



SAFETY DATA SHEET

Ammonium Fluoborate

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION		
Product Name	Ammonium Fluoborate	
Product Codes	182 001	
CAS#	13826-83-0	
Synonym	Ammonium tetrafluoroborate; Ammonium Borofluoborate	
Product Use	Industrial, Manufacturing or Laboratory use	
Chemical Formula	NH ₄ BF ₄	
Contact Information	OFFICE : Madras Fluorine Private Ltd No.71, 4 th Main Road Gandhi Nagar, Adyar Chennai 600 020, India E-mail : exim@mfplfluorine.com	FACTORY Madras Fluorine Private Ltd Express Highway Manali Chennai – 600 068, India
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SECTION 2 : HAZARDS IDENTIFICATION

OSHA Hazards: Corrosive

Target Organs: None

Signal Word: Danger

Pictograms:



GHS Classification:

Skin irritation Category 1

Serious eye damage Category 1



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GHS Label Elements, including precautionary statements:

Hazard Statements:

H314 Causes severe skin burns and eye damage.

Precautionary Statements:

P260 Do not breathe dusts or mists.
 P264 Wash hands thoroughly after handling.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do not induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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/physician.
 P363 Wash contaminated clothing before reuse.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local regulations.

Potential Health Effects

Eyes Causes eye burns.
Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Ingestion May be harmful if swallowed.

SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	Formula	Molecular Weight
Ammonium Fluoroborate	>99	13826-83-0	NH ₄ BF ₄	104.86 g/mol

SECTION 4 : FIRST AID MEASURES

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.



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Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

SECTION 5 : FIRE –FIGHTINGS MEASURES

Suitable (and unsuitable) extinguishing media	Product is not flammable. Use appropriate media for adjacent fire. Cool unopened containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (borane, boron oxides, hydrogen fluoride, boron trifluoride, ammonia) under fire conditions. (See also Stability and Reactivity section).

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill:

Corrosive solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.



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SECTION 7 : HANDLING AND STORAGE

Precautions:

Keep container dry. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. May corrode glass. Store in an appropriate container.

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area.

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

Not available.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance	Solid. (Crystalline solid.)
Odor	Not available.
Taste	Not available.
Molecular Weight	104.84 g/mole
Color	Colorless to light yellow.
pH (1% soln/water)	Not available.
Boiling Point	Decomposes.



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Melting Point	230°C (446°F)
Critical Temperature	Not available.
Specific Gravity	1.871 (Water = 1)
Vapor Pressure	Not applicable.
Vapor Density	Not available.
Volatility	Not available.
Odor Threshold	Not available.
Water/Oil Dist. Coeff.	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	See solubility in water, methanol.
Solubility	Soluble in cold water. Partially soluble in methanol.

SECTION 10 : STABILITY AND REACTIVITY
Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Not available.
Incompatibility with various substances: Not available.
Corrosivity: Corrosive in presence of glass.
Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: Will not occur.



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SECTION 11 : TOXICOLOGICAL INFORMATION
<p>Routes of Entry: Eye contact. Inhalation. Ingestion.</p> <p>Toxicity to Animals: LD50: Not available. LC50: Not available.</p> <p>Other Toxic Effects on Humans: Extremely hazardous in case of skin contact (irritant), of ingestion, of inhalation.</p> <p>Special Remarks on Toxicity to Animals: Not available.</p> <p>Special Remarks on Chronic Effects on Humans: Chronic exposure to fluorides may damage kidneys and cause fluorosis.</p> <p>Special Remarks on other Toxic Effects on Humans: Not available.</p>

SECTION 12 : ECOLOGICAL INFORMATION
<p>Ecotoxicity: Not available.</p> <p>BOD5 and COD: Not available.</p> <p>Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.</p> <p>Toxicity of the Products of Biodegradation: The products of degradation are more toxic.</p> <p>Special Remarks on the Products of Biodegradation: Not available.</p>

SECTION 13 : DISPOSAL CONSIDERATIONS
<p>Waste treatment methods</p> <p>Product Offer surplus and non-recyclable solutions to a licensed disposal company.</p> <p>Contaminated packaging Dispose of as unused product.</p>

SECTION 14 : TRANSPORT INFORMATION

US DOT	UN1759, Corrosive solids, n.o.s., (ammonium fluoroborate), 8, pg II
TDG	UN1759, CORROSIVE SOLIDS, N.O.S., (AMMONIUM FLUOROBORATE), 8, PG II
IMDG	UN1759, CORROSIVE SOLIDS, N.O.S., (AMMONIUM FLUOROBORATE), 8, PG II
Marine Pollutant	No
IATA/ICAO	UN1759, Corrosive solids, n.o.s., (ammonium fluoroborate), 8, pg II



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SECTION 15 : REGULATORY INFORMATION

Federal and State Regulations:

Pennsylvania RTK: Ammonium fluoborate
Massachusetts RTK: Ammonium fluoborate
TSCA 8(b) inventory: Ammonium fluoborate
CERCLA: Hazardous substances.: Ammonium fluoborate

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada): CLASS E: Corrosive solid.

DSCL (EEC):

R38- Irritating to skin.
R41- Risk of serious damage to eyes.

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 0

Reactivity: 0

Personal Protection: j

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.



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SECTION 16 : OTHER INFORMATION

References: Not available.

Other Special Considerations: Not available.

Creation Date : 18.9.2000

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