



XI'AN FUNCTION MATERIAL GROUP CO., LTD
Material Safety Data Sheet
Lithium Aluminum Hydride

1. Product and Company Identification

Trade Name:	Lithium Aluminum Hydride
Chemical Formula:	LiAlH ₄
Manufacturer/Supplier:	XI'AN FUNCTION MATERIAL GROUP CO., LTD
Street:	No. 69, Gazelle Valley, High-Tech Zone
City:	XI'AN
State:	Shaanxi
Zip Code:	710077
Country:	China
Tel #:	+86-29-88993870/+86-13519132051

2. Hazards Identification

Signal Word: Danger



Hazard Statements: H260: In contact with water releases flammable gases which may ignite spontaneously
H314: Causes severe skin burns and eye damage

Precautionary Statements: P231+P232: Handle under inert gas. Protect from moisture
P262: Do not get in eyes, on skin, or on clothing
P280: Wear protective gloves/protective clothing/eye protection/face protection
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P308: IF exposed or concerned:
P310: Immediately call a POISON CENTER or doctor/physician
P378: Use Limestone Powder for extinction

HMIS Health Ratings (0-4):

Health:	3
Flammability:	3
Physical:	3

3. Composition

Chemical Family: Inorganic Compound
Additional Names: LAH

Lithium Aluminum Hydride (LiAlH₄):
Percentage: 100 wt%
CAS #: 16853-85-3
EC #: 240-877-9

4. First Aid Procedures

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

5. Firefighting Measures

Flammability: Flammable
Extinguishing Media: Do not use water for fires – use Limestone 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.

6. Accidental Release Measures

If Material Is Released/Spilled: Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Use neutralizing agent. Vacuum up neutralized 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.

7. Handling and Storage

Handling Conditions: Handle under dry protective gas. 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: Ensure good ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	N/A
Threshold Limit Value:	1 mg/m ³ as Al, long-term value
Special Equipment:	Full face protection.
Respiratory Protection:	Dust Respirator
Protective Gloves:	Rubber gloves (0.11 mm thickness)
Eye Protection:	Tightly sealed goggles. Full face protection.
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	White to grey
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	N/A
Boiling Point:	N/A
Melting Point:	>125 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	0.917 g/cc
Molecular weight:	37.92 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts With:	Strong oxidizing agents, water, air, bases, halogens, halocarbons, alcohols, reducing agents, water/moisture
Incompatible Conditions:	Water/moisture, air
Hazardous Decomposition Products:	Lithium oxide, Aluminum oxide, Metal oxide fume

11. Toxicological Information

Potential Health Effects:	
Eyes:	Causes serious eye damage
Skin:	Causes severe skin burns
Ingestion:	Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach
Inhalation:	May cause irritation
Chronic:	N/A
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	85 mg/kg for mouse by mouth
Carcinogen:	N/A

12. Ecological Information

Aquatic Toxicity:	N/A
Persistent Bioaccumulation Toxicity:	N/A
Very Persistent, Very Bioaccumulative:	N/A
Notes:	Do not allow undiluted product or large quantities to reach ground water, water course, or sewage system. Avoid transfer into the environment.

13. Disposal Considerations

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

14. Transportation Data

Hazardous: Hazardous for transportation



Hazard Class: 4.3 Substances which, in contact with water, emit flammable gases
Packing Group: PG I
UN Number: UN1410
Proper Shipping Name: Lithium aluminum hydride

15. Regulatory Information

Sec 302 Extremely Hazardous: N/A
Sec 304 Reportable Quantities: N/A
Sec 313 Toxic Chemicals: N/A

16. Other Information

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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