# SAFETY DATA SHEET

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07

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

## 1.1 Product identifiers

Product name : Lithium bis(trimethylsilyl)amide

Product Number : L106746
Brand : aladdin
CAS-No. : 4039-32-1

## 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 liquid (category 2), H225

Self-heating substances and mixtures (category 1), H251

Acute toxicity, inhalation (category 5), H333

Skin corrosion/irritation (category 1B), H314

Serious eye damage/eye irritation (Category 1), H318

Reproductive toxicity (category 2), H361

Specific target organ toxicity (single exposure) (category 3), narcotic effects, H336

Specific target organ toxicity (repeated exposure) (category 2), H373

Aspiration hazard (category 1), H304

Acute (short-term) aquatic hazard (category 2), H401

Long-term aquatic hazard (category 3), H412

## 2.2 GHS Label elements, including precautionary statements

Signal word

Hazard statement(s)

**Pictogram** 



Danger







riazara statement(s)	
H225	Highly Flammable liquid and vapor
H251	Self-heating; may catch fire
H304	May be fatal if swallowed and enters airways
H314	Causes severe skin burns and eye damage
H333	May be harmful if inhaled
H336	May cause drowsiness or dizziness

H351 Suspected of causing cancer
H361 Suspected of damaging fertility or the unborn child

H373 Causes damage to organs through prolonged or repeated exposure

H401 Toxic to aquatic life

H412 Harmful to aquatic life with long lasting effects

**Precautionary statement(s)** 

P201 Obtain special instructions before use.

P210 Keep away from heat, hot surface, sparks, open flames and other ignition

sources. - No smoking.

P202 Do not handle until all safety precautions have been read and understood.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/lighting/.../] equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash hands [and ...] thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P235+P410 Keep cool. Protect from sunlight.

P310 Immediately call a POISON CENTER or doctor/physician.

P363 Wash contaminated clothing before reuse.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN

with water [or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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+P313 IF exposed or concerned: Get medical advice/attention.

P370+P378 In case of fire: Use ... to extinguish.

P405 Store locked up.

P407 Maintain air gap between stacks or pallets.

P420 Store separately.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

Dispose of contents/container to an approved waste disposal plant. P501

P301+P312+P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse

mouth.

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

## **SECTION 3: Composition/information on ingredients**

#### 3.2 **Mixtures**

: LiHMDS; Bis(trimethylsilyl)amine lithium salt; Lithium Hexamethyldisilazide; Synonyms

Hexamethyldisilazane Lithium Salt; 1,1,1,3,3,3-Hexamethyldisilazane lithium salt

Formula : C6H18LiNSi2 Molecular weight : 167.32

Component	Classification	Concentration
Toluene		
CAS-No.: 108-88-3	Flammable liquids Category 2; Acute toxicity Category 5; Skin	
EC-No.: 203-625-9	corrosion/irritation Category 2; Reproductive toxicity Category 2; Specific	:
	target organ toxicity - single exposure Category 3; Specific target organ	
	toxicity - repeated exposure Category 2; Aspiration hazard Category 1;	
	Short-term (acute) aquatic hazard Category 2; Long-term (chronic)	
	aquatic hazard Category 3; H225, H333, H315, H361, H336, H373, H304	1,
	H401, H412 Concentration limits: 20 %: STOT SE 3, H336;	

#### Lithium

## bis(trimethylsilyl)amide

CAS-No.: 4039-32-1 Flammable solid category 1; self-heating substance And mixture category EC-No.: 223-725-

1; skin corrosion/thorn Irritant Category 1B; serious eye damage/eye Eye

irritation Category 1; H228, H251, H314, H318

## **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

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

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

## 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

carbon dioxide (CO2) dry powder

#### Unsuitable extinguishing media

Water foam

## 5.2 Special hazards arising from the substance or mixture

Carbon oxide Nitrogen oxide Lithium oxide Silica is combustible. Beware of tempering. Vapor is heavier than air, so it can spread over the ground. In case of fire, hazardous gas or vapor may be generated. Forms explosive mixture with air at moderate temperature

## 5.3 Advice for firefighters

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

For disposal see section 13.

## **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. 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. Filled with argon, sensitive to air and humidity, Store at 2-8 °C.

## 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**

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

#### **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

Do not let product enter drains.

## **SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

a) Appearance	no data available
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	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available

j) Upper/lower flammability or explosive

limits no data available k) Vapour pressure no data available no data available I) Vapour density no data available m) Relative density 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 no data available r) Viscosity 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

no data available

## 10.2 Chemical stability

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

## 10.3 Possibility of hazardous reactions

no data available

#### 10.4 Conditions to avoid

Warm up.

