



MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

- **Product name:** AMMONIUM FLUORIDE
- **Manufacturer:** Deep South Chemical, Inc.
229 Millstone Road
Broussard, LA 70518 (337) 837-9931
- **For Emergency : Call CHEMTREC 1-800-424-9300**
Outside the U.S.A. (703)-527-3887
- **Chemical Family:** SALT
- **Contact Person:** Glenn Ray
- **Formula:** NH₄F (99-100%)
- **MSDS Revised:** January 1, 2014

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous components</u>	<u>CAS Number</u>	<u>%</u>	<u>PEL(OSHA)</u>	<u>TLV(ACGIH)</u>	<u>IDLH</u>
			<u>TWA STEL</u>	<u>TWA STEL</u>	
Ammonium Fluoride	12125-01-8	99-100	2.5mg/m ³ N/E	2.5mg/m ³ N/E	N/E

SECTION 3. HAZARDS IDENTIFICATION, INCLUDING EMERGENCY OVERVIEW

Effects of overexposure:

Potential Health Effects: If inhaled or swallowed, this compound can cause fluoride poisoning. Early symptoms include nausea, vomiting, diarrhea, and weakness. Later effects include central nervous system effects, cardiovascular effects and death.

Inhalation: May cause irritation and burns to the respiratory tract, symptoms may include coughing, sore throat, and labored breathing. May be absorbed through inhalation of dust; symptoms may parallel those from ingestion exposure. Irritation and burning effects may not appear immediately.

Skin Contact: This product may cause irritation and possible burns to the skin. Defatting of the skin can occur with frequent or long-term skin contact.

Eye Contact: Irritation to eyes. May be extremely irritating with possible burns to eye tissue and permanent eye damage may result.

Ingestion: May cause salivation, nausea, vomiting, diarrhea, and abdominal pain, followed by weakness, tremors, shallow respiration, cardopedal spasm, convulsions, and coma. May cause brain and kidney damage. Death may be caused by respiratory paralysis. Affects heart and circulatory system.

SECTION 4. FIRST AID MEASURES

Eyes: Move victim away from exposure and into fresh air. Seek medical attention. For direct exposure, flush with clean water for 15 minutes. Hold eyelids apart to ensure flushing of the entire eye surface.

Inhalation: Move victim away from source of exposure and into fresh air. Seek medical attention. If victim is not breathing, artificial respiration should be administered.

Skin: Remove contaminated clothes. Cleanse affected area thoroughly with soap and water. Seek medical attention. Wash contaminated clothing.

Ingestion: Administer plenty milk, chewable calcium carbonate tablets or milk of magnesia. Seek medical attention.

SECTION 5. FIRE FIGHTING MEASURES

Extinguishing Media: Use powder, foam, or CO₂. Water spray to extinguish surrounding fire and cool exposed containers. Water spray will also reduce fume and irritant gases. Do not use water jet (may spread fire).



Decomposition/Combustion Products: Reacts with chlorine trifluoride to form explosive reaction product.

Explosive Properties:

LEL: N/D

UEL: N/D

SECTION 6. ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is released or spilled: Use proper personal protective equipment. Stay upwind from spill. For small dry spills, carefully scoop material into suitable containers for later disposal. Vacuuming (with appropriate filter) or wet mopping may minimize dust dispersion. For small solution spills, take up with earth, sand, vermiculite, or other absorbent, noncombustible material. For large spills, dike far ahead of liquid spills for later disposal.

Waste disposal method: Dispose of according to local, state and federal regulations in an approved disposal facility or recycling facility.

SECTION 7. HANDLING AND STORAGE

Storage: Store in a well-ventilated area. Keep container tightly closed when not in use. Store in cool, dry area.

Handling: Use proper personal protective equipment. Avoid contact with skin or eyes. Avoid breathing of vapors. Handle in well-ventilated workspace. When handling do not eat, drink, or smoke.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Keep work area well ventilated.

Protective clothing: Impermeable gloves and impervious clothing as appropriate.

Eye protection: Chemical goggles where splashing may occur.

Respiratory Protection: Use appropriate respiratory protection when handling or in case of insufficient ventilation.

Special Protection: Safety shower, eye bath, and washing facilities should be available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity @ 77°F(H₂O = 1): 1.01

Flash Point(PMCC Method)(°F): N/A

Vapor density (Air = 1): N/D

Solubility: 100g/100ml water @ 32°F

Vapor pressure: N/D

Evaporation Rate: N/D

Appearance: Colorless crystals

Odor: None

Boiling Point(°F) : N/A

Melting Point(°F): Sublimes upon heating.

Viscosity: N/D

pH: Aqueous solution is an acid

Auto-ignition: N/D

SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity: Stable in normal conditions.

Incompatible Materials: Potassium chlorate, sodium nitrite, chlorine trifluoride, and calcium (+2) solution. Reacts with acids to liberate hydrogen fluoride and bases to liberate ammonia. Corrodes glass.

Hazardous Decomposition Products: Emits toxic fumes of hydrogen fluoride, nitric oxides, and ammonia when heated to decomposition.

Hazardous Polymerization: None described.



SECTION 11. TOXICOLOGICAL INFORMATION

Rat, oral, LD₅₀: N/D

SECTION 12. ECOLOGICAL INFORMATION

Environmental Fate: No information found.

Environmental Toxicity: This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/l.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal: If spilled, dispose according to local, state, and federal regulations. Recycle waste containers and clean out residues.

SECTION 14. TRANSPORT INFORMATION

DOT Transport Information:

Proper Shipping Name: UN 2505, Ammonium Fluoride

Hazard Class: 6.1

Packing Group: III

SECTION 15. REGULATORY INFORMATION

Toxic Substances Control Act (TCSA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

CERCLA RQ-40 CFR 302.4(a)

<u>Component</u>	<u>CERCLA RQ(lbs.)</u>
Ammonium Fluoride	100

SARA 302 Components-40 CFR 355 Appendix A

None

Section 311/312 Hazard Class-40 CFR 370.2

Immediate (X)

Delayed ()

Fire ()

Reactive ()

Sudden Release of Pressure ()

SARA 313-40 CFR 372.65

<u>Component</u>	<u>CAS Number</u>	<u>%</u>
None		

SECTION 16. OTHER INFORMATION

NFPA RATING: Health (3) Fire (0) Reactivity (0)

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N/D= No data; N/A = Not available; N/E= Not established