

ALADDIN SCIENTIFIC CORPORATION  
14078 Meridian Parkway, Riverside, CA. 92518

# SAFETY DATA SHEET

Version: v1  
Revision Date: 2024-01-16  
Print Date: 2024-01-23

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

### 1.1 Product identifiers

Product name : Ammonium fluoride  
Product Number : A400053  
Brand : aladdin  
CAS-No. : 12125-01-8

### 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)

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 3), H311

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H301+H311+H331

Toxic if swallowed, in contact with skin or if inhaled

Precautionary statement(s)

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P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
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.
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.
P302+P352+P312	IF ON SKIN: Wash with plenty of water.Call a POISON CENTER/ doctor if you feel unwell.
P301+P312+P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P304+P340+P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing.Call a POISON CENTER or doctor. if you feel unwell.

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

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Synonyms	: no data available
Formula	: H4FN
Molecular weight	: 37.04
CAS No.	: 12125-01-8
EC-NO.	: 235-185-9

Component	Classification	Concentration
Ammonium fluoride	Acute Tox. 3; H301, H331, H311	98%

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General advice

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. Countermeasurements must be implemented at once. First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. Keep respiratory tract clear. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

First treatment with calcium gluconate paste. After contact with skin: Rinse with plenty of water for at least 10 minutes. Immediately remove contaminated clothes. Apply calcium gluconate gel (preparation: boil 5 g of calcium gluconate in 85 ml of hot distilled water, add 10 g glycerol. Allow 5 g of Carmellose-sodium to swell in the hot solution. Stable for 6 months, store in a cool place) and massage into the skin until the pain subsides, in between rinse with water and apply fresh gel. Continue gel therapy for another 15 minutes after the pain has subsided. If no calcium gluconate gel is available, apply several dressings thoroughly moistened with 20 % calcium gluconate solution. Medical advice absolutely required! Call a physician immediately.

In case of eye contact

After contact with eyes: Rinse with plenty of water keeping eyelids open, protecting the unaffected eye (at least 10 minutes). Seek medical advice immediately! Remove contact lenses.

If swallowed

After swallowing: Immediately give to drink plenty of water, add calcium (in the form of calcium gluconate or calcium lactate). Caution: In the case of vomiting risk of perforation! Administer more calcium gluconate solution. Laxative: Sodium sulfate (1 tablespoon/1/4 l water). Seek medical advice immediately. Ensure that injured persons remain calm and protect them against heat loss.

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

no data available

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

Note for the doctor: It is recommended to consult a doctor with experience in the treatment of lesions caused by hydrofluoric acid. If a systemic effect is suspected, monitoring and treatment in an intensive care unit is urgently required. Caution, ventricular fibrillation due to electrolyte imbalance.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

no data available

Unsuitable extinguishing media

no data available

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

Nitrogen oxides (NO<sub>x</sub>) Hydrogen fluoride Not combustible. Ambient fire may liberate hazardous vapours.

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

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**5.4 Further information**

Use water spray to cool unopened containers.

**SECTION 6: Accidental release measures**

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

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

**6.2 Environmental precautions**

Do not let product enter drains.

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

Cover drains. Collect, bind, and pump off spills.

**6.4 Reference to other sections**

For disposal see section 13.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

Work under hood. Do not inhale substance/mixture. Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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

Keep the container closed and store it in a dry, ventilated and cool place. Hygroscopic.

**7.3 Specific end use(s)**

no data available

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

Hazard composition and occupational exposure limits

Component	CAS No	value	Control parameter	foundation

Ammonium fluoride	12125-01-8	PC-TWA	2 mg/m3	Occupational exposure limits for occupational hazards in the workplace-chemical hazards
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## 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 EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU)2016/425 and the standard EN 374 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 particle respirator type N100 (US) or type P3 (EN 143) 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

If it is safe, prevent further leakage or spillage and do not allow the product to enter the sewer system.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |  |   |
|--|---|
| a) Appearance                              | form: Powder or Crystals or Granules or Chunks color: White |
| b) Odour                                   | no data available   |
| c) Odour Threshold                         | no data available   |
| d) pH                                      | no data available   |
| e) Melting point/freezing point            | no data available   |
| f) Initial boiling point and boiling range | no data available   |
| g) Flash point                             | no data available   |
| h) Evaporation rate                        | no data available   |
| i) Flammability (solid, gas)               | no data available   |

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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	0.802
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

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## 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

Reacts dangerously with glass

### 10.5 Incompatible materials

glass

### 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

Skin corrosion/irritation

no data available

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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

RTECS: BQ6300000

Fluoride ion can reduce serum calcium levels possibly causing fatal hypocalcemia.

Salivation, Nausea, Vomiting, Fever, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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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.

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**SECTION 14: Transport information****DOT (US)**

UN number: 2505

Packing group: III

Class: 6.1

Proper shipping name: Ammonium  
fluorideReportable Quantity(RQ): no data  
availablePoison Inhalation Hazard: no data  
available

Environmental Hazards: No

**IMDG**

UN number: 2505

Packing group: III

EMS-No: no data available

Proper shipping name: Ammonium fluoride

**IATA**

UN number: 2505

Packing group: III

Class: 6.1

Proper shipping name: Ammonium fluoride

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**SECTION 15: Regulatory information**

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

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**SECTION 16: Other information****Prepared By**

Regulatory Affairs

ALADDIN SCIENTIFIC CORPORATION

Email: QualityAssurance@aladdinsci.com

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