

# SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-21

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Hydrofluoric acid 48%  
Product Number : H485836  
Brand : aladdin  
CAS-No. : 7664-39-3

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION  
Address : 14078 Meridian Parkway,  
Riverside, CA. 92518  
Telephone : +1 (833) 552-7181  
Fax : no data available

### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300  
CHEMTREC®, Outside the USA :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 2), H300

Acute toxicity, Inhalation (Category 2), H330

Acute toxicity, Dermal (Category 1), H310

Skin corrosion (Category 1A), H314

### 2.2 GHS Label elements, including precautionary statements

Pictogram



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|                                   |                                                                                                                                  |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Signal word</b>                | <b>Danger</b>                                                                                                                    |
| <b>Hazard statement(s)</b>        |                                                                                                                                  |
| H314                              | Causes severe skin burns and eye damage                                                                                          |
| H300+H310+H330                    | Fatal if swallowed, in contact with skin or if inhaled                                                                           |
| <b>Precautionary statement(s)</b> |                                                                                                                                  |
| P260                              | Do not breathe dust/fume/gas/mist/vapors/spray.                                                                                  |
| P262                              | Do not get in eyes, on skin, or on clothing.                                                                                     |
| P264                              | Wash hands [and ...] 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                              | [In case of inadequate ventilation] Wear respiratory protection.                                                                 |
| P320                              | Specific treatment is urgent (see ... on this label).                                                                            |
| P321                              | Specific treatment (see ... on this label).                                                                                      |
| P330                              | Rinse mouth.                                                                                                                     |
| P363                              | Wash contaminated clothing before reuse.                                                                                         |
| P301+P330+P331                    | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.                                                                               |
| P302+P352                         | IF ON SKIN: wash with plenty of water.                                                                                           |
| P304+P340                         | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                                                       |
| P361+P364                         | Take off immediately all contaminated clothing and wash it before reuse.                                                         |
| P405                              | Store locked up.                                                                                                                 |
| P403+P233                         | Store in a well-ventilated place. Keep container tightly closed.                                                                 |
| P501                              | Dispose of contents/container to an approved waste disposal plant.                                                               |
| P301+P316                         | IF SWALLOWED: Get emergency medical help immediately.                                                                            |
| P305+P354+P338                    | IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. |
| P302+P361+P354                    | IF ON SKIN: Take off Immediately all contaminated clothing. Immediately rinse with water for several minutes.                    |
| P316                              | Get emergency medical help immediately.                                                                                          |

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

|                  |                     |
|------------------|---------------------|
| Synonyms         | : no data available |
| Formula          | : HF                |
| Molecular weight | : 20.01             |

| Component | Classification | Concentration |
|-----------|----------------|---------------|
| Water     |                |               |

| Component                                 | Classification                                                                                                                                                                                                        | Concentration |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| CAS-No. : 7732-18-5<br>EC-No. : 231-791-2 |                                                                                                                                                                                                                       |               |
| <b>Hydrofluoric acid</b>                  |                                                                                                                                                                                                                       |               |
| CAS-No. : 7664-39-3<br>EC-No. : 231-634-8 | Acute Tox. 2; Acute Tox. 1; Skin Corr. 1A; Eye Dam. 1; H300, H330, H310, H314, H318<br>Concentration limits: $\geq 7\%$ : Skin Corr. 1A, H314; $1 - < 7\%$ : Skin Corr. 1B, H314; $0,1 - < 1\%$ : Eye Irrit. 2, H319; |               |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this material 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.

#### 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 immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.

#### If swallowed

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

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Unsuitable extinguishing media

no data available

### 5.2 Special hazards arising from the substance or mixture

Hydrogen fluoride

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

Use water spray to cool unopened containers.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Normal measures for preventive fire protection. For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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### 7.3 Specific end use(s)

no data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU).

##### Skin protection

Gloves must be checked before use. Please use proper methods to remove the gloves (do not touch the outer surface of the gloves), and avoid any skin parts contacting the product. After use, please handle the contaminated gloves carefully according to relevant laws and regulations and effective laboratory rules and procedures. Please clean and blow dry the protective gloves selected for your hands must meet the specifications given in regulation (EU) 2016 / 425 and the en 374 standard derived from it.

##### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                            |                   |
|--------------------------------------------|-------------------|
| a) Appearance                              | no data available |
| b) Odour                                   | no data available |
| c) Odour Threshold                         | no data available |
| d) pH                                      | no data available |
| e) Melting point/freezing point            | -35°C             |
| f) Initial boiling point and boiling range | 105°C             |

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|                                                 |                   |
|-------------------------------------------------|-------------------|
| g) Flash point                                  | no data available |
| h) Evaporation rate                             | no data available |
| i) Flammability (solid, gas)                    | no data available |
| j) Upper/lower flammability or explosive limits | no data available |
| k) Vapour pressure                              | no data available |
| l) Vapour density                               | no data available |
| m) Relative density                             | no data available |
| n) Water solubility                             | no data available |
| o) Partition coefficient: n-octanol/water       | no data available |
| p) Auto-ignition temperature                    | no data available |
| q) Decomposition temperature                    | no data available |
| r) Viscosity                                    | no data available |
| s) Explosive properties N                       | no data available |
| t) Oxidizing properties N                       | no data available |

## 9.2 Other safety information

no data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

Hydrogen fluoride

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

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**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitisation**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

no data available

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Additional Information**

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## SECTION 12: Ecological information

### 12.1 Toxicity

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no data available

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## SECTION 13:

### 13.1 Disposal considerations

#### Product

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

#### DOT (US)

UN number: 1790

Packing group: II

Class: 8 (6.1)

Proper shipping name:

Reportable Quantity(RQ): no data available

Poison Inhalation Hazard: no data available

HYDROFLUORIC ACID

Environmental Hazards: no

#### IMDG

UN number: 1790

Packing group: II

EMS-No: no data available

Proper shipping name: HYDROFLUORIC ACID

#### IATA

UN number: 1790

Packing group: II

Class: 8 (6.1)

Proper shipping name: HYDROFLUORIC ACID

## SECTION 15: Regulatory information

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

## SECTION 16: Other information

#### Prepared By

Regulatory Affairs

ALADDIN SCIENTIFIC CORPORATION

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