

## 1. Identification of the substance/preparation and of the company/undertaking

### Identification of the product

Lithium hydroxide monohydrate

### Manufacturer/supplier identification

Company: Guangdong Guanghua Sci-Tech Co.,Ltd

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## 2. Hazards identification

### Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity, Oral (Category 3)

Acute toxicity, Inhalation (Category 3)

Skin corrosion/irritation (Category 1)

Serious eye damage/eye irritation (Category 1)

Reproductive toxicity (Category 1A)

Specific target organ toxicity - single exposure (Category 1)

Short-term (acute) aquatic hazard (Category 3)

### Label elements

#### Pictogram



Signal word Danger

#### Hazard statement(s)

H301 + H331 Toxic if swallowed or if inhaled.  
H314 Causes severe skin burns and eye damage.  
H360 May damage fertility or the unborn child.  
H370 Causes damage to organs.  
H402 Harmful to aquatic life.

#### Precautionary statement(s)

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust.  
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.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.  
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/ shower.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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P305 + P351 + P338 + P310

Immediately call a POISON CENTER/ doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P308 + P311

IF exposed or concerned: Call a POISON CENTER/ doctor.

P363

Wash contaminated clothing before reuse.

P403 + P233

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

P405

Store locked up.

P501

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

Supplemental Hazard Statements  
none

### 3. Composition/information on ingredients

#### *Synonyms*

Lithium hydroxide monohydrate

CAS-No.: 1310-66-3

*M*: 41.96 g/mol

Molecular formula: LiOH·H<sub>2</sub>O

### 4. First aid measures

#### **If inhaled**

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

#### **In case of skin contact**

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.

#### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 5. Fire-fighting measures

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

### 6. Accidental release measures

#### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### **Environmental precautions**

Do not let product enter drains.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 7. Handling and storage

#### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

**8. Exposure controls and personal protection****Appropriate engineering controls**

General industrial hygiene practice.

**Personal protective equipment****Eye/face protection**

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 glove's 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. 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.

**9. Physical and chemical properties**

**Form:** Power

**Colour:** White

**Odour:** not available

**pH value:** 12

**Melting point:** 462°C.

**Boiling point:**924°C

**Ignition temperature:** not available

**Flash point:** not available

**Autoignition temperature:** not available

**Explosion limits**

**lower:** not available

**upper:** not available

**Density :** 1.43

**Bulk density:** not available

**Solubility in**

**water (20 °C) :** soluble in water

**diluted acids (20 °C) :** not available

**Thermal decomposition:** not available

## **10. Stability and reactivity**

### **Chemical stability**

no data available

### **Conditions to avoid**

Exposure to moisture.

### **Materials to avoid**

Strong oxidant, strong acid. Carbon dioxide.

### **Hazardous decomposition products**

Other decomposition products - no data available

## **11. Toxicological information**

### **Acute toxicity**

LD50 Oral - Rat - 210 mg/kg

LC50 Inhalation - Rat - 4 h - > 6.15 mg/l

### **Skin corrosion or irritation**

no data available

### **Serious eye damage or eye irritation**

no data available

### **Respiratory or skin sensitization**

no data available

### **Germ cell mutagenicity**

no data available

### **Reproductive toxicity**

no data available

### **Carcinogenicity**

IARC: 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.

### **Specific target organ toxicity - single exposure**

no data available

### **Specific target organ toxicity - repeated exposure**

no data available

### **Aspiration hazard**

no data available

## **12. Ecological information**

### **Toxicity**

Toxicity to fish

LC50 - Danio rerio (zebra fish) - 109 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 33.5 mg/l - 48 h

Toxicity to algae

ErC50 - Pseudokirchneriella subcapitata (green algae) - 153.44 mg/l - 72 h

Toxicity to bacteria

EC50 - activated sludge - 316.8 mg/l - 3 h

### **Persistence and degradability**

no data available

### **Bioaccumulative potential**

no data available

### **Mobility in soil**

no data available

## **13. Disposal considerations**

### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

### **Contaminated packaging**

Dispose of as unused product.

## **14. Transport information**

### **ADR/RID**

UN-Number: 2680    Class: 8    Packing group: II

Proper shipping name: Lithium hydroxide

### **IMDG**

UN-Number: 2680    Class: 8    Packing group: II

Proper shipping name: Lithium hydroxide

Marine pollutant: no

### **IATA**

UN-Number: 2680    Class: 8    Packing group: II

Proper shipping name: Lithium hydroxide

## **15. Regulatory information**

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

## **16. Other information**

General update.

*Regional representation:*

This information is given on the authorised Safety Data Sheet for your country.