



ISO9001:2000

# MATERIAL SAFETY DATA SHEET

## Section 1 - Product and Company Information

### Product detail

Product Name: Magnesium sulfate heptahydrate

Synonyms: Epsom salts

Molecular Formula:  $MgSO_4 \cdot 7H_2O$

### Manufacturer/Supplier

Hainan Zhongxin Chemical Co., Ltd.

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Website: [www.zxchem.com.cn](http://www.zxchem.com.cn)

## Section 2 - Composition/Information on Ingredients

Product Name: Magnesium sulfate heptahydrate

CAS No.: 10034-99-8

EINECS/ELINCS: 2312998

Hazard Symbols: No

## Section 3 - Hazards Identification

### Emergency overview

May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

### HMIS rating

Health: 1

Flammability: 0

Reactivity: 0

### NFPA rating

Health: 1

Flammability: 0

Reactivity: 0

For additional information on toxicity, please refer to Section 11.

## Section 4 - First Aid Measures

### Oral exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

### Inhalation exposure

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

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**Dermal exposure**

In case of contact, immediately wash skin with soap and copious amounts of water. Call a physician.

**Eye exposure**

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**Section 5 - Fire Fighting Measures**

**Flash point**

N/A

**Autoignition temp**

N/A

**Flammability**

N/A

**Extinguishing media**

Use agent most appropriate to extinguish surrounding fire.

**Firefighting**

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Emits toxic fumes under fire conditions.

**Section 6 - Accidental Release Measures**

**Procedure to be followed in case of leak or spill**

Evacuate area.

**Procedure(s) of personal precaution(s)**

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

**Methods for cleaning up**

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

**Section 7 - Handling and Storage**

**Handling**

User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**Storage**

Suitable: Keep tightly closed. Store in a cool, dry, well-ventilated area away from incompatible substances.

**Section 8 - Exposure Controls / Personal Protection**

**Engineering controls**

Safety shower and eye bath required. Mechanical exhaust required.

**Personal protective equipment**

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

**General hygiene measures**

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.

**Section 9 - Physical/Chemical Properties**

Physical State: Solid

Color: White

Form: Powder

Molecular Weight: 246.47

Molecular Formula:  $MgSO_4 \cdot 7H_2O$

pH: N/A

Boiling Point: N/A

Freezing/Melting Point: N/A

Flash Point: N/A

Decomposition Temperature: N/A

Autoignition Temperature: N/A

Vapor Pressure: N/A

Vapor Density: N/A

Saturated Vapor: N/A

Density: 1.678g/ml

Bulk Density: N/A

Odor Threshold: N/A

Volatile: N/A

Evaporation Rate: N/A

Viscosity: N/A

Surface Tension: N/A

Partition Coefficient: N/A

Explosion Limits: N/A

Flammability: N/A

Refractive Index: N/A

Optical Rotation: N/A

Solubility: Soluble in water

N/A = not available

**Section 10 - Stability and Reactivity**

**Stability**

Stable: Stable.

Materials to Avoid: No significant incompatibilities identified with common materials and contaminants.

**Hazardous decomposition products**

Hazardous Decomposition Products: Oxides of sulfur.

**Hazardous polymerization**

Hazardous Polymerization: Will not occur.

**Section 11 - Toxicological Information**

**Route of exposure**

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

**Signs and symptoms of exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Section 12 - Ecological Information**

No data available.

**Section 13 - Disposal Considerations**

**Appropriate method of disposal of substance or preparation**

Contact a licensed professional waste disposal service to dispose of this material.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Observe all federal, state, and local environmental regulations.

**Section 14 - Transport Information**

**DOT**

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

**IATA**

Non-Hazardous for Air Transport: Non-hazardous for air transport.

**Section 15 - Regulatory Information**

**EU additional classification**

S: 24/25

Safety Statements: Avoid contact with skin and eyes.

**US classification and label text**

Safety Statements: Avoid contact with skin and eyes.

**US regulatory information**

SARA listed: No

TSCA inventory item: No

**Canada regulatory information**

WHMIS classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

**Section 16 - Other Information****Warranty**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall **Hainan Zhongxin Chemical Co., Ltd.** be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if **Hainan Zhongxin Chemical Co., Ltd.** has been advise the possibility of such damages.