



# Safety Data Sheet

according to WHS Regulations

Printing date 14.03.2023

Revision: 14.03.2023

## 1 Identification

**Product Name:** 4FARMERS ZINC PHOSPHIDE 50g/kg Mouse Bait

PERMIT REFERENCE: PER90799

**Other Means of Identification:** Granular Mix

**Recommended Use of the Chemical and Restriction on Use:** Rodenticide

**Details of Manufacturer or Importer:**

4Farmers Australia Pty Ltd  
70 McDowell Street  
Welshpool WA 6106

**Phone Number:** +61 8 9356 3446

**Emergency telephone number:** National Poison Information Centre: 13 11 26

## 2 Hazard(s) Identification

**Hazardous Nature:**

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).



Water-react. 1            H260 In contact with water releases flammable gases which may ignite



Toxicity (Oral) 1    H300 Fatal if swallowed.



Aquatic Acute 1            H400 Very toxic to aquatic life.  
Aquatic Chronic 1        H410 Very toxic to aquatic life with long lasting effects.

**Signal Word** Danger

**Hazard Statements**

H260 In contact with water releases flammable gases which may ignite spontaneously.

H302 Fatal if swallowed.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

P102            Keep out of reach of children  
P223            Do not allow contact with water.  
P232            Protect from moisture.  
P264            Wash hands thoroughly after handling.  
P270            Do not eat, drink or smoke when using this product.  
P273            Avoid release to the environment.  
P280            Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P330            Rinse mouth.

P335+P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

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P370+P378 In case of fire: Use to extinguish: CO2, sand, extinguishing powder.

P391 Collect spillage.

#### Storage

P402+P404 Store in a dry place. Store in a closed container.

P405 Store locked up.

#### Disposal

P501 Dispose of contents/container in accordance with local/regional/national regulations.

#### Additional Information

AUH029 Contact with water liberates toxic gas.

AUH032 Contact with acids liberates very toxic gas.

### 3 Composition and Information on Ingredients

#### Chemical Characterization: Mixtures

**Description:** Mixture of substances listed below with nonhazardous additions.

#### Hazardous Components:

Hazardous Components:	
1314-84-7	Zinc phosphide
	Water-react. 1, H260; Acute Toxicity (Oral) 1, H300; Aquatic Acute 1, H400; Aquatic Chronic 1, H410.. zinc phosphide releases phosphine gas which is flammable and toxic.
	Other non hazardous ingredients

≥50%

≥ 49%

### 4 First Aid Measures

#### Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

#### Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

#### Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

#### Ingestion:

Do not give anything by mouth. DO NOT DRINK WATER. Seek immediate medical attention. Induce vomiting if safe to do so.

#### Information for Doctor:

Vomiting should be induced immediately followed by gastric lavage. It is important to remove zinc phosphide from the gastrointestinal tract using non-oily purgatives. Correction of fluid and electrolyte levels is important.

#### Symptoms Caused by Exposure:

Skin Contact: May cause mild skin irritation.

Eye Contact: May cause mild eye irritation.

Ingestion: Fatal if swallowed. Early symptoms include nausea, abdominal pain, chest tightness, agitation and sensation of being 'cold all over'. Vomiting will occur, followed by shock, dyspnoea, thirst, convulsions and coma. Majority of fatal cases die within 30 hours as a result of cardiac damage. Pulmonary oedema may cause early deaths.

#### Medical Attention and Special Treatment:

0.5 g of copper sulphate may be administered as a 1% aqueous solution or otherwise perform gastric lavage with a 1 in 100 potassium permanganate solution.

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## 5 Fire Fighting Measures

**Suitable Extinguishing Media:** Suffocate flames with sand or dry chemical powder. DO NOT USE WATER.

**Specific Hazards Arising from the Chemical:**

In contact with water releases flammable gases which may ignite spontaneously.

Phosphine gas will be formed on contact with water or acids.

Metal phosphides may produce phosphoric acid in fire conditions.

Containers close to fire should be removed if safe to do so.

## 6 Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear approved dust/particulate filter respirator and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe dust. Ensure adequate ventilation. Avoid generating dust.

**Environmental Precautions:**

In the event of a major spill, prevent spillage from entering drains or water courses.

**Methods and Materials for Containment and Cleaning Up:**

Stop leak if safe to do so and carefully sweep granules into a pile and shovel into drums for subsequent disposal. Avoid generating dust. Provide adequate ventilation. Decontaminate spill area with plenty of detergent and water.

## 7 Handling and Storage

**Precautions for Safe Handling:**

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of dust.

Food, beverages and tobacco products should not be stored or consumed where this material is in use.

Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Zinc phosphide baits should be removed and the area thoroughly cleaned after use.

**Conditions for Safe Storage:**

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from excessive moisture and high humidity. Do not allow product to get wet. Keep away from water, acids and oxidising agents.

In contact with water releases flammable gases which may ignite spontaneously.

Contact with water and acid liberates toxic gas.

Store locked up. Store away from living quarters. Keep away from children.

Product is stable at room temperature for at least two years.

## 8 Exposure Controls and Personal Protection

**Exposure Standards:**

**7803-51-2 Phosphine**

WES	STEL: 1.4 mg/m <sup>3</sup> , 1 ppm
	TWA: 0.42 mg/m <sup>3</sup> , 0.3 ppm

**Engineering Controls:**

Maintain air concentration below occupational exposure standards, providing adequate ventilation. Use explosion-proof ventilating equipment.

**Respiratory Protection:**

Use an approved full face-piece combined dust and gas respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

**Skin Protection:**

PVC gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation

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breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

### Eye and Face Protection:

Eye and face protectors for protection against dust. See Australian/New Zealand Standard AS/NZS 1337 for more information.

