



XI'AN FUNCTION MATERIAL GROUP CO., LTD  
Safety Data Sheet  
Aluminum Lithium-doped

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1. Product and Company Identification

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Trade Name: Aluminum, lithium-doped  
Chemical Formula: Al/Li  
Recommended Use: Scientific research and development

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

24-Hour Emergency Contact:

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2. Hazards Identification

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Signal Word: Danger



Hazard Statements: H250 Catches fire spontaneously if exposed to air  
H261 In contact with water releases flammable gas

Precautionary Statements: P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking  
P222 Do not allow contact with air  
P231+P232 Handle under inert gas. Protect from moisture  
P370+P378 In case of fire: Use special powder for metal fires for extinction  
P422 Store contents under inert gas  
Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):

	Powder	Bulk
Health:	1	1
Flammability:	3	1
Physical:	2	1

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### 3. Composition

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Chemical Family: Metal  
Additional Names: N/A

Aluminum (Al):  
Percentage: 95-100 wt%  
CAS #: 7429-90-5  
EC #: 231-072-3

Lithium (Li):  
Percentage: 0-5 wt%  
CAS #: 7439-93-2  
EC #: 231-102-5

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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. If unconscious, place patient stably in side position for transportation  
Ingestion: Seek medical attention  
Skin: Wash affected area with mild soap and water  
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, except as powder

Extinguishing Media: Do not use water for metal fires – use CO<sub>2</sub>, sand, extinguishing powder.  
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:	15 mg/m <sup>3</sup> as Al, long-term value
Threshold Limit Value:	1 mg/m <sup>3</sup> as Al, 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	Metallic grey
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Insoluble – may produce flammable gas
Boiling Point:	~2519 °C
Melting Point:	~660 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	~2.70 g/cc
Molecular weight:	~29.981 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts With:	Oxidizing agents, Air, Acids, Bases, Halocarbons, water
Incompatible Conditions:	Air, Moisture
Hazardous Decomposition Products:	Metal oxide fume

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## 11. Toxicological Information

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Potential Health Effects:	
Eyes:	May cause irritation
Skin:	May cause irritation
Ingestion:	May cause irritation
Inhalation:	May cause irritation
Chronic:	N/A
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	N/A

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## 12. Ecological Information

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Aquatic Toxicity:	Low
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bioaccumulative:	No
Notes:	N/A

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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 as powder only.



Hazard Class: 4.3 Substances which, in contact with water produce flammable gas  
Packing Group: II  
UN Number: UN1396  
Proper Shipping Name: Aluminum powder, uncoated, lithium doped

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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: Yes

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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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