

Zinc Acetate MSDS

1. Product Name and Identification

Product Name: [Zinc Acetate](#)

Synonyms: Acetic acid, zinc salt; Zinc diacetate

Chemical Formula: $\text{Zn}(\text{C}_2\text{H}_3\text{O}_2)_2 \cdot 2\text{H}_2\text{O}$

CAS Number: 5970-45-6

Manufacturer/Supplier: [Insert Name Here]

Emergency Contact: [Insert Contact Information]

2. Composition/Ingredients

Chemical Name: Zinc Acetate Dihydrate

Concentration: $\geq 99\%$

Molecular Weight: 219.51 g/mol

Hazardous Impurities: None identified

3. Hazards Identification

Hazard Classification:

- Acute Toxicity (Oral, Category 4)
- Skin and Eye Irritant (Category 2)
- Hazardous to the Aquatic Environment (Chronic, Category 3)

Label Elements:

- **Signal Word:** Warning
- **Hazard Statements:**
 - H302: Harmful if swallowed.
 - H315: Causes skin irritation.
 - H319: Causes serious eye irritation.
 - H412: Harmful to aquatic life with long-lasting effects.
- **Precautionary Statements:**
 - P264: Wash hands thoroughly after handling.
 - P273: Avoid release to the environment.
 - P280: Wear protective gloves, protective clothing, and eye protection.
 - P301 + P312: If swallowed, call a poison control center or doctor if you feel unwell.

4. First Aid Measures

General Advice: Seek medical attention if symptoms persist.

- **Inhalation:** Move to fresh air immediately. If breathing is difficult, administer oxygen and seek medical attention.
- **Skin Contact:** Wash thoroughly with soap and water. Remove contaminated clothing and wash it before reuse. If irritation persists, consult a doctor.
- **Eye Contact:** Rinse eyes cautiously with water for at least 15 minutes. Remove contact lenses if present and manageable. Seek medical advice if irritation persists.
- **Ingestion:** Rinse mouth with water and do not induce vomiting unless directed by a healthcare provider. Get medical attention immediately.

5. Handling and Storage

Handling:

- Avoid inhalation of dust and contact with eyes, skin, and clothing.
- Use with adequate ventilation to reduce dust formation.
- Handle in a manner that prevents spills and releases.

Storage:

- Store in a cool, dry, and well-ventilated area.
- Keep the container tightly closed and protected from direct sunlight.
- Avoid storing near incompatible materials such as strong oxidizing agents.

6. Exposure Controls/Personal Protection

Exposure Limits:

- OSHA PEL (TWA): 5 mg/m³ (as zinc compounds).

Engineering Controls:

- Use local exhaust ventilation or other engineering controls to keep airborne concentrations below recommended exposure limits.

Personal Protective Equipment (PPE):

- **Eye Protection:** Safety glasses with side shields or chemical goggles.
- **Skin Protection:** Wear chemical-resistant gloves and protective clothing to minimize skin exposure.
- **Respiratory Protection:** Use an approved particulate respirator if airborne concentrations exceed acceptable limits.
- **Hygiene Measures:** Wash hands, face, and exposed skin thoroughly after handling. Avoid eating, drinking, or smoking while working with Zinc Acetate.

7. Physical and Chemical Properties

- **Appearance:** White crystalline solid
- **Odor:** Odorless or slight acetic odor
- **pH:** ~6.0 (5% solution in water)
- **Melting Point:** ~237°C (decomposes)
- **Boiling Point:** Not applicable (decomposes at high temperatures)
- **Flash Point:** Not applicable
- **Solubility:** Soluble in water (~43g/100mL at 20°C); slightly soluble in alcohol
- **Density:** ~1.74 g/cm³
- **Vapor Pressure:** Negligible

8. Stability and Reactivity

Stability: Stable under recommended conditions of use and storage.

Reactivity: Non-reactive under normal conditions.

Conditions to Avoid:

- Exposure to excessive heat or moisture.
- Contact with incompatible materials.

Hazardous Decomposition Products: May release acetic acid vapors, zinc oxides, and other toxic gases when decomposed by heat.

Incompatible Materials: Strong oxidizers, strong acids, and strong bases.

9. Toxicological Information

Acute Toxicity:

- LD50 (Oral, Rat): ~2,000 mg/kg (estimated).

Skin: May cause irritation on prolonged or repeated exposure.

Eyes: Causes irritation, redness, and discomfort upon direct contact.

Respiratory: Dust inhalation may irritate the respiratory tract.

Chronic Effects: Prolonged exposure may affect kidney and liver function.

10. Disposal Considerations

Waste Disposal Methods:

Dispose of product in accordance with local, state, and federal regulations. Avoid discharge into drains or waterways.

Empty Containers: Triple rinse containers before disposal or recycling. Do not reuse containers for other purposes.

Special Recommendations: Consult a licensed hazardous waste disposal contractor for large amounts of material.
