Zinc Pyrithione - MATERIAL SAFETY DATA SHEET

Manufacturer/information service:
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1. Chemical Product Identification
   Product Name: Zinc Pyrithione
   Molecular Formula: C_{10}H_{8}N_{2}O_{2}S_{2}Zn
   Molecular Weight: 317.70
   Structural Formula:
   ![Chemical Structure](image)
   Chemical Name: 2-Mercaptopyridine-1-oxide zinc salt
   Form: powdery solid
   Color: grey white
   Odor: odorless
   CAS No.: 13463-41-7

2. Composition / Information on Ingredients

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<tr>
<th>Composition</th>
<th>CAS No.</th>
<th>Content %</th>
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<tr>
<td>Zinc Pyrithione</td>
<td>13463-41-7</td>
<td>95.0</td>
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3. Hazards Identification
Potential Acute Health Effects:
Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion. Severe over-exposure can result in death.

4. First Aid Measures
Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

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

Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

5. Fire-Fighting Measures
Flammability of the Product: Non-flammable.
Auto-Ignition Temperature: Not applicable.
Flash Points: Not applicable.
Flammable Limits: Not applicable.
Products of Combustion: Not available.
Fire Hazards in Presence of Various Substances: Not applicable.
Explosion Hazards in Presence of Various Substances: Non-explosive in presence of open flames and sparks, of shocks.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

6. Accidental Release Measures
Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill: Poisonous liquid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

7. Handling And Storage
Precautions: Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, metals.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

8. Exposure Controls/Personal Protection
Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection: Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

9. Physical and Chemical Properties
pH (1% soln/water): Not available

Boiling Point: The lowest known value is 100°C (212°F) (Water).
Melting Point: Not available.
Critical Temperature: Not available.
Specific Gravity: Weighted average: 1.27 (Water = 1)
Vapor Pressure: The highest known value is 2.3 kPa (@ 20°C) (Water).

10. Stability and Reactivity
Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Incompatible materials.
Incompatibility with various substances: Reactive with oxidizing agents, reducing agents, metals.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: Incompatible with oxidizing agents, reducing agents, and heavy metals.
Special Remarks on Corrosivity: Not available.
Polymerization: Will not occur.

11. Toxicological Information
Toxicity to Animals:
Acute oral toxicity (LD50): 330 mg/kg (Mouse)
Acute dermal toxicity (LD50): 206 mg/kg (Rabbit)
Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans:
May cause adverse reproductive effects (fetotoxicity and fertility (female) and birth defects (teratogenic) based on animal data. (Zinc Pyrithione)

12. Ecological and Ecotoxicological Information
Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation: Not available.
13. Disposal Considerations
   Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport Information
   Not applicable.

15. Regulatory Information
   Not applicable.

16. Other Information
   All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.