



Material Safety Data Sheet



HMIS

Health Hazard	4
Fire Hazard	0
Reactivity	2

PPE (See Section 15)



Section 1. Chemical Product and Company Identification

Trade Name **Asbestos Test A1** Code RE2014

Manufacturer Haztech Systems, Inc.
PO Box 929
Mariposa, CA 95338

Commercial Name Hydrofluoric Acid, 48%

Synonyms

CAS # 7664-39-3

RTECS Not available.

TSCA TSCA 8(b) inventory:
Hydrofluoric acid

CI #

In case of emergency contact CHEMTREC
(24 hours) at 800-424-9300

HazTech Systems, Inc. 800-543-5487

Spectrum Chemical Mfg. Corp. 310-516-8000

Chemical Formula HF in H2O

Supplier Spectrum Chemical Mfg. Corp.
14422 S. San Pedro St.
Gardena, CA 90248

Section 2. Composition and Information on Ingredients

Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m3)	STEL	CEIL (mg/m3)	
Hydrogen Fluoride	7664-39-3				48%
Water	7732-18-5				52%

Toxicological Data on Ingredients Hydrogen Fluoride: LD50: Not available. LC50: Hydrofluoric acid: Inhalation rat LC50: 1276 ppm/1H

Section 3. Hazards Identification

Potential Acute Health Effects Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Exposure to hydrofluoric acid can produce harmful health effects that may not be immediately apparent.

Potential Chronic Health Effects Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.
 CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available.
 TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.
 Intake of more than 6 mg of fluorine per day may result in fluorosis, bone and joint damage. Hypocalcemia and hypomagnesemia can occur from absorption of fluoride ion into blood stream.

Section 4. First Aid Measures

Eye Contact	1) Irrigate eyes for at least 30 minutes with copious quantities of water, keeping the eyelids apart and away from eyeballs during irrigation. 2) Get competent medical attention immediately, preferably an eye specialist. 3) If a physician is not immediately available, apply one or two drops of ophthalmic anesthetic, (e.g., 0.5% Pontocaine Hydrochloride solution). 4) Do not use oily drops, ointment or HF skin burn treatments. Place ice pack on eyes until reaching emergency room.
Skin Contact	1) Remove the victim from the contaminated area and immediately place him under a safety shower or wash him with a water hose, whichever is available. 2) Remove all contaminated clothing. 3) Keep washing with large amounts of water for a minimum of 15 minutes. 4) 2.5% calcium gluconate gel should be massaged into the affected area. 6) Seek medical attention as soon as possible for all burns regardless of how minor they may appear. Get medical help immediately. If patient is unconscious, give artificial respiration or use inhalator. Keep patient warm and resting, and send to hospital after first aid is complete.
Inhalation	Get medical help immediately. If patient is unconscious, give artificial respiration or use inhalator. Keep patient warm and resting, and send to hospital after first aid is complete.
Ingestion	If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire and Explosion Data

Flammability	Non flammable.
Auto-Ignition Temperature	Not applicable.
Flash Point	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not applicable.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	Not applicable.
Special Remarks on Fire Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill	Collect liquid in an appropriate container or absorb with an inert material and place in a chemical waste container. Wash spill site with soda ash solution.
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Section 7. Handling and Storage

Precautions	If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes
Storage	Keep in HazCat Kit.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use in a well ventilated area.
Personal Protection	Gloves and goggles.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Colorless, fuming liquid.	Volatility	Not available
Molecular Weight	20.01	Odor Threshold	Not available
pH	1.0 (0.1M solution)	Water/Oil Dist. Coeff.	Not available
Boiling Point	108C (226F)	Ionicity (in Water)	Not available
Melting Point	< -36C (< -33F)	Dispersion Properties	Not available
Critical Temperature	Not available	Solubility	Water, infinitely soluble.
Specific Gravity	1.15 -1.18	Odor	Acrid odor. Do not breathe fumes.
Vapor Pressure	25 @ 20C (68F)	Taste	Not available
Vapor Density	1.97	Color	Variable

Section 10. Stability and Reactivity Data

Stability	Product is stable.	Corrosivity	Corrosive in presence of glass.
Instability Temperature	Not available.	Special Remarks on Corrosivity	Not available.
Conditions of Instability	Not available.	Polymerization	Will not polymerize.
Incompatibility with Various Substances	Many materials.		

Section 11. Toxicological Information

Route of Entry	Eye contact. Inhalation. Ingestion. Skin contact.
Toxicity to Animals	Inhalation rat LC50: 1276 ppm/1H
Chronic Effects on Humans	Intake of more than 6 mg of fluorine per day may result in fluorosis, bone and joint damage. Hypocalcemia and hypomagnesemia can occur from absorption of fluoride ion into blood stream.
Other Toxic Effects on Humans	Not available.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Not available.

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal Recycle to process, if possible. Consult your local or regional authorities.

Section 14. Transport Information

DOT Classification 8, 6.1, UN1790

Identification Not applicable.

Special Provisions for Transport Not applicable.

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations TSCA 8(b) inventory: Hydrofluoric acid

California Proposition 65 Warnings

Other Regulation OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other classifications WHMIS (Canada) Not available.

DSCL (EEC) Not available.

Section 16. Other Information

Catalog Number(s) RE2014

References Not available.

Other Special Considerations Not available.

Validated by R. Houghton 7/25/02

Verified by R. Turkington

Call 1-800-543-5487

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.