%	ACGIH		OSHA	
				TLV _(TWA)	STEL	PEL _(TWA)	STEL
Potassium Silicate	1312-76-1	Eye irritant; Slight to Moderate Skin and Respiratory Irritant	14 +/- 2	None	None	None	None

4. FIRST-AID MEASURES

Inhalation: If inhaled, immediately move to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

Eye Contact: In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower lids occasionally. Remove contact lenses, if worn. Get medical attention.

Skin Contact: In case of contact, flush skin with plenty of clean running water. Remove contaminated clothing and shoes and wash before reuse. If irritation occurs and persists, get medical attention.

Ingestion: If swallowed, give plenty of water to drink. Call a physician. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Note to Physicians: Treat exposure symptomatically.

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5. FIRE-FIGHTING MEASURES

Flashpoint and Method: This product does not flash.

Flammable Limits (in air, % by volume): **Lower:** Not applicable **Upper:** Not applicable

Autoignition Temperature: Not applicable

GENERAL HAZARD: This product is an alkaline, aqueous solution of an inorganic salt. The Uniform Fire Code health hazard classification for this product is **Irritant**. This product and solutions of this product may produce flammable/explosive Hydrogen gas on prolonged contact with Aluminum, Magnesium, Lead, Tin and Zinc. Spills of this product are slippery. This product may produce hazardous mists or hazardous decomposition products.

Fire Fighting Instructions: **Extinguishing Media:** Water, foam, CO₂ or dry chemicals. Use the extinguishing media appropriate for the surrounding fire. Use a water spray or fog to cool containers exposed to the heat of a fire.

Fire Fighting Equipment: Fire fighters should wear full protective equipment, including self-contained breathing apparatus.

Hazardous Combustion Products: When heated to dryness and decomposition, it can emit toxic silicon oxides and potassium oxide.

6. ACCIDENTAL RELEASE MEASURES

Land Spill: Wearing recommended protective equipment and clothing, dike the spill and pick up the bulk of liquid using pumps or a vacuum truck, or absorb the liquid in sand or a commercial absorbent. Place in approved containers for recovery, disposal, or satellite accumulation. Neutralize the alkalinity, of the remaining liquid, using a dilute acid solution appropriate for neutralizing alkaline liquids. Liberally cover the spill area with sodium bicarbonate. Flush the spill area with water; collect the rinsates for disposal or sewer, as appropriate.

Water Spill: Wear recommended protective equipment and clothing if contact with hazardous material can occur. Stop or divert water flow. Dike contaminated water and remove for disposal and/or treatment. As appropriate, notify all downstream users of possible contamination.

7. HANDLING AND STORAGE

Storage Temperature: Above 32°F (0°C)

Storage Pressure: Ambient

General: Store in a cool, dry area away from incompatible materials and products. Protect against product freezing. Protect eyes, skin and clothing from contact with this product. Wear recommended

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personnel protective equipment when handling this product. Avoid breathing mists or aerosols. Use with adequate ventilation. Keep the containers tightly closed when not in use. Wash thoroughly after handling this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Measures: Use a local or general, mechanical exhaust ventilation system capable of maintaining emissions, in the work area, below those levels that may cause irritation.

Recommended Personal Protective Equipment:

Respirator: A respirator is not normally required in handling and using this product. If use generates a mist or aerosol that may cause irritation, a NIOSH approved full facepiece or half mask air-purifying cartridge respirator equipped with a good mist/particulate cartridge or supplied air is recommended.

Eyes: Wear chemical goggles (recommended by ANSI Z87.1-1979), unless a full facepiece respirator is worn.

Gloves: Wear Nitrile, Butyl Rubber or Natural Rubber gloves.

Clothing and Equipment: Wear a Nitrile, Butyl Rubber or Natural Rubber apron when handling this product. An eye wash station and safety shower should be available in the work area.

Footwear: Wear Nitrile, Butyl Rubber or Natural Rubber boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear to slightly hazy, colorless	Bulk Density (pounds/ft ³):	Not applicable
Physical State:	Liquid	Vapor Pressure:	No data available
Odor:	No odor	Vapor density (air=1):	No data available
Odor Threshold:	No data available	Evaporation rate (n-Butyl Acetate=1):	Less than 1.0
Molecular Formula:	Mixture	VOC Content:	Nil
Molecular Weight:	Not applicable	% Volatile:	Approximately 86%
Boiling Point:	Greater than 100°C (212°F)	Solubility in H2O:	Complete
Freezing/Melting Point:	Less than 0°C (32°F)	Octanol/Water Partition Coefficient:	No data available
Specific gravity:	Approximately 1.113 @ 20°C	pH (as is):	11.0 to 12.0
Density (pounds/gallon):	Approximately 9.29	pH (1% solution):	No data available

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10. STABILITY AND REACTIVITY

General: This product is stable and hazardous polymerization will not occur.

Conditions to avoid: Freezing conditions.

Incompatible Material: Acids and acidic materials or products. Aluminum, Copper, Magnesium, Lead, Tin, Zinc and alloys of these metals.

Hazardous Decomposition Products: When heated to dryness and decomposition, it emits toxic oxides of silicon and sodium.

Sensitivity to Mechanical Impact: This product is NOT sensitive to mechanical impact.

Sensitivity to Static Discharge: This product is NOT sensitive to static discharge.

