



XI'AN FUNCTION MATERIAL GROUP CO., LTD  
Material Safety Data Sheet  
Cryolite

1. Product and Company Identification

Trade Name: Cryolite  
Chemical Formula:  $\text{Na}_3\text{AlF}_6$   
Manufacturer/Supplier: XI'AN FUNCTION MATERIAL GROUP CO., LTD  
Street: No. 69, Gazelle Valley, High-Tech Zone  
City: XI'AN  
State: Shannxi  
Zip Code: 710077  
Country: China  
Tel #: +86-29-88993870/+86-13519132051

2. Hazards Identification

Signal Word: Danger



Hazard Statements: H332 Harmful if inhaled  
H372 Causes damage to peripheral nervous system, kidneys, bladder through prolonged or repeated exposure: oral/inhalative

Precautionary Statements: P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.  
P314 Get medical advice/ attention if you feel unwell.  
P391 Collect spillage.  
P501 Dispose of contents/ container to an approved waste disposal plant

HMIS Health Ratings (0-4):  
Health: 2  
Flammability: 0  
Physical: 1

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### 3. Composition

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Chemical Family:	Salt
Additional Names:	Sodium hexafluoroaluminate, Sodium Aluminum fluoride, Kryolith
Cryolite (Na <sub>3</sub> AlF <sub>3</sub> ):	
Percentage:	100 wt%
CAS #:	15096-52-3 13775-53-6
EC #:	239-148-8 237-410-6

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### 4. First Aid Procedures

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General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	None
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion:	Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

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### 5. Firefighting Measures

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Flammability:	Non-flammable
Extinguishing Media:	No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

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### 6. Accidental Release Measures

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If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

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### 7. Handling and Storage

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Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

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## 8. Exposure Controls and Personal Protection

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Permissible Exposure Limits:	2.5 mg/m <sup>3</sup> as F, long-term value
Threshold Limit Value:	2.5 mg/m <sup>3</sup> as F, long-term value
Special Equipment:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

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## 9. Physical and Chemical Characteristics

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Color	White or Beige
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	0.602 g/l at 20 °C
Boiling Point:	N/A
Melting Point:	1012 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	2.90 g/mL at 25 °C
Molecular weight:	209.94 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts With:	N/A
Incompatible Conditions:	Strong bases
Hazardous Decomposition Products:	Hydrogen fluoride, Sodium oxides, Aluminum Oxides

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## 11. Toxicological Information

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Potential Health Effects:	
Eyes:	Strong corrosive effect
Skin:	Corrosive effect
Ingestion:	Toxic
Inhalation:	Harmful
Chronic:	N/A
Notes:	Causes damage to peripheral nervous system, kidneys, bladder through prolonged or repeated exposure: oral/inhalative Fluorides may cause salivation, nausea, vomiting, diarrhea and abdominal pain, followed by weakness, tremors, shallow respiration, convulsions and coma. May cause brain and kidney damage. Chronic fluoride poisoning can cause severe bone changes, loss of weight, anorexia, anemia and dental defects. Aluminum may be implicated in Alzheimers disease. Inhalation of aluminum containing dusts may cause pulmonary disease
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	>5000 mg/kg for rat by mouth
Carcinogen:	N/A

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## 12. Ecological Information

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Aquatic Toxicity:	Moderate
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Persistent Bioaccumulation Toxicity: No  
Very Persistent, Very Bioaccumulative: No  
Notes: Danger to drinking water even in small quantities

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### 13. Disposal Considerations

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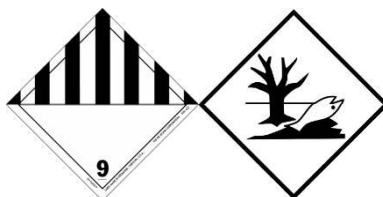
Dispose of in accordance with local, state, national, and international regulations.

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### 14. Transportation Data

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Hazardous: Hazardous for transportation as powder only.



Hazard Class: 9 Miscellaneous dangerous substances and articles  
Packing Group: III  
UN Number: UN3077  
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Cryolite)

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### 15. Regulatory Information

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Sec 302 Extremely Hazardous: No  
Sec 304 Reportable Quantities: N/A  
Sec 313 Toxic Chemicals: No

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### 16. Other Information

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This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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