## 9 Physical and Chemical Properties

### Appearance:

**Form:** Free flowing powder

**Colour:** Greyish black

**Odour:** Garlic-like odour

**Odour Threshold:** No information available

**pH-Value:** No information available

**Melting point/freezing point:** >420 °C

**Initial Boiling Point/Boiling Range:** No information available

**Flash Point:** No information available

**Flammability:** Contact with water liberates extremely flammable gases.

**Auto-ignition Temperature:** No information available

**Decomposition Temperature:** No information available

### Explosion Limits:

**Lower:** No information available

**Upper:** No information available

**Vapour Pressure:** 5.332 kPa (Phosphine gas)

**Relative Density:** No information available

**Vapour Density:** No information available

**Evaporation Rate:** No information available

**Solubility in Water:** Reacts with water.

**Partition Coefficient (n-octanol/water):** No information available

**Viscosity:** No information available

## 10 Stability and Reactivity

### Possibility of Hazardous Reactions:

Hazardous polymerisation will not occur.

In contact with water releases flammable gases which may ignite spontaneously.

Reacts violently with acids.

Contact with water and acid liberates toxic gas.

### Chemical Stability:

Stable at ambient temperature and under normal conditions of use, but will decompose in contact with water or acids.

**Conditions to Avoid:** Excessive moisture and high humidity.

**Incompatible Materials:** Water, acids and oxidising agents.

### Hazardous Decomposition Products:

Phosphine gas will be formed on contact with water or acids.

Contact with water and acid liberates toxic gas.

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## 11 Toxicological Information

### Toxicity:

#### LD<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:

#### 1314-84-7 Zinc phosphide

Oral	LD <sub>50</sub>	40 mg/kg (rat)
Dermal	LC <sub>50</sub>	~1,000 mg/kg (rat)
Inhalation		>2.8 mg/l (rat)

### Acute Health Effects

**Inhalation:** No information available

**Skin:** May cause mild skin irritation.

**Eye:** May cause mild eye irritation.

### Ingestion:

Fatal if swallowed. Early symptoms include nausea, abdominal pain, chest tightness, agitation and sensation of being 'cold all over'. Vomiting will occur, followed by shock, dyspnoea, thirst, convulsions and coma. Majority of fatal cases die within 30 hours as a result of cardiac damage. Pulmonary oedema may cause early deaths.

**Skin Corrosion / Irritation:** Based on classification principles, the classification criteria are not met.

**Serious Eye Damage / Irritation:** Based on classification principles, the classification criteria are not met.

**Respiratory or Skin Sensitisation:** Based on classification principles, the classification criteria are not met.

**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.

**Carcinogenicity:** This product does NOT contain any IARC listed chemicals.

**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.

### Specific Target Organ Toxicity (STOT) - Single Exposure:

Based on classification principles, the classification criteria are not met.

### Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

**Aspiration Hazard:** Based on classification principles, the classification criteria are not met.

**Chronic Health Effects:** May cause kidney damage or failure.

**Existing Conditions Aggravated by Exposure:** No information available

**Additional toxicological information:** No information available

## 12 Ecological Information

### Ecotoxicity:

This product is non-toxic to bees.

LD50 (oral) >2510 mg/kg (quail)

### Aquatic toxicity:

Very Toxic to aquatic life with long lasting effects.

#### 1314-84-7 Zinc phosphide

LC <sub>50</sub>	0.0043 mg/l (bluegill)
	0.0016 mg/l (rainbow trout)

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**Persistence and Degradability:** No further relevant information available.

**Bioaccumulative Potential:** No further relevant information available.

**Mobility in Soil:** No further relevant information available.

**Other adverse effects:** No further relevant information available.

## 13 Disposal Considerations

**Disposal Methods and Containers:** Dispose according to applicable local and state government regulations.

**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

## 14 Transport Information

**UN Number**

**ADG, IMDG, IATA**

UN1714

**Proper Shipping Name**

**ADG**

ZINC PHOSPHIDE, ENVIRONMENTALLY HAZARDOUS

**IMDG**

ZINC PHOSPHIDE, MARINE POLLUTANT

**IATA**

ZINC PHOSPHIDE

**Dangerous Goods Class**

**ADG Class:**

4.3 Substances which, in contact with water, emit flammable gases.

**Subsidiary Risk:**

6.1 Toxic substances.

**Packing Group:**

**ADG, IMDG, IATA**

I

**Marine pollutant:**

Yes

Symbol (fish and tree)

**EMS Number:**

F-G,S-N

**Hazchem Code:**

4WE

**Limited Quantities:**

0 kg

**Packagings & IBCs - Packing Instruction:** P403

## 15 Regulatory Information

**Australian Inventory of Chemical Substances:**

1314-84-7 | Zinc phosphide

**Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:**

Poisons Schedule: 7

## 16 Other Information

**Date of Preparation or Last Revision:** 21.02.2018

**Prepared by:** MSDS.COM.AU Pty Ltd

[www.msds.com.au](http://www.msds.com.au)

**Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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**Acronyms:**

**ADG Code** Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition) AICS/AIIC Australian Inventory of Industrial Chemicals

**SWA** Safe Work Australia, formerly ASCC and NOHSC

**CAS number** Chemical Abstracts Service Registry Number

**Hazchem Code** Emergency action code of numbers and letters that provide information to emergency services especially firefighters

**IARC** International Agency for Research on Cancer

**NOS** Not otherwise specified

**NTP** National Toxicology Program (USA)

**SUSMP** Standard for the Uniform Scheduling of Medicines & Poisons

**UN Number** United Nations Number This SDS contains only safety-related information.

### Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - February 2016"

The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. 4Farmers Australia Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet.

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