

GHS Safety Data Sheet

SDS No. :ZNI01XAEG

Date Issued: 2004/11/24

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Section 1. Identification of the substance or mixture and of the supplier

1.1 Product Information

Product name: **Zn₃P₂ Zinc phosphide**

Product number:	Purity	Form	Size (mm) or Shape
ZNI05PB	99.999%(5N)	powder	—
ZNI06GB	99.999%(5N)	lumps	—

1.2 Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd.

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Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
Acute toxicity(Oral): Category2 Acute toxicity(Skin): Category4 Serious eye damage/ eye irritation: Category 2B Specific target organ toxicity, single exposure: Category1 Specific target organ toxicity, repeated exposure : Category2	No data available	Substances and mixtures which, in contact with water, emit flammable gases : Category 1 Flammable solids : Not classified Pyrophoric solids : Not classified Self-heating substances and mixtures : Not classified

GHS Label: F,T,C



Pictograms or symbols:

Warning word: Not applicable

Hazard information	Description of precaution
In contact with water releases flammable gases which may ignite spontaneously Fatal if swallowed Harmful in contact with skin Causes eye irritation Causes damage to organs (central nervous system) May cause damage to organs(liver) through prolonged or repeated exposure	Keep away from any possible contact with water, because of violent reaction and possible flash fire. Protect from moisture. Handle under inert gas. Wear protective gloves/protective clothing/eye protection/respiratory protection/face protection during handling. Avoid breathing dust/mist/gas/fume/vapours/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling. IN CASE OF FIRE: Use Dry sand, Perlite ,Metal fire extinguishers for extinction. DO NOT use water fog or foam, carbon dioxide. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN; Remove immediately all contaminated clothing and rinse skin with water/shower. Then wash skin with plenty of soap and water. If skin irritation occurs, get medical advice/attention.

	<p>IF IN EYES: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician if you feel unwell. Protect from sunlight. Store in a cool, dry and well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/ container in accordance with local/national regulations.</p>
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Additional hazard information :With respect to additional hazard information, see Section 11.

Section 3. Composition / information on ingredients

Chemical or common name:	Zinc phosphide
Chemical formula:	Zn ₃ P ₂
Single Substance or Mixture:	Single substance
Composition:	100%
CAS #:	1314-84-7
RTECS#:	ZH4900000
TSCA inventory :	listed
EINECS:	2152445

Section 4. First aid measures

Eye contact:	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.
Skin contact:	Promptly flush contaminated skin with soap or mild detergent and water. Contact physician if irritation continues.
Inhalation:	Remove the exposed person immediately and provide fresh air. Get medical attention.
Ingestion:	Rinse mouth and throat with water. Get medical attention immediately.

Section5. Fire fighting measures

Extinguishing media:	Use Dry sand, Perlite ,Metal fire extinguishers for extinction. DO NOT use water fog or foam, carbon dioxide.
Fire fighting	Contact with water liberates flammable gases. Self-contained breathing apparatus and full protective clothing should be used, if this product is involved in fire. Remove containers to safe place if possible.

Section 6. Accidental release measures

Personal Precautions:	Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its vapor/dusts.
Environmental hazard precautions:	Shut off leak if without risk. Prevent flow out to river, etc. so as not to badly affect.

Method for containment and cleaning up: Indoor leakage: Ventilate as much as possible until the cleaning is completed.
Outdoor leakage: Work from the windward and evacuate the leeward crowd.
Absorb or cover with vermiculite or other suitable absorbent, and dispose of DOT-approved waste containers as much as possible.

Section 7. Handling and storage

Precautions to be taken in handling:

Safe handling: Use protective wears and local ventilation equipment, if inhalation or skin contact is foreseen.
Avoid prolonged or repeated exposure.
Keep away from moisture.
Contact with water liberates flammable gases.
Keep away from heat, sparks and naked flame.

Precautions to be taken in storage:

General precautions: Store the material in a sealed container under dry atmosphere.
Store in a cool, dry, well ventilated and dark place away from incompatible materials.

Section 8. Exposure controls / personal protection

Exposure guideline: ACGIH(2013)TLV :No data available
OSHA(2006)PEL :No data available
Facility measures: Local ventilation of closed work room or total proper ventilation to prevent inhalation.
Protective ware: Wear appropriate NIOSH/MSHA-approved respirator, safety goggles, impervious gloves, protective wear, protective boots.

Section 9. Physical and chemical properties

Color and Form: Dark gray tetragonal solid.
Chemical formula: Zn₃P₂
Formula weight: 258.2
Melting point: 420°C<
Boiling point: 1100°C (sublimes in hydrogen)
Density: 4.55 g/cm³
Water solubility: Hydrolyzed
Flammable: Non-flammable
Oxidation: None

Section 10. Stability and reactivity

Stability: Stable in a dry atmosphere under room temperature.
Reactivity: Decomposes on contact with acids or water. This produces flammable fumes of phosphine. Reacts violently with strong oxidants.
Incompatibility: Water, acids, oxidizing agents.

Section11. Toxicological information

Acute toxicity(Oral) :	GHS ; Category 2 ; Fatal if swallowed. Oral rat LD ₅₀ = 42.6 mg/kg
Acute toxicity(Dermal) :	GHS ; Category 3 ; Harmful in contact with skin Dermal rat (female) LD ₅₀ = 1123 mg/kg
Acute toxicity(Inhalation) :	GHS ; No data available
Skin corrosive / irritation:	GHS ; Not classified.; Falls below the lowest level
Serious eye damage / irritation:	GHS ; Category 2B ; Causes eye irritation.
Respiratory sensitization:	GHS ; No data available
Skin sensitization:	GHS ; Not classified.; Falls below the lowest level
Germ cell mutagenicity:	GHS ; No data available
Carcinogenicity:	GHS ; No data available
Reproductive toxicity:	GHS ; No data available
Specific target organ toxicity —single exposure:	GHS ; Category 1 ; Causes damage to organs (central nervous system)
Specific target organ toxicity —repeated exposure:	GHS ; Category 2 ; May cause damage to organs(liver) through prolonged or repeated exposure

Section12. Ecological information

Ecotoxicity:	
Hazardous to the aquatic environment	
—acute toxicity:	GHS ; No data available
—chronic toxicity:	GHS ; No data available
Hazardous to the ozone layer	GHS ; No data available No Freon or Halon
Fish toxicity:	No data available
Degradability:	No data available
Bioaccumulative potential:	No data available

Ingredients Name	Biological half-life (day)	Rate of absorption	
		oral	respiratory tract
Zn	933	0.1	0.3

Mobility in soil: No data available

Section13. Disposal considerations

Disposal method: User of the product should contract with the local government or licensed 'Industrial Waste Haulers' for disposal of waste.

Section 14. Transport information

UN number: 1714
IATA shipping name: ZINC PHOSPHIDE
IATA classification: Hazardous Class 4.3
(substances which, in contact with water, emit flammable gases)
IATA packing group: I
HS code: 2848.00
Marine pollution: None

Section 15. Regulatory information

TSCA inventory :listed

Please refer to any other local / national measures that may be relevant.

Section 16. Other information

The information described above is believed to be correct. However, Kojundo Chemical Lab. makes no representation, warranty nor guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.