

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.

pH: <2

Solubility: Soluble in water.

Specific gravity: 1.1-1.2

Formula: HF

Formula weight: 20.01

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.

ORL-RAT LD₅₀: N.A.

Chronic effects: Possible mutagen.

IHL-RAT LC₅₀: 1276 ppm/1H

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

SKN-RBT LD₅₀: 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

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. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

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