Zinc Phosphide - MATERIAL SAFETY DATA SHEET

Manufacturer/information service:
ZHEJIANG RAYFULL CHEMICALS CO., LTD
ADD: NO.113 PUXING ROAD, PUZHOU INDUSTRIAL PARK, LONGWAN DISTRICT, WENZHOU ZHEJIANG P.R. CHINA
Tel: +86-577-88905587 Fax: +86-577-88905567
Email: info@rayfull.com sales@rayfull.com

1. Chemical Product Identification

Product Name: Zinc Phosphide
Molecular Formula: Zn₃P₂
Molecular Weight: 258.09
Structural Formula:

Chemical Name: trizinc diphosphide
Form: solid
Color: Grey/black
Odor: Garlic odor
CAS No.: 1314-84-7

2. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Composition</th>
<th>CAS No.</th>
<th>Content %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc Phosphide</td>
<td>1314-84-7</td>
<td>90.0</td>
</tr>
<tr>
<td>Other ingredients</td>
<td></td>
<td>10.0</td>
</tr>
</tbody>
</table>

3. Hazards Identification

Emergency Overview: Harmful or fatal if swallowed. Any person handling this product who experiences signs and symptoms (such as nausea, abdominal pain, tightness in chest, weakness) should get immediate medical attention.
4. First Aid Measures

Eyes: Flush with water. Get medical attention if irritation persists.

Skin: Remove contaminated clothing, wash skin with soap and water.

Inhalation: Remove person to fresh air and watch for signs of poisoning.

Ingestion: Call a physician or poison control center immediately, or transport person to the nearest hospital. Have the product label available for medical personnel to read. Do not give person water. Do not give anything by mouth or make the person vomit unless told to do so by a doctor.

5. Fire-Fighting Measures

Flash Point: None

Autoignition Temp.: Not determined

Explosive Limits: LEL: Not applicable
UEL: Not applicable

Extinguishing Media: Use dry chemical or carbon dioxide.

Unusual Fire or Contact with water forms toxic and flammable gas

Explosion Hazards: (phosphine) that is heavier than air.

Fire Fighting Wear self-contained breathing apparatus and Instructions: protective clothing.

Fight fire from upwind. Move containers away from fire if safe to do so. For large fires, withdraw from area and allow to burn.

6. Accidental Release Measures

Large Spill/Leak Procedures: Isolate and contain spill. Remove water and ignition sources. Remove unprotected persons from spill area. Do not allow spilled material to enter sewers, streams or other waters. Wearing suitable protective gear (see Section 8 of the MSDS), scoop up spilled material and place in a tightly closed, labeled container for use or disposal.

Small Spills: Clean up spills promptly. Scoop up spilled material and place in a tightly closed container for use according to label instructions.

7. Handling And Storage

Storage Requirements: Store in original container in a cool, dry area out of reach of children, pets and domestic animals. Do not contaminate water, food or feed. Keep container tightly closed. Do not remove or destroy the product label.

Handling Precautions: Read the entire product label before using this rodenticide. Carefully follow all cautions, directions and use restrictions on the label. Never eat, drink or smoke in work areas. Wash arms, hands and face with soap and water after handling this product, and before eating and smoking. Launder contaminated clothing separate from street clothes.
8. Exposure Controls/Personal Protection
   Ventilation: Do not breathe dust. Special ventilation is not required for normal handling and use of this product when following label instructions.
   Protective Clothing/Equipment: Wear rubber gloves.
   Respirator: None required when used according to label instructions.
   Contaminated Equipment: Damaged or unwanted bait stations and bait holders should be wrapped in paper and discarded in trash.
   Comments: This MSDS applies to use of this product for rodent control purposes according to label instructions. Other activities (such as loading of equipment, spill clean-up) that expose workers to airborne dust may require additional protection such as eye protection, long sleeved shirt and trousers or coveralls, and MSHA/NIOSH-approved respirator.

9. Physical and Chemical Properties
   Water Solubility: Negligible
   Melting point: 742°C
   Relative density: 4.55
   % Volatile (Volume): Not applicable
   Bulk Density: 33-37 lb/ft3
   Vapor Pressure: Not applicable
   Vapor Density: Not applicable
   PH: Not applicable

10. Stability and Reactivity
    Stability: Stable
    Conditions to Avoid: Avoid heat & moisture
    Hazardous Polymerization: Will not occur
    Chemical Incompatibilities: Water, acids, oxidizers
    Hazardous Products of Decomposition: Reaction with water or acids slowly evolves phosphine gas, which is toxic and spontaneously combustible.

11. Toxicological Information
    Eye Effects/Eye Irritation: Irritant
    Acute Oral Effects: LD50 (orl-rat): 910 mg/kg
Acute Inhalation Effects: No data available
Acute Dermal Effects: LD50 (dml-rbt): >2000 mg/kg
Skin Irritation: Irritant
Skin Sensitization: Not a skin sensitizer

12. Ecological And Ecotoxicological Information
   This product is toxic to fish and wildlife. Birds and other wildlife feeding on pellets may be killed. Do not contaminate water with this product.
   Read and follow label cautions, instructions and environmental hazard warnings to reduce hazards to non-target animals and endangered species.

13. Disposal Considerations
   Disposal: Improper disposal of this product is a violation of Federal law.
   For disposal as a waste, this product may be hazardous waste.

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.