

SAFETY DATA SHEET

SECTION 1 - COMPANY AND PRODUCT IDENTIFICATION

PRODUCT

Product Name: HYDROFLUORIC ACID

Control Number: 00290

Product Description: Strong Acid

COMPANY IDENTIFICATION

Supplier: Chemical Distribution Solutions
1125 Oak St. Ste. 303

24 Hour Emergency Telephone: (800) 424-9300 CHEMTREC

General Information: (501) 978-1111

SECTION 2- HAZARDS IDENTIFICATION

GHS Classification:

[Health]

[Environmental]

[Physical]

Acute toxicity, Oral Category 2

Acute toxicity, Inhalation Category 2

Acute toxicity, Dermal Category 1

Skin corrosion Category 1A

Serious eye damage Category 1

GHS Label elements, including precautionary statements

Pictograms



Signal Word: Danger

Hazard statement(s)

H300 + H310 + H330 Fatal if swallowed, in contact with skin or if inhaled

H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P262 Do not get in eyes, on skin, or on clothing.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P284 Wear respiratory protection.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/ physician.

P361 Remove/ Take off immediately all contaminated clothing.

P403 + P233 + P405 Store in a well-ventilated place. Keep container tightly closed. Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

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SECTION 3 · COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS Number	%WT
Hydrofluoric Acid	7664-39-3	11-59

SECTION 4 · FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. 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. After decontamination with water, further damage can occur due to penetration/absorption of the fluoride ion. Treatment should be directed toward binding the fluoride ion as well as the effects of exposure. Skin exposures can be treated 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. Move out of dangerous area.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5 · FIRE FIGHTING MEASURES

Suitable Extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Hazardous combustion products: Hydrogen chloride gas.

Fire Fighting Procedures: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Unusual Fire and Explosion Hazards: Non combustible.

SECTION 6 · ACCIDENTAL RELEASE and DISPOSAL MEASURES

Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.

Large Spill: Corrosive liquid. Stop leak if without risk. Absorb with dry earth, sand or other non-combustible material. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Neutralize the residue with a dilute solution of sodium carbonate.

SECTION 7 · STORAGE AND HANDLING

Handling: Keep container dry. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, organic materials, metals, alkalis, moisture. May corrode metallic surfaces.

Storage: Store in original container. Keep container tightly closed. Keep container in a cool, well-ventilated area.

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SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls: Use explosion-proof ventilation equipment. Provide ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below. The level of protection and types of controls will vary depending upon potential exposure conditions.

Exposure Limits: Hydrofluoric Acid 0.5 ppm ACGIH 3 ppm OSHA

Personal Protective Equipment (PPE):

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

Skin: If prolonged or repeated skin contact is likely, wear appropriate protective gloves.

Clothing: Selection of protective clothing depends on work conditions, potential exposure conditions and may include gloves, boots, suits and other protective items.

Respirators: Where adequate ventilation is not available an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of OSHA Respiratory Protection Standard, 29 CFR 1920.134. In confined areas, use a self-contained breathing apparatus.

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

Flash Point: Non-Combustible

Autoignition Temperature: No available data

Boiling Point: 152 °F

Melting Point/Freezing Point: -34 °F

Vapor Pressure: 130 mmHg

Vapor Density (Air-1): 0.7

Odor/Appearance: Colorless liquid with sharp pungent odor.

Flammability Limits: Not applicable

Specific Gravity: 1.235

Volatile %: No available data

Evaporation Rate (Water=1): <1

pH: ≤ 1

Solubility in Water: Complete

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable under normal use and temperature conditions.

Conditions to Avoid: Keep away from incompatible materials, water.

Incompatible Materials: Highly reactive with metals. Reactive with oxidizing agents, organic materials, alkalis, water.

Hazardous Polymerization: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Signs and Symptoms of Overexposure:

Skin: Corrosive. Causes severe skin irritation and burns.

Eyes: Corrosive. Causes severe eye irritation and/or conjunctivitis, burns, corneal necrosis.

Inhalation: May be fatal if inhaled. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract.

Ingestion: May be fatal if swallowed. Causes irritation and burning, ulceration, or perforation of the gastrointestinal tract and resultant peritonitis, gastric hemorrhage and infection.

Acute oral toxicity:

Hydrofluoric Acid LD50 rat: No published data

Acute inhalation toxicity:

Hydrofluoric Acid LC50 rat: No published data

Acute dermal toxicity:

Hydrofluoric Acid LD50 rabbit: No published data

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SECTION 12 · ECOLOGICAL INFORMATION

Aquatic Toxicity: No available data.

Bio-accumulative potential: Possibly hazardous short term degradation products are not likely.

Mobility: Accidental spillage may lead to penetration in the soil and leaching into groundwater.

SECTION 13 · DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

SECTION 14 · TRANSPORTATION

U.S. DEPARTMENT OF TRANSPORTATION (Road or Rail):

Proper Shipping Name: Hydrofluoric Acid
Hazard Class 8 (6.1)
UN Number: 1790
Packaging Group: 2
Marine pollutant: No

SECTION 15 · REGULATORY INFORMATION

US FEDERAL REGULATIONS

Comprehensive Environmental Response and Liability Act (CERCLA)

SARA 302: Hydrofluoric Acid in this material are subject to the reporting requirements of SARA Title III, Section 302. The reportable quantity (RQ) for this material is 208 pounds. If appropriate, immediately report to the National Response Center (800/424-8802) as required by U.S.Federal Law. Also contact appropriate state and local regulatory agencies.

Toxic Substance Control Act (TSCA): All components of this product are listed on the TSCA inventory list.

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Acute Health Hazard

SARA Section 313 (40 CFR 372) Hazard Categories:

The following components are subject to reporting levels established by SARA Title III, Section 313:
Hydrofluoric Acid.

Clean Water Act: This product contains Hydrofluoric Acid a chemical that are listed under the CWA.

Clean Air Act: This product contains Hydrofluoric Acid a chemicals that are listed under the CAA.

California Prop 65: This product contains no chemicals known by the State of California to cause cancer, birth defects or other reproductive harm.

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SECTION 16 · OTHER INFORMATION

SDS Revision Date: May 2015

National Fire Protection Association (NFPA) Ratings: This information is intended solely for the use of individuals trained in the NFPA system.

Health: 4

Flammability: 0

Reactivity: 0

The information contained on this Safety Data Sheet is considered accurate as of the date of publication. It is not necessarily all inclusive or fully adequate in every circumstance. The suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements. No warranty, express or implied, of merchantability, fitness, accuracy of data, or the results to be obtained from the use thereof is made. The vendor assumes no responsibility for injury or damages resulting from the inappropriate use of this product.