

Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

# SAFETY DATA SHEET

Version: v1  
Revision Date: 2024-01-28  
Print Date: 2024-02-04

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Diisobutylaluminum hydride  
Product Number : D107997  
Brand : aladdin  
CAS-No. : 1191-15-7(hexanes)

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Details of the supplier of the safety data sheet

Company : Shanghai Aladdin Biochemical Tech Co.,Ltd  
Address : 36 Xinjinqiao Road, Shanghai  
Telephone : 400-620-6333  
Fax : no data available

### 1.4 Emergency telephone number

Emergency Phone : 0532-83889090

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225

Pyrophoric liquids (Category 1), H250

Substances and mixtures which in contact with water emit flammable gases (Category 1), H260

Skin corrosion (Sub-category 1B), H314

Serious eye damage (Category 1), H318

Reproductive toxicity (Category 2), H361f

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336


Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Nervous system, H373

Aspiration hazard (Category 1), H304

Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

Long-term (chronic) aquatic hazard (Category 2), H411

## 2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal word	Danger
Hazard statement(s)	
H225	Highly Flammable liquid and vapor
H250	Catches fire spontaneously if exposed to air
H261	In contact with water releases flammable gas
H304	May be fatal if swallowed and enters airways
H314	Causes severe skin burns and eye damage
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H373	Causes damage to organs through prolonged or repeated exposure
Precautionary statement(s)	
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P222	Do not allow contact with air.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P231+P232	Handle under inert gas/... Protect from moisture.
P310	Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P422	Store contents under ...

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

Synonyms	: DIBAL-H;DIBAL
Formula	: no data available
Molecular weight	: no data available

Component	Classification	Concentration
n-Hexane		

Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

Component	Classification	Concentration
CAS-No.: 110-54-3 EC-No.: 203-777-6	Flam. Liq. 2; Skin Irrit. 2; Repr. 2; STOT SE 3; STOT RE 2; Asp. Tox. 1; Aquatic Chronic 2; H225, H315, H361f, H336, H373, H304, H411 Concentration limits: >= 5 %: STOT RE 2, H373; >= 20 %: STOT SE 3, H336	

#### Diisobutylaluminum hydride

CAS-No.: 1191-15-7  
EC-No.:

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

no data available

### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Dry powder

Unsuitable extinguishing media

no data available

### 5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions.- Carbon oxides, Aluminum oxide

### 5.3 Advice for firefighters

Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

Wear self contained breathing apparatus for fire fighting if necessary.

#### 5.4 Further information

no data available

---

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

#### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water.

#### 6.4 Reference to other sections

no data available

---

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Never allow product to get in contact with water during storage. Handle and open container with care. Air sensitive. Reacts violently with water. Argon filled storage.

#### 7.3 Specific end use(s)

no data available

---

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

#### 8.2 Exposure controls

Appropriate engineering controls

Shanghai Aladdin Biochemical Technology Co., Ltd.

No. 809, Chuhua Branch Road, Fengxian District, Shanghai

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday

#### Personal protective equipment

##### Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Protective gloves against thermal risks Full contact Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 480 min Material tested: Camatril®; (KCL 730 / Aldrich Z677442, Size M) Splash protection Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 480 min Material tested: Camatril®; (KCL 730 / Aldrich Z677442, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

##### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

no data available

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	form: liquid color: Colorless to light yellow
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	116 - 118 °C (241 - 244 °F) at 1 hPa (1 mmHg) - lit.
g) Flash point	-18 °C (0 °F) - closed cup
h) Evaporation rate	no data available

Shanghai Aladdin Biochemical Technology Co., Ltd.

No. 809, Chuhua Branch Road, Fengxian District, Shanghai

i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	0.798 g/cm <sup>3</sup> at 25 °C (77 °F)
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

## 9.2 Other safety information

no data available

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions.

### 10.2 Chemical stability

Vapours may form explosive mixture with air. Reacts violently with water.

### 10.3 Possibility of hazardous reactions

Heat, flames and sparks. Extremes of temperature and direct sunlight. Exposure to moisture.

### 10.4 Conditions to avoid

Alcohols, Water, Oxygen, Oxidizing agents, acids

### 10.5 Incompatible materials

Reacts with water to form: - Hydrogen gas  
Hazardous decomposition products formed under fire conditions: - Carbon oxides, Aluminum oxide

### 10.6 Hazardous decomposition products

no data available

---

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

Shanghai Aladdin Biochemical Technology Co., Ltd.

No. 809, Chuhua Branch Road, Fengxian District, Shanghai

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Carcinogenicity

no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Aspiration hazard

no data available

Additional Information

---

## SECTION 12: Ecological information

### 12.1 Toxicity

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no data available

Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

## SECTION 13:

### 13.1 Disposal considerations

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

### DOT (US)

UN number: 3394	Packing group: I	Class: 4.2 (4.3)
Proper shipping name: Organometallic substance, liquid, pyrophoric, water-reactive (Diisobutylaluminium hydride)	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: No		

### IMDG

UN number: 3394	Packing group: I	EMS-No: no data available
Proper shipping name: Organometallic substance, liquid, pyrophoric, water-reactive (Diisobutylaluminium hydride)		

### IATA

UN number: 3394	Packing group: I	Class: 4.2 (4.3)
Proper shipping name: Organometallic substance, liquid, pyrophoric, water-reactive (Diisobutylaluminium hydride)		

## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

## SECTION 16: Other information

### Further information

Copyright Aladdin Co. Ltd. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Aladdin Co. Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Version: v1

Revision Date: 2024-01-28

Print Date: 2024-02-04