

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 396.00

Revision Date: December 14, 2011

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Hydrofluoric Acid

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

### SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

Hydrofluoric acid, 48%

CAS#: 7664-39-3

### SECTION 3 — HAZARDS IDENTIFICATION

Clear, colorless, fuming liquid. Odorless.

Highly toxic by ingestion and inhalation. Extremely corrosive to skin, eyes, and all body tissues.

Inhalation of vapors may cause ulcers of the upper respiratory tract.

Avoid all body contact. Seek medical attention immediately.

Not for student use.

#### FLINN AT-A-GLANCE

Health-3

Flammability-0

Reactivity-2

Exposure-3

Storage-3

0 is low hazard, 3 is high hazard

### SECTION 4 — FIRST AID MEASURES

SPEED IS CRITICAL! - Call 911 IMMEDIATELY as first aid is given. Further medical assistance is necessary for all exposures.

Inhalation: Remove to fresh air at once. If breathing has stopped, give artificial respiration immediately.

Eye: Immediately flush with fresh water until medical assistance arrives.

External: Wash continuously with fresh water until medical assistance arrives. If available, apply 2.5% calcium gluconate gel.

Internal: Do NOT induce vomiting. Rinse mouth frequently. Give large quantities of water. Call a physician or poison control at once.

### SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable liquid.

When heated to decomposition, emits toxic and corrosive fluoride fumes.

**Fire Fighting Instructions:** Use a triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

H-4

F-0

R-1

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from the area. Remove all ignition sources and ventilate area. Contain the spill with sand or other inert absorbent material, neutralize with sodium bicarbonate or calcium hydroxide, and deposit in a sealed bag or container. See Sections 8 and 13 for further information.

### SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #9. Store with inorganic acids.

Hydrofluoric acid is incompatible with glass and all silicon-bearing materials; it should never be transferred to glass containers.

Use and dispense in a hood.

### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and a chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

Exposure guidelines: TWA 3 ppm, STEL 6 ppm (NIOSH)

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

Colorless, fuming liquid. Odorless.

Solubility: Soluble in water.

Formula: HF

Formula weight: 20.01

pH: &lt;2

Specific gravity: 1.1-1.2

Discontinued product

**SECTION 10 — STABILITY AND REACTIVITY**

Avoid contact with strong bases, most metals, water, and glass. Reacts violently with water.

Dangerously reactive with many materials.

Shelf life: Good, if stored safely in plastic bottle.

**SECTION 11 — TOXICOLOGICAL INFORMATION**

Acute effects: Poison, corrosive.

Chronic effects: Possible mutagen.

Target organs: Liver, kidneys, bones, body tissue.

ORL-RAT LD<sub>50</sub>: N.A.IHL-RAT LC<sub>50</sub>: 1276 ppm/1HSKN-RBT LD<sub>50</sub>: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

**SECTION 12 — ECOLOGICAL INFORMATION**

Data not yet available.

**SECTION 13 — DISPOSAL CONSIDERATIONS**

Please review all federal, state and local regulations that may apply, before proceeding.

Flinn Suggested Disposal Method #6 is one option.

**SECTION 14 — TRANSPORT INFORMATION**

Shipping name: Hydrofluoric acid, solution

Hazard class: 8, Corrosive, poison

UN number: UN1790

N/A = Not applicable

**SECTION 15 — REGULATORY INFORMATION**

TSCA-listed, EINECS-listed (231-634-8), RCRA code U134.

**SECTION 16 — OTHER INFORMATION**

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**Consult your copy of the *Flinn Science Catalog/Reference Manual*  
for additional information about laboratory chemicals.**