

#### 1. IDENTIFICATION

**Product Name** Pyrithione Zinc, 50% Aqueous Dispersion

Other Names Zinc Pyrithione Suspension

Uses Preservative (fungistatic & bacteriostatic); Anti-dandruff & eczema/dermatitis/psoriasis treatments; Outdoor paints.

No Data Available **Chemical Family** 

**Chemical Formula** Unspecified

**Chemical Name** Zinc pyrithione, aqueous dispersion

**Product Description** No Data Available

## **Contact Details of the Supplier of this Safety Data Sheet**

Organisation Location Telephone Redox Ltd 2 Swettenham Road +61-2-97333000 Minto NSW 2566 Australia

Redox Ltd 11 Mayo Road +64-9-2506222

> Wiri Auckland 2104 New Zealand

3960 Paramount Boulevard Redox Inc. +1-424-675-3200

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Lakewood CA 90712

USA

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Seksyen 33, Shah Alam Premier Industrial Park

40400 Shah Alam Sengalor, Malaysia

## **Emergency Contact Details**

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

## 2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Schedule 6

Auckland

London

Hawke's Bay



### **Globally Harmonised System**

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of

Chemicals (GHS)

Hazard Categories Acute Toxicity (Oral) - Category 4

Acute Toxicity (Inhalation) - Category 4
Serious Eye Damage/Irritation - Category 1

Specific Target Organ Toxicity (Single Exposure) - Category 3

Specific Target Organ Toxicity (Repeated Exposure) - Category 1

Acute Hazard To The Aquatic Environment - Category 1

Long-term Hazard To The Aquatic Environment - Category 1

**Pictograms** 









Signal Word Danger

Hazard Statements H302 + H332 Harmful if swallowed or if inhaled.

H318 Causes serious eye damage.H335 May cause respiratory irritation.

**H372** Causes damage to organs through prolonged or repeated exposure.

**H410** Very toxic to aquatic life with long lasting effects.

Precautionary Statements Prevention P280 Wear eye protection/face protection.

P261 Avoid breathing mist/vapours/spray.
P273 Avoid release to the environment.
P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.P271 Use only outdoors or in a well-ventilated area.

Response P305 + P351 + P338 +

P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing. Immediately call a POISON

CENTRE/doctor.

P312 Call a POISON CENTER or doctor if you feel unwell.

P391 Collect spillage.
P330 Rinse mouth.

**P304 + P340** IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

Storage P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

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

international regulations.

## **National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**Dangerous Goods Classification** NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods

by Road & Rail (ADG Code)

#### Safe Work Australia

National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations

**Hazard Classification** 

Hazardous according to the criteria of Safe Work Australia under Model WHS Regulations

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Water	H2O	7732-18-5	48 - 52 %
Zinc pyrithione	C10H8N2O2S2Zn	13463-41-7	48 - 52 %

## 4. FIRST AID MEASURES

#### Description of necessary measures according to routes of exposure

**Swallowed** IF SWALLOWED: Rinse mouth, then drink plenty of water. Loosen tight clothing, such as a collar, tie, belt or waistband.

Call a Poison Centre or doctor/physician for advice. Do not induce vomiting unless directed to do so by medical

personnel. Never give anything by mouth to an unconscious person.

Eye IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting

the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes.

Immediately call a Poison Centre or doctor/physician for advice.

Skin IF ON SKIN: Remove contaminated clothing and shoes immediately. Flush skin with running water for at least 15 minutes.

In case of gross contamination, drench contaminated clothing and skin with plenty of water before removing clothes. If skin irritation occurs, get medical advice/attention. Cover irritated skin with an emollient or anti-bacterial cream. Wash

contaminated clothing and shoes before reuse.

Inhaled IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Loosen tight clothing,

such as a collar, tie, belt or waistband. Call a Poison Centre or doctor/physician for advice. Apply resuscitation if victim is not breathing - Do not use direct mouth-to-mouth method if victim ingested or inhaled the substance; use alternative

Fire or heat may produce irritating, toxic and/or corrosive gases, including Carbon oxides, Nitrogen oxides, Sulfur oxides,

respiratory method or proper respiratory device; Administer oxygen if breathing is difficult.

**Advice to Doctor** Treat symptomatically. Keep victim calm and warm - Obtain immediate medical care. Ensure that attending medical

personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Medical Conditions Aggravated by No information available.

**Exposure** 

## **5. FIRE FIGHTING MEASURES**

**Hazardous Products of** 

**General Measures** If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.

**Flammability Conditions** Non-combustible; However, following evaporation of aqueous component under fire conditions, the residual material

may decompose and/or burn.

