Hydrofluoric Acid

1. Identification

Product Name: Hydrofluoric Acid
Item #: RW0394 **Web SDS:**
Synonyms: N/A
Recommended Use: Laboratory Reagent
Restrictions on Use: Any use other than recommended

Manufacturer:
BBC Biochemical
409 Eleanor Lane,
Mount Vernon, WA 98273
1-800-635-4477

In Case of Emergency:
Chemtrec US 1-800-424-9300
Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):
Acute Toxicity - Oral - Category 2
Acute Toxicity - Inhalation - Category 2
Acute Toxicity - Dermal - Category 1
Skin Corrosion - Category 1A
Eye Damage - Category 1

Signal Word: Danger

Hazard Statement(s): Fatal if swallowed. Fatal if inhaled. Fatal in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage.

Pictogram(s):

Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust, vapors. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation where IDLH, OSHA STEL or PEL values reached wear NIOSH approved respiratory protection. Do not get in eyes, on skin, or on clothing. Wear protective gloves and protective clothing. Do not breathe dusts or mists. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection, face protection.

Response: If swallowed: Immediately call a doctor. Rinse Mouth. Specific treatment (see first aid section on this label). If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor. Specific treatment is urgent (see first aid section on this label) If on skin: Wash with plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing

Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A
Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Hydrofluoric Acid		7664-39-3	49-50%

4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. See risks with skin exposure. Consult a physician immediately.

Skin Contact: If on skin (or hair): Hydrofluoric (HF) acid burns require immediate and specialized first aid and medical treatment.

Symptoms may be delayed up to 24 hours depending on the concentration of HF. Remove contaminated clothing and launder before reuse. Wash exposed area with lots of water. Immediately treat skin exposures with a 2.5% calcium gluconate gel repeated until burning ceases. More serious skin exposures may require subcutaneous calcium gluconate except for digital areas unless the physician is experienced in this technique, due to the potential for tissue injury from increased pressure. Absorption can readily occur through the subungual areas and should be considered when undergoing decontamination. Prevention of absorption of the fluoride ion in cases of ingestion can be obtained by giving milk, chewable calcium carbonate tablets or Milk of Magnesia to conscious victims. Conditions such as hypocalcemia, hypomagnesemia and cardiac arrhythmias should be monitored for, since they can occur after exposure. Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention immediately. Ingestion of small amounts can cause death. Show this safety data sheet to the doctor in attendance.

Symptoms: Irritation eyes, nose, throat; headache, dizziness

Recommendations for immediate medical care/special treatment: Get medical advice/attention immediately with any exposure.

5. Fire- Fighting Measures

Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam, water.

Fire Hazards (Chemical): Not flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Carbon monoxide and unidentified organic compounds may be formed during combustion.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Do not store in metal containers.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Hydrofluoric Acid	7664-39-3	3 ppm (2 mg/m3)

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Hydrofluoric Acid	7664-39-3	0.5 ppm	2 ppm

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Colorless, Liquid

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Molecular Weight: 20.01
Molecular Formula: HF
pH: Less than 1
Boiling Point and Boiling Range: N/A
Melting Point/Freezing Point: N/A
Flash Point: N/A
Specific Gravity/Relative Density: 1.16 g/cm3 at 20ºC
Odor: N/A
Odor Threshold: N/A
Color: Colorless
Flammability (solid/gas): N/A
Vapor Density: N/A
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: N/A
Evaporation Rate: N/A
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: N/A
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity: Not Reactive
Chemical Stability:
Conditions of Stability/Instability: Stable under normal conditions of temperature and pressure
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases, Metals, Alkali metals
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation. Corrosive to eyes. May cause redness, burning or permanent damage to cornea.

Skin: Irritation. Corrosive to skin. May cause redness, burning, and permanent scarring. Symptoms may be delayed up to 24 hours depending on the concentration of HF. Large skin exposure can cause death.

Inhalation: Dizziness, headache. Vapor is harmful to lungs. May cause burning sensation or death.

Ingestion: Nausea. Solution is corrosive and will cause burns to mouth, esophagus and stomach tissue. Ingestions of small amounts may cause death.

Signs or Symptoms of Exposure: Nausea.
Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.
Acute Toxicity (Numerical Measures): N/A
Carcinogenicity (NTP, IARC, OSHA): N/A

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12. Ecological Information

Ecotoxicity: N/A
Persistence and degradability: N/A
Bioaccumulation Potential (octanol-water partition coefficient, BCF): N/A
Mobility in the soil: N/A
Adverse Environmental Effects: N/A

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities*
Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*
Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*
Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*
Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: UN1790
UN Proper Shipping Name: Hydrofluoric Acid
Transport Hazard Class(es): 8 (6.1)
Packing Group Number: II
Environmental Hazards (IMDG code):
Marine Pollutant: No
Transport in Bulk (IBC Code): N/A
Special Transport Precautions: N/A

15. Regulatory Information

OSHA: N/A
DOT: N/A
EPA: N/A
CPSC: N/A

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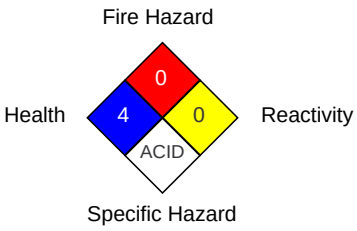
16. Other Information

Revision Date: 08/31/2015

NFPA

Health	4
Fire Hazard	0
Reactivity	0
Specific Hazard	ACID

National Fire Protection Association (USA) NFPA



HMIS

Health	4
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	4
Flammability	0
Physical Hazard	0
Personal Protection	

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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