Product Name: Zinc Phosphide 82 Issue Date: June 1st, 2015 Replaces: New Issue SDS Number: HAC0131

1. PRODUCT IDENTIFICATION

Product Name: Zinc Phosphide 82

Product Number(s):

Use: Rodenticide

Manufacturer: HACCO, Inc.

110 Hopkins Drive Randolph, WI 53956

Manufacturer Phone: 1-920-326-5141

Distributor: Neogen Corporation – Animal Safety

944 Nandino Boulevard Lexington, KY 40511

Distributor Phone: 1-800-477-8201

Emergency Phone: Medical: 1-800-498-5743 (United States and Canada)

Spill: 1-800-424-9300 (United States)

2. HAZARDS IDENTIFICATION

Classifications: Specific Target Organ Toxicity: Respiratory Irritation, Category 3

Carcinogenicity: Category 1A

Specific Target Organ Toxicity: Repeated Category I

Dermal: Category 3

Signal Word (EPA): CAUTION
Signal Word (OSHA): DANGER

Hazard Statements: Toxic in contact with skin.

May cause respiratory irritation.

May cause cancer.

Causes damage to organs through prolonged or repeated exposure



Precautionary Statements: Obtain special instructions before use.

Hazard Symbols:

Do not handle until all safety precautions have been read and understood.

Do not breathe dust.

Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing, eye protection.

If on skin: Wash with plenty of soap and water.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If exposed or concerned: Get medical advice/attention.

Call a poison control center, doctor or 1-800-498-5743 (Prosar) if you feel unwell.

Take off immediately all contaminated clothing and wash it before reuse.

Store locked up.

Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: This product presents no significant hazards under normal conditions of use.

May form combustible dust concentrations in air.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical NameCommon NameCAS NumberConcentrationTrizinc diphosphateZinc Phosphide1314-84-782.0%

Titzlic diphosphate 22nc i hospinde 1514-04-7 62.076

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container, label, or Material Safety Data Sheet with you when calling 800-498-5743, a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call 1-800-498-5743, a poison control center or doctor immediately for treatment advice.

Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 1-800-498-5743 or by a poison control center or doctor. Do not give anything by mouth to an

unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact

lenses, if present, after 5 minutes, then continue rinsing eye. Call 1-800-498-5743, a poison control center

or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Wash skin with soap and water.

Inhalation: Not applicable.

Most Important Symptoms/Effects:

Local irritation, eye irritation (burning, stinging eyes), nausea, garlic breath odor, restlessness, diarrhea, low blood pressure, fever, shock, tremors, fatigue, excessive perspiration, abdominal cramps, breathing difficulty, change in skin color.

<u>Indication of immediate medical attention and special treatment needed:</u>

NOTE TO PHYSICIAN: There is no specific antidote. Very thorough gastric lavage is usually indicated. 3% - 5% sodium bicarbonate gavage has been suggested. Treat supportively and symptomatically.

Further information is available from the Prosar Emergency Number (1-800-498-5743) provided in this documents.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO₂ extinguishing media. If water is to be used to fight fire, dike and collect run-off.

Specific Hazards:

During a fire, irritating and possible toxic gases may be generated by thermal decomposition of combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or product of combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Clean up spills immediately, observing precautions outlines in Section 8. Sweep up material and place in a compatible disposal container. Once all material is collected, seal container and arrange for disposition.

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7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure rea out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING, AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limit

| Chemical Name | OSHA PEL | ACGIH TLV | OTHER | SOURCE |
|----------------|-----------------|-----------------|-----------------|----------------|
| Zinc Phosphide | Not Established | Not Established | Not Established | Not Applicable |

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for

exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact: Eye protection is not required for normal handling. Where eye contact is likely, wear tight-fitting chemical

goggles.

Skin Contact: Gloves are not required for normal handling. Where heavy contact is likely, wear chemical resistant (such

as nitrile or butyl) gloves.

Inhalation: Respiratory protection is not required for normal handling. In the event of an unusual dust exposure, use

engineering controls or a NIOSH-approved particulate respirator (N, P, R, or HE filter) to keep exposure

below the Occupational Exposure Limit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Dark grey crystals
Odor: Pungent garlic odor
pH: Not Available

Melting Point: >420° F (Zinc Phosphide Technical)

Freezing Point: Not Available Boiling Point and Boiling Range: Not Available Flash Point (Test Method): Not Available Flammable Limits (% in air): Not Available Flammability: Not Available Vapor Pressure: Not Available Vapor Density: 1.17 (Phosphine) Relative Density: Not Available Solubility (ies): Insoluble Partition Coefficient: Not Available Viscosity: Not Available Other: Not Available

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10. STABILTY AND REACTIVITY

Reactivity: Reactive with acids and water.

Chemical Stability: Stable under normal use and storage conditions

Possible Hazardous Reactions: Will not occur

Conditions to Avoid: Avoid heat and incompatible materials

Incompatible Materials: Acids, including dilutes. Water. May react with oxidizers.

