

Material Safety Data Sheet
J. R. Simplot Company
AgriBusiness

M17200

Trade Name: Fluorosilicic Acid (FSA)
Registration No: None

SECTION 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Manufacturer or Formulator: J.R. Simplot Company
P.O. Box 70013
Boise, Idaho 83707
Emergency Phone - Chemtrec: 1-800-424-9300

Product Name: Fluorosilicic Acid (FSA)
Common Name: Hydro Fluorosilicic Acid (HSA)

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name and Synonyms	C.A.S. No.	Chemical Formula	WT% Hazardous	TLV	PEL
Hydrofluorosilicic Acid	16961-83-4	H ₂ SiF ₆	25%	2.5 mg/m ³ (as F)	2.5 mg/m ³ (as F)

SECTION 3 HAZARDS IDENTIFICATION

Ingestion: Ingestion may cause severe corrosive effects: nausea, vomiting, abdominal pain.
Inhalation: Irritation to nose, throat and respiratory system; may be corrosive to respiratory system if not immediately remedied.
Eye Contact: Corrosive effect on contact: severe irritation, watering, redness and swelling of eyelids.
Skin Contact: May cause corrosive effect: irritation, redness or swelling of the skin.

SECTION 4 FIRST AID MEASURES

Ingestion: Consult a physician immediately in all cases, seek medical treatment. DO NOT INDUCE VOMITING. If patient is conscious rinse mouth with water.
Inhalation: Remove person from exposure area to fresh air and support breathing if necessary. Seek medical treatment.
Eyes: IMMEDIATELY flush eyes with fresh running water for 15-20 minutes. Seek medical treatment.
Skin: Remove contaminated clothing (under a shower if possible) and subject patient to deluge-type shower, if possible. Give continuous flow of water for 15-20 minutes to wash material off body. Treat for shock. Prompt medical consultation is essential.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing Media: Fires involving small amounts of combustibles may be smothered with suitable dry chemicals. Use water on combustibles in vicinity of this material but use care, as water applied directly to their acid results in evolution of heat and causes splattering.
Special Fire Fighting Procedures: Avoid any contact with acid. Wear full protective rubber clothing, gloves, boots, wear self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: Material will react with certain metals to produce hydrogen gas potentially explosive situations. Thermal degradation can produce toxic and corrosive fumes of fluorides.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled:
Treat with extreme caution. Zone off contaminated area. Dike area with sand or earth. Acid may be neutralized with hydrated lime (caustic soda ash may contribute soluble fluoride containing salt to the environment). Provide ventilation as needed and monitor for hydrogen reaction of some metals.

SECTION 7 HANDLING AND STORAGE

Precautions to be taken in handling and storing:
Store containers in cool, dry and well ventilated area away from sources of heat or ignition sources.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation Protection: Maintain adequate ventilation at all locations where acid is handled. Store in the open or in well ventilated buildings or sheds.
Respiratory Protection: An approved NIOSH acid gas respirator for HF. Under high concentrations, use self contained breathing apparatus.
Protective Clothing: Neoprene or rubber gloves; suit and boots where liquid or high vapor concentration is possible.
Eye Protection: Chemical splash-proof goggles and/or full face shield.
Other: Safety shower and eyewash fountain required.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	221°F	Solubility in Water:	Soluble
Specific Gravity:	1.2 @ 70°F	Vapor Pressure:	218 mmHg @ 167°F
Appearance:	Clear, colorless to pale straw liquid.	Odor:	Pungent irritating odor
Vapor Density:	NA	Evaporation Rate:	NA
pH:	1.0		

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SECTION 10

STABILITY AND REACTIVITY

Stability (Normal Conditions): Stable
Conditions to Avoid: High temperature above 194°F
Incompatibility (Material to Avoid): Strong alkalis, chlorites, combustible solids and organic peroxides.
Hazardous Decomposition Products: Corrosive fumes of fluorides
Hazardous Polymerization: Will not occur

SECTION 11

TOXICOLOGY INFORMATION

Toxicity by Ingestion: Oral LD₅₀ (guinea pig): 200 mg/kg
Toxicity by Inhalation: No data available

SECTION 12

ECOLOGICAL INFORMATION

No Data Available

SECTION 13

DISPOSAL CONSIDERATIONS

Waste Disposal Procedures: Neutralized waste may be disposed of in approved landfill. Consult with state and local environmental for appropriate facilities.

SECTION 14

TRANSPORT INFORMATION

Proper shipping name: Fluorosilicic Acid
Hazard Class: 8 (corrosive materials) **D.O.T. Number:** UN1778
Packaging Group: II
Refer to 49 CFR 172.101 Hazardous Materials Table for further provisions, packaging authorizations and quantity limitations.

SECTION 15

REGULATORY INFORMATION

This product does not contain toxic chemicals subject to the reporting requirements of SARA Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

SARA Section 311-312 Hazard Categories (40 CFR 370.2):

Fire: No Sudden Release of Pressure: No
Reactive: Yes Acute: Yes Chronic: Yes
Unlisted Substance: Yes, Reportable quantity 100 lbs Characteristic: D002; Corrosive

SECTION 16

OTHER INFORMATION

Hazard Rating (N.F.P.A.): Health: 3 Fire: 0 Reactivity: 0 Specific: None
This N.F.P.A. rating is a recommendation by the manufacturer using the guidelines or published evaluations prepared by the National Fire Protection Association (N.F.P.A.).

MSDS Version: 5 (revisions to product name and trade name)

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