

# Zinc Sulphate Monohydrate MSDS

## 1. Product Name and Identification

**Product Name:** [Zinc Sulphate Monohydrate](#)

**Synonyms:** Zinc Sulfate Monohydrate, Zinc Vitriol

**CAS Number:** 7446-19-7

**Molecular Formula:**  $\text{ZnSO}_4 \cdot \text{H}_2\text{O}$

**Manufacturer's Name:** [Fill in as Applicable]

**Emergency Contact:** [Fill in Emergency Number]

## 2. Composition/Ingredients

- **Chemical Name:** Zinc Sulphate Monohydrate
- **CAS Number:** 7446-19-7
- **Purity:** 98-99%
- **EC Number:** 231-793-3
- **Hazardous Ingredients:** None beyond classification limits.

## 3. Hazards Identification

### Classification:

- Eye damage/irritation (Category 1)
- Harmful to aquatic life (Category 2)

### Label Elements:

- **Signal Word:** Danger
- **Hazard Statements:**
  - Causes serious eye damage.
  - Harmful to aquatic life with long-lasting effects.
- **Precautionary Statements:**
  - Avoid release to the environment.
  - Wear protective gloves and eye/face protection.

### Potential Health Effects:

- **Eye Contact:** Severe irritation or damage.
- **Skin Contact:** Prolonged exposure may cause mild irritation.
- **Inhalation:** May cause respiratory discomfort with prolonged exposure.
- **Ingestion:** Harmful if swallowed, may cause gastrointestinal irritation.

## 4. First Aid Measures

**Eyes:** Rinse immediately with plenty of water for at least 15 minutes. Seek medical attention.

**Skin:** Wash thoroughly with soap and water. If irritation develops, consult a physician.

**Inhalation:** Move the person to fresh air. If breathing difficulty persists, get medical help.

**Ingestion:** Rinse mouth. Do not induce vomiting unless instructed by a physician. Seek medical advice if large quantities are ingested.

## 5. Handling and Storage

### Handling:

- Avoid direct contact with skin and eyes.
- Use in well-ventilated areas only.
- Prevent release into the environment.

### Storage:

- Store in a cool, dry place away from incompatible materials.
- Keep container tightly sealed.

## 6. Exposure Controls/Personal Protection

**Exposure Limits:** None established for zinc sulphate monohydrate.

### Engineering Controls:

- Use local exhaust or mechanical ventilation to keep exposure levels below recommended limits.

### Personal Protective Equipment (PPE):

- **Eye Protection:** Chemical safety goggles.
- **Skin Protection:** Protective gloves resistant to chemicals.
- **Respiratory Protection:** Use a dust mask or respirator if engineering controls are inadequate.
- **General Hygiene:** Wash thoroughly after handling and before eating or drinking.

## 7. Physical and Chemical Properties

- **Appearance:** White crystalline powder
- **Odor:** Odorless
- **Melting Point:** 100°C (decomposes)
- **Boiling Point:** Not applicable

- **Solubility in Water:** Soluble (>100 g/L)
- **pH (1% solution):** 4.0-5.0
- **Density:** Approximately 3.28 g/cm<sup>3</sup>

## 8. Stability and Reactivity

**Stability:** Stable under normal conditions of use and storage.

**Hazardous Reactions:** None known under recommended conditions of use.

**Conditions to Avoid:** Excess moisture, extreme temperatures.

**Incompatible Materials:** Strong acids, strong reducing agents.

**Hazardous Decomposition Products:** Sulfur oxides, zinc oxides under thermal decomposition.

## 9. Toxicological Information

**Acute Toxicity:**

- **Oral (LD50):** 2150 mg/kg (rat)
- **Dermal:** Not classified as hazardous.

**Chronic Exposure:** Prolonged or repeated skin exposure may cause mild irritation.

**Routes of Exposure:** Direct contact, ingestion, or inhalation.

**Symptoms of Overexposure:** Irritation to eyes, respiratory system, and gastrointestinal discomfort.

## 10. Disposal Considerations

**Waste Disposal:**

- Dispose of material in accordance with local, regional, and national regulations.
- Prevent release into sewers, waterways, or environment.

**Empty Containers:** Rinse thoroughly before disposal. Follow container recycling or disposal regulations.

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