

MATERIAL SAFETY DATA SHEET**I PRODUCT IDENTIFICATION**

Trade Name:	Aluminum Fluoride	Synonyms:	None
Chemical Name:	Aluminum Trifluoride	Molecular Formula:	AlF ₃
Chemical Family:	Inorganic Fluorides	Molecular Weight:	83.98
CAS Number:	7784-18-1		

II HAZARDOUS INGREDIENTS

Permissible Exposure Limits: ACGIH/TLV for fluorides as F⁻ = 2.5 mg/m³. ACGIH/TLV for Al = 2 mg/m³

III PHYSICAL DATA

Boiling Point/Range:	1278 °C sublimes	Melting Point:	NA
Specific Gravity (H₂O=1):	2.88	Vapor Pressure:	NE
Freezing Point:	NA	Solubility in H₂O:	0.55 g/100 g. H ₂ O
Vapor Density (Air=1):	NA	% Volatile by Volume:	Nil
Appearance and Odor:	White, odorless		

IV FIRE AND EXPLOSION HAZARDS DATA

Flash Point: None	Flammable Limits: Non-flammable
Autoignition Temperature: Non-flammable	Extinguishing Media: CO ₂ , Dry chemical, Water Spray
Special Fire Fighting Procedures: NA	Unusual Fire and Explosion Hazards: NA

V HEALTH HAZARD INFORMATION

Eye Effects: Rabbit-500 mg/24 H severe irritant

Skin Effects: Irritant

Other Toxic Effects: A very large dose or prolonged exposure may cause fluorosis (bone damage), and kidney or liver damage. Inhalation of dust may cause irritation of the respiratory tract, pulmonary edema, congestion and fluorosis (bone damage).

Target Organs: Eye, Skin, Kidney, Lung, Bone

EMERGENCY FIRST AID:

INGESTION: Dilute with milk, lime water or aluminum hydroxide. Seek medical attention immediately. Treat with gentle gastric lavage. Multiple lumen tube suggested. Monitor for cardiac arrhythmia.

DERMAL: Flush with water for at least 15 minutes.

EYE CONTACT: Flush with water for at least 15 minutes. Seek emergency medical attention.

INHALATION: In case of respiratory difficulty, seek medical attention.

VI REACTIVITY DATA

Stability: Stable

Conditions Contributing to Instability: NA

Incompatibility: Avoid contact with strong acids.

Hazardous Decomposition Thermal and Other: Contact with acids may produce HF which is a highly toxic and corrosive material.

Conditions to Avoid: NA

VII SPILL OR LEAK PROCEDURES

Spill, Leak and Disposal Procedures:

- ◆ Sweep or scoop up and remove.
- ◆ Flush spill area with water.
- ◆ Disposal should be in accordance with local, state and federal regulations.

VIII SPECIAL PROTECTION INFORMATION

Ventilation Requirements: Local Exhaust: Use with adequate ventilation.

Eye: Safety glasses

Hand (Glove type): Polyvinyl chloride, natural rubber, polyethylene.

Respirator Type: Filter dust, fume, mist.

Other Protective Equipment: None

IX SPECIAL PRECAUTIONS

- ◆ Wash thoroughly after handling.
- ◆ Do not get in eyes, on skin or clothing.
- ◆ Do not breathe dust, vapor, mist, or gas.
- ◆ Contact with acid may release toxic vapors (HF) which cause burns.

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. ESPI shall not be held liable for any damage resulting from handling or from contact with the above product.

Prepared by: S. Dierks
Dated: March 1992