

Safety Data Sheet



CJ CHEMICALS
SETTING THE INDUSTRY STANDARD FOR CUSTOMER SERVICE

SECTION 1: Identification of the substance/mixture and the company/undertaking

1.1 Production identifiers

Product name : AMMONIUM BIFLOURIDE
Brand : CJ Chemicals LLC
CAS-No. : 1341-49-7

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : CJ Chemicals LLC
3469 E Grand River Rd #112
Howell, MI 48843
United States

Telephone : +1 (888) 274-1044

1.4 Emergency Telephone

Emergency Phone # : 1-800-424-9300 CHEMTREC (USA)
1-703-527-3887 CHEMTREC (international) 24 hours/day; 7 days/week

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification	Acute Toxicity, Oral	Category 3	H301
	Serious Eye Damage/Eye Irritation	Category 1B	H314
	Aquatic toxicity acute	Category 3	H402

Signal Word

DANGER

Symbol



Hazard Statements	H301	Toxic if swallowed.
	H314	Causes severe skin burns and eye damage.
	H402	Harmful to aquatic life.

Precautionary Statements	P260	Do not breathe mist, spray, vapors.
	P264	Wash hands, forearms, and exposed areas thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P273	Avoid release to the environment.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P301+P330+P331+P310	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician
	P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
	P321	Specific treatment (see Section 4).
	P363	Wash contaminated clothing before reuse.
	P405	Store locked up.
	P501	Dispose of contents / container according to local, regional, national and international regulations.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

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COMPONENT

Ammonium bifluoride

SYNONYM

None.

CAS NO.

1341-49-9

% BY WEIGHT

97 – 100

SECTION 4: FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:

EYES: Immediately flush with large quantities of cool water continuously for at least 15 minutes. Get immediate medical attention. If physician is not immediately available, continue flushing with water. Do not use chemical antidote.

SKIN: Immediately flush with large quantities of cool water continuously for at least 15 minutes. Call a physician. Remove contaminated clothing and shoes. As soon as possible apply 2.5% calcium gluconate gel to all affected skin areas. The gel should be massaged into the affected skin by personnel wearing protective gloves to prevent skin contamination during first aid. Do not put contaminated clothing and shoes back on. Discard shoes if saturated with this product. Wash clothing thoroughly in soap and water; rinse repeatedly in clean water and dry before reuse.

INGESTION: Do NOT induce vomiting. Give water. Give milk of magnesia. Never give anything by mouth if the person is unconscious or if having convulsions. Keep warm, quiet. Call medical attention immediately.

INHALATION: If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped give artificial respiration. Keep person warm, quiet and get medical attention.

PRIMARY ROUTE(S) OF ENTRY: Inhalation, skin.

MOST IMPORTANT SYMPTOMS / EFFECTS, ACUTE AND DELAYED:

GENERAL: Causes burns.

EYE CONTACT: Causes burns.

SKIN CONTACT: Causes burns.

INGESTION: Harmful if swallowed.

INHALATION: No hazard in normal industrial use.

CHRONIC SYMPTOMS: None expected under normal conditions of use.

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY:

If you experience any of the symptoms / effects listed above seek medical advice.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

Use water fog to extinguish fires that this product is involved with.

SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Not considered flammable or explosive. Hazardous reactions will not occur under normal conditions.

ADVICE FOR FIRE FIGHTERS:

Wear self-contained breathing apparatus with full face piece operated in positive pressure mode and full body protective clothing. Use water spray to keep containers cool. **Hazardous Combustion Products:** Hydrogen fluoride, ammonia, oxides of nitrogen.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES:

Avoid all contact with skin, eyes and clothing. Wear nitrile rubber or neoprene gloves. Goggles and face shield necessary. Wear full protective acid resistant clothing. Use NIOSH / MSHA approved positive pressure self-contained breathing apparatus when any material is involved in a fire.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

Shovel up solid spills. Dispose with solid waste. If dissolved in water, contain liquid with sand and absorb on inert material. See Waste Disposal Method. Ventilate area. Do not discharge to sewers or waterways without proper treatment.

SECTION 7: HANDLING AND STORAGE

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PRECAUTIONS FOR SAFE HANDLING:

Wear proper safety equipment when handling this product. Handle in accordance with good industrial hygiene and safety procedures.

CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES:

Normal for acidic materials. Store away from alkalis. Keep container closed when not in use. Always add acids to water; never add water to acids.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

<u>CHEMICAL IDENTITY</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Ammonium bifluoride	1341-49-7	2.5 mg/M ³ *	2.5 mg/M ³ *

ENGINEERING CONTROLS:

Use good ventilation. Local exhaust is recommended if TLVs are exceeded.

INDIVIDUAL PROTECTION MEASURES:

Selection of personal protective equipment should be based upon the anticipated exposure and made in accordance with OSHA's Personal Protective Equipment Standard found in 29 CFR 1910 Subpart I. The following information may be used to assist in PPE selection.

RESPIRATORY PROTECTION:

In absence of proper environmental control, use NIOSH / MSHA approved inorganic acid vapor respirator for mists where airborne exposure is excessive.