## 10.5 Incompatible materials

Do not contact with water. , Strong oxidant, alcohol, acid

## 10.6 Hazardous decomposition products

no data available

## **SECTION 11: Toxicological information**

## 11.1 Information on toxicological effects

#### **Acute toxicity**

mixture

Acute toxicity

Symptoms: Swallowing can cause severe burns to the mouth and throat, and there is a danger of perforation of the esophagus and stomach.

Acute toxicity estimate Inhalation-4 h-31.73 mg/l

(Calculation method)

Symptoms: mucosal irritation, cough, shortness of breath, possible damage:, damage to the respiratory tract

Lithium Bistrimethylsilylamide

Acute toxicity

Oral: No data available

Symptoms: Swallowing can cause severe burns to the mouth and throat, and there is a danger of perforation of the esophagus and stomach.

Symptoms: mucosal irritation, cough, shortness of breath, possible damage:, damage to the respiratory tract

#### Skin corrosion/irritation

The mixture can cause burns.

### Serious eye damage/eye irritation

The mixture can cause serious eye damage. Danger of blindness!

#### 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

The mixture may cause drowsiness or dizziness.

## 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.Vapours may cause drowsiness and dizziness.

#### **Aspiration hazard**

Aspiration hazard, inhalation may cause pulmonary edema and pneumonia.

#### **Additional Information**

Lung irritation, chest pain, pulmonary edema, toluene inhalation studies have shown animal penile, foreskin, scrotal hypersensitivity and ulcers.

Burning sensation:, cough, wheezing, laryngitis, shortness of breath, cramps, inflammation, sore throat, cramps, inflammation, bronchitis, pneumonia, pulmonary edema, the substance

The damage to mucosal tissues and upper respiratory tract, eyes and skin is huge.

Other dangers cannot be ruled out.

This substance must be handled with special care.

Operate in accordance with good industrial hygiene and safety regulations.

## **SECTION 12: Ecological information**

## 12.1 Toxicity

Methylbenzene

Toxicity to fish flow test LC50-Oncorhynchus kisutch (coho salmon)-5.5 mg/l-96h

Remarks: (ECHA)

No ridge to water flea and other aquatic species

Toxicity of Vertebral Animals

EC50-Ceriodaphnia dubia (Ceriodaphnia dubia)-3.78 mg/l-48 h

(US-EPA)

Toxicity to bacteria static test EC50-bacteria-84 mg/l-24 h

Remarks: (ECHA)

Lithium Bistrimethylsilylamide

Toxicity to fish static test LC50-Danio rerio (zebrafish)-109 mg/l-96 h

(OECD Test Guideline 203)

Remarks: (Compared with similar products)

Corresponding values are specified for the following substances: Lithium hydroxide monohydrate

No ridge to water flea and other aquatic species

Toxicity of Vertebral Animals

Static test EC50-Daphnia magna (Water flea)-133.5 mg/l-48 h

(OECD Test Guideline 202)

Remarks: (Compared with similar products)

Corresponding values are specified for the following substances: Lithium hydroxide monohydrate

Toxicity to algae static test ErC50-Pseudokirchneriella subcapitata (green algae)-612 mg/l -72 h

(OECD Test Guideline 201)

Remarks: (Compared with similar products)

Corresponding values are specified for the following substances: Lithium hydroxide monohydrate

Toxicity to bacteria static test EC50-activated sludge-1,263 mg/l-3 h

(OECD Test Guideline 209)

Remarks: (Compared with similar products)

Corresponding values are specified for the following substances: Lithium hydroxide

## 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

#### **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: 2924 Packing group: II Class: 3 (8)

Proper shipping name: Flammable Reportable Quantity(RQ): no data Poison Inhalation Hazard: no data

liquid, corrosive, n.o.s. (1,1,1,3,3,3- available available

hexamethyldisilazane lithium salt,

nexametryldishazane htmam sait

Toluene)

Environmental Hazards: No

**IMDG** 

UN number: 2924 Packing group: II EMS-No: no data available

Proper shipping name: Flammable liquid, corrosive, n.o.s. (1,1,1,3,3,3-hexamethyldisilazane lithium salt, Toluene)

IATA

UN number: 2924 Packing group: II Class: 3 (8)

Proper shipping name: Flammable liquid, corrosive, n.o.s. (1,1,1,3,3,3-hexamethyldisilazane lithium salt, Toluene)

## **SECTION 15: Regulatory information**

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

#### **SECTION 16: Other information**

#### **Further information**

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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.

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