**Extinguishing Media** If material is involved in a fire, use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction.

Fire and Explosion Hazard Containers may explode when heated.

Combustion Zinc oxides.

**Special Fire Fighting Instructions** Contain runoff from fire control or dilution water - Runoff may be toxic and/or corrosive and may pollute waterways.

**Personal Protective Equipment** Wear self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may

provide limited protection.

Flash Point

No Data Available

Lower Explosion Limit

No Data Available

Upper Explosion Limit

No Data Available

Auto Ignition Temperature

No Data Available

Hazchem Code

No Data Available

#### **6. ACCIDENTAL RELEASE MEASURES**

General Response Procedure Ensure adequate ventilation. Do not touch or walk through spilled material. Avoid breathing vapours and contact with

eyes, skin and clothing.

Clean Up Procedures Absorb with earth, sand or other non-combustible material and transfer to a suitable, properly labelled container for

disposal (see SECTION 13).

**Containment** Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.

**Decontamination** No information available.

**Environmental Precautionary** 

Measures

**Evacuation Criteria** 

Spillages and decontamination runoff should be prevented from entering drains and watercourses.

Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher

Personal Precautionary Measures Use personal protective equipment as required (see SECTION 8). Large spill: Wear SCBA and chemical splash suit.

## 7. HANDLING AND STORAGE

**Handling** Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure

adequate ventilation - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Do not breathe mist/vapours/aerosols and avoid contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Keep away from heat and sources of ignition - No smoking. Avoid contact with incompatible materials (see SECTION 10). Avoid release to the environment - Collect spillage

(see SECTION 6).

**Storage** Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Containers which are

opened must be carefully resealed and kept upright to prevent leakage. Keep away from heat and sources of ignition -

No smoking. Keep away from incompatible materials (see SECTION 10). Store locked up.

**Container** Keep in the original container.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**General** No specific exposure standards are available for this product.

Exposure Limits No Data Available

Biological Limits No information available.

Engineering Measures A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust

ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing

dispersion of it into the general work area.

**Personal Protection Equipment** - Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Organic

vapour/particulate filter respirator or full-face supplied air respirator (refer to AS/NZS 1715 & 1716).

- Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles.

 $\hbox{-} \ \ \hbox{Hand protection: Handle with gloves. Recommended: Impervious/chemical-resistant gloves.}$ 

- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Long-

sleeved clothing; Chemical-resistant apron.

**Special Hazards Precaustions** 

No information available.

**Work Hygienic Practices** 

Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Take off contaminated clothing and wash before reuse.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State** Liquid **Appearance** Suspension Odour Weak

Colour Off-white to yellow-brown

рΗ 6 - 9 (5% soln.)

<=2.3 kPa (Water) (@ 20 °C) **Vapour Pressure** <=0.62 Air = 1 **Relative Vapour Density Boiling Point** >=100 °C (Water) **Melting Point** No Data Available **Freezing Point** No Data Available Solubility Soluble in cold water **Specific Gravity** 1.27 (Water = 1)**Flash Point** No Data Available **Auto Ignition Temp** No Data Available **Evaporation Rate** No Data Available **Bulk Density** No Data Available No Data Available **Corrosion Rate Decomposition Temperature** No Data Available Density No Data Available **Specific Heat** No Data Available **Molecular Weight** No Data Available No Data Available

**Net Propellant Weight Octanol Water Coefficient** No Data Available **Particle Size** No Data Available **Partition Coefficient** No Data Available **Saturated Vapour Concentration** No Data Available **Vapour Temperature** No Data Available **Viscosity** No Data Available **Volatile Percent** No Data Available **VOC Volume** No Data Available

**Additional Characteristics** No information available.

**Potential for Dust Explosion** Not applicable.

**Fast or Intensely Burning** 

Characteristics

No information available.

Flame Propagation or Burning **Rate of Solid Materials** 

No information available.

**Non-Flammables That Could** Contribute Unusual Hazards to a No information available.

**Properties That May Initiate or Contribute to Fire Intensity** 

Non-combustible; However, following evaporation of aqueous component under fire conditions, the residual material may decompose and/or burn.

Reactions That Release Gases or

**Vapours** 

Fire or heat may produce irritating, toxic and/or corrosive gases, including Carbon oxides, Nitrogen oxides, Sulfur oxides,

Zinc oxides.

Release of Invisible Flammable

Vapours and Gases

No information available.

## 10. STABILITY AND REACTIVITY

**General Information** No information available.

**Chemical Stability** The product is stable under normal temperature and pressure.

**Conditions to Avoid** Protect from heat and direct sunlight.

Materials to Avoid Incompatible/reactive with oxidising agents, reducing agents, metals.

