

Safety Data Sheet
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	Ammonium Bifluoride	
NCL Catalog Number	A-16A	
Product Description	Laboratory chemical	
Manufacturer	EMD Chemicals Inc.	PO Box 70, 480 Democrat Road Gibbstown, NJ 08027
Supplier	NCL of Wisconsin, Inc. Telephone: 1-800-648-7836 Email: nclabs@nclabs.com	PO Box 8, Birnamwood, WI 54414 Fax: 715-449-2454 Emergency Contact: 1-800-424-9300 (Chemtrec)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification



Acute Toxicity	Oral Category 3
Skin Corrosion	Category 1B
Serious Eye Damage	Category 1

Signal Word

Danger

Hazard Statements

H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.

Precautionary Statements

P260	Do not breathe dust.
P264	Wash exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310	Immediately call a POISON CENTER or doctor.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363	Wash contaminated clothing before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER or doctor.
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 or doctor.
P405	Store locked up.
P501	Dispose of contents/container to comply with local, state, and federal regulations.

Other Hazards Not Contributing to the Classification

Repeated exposure may cause skin dryness or cracking.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Formula

NH₄HF₂

Substance

Name	CAS #	Approximate %
Ammonium Bifluoride	1341-49-7	100

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General First Aid Measures

Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.

If Inhaled

Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.

In Case of Skin Contact

Remove all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor.

In Case of Eye Contact

Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

If Swallowed

Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

Most Important Symptoms/Effects Acute and Delayed

See section 2 and/or section 11.

Indication of Immediate Medical Attention and Special Treatment Needed

Seek medical attention if exposed.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Alcohol resistant foam. Dry powder. Water spray. Carbon dioxide.

Unsuitable Extinguishing Media

Do not use a heavy water stream.

Special Hazards Arising from the Chemical

Nitrogen oxides (Nox) and hydrogen fluoride.

Special Protective Actions for Fire-Fighters

Wear self-contained breathing apparatus and protective clothing. Keep containers cool with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. See section 8 for personal protection.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Materials for Containment and Cleaning Up

Collect spillage with inert absorbent material. Store away from other materials. Wash clothing/equipment after handling. Ensure compliance with federal, state, and local regulations.

SECTION 7: HANDLING AND STORAGE

Handling and Storage

Precautions for Safe Handling

Avoid contact with eyes and skin. Avoid breathing vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Conditions for Safe Storage Including any Incompatibilities

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Store away from sunlight, which can contribute to instability. Store away from: strong bases, strong acids, oxidating agents, reducing agents, halogens, and amines.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters**

Ammonium Bifluoride (1341-49-7)		
USA OSHA	OSHA TWA (mg/m ³)	2.5 mg/m ³
USA ACGIH	ACGIH TWA (TLV) (mg/m ³)	2.5 mg/m ³

Appropriate Engineering Controls

Material should be handled or transferred in a fume hood or with equivalent ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Individual Protection Measures**Skin Protection**

Avoid all unnecessary exposure.

Resistant gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Eye Protection

Use chemical safety goggles and /or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye-wash fountain and quick-drench facilities in work area.

Respiratory Protection

Wear appropriate mask.

Other Information

Do not eat, drink, or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid, crystalline
Molecular Weight	57.06 g/mole
Color	White
Odor	Odorless
Odor Threshold	Not determined
pH	Not determined
Melting Point/Freezing Point	124.6°C (256.3°F)
Initial Boiling Point and Boiling Range	239.55°C (463.2°F)
Flash Point	Not determined
Evaporation Rate	Not determined
Flammability (Solid, Gas)	Not determined
Upper/Lower Flammability/Explosive Limits	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Relative Density	1.500 g/cm ³
Solubility	Soluble in water.
Partition Coefficient: n-octanol/water	Not determined
Auto-Ignition Temperature	Not determined
Decomposition Temperature	Not determined
Viscosity	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity	No data available.
Chemical Stability	Stable under ordinary conditions of use and storage.
Possibility of Hazardous Reactions	Vapors may form explosive mixture with air.
Conditions to Avoid	Extremely high or low temperatures. Heat and sunlight can contribute to instability. Avoid moisture.
Incompatible Materials	Strong oxidizing agents. Highly reactive with acids.
Hazardous Decomposition Products	Fluoride fumes, nitrogen oxides (NO, NO ₂ ...), ammonia.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity	Toxic if swallowed.
Skin Corrosion/Irritation	Causes severe skin burns.
Serious Eye Damage/Irritation	Causes serious eye damage.
Respiratory or Skin Sensitization	No data available.
Germ Cell Mutagenicity	No data available.
Carcinogenicity	Not classified.
Reproductive Toxicity	No data available.
Specific Target Organ Toxicity (Single Exposure)	No data available.
Specific Target Organ Toxicity (Repeated Exposure)	No data available.
Aspiration Hazard	No data available.
Potential Adverse Human Health Effects and Symptoms	No data available
Other Information	Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Coughing, shortness of breath, headache, and nausea may occur.

SECTION 12: ECOLOGICAL INFORMATION

Ecology – Water Toxicity	No data available.
Persistence and Degradability	No data available.
Bioaccumulative Potential	No data available.
Mobility in Soil	No data available.
Other Adverse Effects	Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Methods of Disposal

Disposal Recommendations	Dispose of contents/containers in accordance with federal, state, and local regulations.
Ecology-Waste Materials	Avoid release to the surrounding environment.

SECTION 14: TRANSPORT INFORMATION

UN Number	1727
UN Shipping Name	Ammonium hydrogendifluoride, solid.
Transport Hazard Class(es)	8
Packing Group	II
Environmental Hazards	Not applicable
Transport in Bulk	Not applicable
Special Precautions	Not applicable

SECTION 15: REGULATORY INFORMATION

Ammonium Bifluoride (1341-49-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Reportable Quantity	100 lb

SECTION 16: OTHER INFORMATION

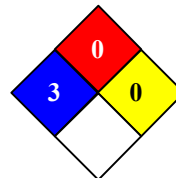
Revision Date: 01/21/2015

NFPA Hazards

Health Hazard 3: Short exposure could cause serious temporary or moderate residual injury.

Fire Hazard 0: Materials that will not burn under typical fire conditions.

Reactivity/Instability 0: Normally stable, even under fire exposure conditions, and is not reactive with water.



HMIS III Rating

Health 3: Major injury likely unless prompt action is taken and medical treatment is given.

Flammability 0: Materials that will not burn.

Physical Hazard 0: Materials that are normally stable.

Personal Protection E

A-16A	
Health	3
Flammability	0
Physical Hazard	0
Personal Protection	E

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END OF SAFETY DATA SHEET