

MATERIAL SAFETY DATA SHEET
Ammonium fluoride

Section 1 - Chemical Product and Company Identification

MSDS Name: Ammonium fluoride
Catalog Numbers: 20184-0000, 20184-1000, 20184-5000, 42329-0000, 42329-0050, 42329-5000
Synonyms:
Company Identification: Acros Organics BVBA
 Janssen Pharmaceuticaaan 3a
 2440 Geel, Belgium
Company Identification: (USA) Acros Organics
 One Reagent Lane
 Fair Lawn, NJ 07410
For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
12125-01-8	Ammonium fluoride	>98%	235-185-9

Hazard Symbols: T



Risk Phrases: 23/24/25

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Toxic by inhalation, in contact with skin and if swallowed.

Potential Health Effects

Eye: Contact with eyes may cause severe irritation, and possible eye burns.
Skin: May cause deep, penetrating ulcers of the skin. May cause severe irritation and possible burns. Toxic in contact with skin.
Ingestion: May cause vascular collapse and damage. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death. May cause hemorrhaging of the digestive tract. Toxic if swallowed.
Inhalation: Causes delayed lung injury. May cause respiratory tract irritation. May cause severe respiratory tract irritation. Toxic if inhaled.

Chronic: Chronic inhalation and ingestion may cause chronic fluoride poisoning (fluorosis) characterized by weight loss, weakness, anemia, brittle bones, and stiff joints.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical aid immediately. Wash mouth out with water.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Section 5 - Fire Fighting Measures

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

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions.

Section 7 - Handling and Storage

Handling: Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.

Storage: Store in a cool, dry place. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Keep away from acids. Keep away from strong bases.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

CAS# 12125-01-8:

United Kingdom, WEL - TWA: (fluorides, inorganic): 2.5 mg/m³ TWA (as F) United Kingdom, WEL - STEL: (fluorides, inorganic): 6.25 mg/m³ STEL (as F)

United States OSHA: 2.5 mg/m³ TWA (as F) (Fluorides).2.5 mg/m³ TWA (as F) (Fluorides and Hydrogen fluoride).

Belgium - TWA: (fluorides, inorganic): 2.5 mg/m³ VLE (as F)

France - VME: (fluorides and hydrogen fluoride): 2.5 mg/m³ VME (as F)

Germany: (fluorides and hydrogen fluoride): 2.5 mg/m³ VME (as F)

Malaysia: (fluorides and hydrogen fluoride): 2.5 mg/m³ TWA (as F)

Netherlands: (fluorides and hydrogen fluoride): 3.5 mg/m³ STEL (as F)

Russia: 0.2 mg/m³ TWA (aerosol, as F)

Spain: (fluorides, inorganic): 2.5 mg/m³ VLA-ED (except uranium hexafluoride, as F)

Personal Protective Equipment

- Eyes:** Wear chemical splash goggles.
- 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 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

- Physical State:** Crystalline powder
- Color:** white
- Odor:** odorless
- pH:** 6 (5% aq. solution)
- Vapor Pressure:** Not available
- Viscosity:** Not available
- Boiling Point:** Not available
- Freezing/Melting Point:** Not available
- Autoignition Temperature:** Not available
- Flash Point:** Not available
- Explosion Limits: Lower:** Not available
- Explosion Limits: Upper:** Not available
- Decomposition Temperature:**
- Solubility in water:** Soluble
- Specific Gravity/Density:**
- Molecular Formula:** H4FN
- Molecular Weight:** 37.04

Section 10 - Stability and Reactivity

- Chemical Stability:** Stable under normal temperatures and pressures. Hygroscopic: absorbs moisture or water from the air.
- Conditions to Avoid:** Incompatible materials, moisture, contact with water, excess heat.
- Incompatibilities with Other Materials:** Water, Contact with water liberates highly flammable gases., strong oxidizing agents, acids, bases, glass.
- Hazardous Decomposition Products:** Oxides of nitrogen, hydrogen fluoride gas, ammonia and/or derivatives.
- Hazardous Polymerization:** Has not been reported.

Section 11 - Toxicological Information

- RTECS#:** CAS# 12125-01-8: BQ6300000
- LD50/LC50:** RTECS: Not available.
- Carcinogenicity:** Ammonium fluoride - IARC: Group 3 (not classifiable) (Fluorides, inorganic).
- Other:** The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	AMMONIUM FLUORIDE	AMMONIUM FLUORIDE	AMMONIUM FLUORIDE
Hazard Class:	6.1	6.1	6.1
UN Number:	2505	2505	2505
Packing Group:	III	III	III

USA: Combustible liquid in bulk.

USA Toxic Inhalation Hazard

USA RQ: CAS# 12125-01-8: 100 lb final RQ; 45.4 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T

Risk Phrases:

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

Safety Phrases:

S 1/2 Keep locked up and out of reach of children.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 12125-01-8: 1

Canada

CAS# 12125-01-8 is listed on Canada's DSL List

US Federal

TSCA

CAS# 12125-01-8 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 7/16/1996

Revision #1 Date 6/25/2004

Revisions were made in Sections: General revision.

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