



Safety Data Sheet

Ammonium Fluoride 40%

SECTION 1: Identification

1.1 GHS Product identifier

Product name Ammonium Fluoride 40%

1.2 Other means of identification

Ammonium Fluoride solution

1.3 Recommended use of the chemical and restrictions on use

Industrial, Manufacturing or Laboratory use

1.4 Supplier's details

Name High Purity Products
Address 14546 N. Lombard Street
Portland OR 97203
United States of America

Telephone 503-227-1616
email help.desk@highpp.com

1.5 Emergency phone number

CHEMTREC: 1-800-424-9300

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Acute toxicity, dermal, Cat. 3
- Acute toxicity, inhalation, Cat. 3
- Eye damage/irritation, Cat. 1
- Acute toxicity, oral, Cat. 4

2.2 GHS label elements, including precautionary statements

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Pictogram



Signal word

Danger

Hazard statement(s)

H301 Toxic if swallowed
H311 Toxic in contact with skin
H318 Causes serious eye damage
H331 Toxic if inhaled
H302 Harmful if swallowed

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash 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 eye protection/face protection/protective gloves/protective clothing.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P302+P352 IF ON SKIN: Wash with plenty of water/...
P304+P340 IF INHALED: Remove person to fresh air and keep 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/doctor/...
P312 Call a POISON CENTER if you feel unwell.
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Components	Cas Number	Concentration
Ammonium Fluoride	12125-01-8	39 - 41 % (weight)
Water	7732-18-5	59 - 61 % (weight)

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

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

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical

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attention/advice. Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

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/effects, acute and delayed

No data available.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

For large exposures, systemic effects (hypocalcemia and hypomagnesia) may occur

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Not considered to be a fire hazard.

5.2 Specific hazards arising from the chemical

If involved in a fire, can emit toxic fumes and irritating and corrosive gases.

5.3 Special protective actions for fire-fighters

Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

6.2 Environmental precautions

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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components	Cas Number	Concentration
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Ammonium Fluoride	12125-01-8	No Limit
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8.2 Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms



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.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face 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).

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Liquid
Appearance	Clear Liquid
Color	Colorless
Odor	Slight smell
Odor threshold	No data available.
pH	6.2-7.0
Melting point/freezing point	-30 °C (-22 °F)
Boiling point or initial boiling point and boiling range	109°C (228°F)
Flash point	Not Flammable
Evaporation rate	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Density and/or relative density	1.111 g/cm3
Solubility	Miscible
Partition coefficient n-octanol/water (log value)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Particle characteristics

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No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

None under normal use conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reaction with strong acids to produce hazardous HF gas or Hydrofluoric Acid, with strong bases to yield Ammonia. Avoid strong oxidizing agents. Corrodes glass and metals.

10.4 Conditions to avoid

Glass, high temperatures.

10.5 Incompatible materials

Oxidizing agents.

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions – Nitrogen oxides (NO_x), Hydrogen Fluoride, Ammonia.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

The ATE (dermal) of the mixture is: 731.71 mg/kg

The ATE (gas inhalation) of the mixture is: 1707.32 ppmV

The ATE (dusts-mists inhalation) of the mixture is: 1.22 mg/l

The ATE (oral) of the mixture is: 243.9 mg/kg

Skin corrosion/irritation

Irritation, burns, dermatitis.

Serious eye damage/irritation

Irritation, burns

Respiratory or skin sensitization

Irritation, chills, difficulty breathing, coughing, fever.

Germ cell mutagenicity

No data available.

Carcinogenicity

Not classifiable as a human carcinogen.

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

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No data available.

Aspiration hazard

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

Toxicity

The LC50/96-hour values for fish are over 100 mg/l.

Persistence and degradability

The substance is harmful to aquatic organisms

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

SECTION 13: Disposal considerations

Product disposal

Waste material must be disposed of in accordance with the national and local regulations.

Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

DOT (US)

UN Number: UN2505

Class: 6.1

Packing Group: III

Proper Shipping Name: Ammonium fluoride solution

Reportable quantity (RQ): 100 lbs

Marine pollutant: No

IMDG

UN Number: UN2505

Class: 6.1

Packing Group: III

Proper Shipping Name: Ammonium fluoride solution

IATA

UN Number: UN2505

Class: 6.1

Packing Group: III

Proper Shipping Name: Ammonium fluoride solution

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Massachusetts Right To Know Components

Chemical name: Ammonium fluoride

CAS number: 12125-01-8

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New Jersey Right To Know Components

Common name: AMMONIUM FLUORIDE

CAS number: 12125-01-8

Pennsylvania Right To Know Components

Chemical name: Ammonium fluoride

CAS number: 12125-01-8

Canadian Domestic Substances List (DSL)

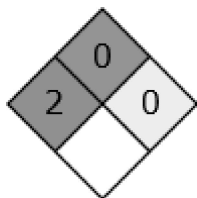
Chemical name: Ammonium fluoride ((NH₄)F)

CAS: 12125-01-8

HMIS Rating

Ammonium Fluoride 40%	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

NFPA Rating



SECTION 16: Other information

Disclaimer:

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