Hazardous Decomposition Products: May react with acids or water to release spontaneously flammable phosphine gas.

Oxides of phosphorus and zinc.

11. TOXICOLOGICAL INFORMATION

Health Effects Information

Likely routes of exposure: Dermal, inhalation

Symptoms of exposure: Anticoagulant effects

Delayed, immediate and chronic effects of exposure: Anticoagulant effects

Numerical Measures of Toxicity (Acute Toxicity/Irritation Studies - Finished Product)

Ingestion: Oral LD₅₀ (Rat): 40 mg/kg body weight

Dermal: Dermal LD₅₀ (Rabbit): >2000 mg/kg body weight

Inhalation: Inhalation LC_{50} (Rat): <1 mg/kg body weight

Eye Contact: See "Other Toxicity Information, Section 11"
Skin Contact: See "Other Toxicity Information, Section 11"

Skin Sensitization: Not Available

Reproductive/Developmental Effects

Not Available

Chronic/Subchronic Toxicity Studies

Zinc Phosphide Technical: Not Available.

Carcinogenicity

Zinc Phosphide Technical: Unlikely to be carcinogenic.

Other Toxicity Information

Irritating to the eyes and skin. Prolonged exposure to zinc phosphide fumes may cause eye irritation and conjunctivitis, i.e. redness, discharge and/or swelling in eyes. Exposure may cause nausea, vomiting, abdominal cramps, chills, headache, restlessness, excitement, agitation, and dizziness. Tightness in the chest, breathing difficulties, cough and cyanosis indicate the development of pulmonary edema. Other effects may include diarrhea, low blood pressure, change in skin color, garlic breath odor, fever, shock, tremors, fatigue, excessive perspiration, hypertension, dysrhythmia, metabolic acidosis, convolutions and coma. Other complications may involve jaundice and liver tenderness and enlargement from liver necrosis and anuria from renal tubular injury. DEATH IS DUE TO SEVERE POISONING.

Toxicity of Other Components

Not Applicable

Target Organs

Active Ingredients

Zinc PhosphideTechnical: Zinc Phosphide is a systemically toxic poison.

Inactive Ingredients

Not Applicable

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12. ECOLOGICAL INFORMATION

Do not discharge effluent containing this product directly to water. Do not contaminate water when disposing of equipment wash water.

13. DISPOSAL CONSIDERATIONS

Disposal: Do not reuse empty container except for holding additional product.

Characteristic Waste: Not Applicable
Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Proper Shipping Name: RQ, Zinc Phosphide, DANGEROUS WHEN WET, POISON, ERG Guide 139

Hazard Class: 4.3 UN Number: 1714 Packing Group: I

Label: DANGEROUS WHEN WET, POISON

Special Instructions: PLACARD ALL QUANTITIES

IMDG Classification

Proper Shipping Name: RQ, Zinc Phosphide, DANGEROUS WHEN WET, POISON, ERG Guide 139

Hazard Class: 4.3 UN Number: 1714 Packing Group: I

Label: DANGEROUS WHEN WET, POISON

Special Instructions: PLACARD ALL QUANTITIES

IATA Classification

Proper Shipping Name: RQ, Zinc Phosphide, DANGEROUS WHEN WET, POISON, ERG Guide 139

Hazard Class: 4.3 UN Number: 1714 Packing Group: I

Label: DANGEROUS WHEN WET, POISON

Special Instructions: PLACARD ALL QUANTITIES

Canadian Classification

Proper Shipping Name: RQ, Zinc Phosphide, DANGEROUS WHEN WET, POISON, ERG Guide 139

Hazard Class: 4.3 UN Number: 1714 Packing Group: I

Label: DANGEROUS WHEN WET, POISON

Special Instructions: PLACARD ALL QUANTITIES

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15. REGULATORY INFORMATION

Pesticide Registration

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheers and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

Caution: Harmful if swallowed or absorbed through skin. Keep away from children, domestic animals and pets. Do not get in eyes, on skin or on clothing. All handlers (including applicators) must wear shoes plus socks, and gloves. Any person who retrieves carcasses or unused bait following application of this product must wear waterproof gloves.

EPA Registration Number: 61282-13

EPA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Zinc Phosphide (CAS 1314-84-7).

California Proposition 65: Not Applicable

CERLA/SARA 302 Reportable Quantity (RQ): 100lbs of 100% Zinc Phosphide Technical

RCRA Hazardous Waste Classification (40 CFR 261): P122 (for concentrations 10% or greater)

TSCA Status: Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

0 - Minimal NFPA Hazard Ratings **HMIS Hazard Ratings** Health: Health: 1 - Slight Flammability: Flammability: 2 - Moderate 1 1 Instability: 3 Reactivity: 3 3 - Serious 4 - Extreme Other: * - Chronic

> For Non-Emergency Questions About This Product Call: 1-800-621-8829 Neogen Corporation Lexington, KY

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