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SECTION 1: Chemical Product and Company Information

Product Name: SupraPure Hydrofluoric Acid 48%

Synonyms: Hydrofluoric Acid solution, Fluohydric acid, Fluoric acid

Recommended Use: Laboratory use Only

Company Identification: Atomika

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SECTION 2: Composition, Information on Ingredients

CAS#:	Chemical Name:	EINECS #:	Hazard Symbol:
7664-39-3	Hydrogen fluoride	231-595-7	

SECTION 3: Hazard Identification

EMERGENCY OVERVIEW

Harmful in contact with skin and if swallowed. Causes burns.

Potential Health Effects

Eye: Causes severe eye burns. May cause eye damage.

Skin: Causes severe skin burns. May be fatal in contact with skin.

Ingestion: Fatal if swallowed.

Inhalation: May cause respiratory irritation. May be fatal if inhaled.

Other: May be corrosive to metals

SECTION 4: First Aid Measures

General Advice: Immediate and specialised first aid and medical treatment is required. Speed is of the

essence. Flush with plenty of water immediately. Continue flushing during transport to

hospital or medical centre.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the

upper and lower eyelids. Immediate medical attention is required.

Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing

contaminated clothing and shoes. Immediate medical attention is required. Dermal burns may be treated with calcium gluconate gel or slurry in water or glycerine. This compound binds the active fluorides in an insoluble form and limits burn extension and pain. Soaking or immersion with ices 0.13% Benzalkonium chloride solution may be used for skin burns

and should be continued until the pain is relieved. Do not use in eyes.

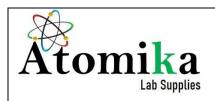
Ingestion: DO NOT induce vomiting. Call a physician or poison control centre immediately.

Inhalation: If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim

ingested or inhaled the substance; give artificial respiration with the aid or a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Immediate medical attention is required. A nebulized solution of 2.5% Calcium

gluconate may be administered with Oxygen by inhalation.

Most importantSymptoms and effects:
Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis in contraindicated. Possible perforation of stomach or oesophagus should be



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investigated. Ingestion causes sever swelling, severe damage to the delicate tissue and danger of perforation.

SECTION 5: Fire Fighting Measures

Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained General

Information: breathing apparatus to prevent contact with thermal decomposition products.

Extinguishing Dry chemical, CO₂ or water spray. Dry sand will be unsuitable as an extinguishing media.

Media: **Specific Hazards** This product causes burns of eyes, skin and mucous membranes. Contact with metals may evolve

from Chemical: flammable hydrogen gas. Non-combustible, substance itself does not burn but may decompose

upon heating to produce corrosive and/or toxic fumes.

SECTION 6: Accidental Release Measures

Personal Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure Precautions:

adequate ventilation. Use personal protective equipment as required. Do not get in eyes, on skin,

or on clothing. Environmental

Should not release into the environment. Do not flush into surface water or sanitary sewer system. Precautions:

Spills / Leaks: Soak up with inert absorbent material. Sweep up and shovel into suitable containers and for

disposal.

SECTION 7: Handling and Storage

Handling: Wear personal protective equipment / face protection. Do not breathe mist/vapours/spray. Do not

get into eyes, on skin, or on clothing. Do not ingest. If swallowed, then seek immediate medical

assistance.

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosive area. Do not store Storage:

in metal or glass containers. Incompatible materials: Metals, Cyanides, Sulfides, Bases, Fluorine.

SECTION 8: Exposure Controls, Personal Protection

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close **Engineering** Controls:

to the workstation location. Ensure adequate ventilation, especially in confined areas.

CAS #: 7664-39-3 (Hydrogen fluoride)

ACGIH TLV TWA: 0.5 ppm Ceiling: 2 ppm Skin

TWA: 2.5 mg/m³

OSHA PEL (Vacated) TWA: 3 ppm (Vacated) STEL: 6 ppm

> (Vacated) TWA: 2.5 mg/m³ TWA: 3 ppm IDLH: 30 ppm IDLH: 250 mg/m³

> TWA: 3 ppm Ceiling: 6 ppm TWA: 2.5 mg/m³ Ceiling: 5 mg/m³

Mexico OEL (TWA) TWA: 0.5 ppm Ceiling: 2 ppm

TWA: 2.5 mg/m³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA – Occupational Safety and Health Administration

NIOSH IDLH

NIOSH IDLH: NIOSH - National Institute of Occupational Safety and Health

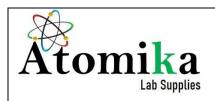
Personal Protective Equipment (PPE)

Eyes: Tight sealing safety goggles. Face protection shield.

Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in European Standard EN 149. Use an approved

respirator if exposure is exceeded or if irritation or other symptoms are experienced.



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Recommended

Acid gases filter; Type E; Yellow; conforming to regulation.

Filter Type:

SECTION 9: Physical and Chemical Properties

Physical State: Liquid

Colour: Clear colourless

Odour: Pungent pH: < 1.0

Vapour Pressure: No information available

Vapour Density: 2.21

Viscosity: No information available

Boiling Point: 105°C **Freezing/Melting Point:** -35°C

Autoignition Temperature: No information available **Flash Point:** No information available

Lower Explosion Limits:Not availableUpper Explosion Limits:Not availableDecompositionNot available

Temperature:

Solubility in Water: Soluble in water **Specific Gravity/Density:** 1.15 – 1.20

Molecular Formula: HF Molecular Weight: 20

SECTION 10: Stability and Reactivity

Reactive Hazard: None known based on information available.

Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Incompatible products. Excess heat.
Incompatibilities with Other Metals, Cyanides, Sulfides, Bases, Fluorine.

Materials:

Hazardous Decomposition Gaseous hydrogen fluoride (HF).

Products:

Other:

Hazardous Polymerization: Hazardous polymerization does not occur.

Hazardous Reactions: Corrosive to metals. Contact with metals may evolve flammable hydrogen gas.

SECTION 11: Toxicological Information

LD50/LC50: RTECS:

CAS #: 7664-39-3 (Hydrogen fluoride)

Oral: LD50 – Not Listed Dermal: LD50 – Not Listed

Inhalation: LC50 = 0.79 mg/ ℓ (Rat – 1h) Causes severe burns by all exposure routes.

SECTION 12: Ecological Information

Ecotoxicity: Do not empty into drains.

Persistence and Soluble in water. Persistence is unlikely based on information available. Miscible in

degradability: water.

Bioaccumulation: No information available.

Mobility: Will likely be mobile in the environment due to its water solubility.

Chemical Name	Algae/aquatic Plants	Fish	Microtox	Crustacea
Hydrogen fluoride 7647-01-0	-	LC50: 660 mg/ ℓ (48h, Leicoscis idus)	-	EC50: 270 mg/ ℓ (48h, Daphnia species)



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SECTION 13: Disposal Considerations

Waste Disposal Methods:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport Information

	DOT	ADR/RID	IMDG	ICAO-TI and IATA-DGR
Shipping Name:	Corrosive liquid, acidic, inorganic, n.o.s., hydrogen fluoride			
Hazard Class:	8	8	8	8
Subsidiary Hazard Class	6.1	6.1	6.1	6.1
UN Number:	1790	1790	1790	1790
Packing Group:	II	II	II	II

SECTION 15: Regulatory Information

European / International Regulations

Hazard Symbol: C - Oxidizing

E – Corrosive T+ - Toxic

Risk Phrases: R35 – Causes burns.

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed. R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed. R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed.

R36 – Irritating to eyes.

R41 – Risk of serious damage to eyes.

Safety Phrases: S10 - When using do not eat or drink.

S23 - Do not inhale gas/fumes/vapour/spray. S24/25 - Avoid contact with skin and eyes.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S27/28 - After contact with skin, take off immediately all contaminated clothing, and wash

immediately with plenty of water.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

S3/7/9 - Keep container tightly closed in a cool, well-ventilated place.

S45 - In case of accident or if you feel unwell seek medical advice immediately (show the label

where possible)

S61 - Avoid release to the environment. Refer to special instructions/safety data sheet.

SECTION 16: Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability of any other warranty, express of implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information to their particular purposes. In no event shall the company be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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