

MSDS# 01230

Section 1 - Chemical Product and Company Identification

MSDS Name: Ammonium fluoride

Catalog Numbers: AC201840000, AC201840025, AC201841000, AC201845000, AC423290000, AC423290050

Synonyms: Neutral ammonium fluoride.

Company Identification: Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100  
Emergency Number US: 201-796-7100  
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 12125-01-8  
Chemical Name: Ammonium fluoride  
%: 96+  
EINECS#: 235-185-9

Hazard Symbols: T



Risk Phrases: 23/24/25

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Hygroscopic (absorbs moisture from the air). Causes burns by all exposure routes. Toxic if swallowed, inhaled or absorbed through the skin. Target Organs: Blood, respiratory system, gastrointestinal system, skeletal structures, eyes, skin.

Potential Health Effects

Eye: Causes eye burns.

Skin: Causes skin burns. Toxic in contact with skin.

Ingestion: Causes gastrointestinal tract burns. Toxic if swallowed.

Inhalation: Causes chemical burns to the respiratory tract. 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. Chronic exposure may cause blood effects. Skeletal effects may include bone brittleness, joint stiffness, teeth discoloration, tendon calcification, and osteosclerosis.

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.

Ingestion: Do not induce vomiting. Get medical aid immediately. Call a poison control center.

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance:

Inhalation: induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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. Substance is noncombustible.

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

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 3; flammability: 0; instability: 1;

#### 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. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions. Provide ventilation. Evacuate unnecessary personnel. Do not let this chemical enter the environment.

#### Section 7 - Handling and Storage

Handling: Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only in a chemical fume hood.

Storage: Store in a cool, dry place. Store in a tightly closed container. Water free area.

#### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ammonium fluoride	2.5 mg/m3 TWA (as F) (listed under Fluorides).	2.5 mg/m3 TWA (inorganic solids, as F, listed under sodium fluoride) (listed under Fluorides, inorganic).	2.5 mg/m3 TWA (as dust) (listed under Fluorides). 2.5 mg/m3 TWA (as F) (listed under Fluorides).

OSHA Vacated PELs: Ammonium fluoride: 2.5 mg/m3 TWA (listed under Fluorides)

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

#### Section 9 - Physical and Chemical Properties

Physical State: Solid  
Color: white  
Odor: odorless  
pH: 6 (5% aq.sol.)  
Vapor Pressure: Not available  
Vapor Density: Not available  
Evaporation Rate: Not available  
Viscosity: Not available  
Boiling Point: Not available  
Freezing/Melting Point: Not available  
Decomposition Temperature: Not available  
Solubility in water: Soluble  
Specific Gravity/Density: Not available.  
Molecular Formula: H4FN  
Molecular Weight: 37.04

#### Section 10 - Stability and Reactivity

Chemical Stability: Hygroscopic: absorbs moisture or water from the air.  
Conditions to Avoid: Incompatible materials, dust generation, excess heat, exposure to moist air or water.  
Incompatibilities with Other Materials: Metals, strong oxidizing agents, strong acids, strong bases.  
Hazardous Decomposition Products: Oxides of nitrogen, hydrogen fluoride gas, ammonia and/or derivatives.  
Hazardous Polymerization: Will not occur.

#### Section 11 - Toxicological Information

RTECS#: CAS# 12125-01-8: BQ6300000  
LD50/LC50: RTECS: Not available. Other:  
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

Other: Do not empty into drains.

#### Section 13 - Disposal Considerations

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

#### Section 14 - Transport Information

#### US DOT

Shipping Name: AMMONIUM FLUORIDE  
Hazard Class: 6.1  
UN Number: UN2505  
Packing Group: III  
Canada TDG  
Shipping Name: AMMONIUM FLUORIDE  
Hazard Class: 6.1  
UN Number: UN2505  
Packing Group: III

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 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

Canadian WHMIS Classifications: D1B, E

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 12125-01-8 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

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

Section 16 - Other Information

MSDS Creation Date: 6/15/1999

Revision #7 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or 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 for 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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