

## Material Safety Data Sheet (MSDS)

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### Section 1 — Chemical Product and Company Identification

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#### Hydrofluoric Acid

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

CHEMTREC Emergency Phone Number: (800) 424-9300

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### Section 2 — Composition, Information on Ingredients

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Hydrofluoric Acid, 48%

CAS#: 7664-39-3

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### Section 3 — Hazards Identification

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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

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### Section 4 — First Aid Measures

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Call a physician, seek medical attention for further treatment, observation and support after first aid.

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

Eye: Immediately flush with fresh water for 15 minutes, seek medical attention.

External: Wash continuously with fresh water for 15 minutes, seek medical attention.

Internal: Give 1 to 2 cups of water or milk, followed by a gastric antacid, such as milk of magnesia. Do not induce vomiting. Call a physician or poison control at once.

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### Section 5 — Fire Fighting Measures

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Non flammable liquid.

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

**Fire Fighting Instructions:** Use 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

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### Section 6 — Accidental Release Measures

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

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### Section 7 — Handling and Storage

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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.

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### Section 8 — Exposure Controls, Personal Protection

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Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and 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)

# FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

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Hydrofluoric Acid

MSDS #: 396.00

Revision Date: January 16, 2005

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### Section 9 — Physical and Chemical Properties

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Colorless, fuming liquid. Odorless.

Solubility: Soluble in water.

Formula: HF

Formula Weight: 20.01

Specific Gravity: 1.1-1.2

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### Section 10 — Stability and Reactivity

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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.

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### Section 11 — Toxicological Information

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Acute effects: Poison, corrosive

Chronic effects: Possible mutagen

Target organs: Liver, kidneys, bones, body tissue

ORL-RAT LD50: N.A.

IHL-RAT LC50: 1276 ppm/1H

SKN-RBT LD50: N.A.

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

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### Section 12 — Ecological Information

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Data not yet available.

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### Section 13 — Disposal Considerations

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Please consult with state and local regulations.

Flinn Suggested Disposal Method #6 is one option.

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### Section 14 — Transport Information

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Shipping Name: Hydrofluoric acid, solution

Hazard Class: 8, Corrosive, poison

UN Number: UN1790

N/A = Not applicable

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### Section 15 — Regulatory Information

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

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### Section 16 — Other Information

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Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

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