

SAFETY DATA SHEET

1. Identification

2. Hazard(s) Identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 3
	Serious Eye damage	Category 1
	Skin Corrosion /irritation	Category 1A,1B,1C
	Acute toxicity, dermal	Category 5
Environmental hazards	Not classified.	
OSHA defined hazards	Not listed.	
Label elements		

Signal word
Hazard statement



Danger.
H301 Toxic if swallowed.
H318 Causes serious eye damage
H313 May be harmful in contact with skin
H314 Causes severe skin burns and eye damage

Precautionary statement

Prevention	Do not breathe dusts or mists. Wash hands and exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response	Call a POISON CENTER/doctor/medical professional if you feel unwell. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor/medical professional. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable breathing. Immediately call a POISON CENTER/doctor/medical professional. Specific treatment (see Section 4 on the Safety Data Sheet). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures		
Chemical name	CAS number	Less Than%
Ammonium Bifluoride	1341-49-7	6.0000
Surfactant	127087-87-0	2.0000

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention. Eye wash stations should be located in work area.
Ingestion	Rinse mouth. Get medical attention if symptoms occur. Do not induce vomiting.
Most important symptoms/effects, acute and delayed	Dermatitis. Rash. May cause an allergic skin reaction.
Indication of immediate medical attention and special treatment needed	Provide general support measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂)
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protecting clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Wear appropriate protective equipment and clothing during clean-up. Wear eye/face protection.
Methods and materials for containment and cleaning up	Caution – spillages may be slippery. Large spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

	Never return spills to original container for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Do not release into the environment (see section 12). Avoid discharge into areas not consistent with package labeling.

7. Handling and storage

Precautions for safe handling	Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Do not store in extreme conditions.

8. Exposure controls/personal protection

Occupational exposure limits

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ammonium Bifluoride	PEL	N/A ppm

US ACGIH Threshold Limit Values

Components	Type	Value
Ammonium Bifluoride	STEL	N/A ppm
Surfactant	STEL	N/A ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value mg/g	Determinant	Species	Sampling Time
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Appropriate engineering controls	Emergency eye wash stations and showers should be readily accessible. Provide natural or mechanical ventilation.
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Individual protection measures, such as personal protective equipment

Eye/face protection	Avoid contact with eyes. Wear safety glasses with side shields (or goggles).
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Skin protection

Hand protection	Wear appropriate chemical resistant gloves.
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Other	Wear long sleeve shirts with pants.
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Respiratory protection	Respiratory protection not required.
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Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
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General hygiene considerations	When using do not smoke or use chewing tobacco. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.
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9. Physical and chemical properties

Appearance

Physical State	Liquid.
Color	White Water.

Odor	None.
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Odor threshold	N/E.
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pH	5.6
Melting/freezing point	N/E
Initial boiling point and boiling range	N/E
Flash point	Not Flammable
Evaporation rate	Not available.
Flammability	Not Flammable
Flammability Limits	
Upper	Not available.
Lower	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity (water=1)	1.038
Solubility in water	Complete
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	N/E
Volatile %	0%

10. Stability and reactivity

Reactivity	Non-reactive.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	None Known.
Conditions to avoid	Excessive heat, or flames.
Incompatible materials	Avoid contact with acidic materials and strong oxidizers.
Hazardous decomposition products	None Are Known

11. Toxicological information

Information on likely routes of exposure

Ingestion	Nausea, vomiting
Inhalation	Not expected route of entry. Irritation
Skin contact	Irritation, burns upon prolonged exposure.
Eye contact	Causes severe eye damage. May cause severe corneal injury.
Symptoms related to the physical, chemical and toxicological characteristics	Dermatitis. Rash. May cause an allergic skin reaction.
Acute toxicity	May be harmful if swallowed.

Component	Route and Species	LD₅₀
Ammonia Bifluoride	Oral, rat	130 mg/kg
Surfactant	Oral, rat	1600 g/kg

Serious eye damage/irritation	Causes serious eye damage.
Respiratory sensitization	Not classified.
Skin sensitization	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not considered a carcinogen.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not Listed.	
Reproductive toxicity	Not classified.
Specific target organ toxicity – single exposure	Not classified.
Specific target organ toxicity – repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways.

12. Ecological information

Ecotoxicity		
Component	Species	Test Results
Ammonia Bifluoride	Daphnia	EC ₅₀ (96hr): 10.5 mg/L

*Estimates for product may be based on additional component data not shown

Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	Not available.
Other adverse effects	Harmful to aquatic life. Use only in a manner consistent with the labeling.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. Do not release to the environment.
Local disposal regulations	Dispose in accordance with all applicable regulations
Waste from residues/unused product	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. (See: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may contain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	N/A
UN proper shipping name	
Transport hazard class(es)	
Class	
Subsidiary risk	
Packaging group	N/A
Marine pollutant	

Special precautions for user
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
DOT

Read safety instructions, SDS, and emergency procedures before handling.
Not intended to be transported in bulk.

15. Regulatory information

US federal regulations

SARA 302 Extremely hazardous substance

Not listed.

SARA 304 Emergency release notification

Not listed.

SARA 311/312 Hazard Categories

Immediate Hazard - Yes

Delayed Hazard – No

Fire Hazard – No

Pressure Hazard – No

Reactivity Hazard – No

SARA 313 (TRI reporting)

16. Other information, including date of preparation or last revision

Issue date 05/29/2015

Revision date 05/29/2015

Version # 1.0010

HMIS® ratings Health: 3
Flammability: 0
Physical hazard: 0

NFPA ratings Health: 3
Flammability: 0
Instability: 0

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, and have been obtained from resources believed to be reliable. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information related only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified by the text.

Revision information First issue.