

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ammonium Bifluoride Flakes ACS Grade
Synonyms: azanium fluoride hydrofluoride, Ammonium Bifluoride
CAS Number: 1341-49-7
Grade/Purity: ACS Reagent Grade
Product Type: Inorganic Compounds
Product Use: Industrial, Manufacturing or Laboratory use
Manufacturer/Supplier: Alliance Chemical, 204 South Edmond St, Taylor, Texas 76574
Information: 512-365-6838 | www.alliancechemical.com
Emergency: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Signal Word: Danger

GHS Pictograms:



Hazard Statements:

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|------|--|
| H301 | Toxic if swallowed [Danger Acute toxicity, oral] |
| H314 | Causes severe skin burns and eye damage [Danger Skin corrosion/irritation] |

Precautionary Statements:

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|-------|--|
| P260, | P264, P270, P280, P301+P316, P301+P330+P331, P302+P361+P354, P304+P340, P305+P354+P338, P316, P321, P330, P363, P405, and P501 |
|-------|--|

3. COMPOSITION / INFORMATION ON INGREDIENTS

| COMPONENT | % MIN | % MAX | CAS # | EINECS# / ELINCS# | FORMULA | MOLECULAR WEIGHT |
|----------------------------|-------|-------|-----------|-------------------|---------|------------------|
| Ammonium Bifluoride Flakes | 99 | 100 | 1341-49-7 | 215-676-4 | F2H5N | 57.044 g/mol |

4. FIRST-AID MEASURES

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|-------------------|--|
| Eyes | EYES: flush with water for at least 15 min.; consult physician. |
| Skin | SKIN: flush with water; treat burns. |
| Inhalation | INHALATION: remove victim to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. |
| Ingestion | INGESTION: perform gastric lavage with lime water or 1% calcium chloride solution; support respiration; call a physician. |

5. FIRE-FIGHTING MEASURES

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| Suitable Media | Dry chemical, CO2, water spray. Use water spray to cool containers. |
| Unsuitable Media | Do not use a solid water stream as it may scatter and spread fire. |
| Protective Equipment | Wear self-contained breathing apparatus and full protective clothing. |
| Combustion Products | May include carbon oxides and other toxic fumes. See Section 10. |

6. ACCIDENTAL RELEASE MEASURES

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|----------------------------------|---|
| Personal Precautions | Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas. |
| Environmental | Prevent leakage or spillage from entering drains, sewers, or waterways. |
| Containment & Cleanup | Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations. |

7. HANDLING AND STORAGE

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| Safe Handling | Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use. |
| Safe Storage | Store in a cool, dry, well-ventilated area. Use corrosion-resistant containers. Keep away from incompatible materials (see Section 10). Keep containers tightly closed. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.

Occupational Exposure Limits:

No established occupational exposure limits.

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| Eyes | Wear chemical safety goggles or face shield. |
| Skin | Wear chemical-resistant gloves and protective clothing. |
| Inhalation | For mist or aerosol applications (e.g., spray, atomization, pressure washing), use a NIOSH-approved half-face air-purifying respirator with combination acid gas / P100 cartridges. For dust exposure, an N95 or P100 particulate filter is acceptable. Ensure local exhaust ventilation. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------------------|--|
| Appearance | White crystalline flakes |
| Odor | Characteristic |
| Median Particle Size | 1500 μm (operator override) |
| Particle Size Distribution | broad |
| Particle Shape | flake |
| Surface Area | Not Available |
| Dustiness | medium |
| Hygroscopicity | Yes |
| pH | Not Available |
| Melting Point | 125°C |
| Boiling Point | 240°C |
| Flash Point | Not Available |
| Vapor Pressure | Not Available |
| Specific Gravity | 1.5 |
| Solubility | Highly soluble in water |
| Molecular Formula | NH_4HF_2 |
| Molecular Weight | 57.04 g/mol |

10. STABILITY AND REACTIVITY

| | |
|-------------------------------|---|
| Chemical Stability | Stable under recommended storage conditions. |
| Hazardous Reactions | None under normal processing conditions. |
| Conditions to Avoid | Heat, sparks, open flame, and incompatible materials. |
| Incompatible Materials | Strong acids, strong bases, reactive metals, water (for some concentrated forms). |
| Decomposition Products | May produce carbon oxides and other toxic fumes when heated to decomposition. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: See Section 2 for GHS hazard classification.

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|-------------|---------------------------|
| IARC | Not listed as carcinogen. |
| NTP | Not listed as carcinogen. |
| OSHA | Not listed as carcinogen. |

12. ECOLOGICAL INFORMATION

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|-------------------------|---|
| Ecotoxicity | Data not available. Avoid release to the environment. |
| Persistence | Not Available |
| Bioaccumulation | Not Available |
| Mobility in Soil | Not Available |

13. DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

14. TRANSPORT INFORMATION

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|-------------------------|---|
| US DOT | UN1727, Ammonium hydrogen difluoride, solid, 8 (6.1), PG II |
| IMDG | UN1727, Ammonium hydrogen difluoride, solid, 8 (6.1), PG II |
| IATA/ICAO | UN1727, Ammonium hydrogen difluoride, solid, 8 (6.1), PG II |
| Marine Pollutant | No |

15. REGULATORY INFORMATION

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| Regulatory listings not yet on file in this system; consult OSHA, EPA TSCA, EPCRA TRI, and California OEHHA directly. | |
| SARA 311/312 | See Section 2 for hazard classifications. |

16. OTHER INFORMATION

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