



บริษัท จีโกลเคมี จำกัด  
Global Chemical Co., Ltd.  
ISO9001:2000

## MATERIAL SAFETY DATA SHEET

SD-QC-01/04-24

### ZINC SULFATE HETAHYDRATE

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#### 1. Product and Company Identification

Product Name : Zinc Sulfate Heptahydrate  
Identification of the product : Crystalline powder  
Chemical formula :  $ZnSO_4 \cdot 7H_2O$   
Synonyms : White vitriol, Zinc vitriol.  
CAS No. : 7446-20-0  
Company Identification : Global Chemical Co.,Ltd.  
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Samutprakarn 10280, Thailand  
Tel: 662 324-0473(-5) [http: www.glochem.com](http://www.glochem.com)  
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#### 2. Composition, Information on Ingredients

Composition :

Ingredient	CAS NO.	% by weight
Zinc sulfate heptahydrate	7446-20-0	> 96

#### 3. Hazards Identification

Physical / Chemical hazards : Cause severe eye irritation and possible eye injury. Causes skin and respiratory tract irritation. May be harmful if swallowed. Very toxic to aquatic organisms.

Potential Health Effects : Causes burns by exposure routes. Harmful if swallowed.

- Inhalation : Dust is irritating to the respiratory tract. May be harmful if inhaled.
- Skin : Cause skin irritation. Symptom include redness and pain.
- Eye : Contact may cause severe eye irritation and possible eye damage.
- Ingestion : May cause irritation of the digestive tract. May be harmful if swallowed.
- Chronic : No information found.

#### 4. First Aid Measures

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Skin : In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops



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and persists. Wash clothing before reuse.

- Eye : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.  
Get medical aid immediately.
- Ingestion : If swallowed, do not induce vomiting unless directed to do so by medical personnel.  
Never give anything by mouth to an unconscious person. Get medical aid.
- Chronic : No information found.

**5. Fire Fighting Measures**

- General Information : As any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
- Extinguishing Media : Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.
- Flash Point : Not applicable.
- Autoignition Temperature : Not applicable.
- Explosion Limits, Lower : Not available.
- Upper : Not available.

**6. Accidental Release Measures**

- General Information : Use proper personal protective equipment as indicated in Section 8.
- Spills / Leaks : Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. This material is a water pollutant and should not be emptied into drains.

**7. Handling and storage**

- Handling : Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin and clothing. Avoid breathing dust.
- Storage : Store in a cool, dry, well-ventilated area away from incompatible substances.

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#### 8. Exposure Controls, Personal Protection

##### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA-Final PELs
Zinc sulfate heptahydrate	None listed	None listed	None listed

**OSHA Vacates PELs** : Zinc sulfate heptahydrate: No OSHA Vacated PELs are listed for this chemical

##### Personal Protective Equipment

**Eyes** : Wear chemical splash goggles.

**Skin** : Wear appropriate protective gloves to prevent skin exposure.

**Clothing** : Wear appropriate protective clothing to prevent skin exposure.

**Respirators** : Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

#### 9. Physical and Chemical Properties

**Appearance** : Crystals  
**Colour** : White  
**Odour** : Odourless  
**pH value** : 4-6 (5% aq.sol.)  
**Boiling point (°C)** : Not available.  
**Melting point (°C)** : 100 deg C.  
**Decomposition Temperature** : > 500 deg C.  
**Solubility in water** : Soluble in water.  
**Specific Gravity / Density** : 3.54 g/cm<sup>3</sup> @ 25 deg C

#### 10. Stability and Reactivity

**Stability** : Stable under normal temperatures and pressures, Efflorescent (tending to lose water molecules of hydration) in dry air.  
**Materials to avoid** : Strong bases.  
**Conditions to avoid** : Excess heat.  
**Hazardous decomposition products** : Oxides of sulfur, toxic fumes of zinc oxide  
**Hazardous polymerization** : Will not occur.

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#### 11. Toxicological Information

- Toxicity to animals : LD50 / oral / rat = 1260 mg/kg., LD50 / oral / mouse = 200 mg/kg.  
Chronic Effects on Humans : No data available.  
Other Toxic Effects on Humans : No data available.  
Carcinogenicity : Not listed by ACGIH, IARC, NTP, or CA Prop 65.  
Reproductive Effects : No data available.

#### 12. Ecological Information

- Ecotoxicity : No data available. No information available.  
Physical : No information available.  
Environmental Toxicity : Very toxic to aquatic organisms.

#### 13. Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

- RCRA P-Series : None listed.  
RCRA U-Series : None listed.

#### 14. Transport Information

- UN/NA : UN3077  
DOT : Not regulated for domestic.  
IMDG / ADR Class : 9  
IATA Class : 9  
UN Packing group : III

#### 15. Regulatory Information

##### EC Regulations


EC Classification (67 / 548 / EEC-88 / 379 / EEC - 92 / 32 / EEC)Xi - Irritant (Classified by manufacturer), N - Environmentally Hazardous.

Label name : ZINC SULFATE HEPTAHYDRATE.

R-phrases(s) R36/38 - Irritating to eyes, and skin.

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R30/53 – Very toxic for water-borne organisms.

S-phrases(s) S2 – Keep out of reach of children.

S22 – Do not breathe dust.

S24 – Avoid contact with skin.

S24 – Avoid contact with eyes.

S60 – This material and/or its containers must be disposed of as hazardous waste.

S61 – Avoid releasing into the atmosphere or environment. Obtain special instructions/consult safety datasheet.

Symbols : Danger to the Environment Irritant.

#### 16. Other Information

Product Use : Industrial  
 MSDS Creation date (dd/mm/yy) : 16/01/08  
 Last Updated : Revision 0, Date : 16/01/08  
 Effective date (dd/mm/yy) : 28/02/08

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