SKIN PROTECTION:

Nitrile rubber, polyvinyl chloride gloves. Rubber apron and boots required. Other equipment as required to avoid contact.

EYE PROTECTION:

Goggles and face shield necessary.

GENERAL HYGIENE CONSIDERATIONS:

Eyewash facility and emergency shower should be in close proximity. Always wash hands after handling any chemical.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear flakes.
ODOR:	Odorless.
ODOR THRESHOLD:	Not available.
pH (1oz/gallon):	4.5 – 5.0
MELTING POINT/FREEZING POINT	Not determined.
INITIAL BOILING POINT AND BOILING RANGE	Not determined.
FLASH POINT (METHOD USED)	Not available.
EVAPORATION RATE	Not available.
FLAMMABILITY (SOLID, GAS)	Not available.
UPPER/LOWER FLAMMABLE OR EXPLOSIVE LIMIT	Not available.
VAPOR PRESSURE	Not available.
VAPOR DENSITY	Not available.
SPECIFIC GRAVITY	Not available.
SOLUBILITY IN WATER	Appreciable.
PARTITION COEFFICIENT: N-OCTANOL/WATER	Not available.
AUTO-IGNITION TEMPERATURE	Not available.
VISCOSITY, DYNAMIC	Not available.
DECOMPOSITION TEMPERATURE	Not available.
VISCOSITY	Not available.

SECTION 10: STABILITY AND REACTIVITY

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REACTIVITY:	Hazardous reactions will not occur under normal conditions.
CHEMICAL STABILITY:	Material is stable.
POSSIBILITY OF HAZARDOUS REACTIONS:	Hazardous polymerization will not occur.
CONDITIONS TO AVOID:	Excessive heat.
INCOMPATIBLE MATERIALS:	Strong alkaline materials and strong organic acids. May be corrosive to metals.
HAZARDOUS DECOMPOSITION PRODUCTS:	Hydrogen fluoride, ammonia, oxides of nitrogen.

SECTION 11: TOXOLOGICAL INFORMATION

ACUTE TOXICITY:	Not classified
LD50 AND LC50 DATA:	Not available.
ROUTES OF EXPOSURE / SYMPTOMS	
EYES:	DANGER! Causes burns.
SKIN:	DANGER! Causes burns.
INGESTION:	WARNING! Causes burns.
INHALATION:	WARNING! May cause nasal and respiratory irritation.
GERM CELL MUTAGENICITY:	Not classified.
TERATOGENICITY:	Not available.
CHRONIC EFFECTS / CARCINOGENICITY:	This material contains no ingredients above de minimus concentrations known or suspected to cause cancer.
SPECIFIC TARGET ORGAN TOXICITY (Repeated exposure):	Not classified.
REPRODUCTIVE TOXICITY:	Not classified.
SPECIFIC TARGET ORGAN TOXICITY (Single exposure):	Not classified.
ASPIRATION HAZARD:	Not classified.
COMPONENT INFORMATION:	
Ammonium bifluoride	LD50 Oral Rat: 60-130 mg/kg LD50 Oral Guinea Pig: 150 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY	Avoid contaminating waterways.
COMPONENT INFORMATION	
Ammonium bifluoride	LC50 <i>Salmo gairdneri</i> 51 mg/L 96hr.
PERSISTENCE AND DEGRADABILITY:	Not available.
BIOACCUMULATIVE POTENTIAL:	Not available.
MOBILITY IN SOIL:	Not available.
OTHER ADVERSE EFFECTS:	This material contains no hazardous air pollutants (HAPS).

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD	Normal for fluoride containing wastes. May require pH adjustment for neutralization. Dispose in accordance with local, state and federal regulations.
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SECTION 14: TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME:	Ammonium hydrogen fluoride
HAZARD CLASS:	8
IDENTIFICATION NUMBER:	UN1727
PACKING GROUP:	II
EMERGENCY RESPONSE GUIDE:	#154

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SECTION 15: REGULATORY INFORMATION

VOC: 0 pounds per gallon (0 grams per liter).
TSCA STATUS All ingredients are listed on the TSCA inventory.
CERCLA REPORTABLE QUANTITY 100 pounds for fluorides (approximately 150 pounds).

SARA 311 / 312 HAZARD CLASSES

x	ACUTE HEALTH
	FIRE
	SUDDEN RELEASE OF PRESSURE
x	CHRONIC HEALTH
	REACTIVE

SARA 312 INFORMATION

Storage of 10,000 pounds or more may require filing a Tier 2 form. Threshold planning quantity for reporting is 10,000 pounds. This material is not an extremely hazardous substance (EHS).

SARA 313 INFORMATION

This material contains the following substances subject to the reporting requirements of Section 313 of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372

CHEMICAL NAME
None

CATEGORY CODE

CAS NUMBER

% BY WEIGHT

STATE REGULATORY INFORMATION

CALIFORNIA PROPOSITION 65

California has not identified the ingredients listed in Section 3 as known to cause cancer or reproductive toxicity.

SECTION 16: OTHER INFORMATION

SDS STATUS: Revised to GHS Standards on 01-13-16.

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	1

FOR INDUSTRIAL USE ONLY – KEEP OUT OF THE REACH OF CHILDREN