11. TOXICOLOGICAL INFORMATION

COMPONENTS:	Potassium Silicate
Eye Contact:	No data available
Skin Contact:	No data available
Oral Rat LD₅₀:	No data available
Dermal Rabbit LD₅₀:	No data available
Inhalation Rat LC₅₀:	No data available
Human Data:	No data available
Other Toxicological Data:	No data available
Carcinogenicity:	No data available
Teratogenicity:	No data available
Mutagenicity:	No data available
Synergistic Products:	None reported
Target Organs:	Eyes, Skin, Mucous membranes and Lungs
Medical Conditions Aggravated By Exposure	Skin or Respiratory disorders

(The hazards for this product are based on similar Sodium Silicate products)

12. ECOLOGICAL INFORMATION

Environmental Fate: This product is completely soluble in water. No specific environmental fate data is available on this product. This product can affect the pH of water.

Environmental Considerations: The aquatic toxicity for this product has not been determined. (The aquatic toxicity for Sodium Silicate is: Mosquito fish 96 hour TLm (fresh water)=2,320 ppm)

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13. DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 Classification: Non-RCRA Hazardous Waste

U.S. EPA Waste Number/Description: Not applicable

If this product is disposed of as shipped, it does not meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of a hazardous waste of Subpart C, nor is it listed as hazardous waste under Subpart D due to toxicity. As a non-RCRA hazardous liquid waste, it should be disposed of in accordance with all local, state, and federal regulations. Consult state or local officials for proper disposal method.

14. TRANSPORTATION INFORMATION

DOT Proper Shipping Name:	Not Restricted					
	Hazard Class:	Not applicable	UN Number:	Not applicable	Packing Group:	Not applicable
	Primary Label:	None required	Subsidiary Label(s):	None required		
	Primary/Subsidiary Placards:	None required				
DOT Reportable Quantity (RQ):	None listed	RQ for Product:	Not applicable			
Marine Pollutant:	No					
2008 North American Emergency Response Guidebook No.:				Not applicable		
TDG Proper Shipping Name:	NOT RESTRICTED					
	Hazard Class:	Not applicable	UN Number:	Not applicable	Packing Group:	Not applicable
	Primary Label:	None required	Subsidiary Label(s):	None required		
	Primary/Subsidiary Placards:	None required				
TDG Reportable Quantity (RQ):#	Not applicable					

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TDG Schedule XII:	Not applicable		
Regulated Limit (RL):##	None listed	RL for Product:	Not applicable
Other Shipping Information:	None		
<small># Canadian Transportation of Dangerous Goods Regulations (TDGR), Part IX, Table 1, Quantities or levels for Immediate Reporting: releases of reportable quantities, RQ, that meet the definition of a "dangerous occurrence" (a threat to life, health, property, or the environment) must be reported to the appropriate authorities as outlined in TDGR 9.13(1) and 9.14(1). ## Reporting to Environment Canada is required for any releases exceeding the regulated limits, RL, of 9.2 materials (primary or secondary). The regulated limits are found in Schedule XIII of the TDGR.</small>			

15. REGULATORY INFORMATION

COMPONENTS:	Potassium Silicate
OSHA Target Organs:	Eyes, Skin, Mucous membranes and Lungs
Carcinogenic Potential:	
Regulated by OSHA:	No
Listed on NTP Report:	No
Listed by IARC:	No
IARC group:	Not applicable
ACGIH Appendix A:	Not listed
A1 Confirmed Human:	Not applicable
A2 Suspected Human:	Not applicable
U.S. EPA Requirements:	
Release Reporting	
CERCLA (40 CFR 302)	
Listed Substance:	Not listed
Reportable Quantity:	Not applicable
Category:	Not applicable
RCRA Waste No:	Not applicable
Unlisted Substance:	Not applicable
Reportable Quantity:	Not applicable
Characteristic:	Not applicable
RCRA Waste No:	Not applicable
SARA TITLE III	

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Section 302 & 303 (40 CFR 355):	
Listed Substance:	Not listed
Reportable Quantity:	Not applicable
Planning Threshold:	Not applicable
Section 311 & 312 (40 CFR 370)	
Hazard Categories (product):	
Fire:	N
Sudden Release of Pressure:	N
Reactive:	N
Acute Health:	Y
Chronic Health:	N
Planning Threshold:	10,000 pounds
Section 313 (40 CFR 372):	
Listed Toxic chemical:	Not listed
Reporting Threshold:	Not applicable
U.S. TSCA Status	
Listed (40 CFR 710):	Yes
State Regulations	
State of California: Safe Drinking Water and Toxins Enforcement Act, 1986 (Proposition 65):	
Carcinogen:	No
Reproductive Toxin:	No
Other Regulations	
State Right to Know Laws:	None Known
Canadian Regulations	
Product Information:	
Controlled Product:	Yes
WHMIS HAZARD Symbols:	Corrosive Material
WHMIS Class & Division:	E
Ingredient Information:	
IDL Substance:	No
DSL or NDSL lists:	DSL

16. OTHER INFORMATION

EPA Registration number: Not applicable
Approved Product Uses: Not applicable

Special Notes:

This product is not formulated to contain any material, which the state of California has found to cause cancer and/or birth defects or other reproductive harm.

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Special Instructions:

Store Mad Farmer™ Silica™ in an area that is protected from freezing temperatures and away from incompatible materials and products. If mixed with acids or acidic materials, this product will form a gel that is insoluble in water.

Always clean up spills promptly as this product is slippery. If allowed to dry, this product can form a glass film, which can easily cut the skin.

Mad Farmer™ Silica™ may also etch glass if not rinsed off the glass surface.

SDS Revision Information: SDS-S2

Updated April 7, 2014.

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All information appearing in this document was based on data provided by third party sources and was compiled to comply with the Federal Hazard Communication Standard and the California Hazardous Substances Information and Training Act. The information is believed to be accurate as of the Update, but is not warranted as being the final authority in the use of this product. This information does not purport to be legal or medical advice.