**Hazardous Decomposition** 

**Products** 

Fire or heat may produce irritating, toxic and/or corrosive gases, including Carbon oxides, Nitrogen oxides, Sulfur oxides,

Zinc oxides.

Hazardous Polymerisation Will not occur.

#### 11. TOXICOLOGICAL INFORMATION

#### **General Information**

- Acute toxicity: Harmful if swallowed and if inhaled. COMPONENT: Zinc pyrithione is toxic if swallowed and if inhaled. May be harmful in contact with skin; However, is not readily absorbed by dermal exposure [NICNAS].
- Skin corrosion/irritation: May cause skin irritation. COMPONENT: Zinc pyrithione is considered to cause only slight skin irritation [NICNAS].
- Eye damage/irritation: Causes serious eye damage. COMPONENT: Zinc pyrithione caused severe and irreversible corneal lesions, severe redness and swelling (Rabbit) [OECD TG 405; ECHA].
- Respiratory/skin sensitisation: Zinc pyrithione is not considered to be a skin sensitiser [NICNAS].
- Germ cell mutagenicity: Zinc pyrithione is not considered to be genotoxic [NICNAS].
- Carcinogenicity: Zinc pyrithione is not considered to be carcinogenic [NICNAS].
- Reproductive toxicity: Zinc pyrithione is not considered to cause reproductive or developmental toxicity; and is not considered to be a teratogen; Reproductive organs were not significantly affected, and the increased incidence of foetal malformations occurred at doses that were maternally toxic [NICNAS].
- STOT (single exposure): May cause respiratory irritation (dyspnea, acute pulmonary edema). COMPONENT: Zinc pyrithione is considered to be a severe respiratory (mucous membrane) irritant [NICNAS]. May affect behaviour (somnolence or general depressed activity), nervous system (peripheral nerve and sensation), sense organs and metabolism (weight loss).
- STOT (repeated exposure): Causes damage to organs through prolonged or repeated exposure. COMPONENT: Zinc pyrithione is considered to cause severe systemic effects from repeated oral and inhalation exposure [NICNAS]. May cause hypermotility, diarrhoea, generalised skeletal muscle wasting and weakness, somnolence, weight loss; May affect behaviour/central nervous system/peripheral nervous system, metabolism, eyes, retinal changes (pigmentation changes, retinitis, etc); and may cause spastic paralysis with or without sensory change.
- Aspiration toxicity: No information available.

Acute

**Ingestion** Acute toxicity (Oral):

COMPONENT: Pyrithione Zinc (CAS No. 13463-41-7):
- LD50, Rat: 177 mg/kg bw. [Supplier's SDS].
- LD50, Rats: 269 - 774 mg/kg bw. [NICNAS].
- LD50, Rat: 221 mg/kg bw. [ECHA].

Other Acute toxicity (Dermal):

COMPONENT: Pyrithione Zinc (CAS No. 13463-41-7):
- LD50, Rabbits: >2,000 mg/kg bw. [NICNAS].
- LD50, Rabbit: >2,000 mg/kg bw. [ECHA].

**Inhalation** Acute toxicity (Inhalation):

- LC50, Rabbit: 1,550 mg/m3 or 1.55 mg/L (4 h) [Calculated value for the mixture; Supplier's SDS].

- LC50, Rat (male/female) (nose only): 1.03 mg/L (4 h) [Zinc Pyrithione powder, purity not specified; ECHA].

Carcinogen Category

None

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Aquatic toxicity:

COMPONENT: Zinc pyrithione (CAS No. 13463-41-7):

M-factor, acute: 1000 [ECHA].M-factor, chronic: 10 [ECHA].

Persistence/Degradability No information available.

Mobility No information available.

**Environmental Fate** Very toxic to aquatic life with long lasting effects - Prevent entry into drains and waterways.

Bioaccumulation Potential No information available.

Environmental Impact No Data Available

#### 13. DISPOSAL CONSIDERATIONS

**General Information** Dispose of contents/container in accordance with local/regional/national regulations.

Special Precautions for Land Fill No information available.

#### 14. TRANSPORT INFORMATION

## Land Transport (Australia)

ADG Code

**Proper Shipping Name** Zinc Pyrithione, 50% Aqueous Dispersion

Class No Data Available
Subsidiary Risk(s) No Data Available

**EPG** 47 Low To Moderate Hazard Substances

UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available

Special Provision AU01

**Comments**UN#3082: Not regulated as DG when transported by road or rail in packagings that do not incorporate a

receptacle exceeding 500 kg(L) or IBCs.

Land Transport (Malaysia)

ADR Code

**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Pyrithione Zinc)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

**EPG** 47 Low To Moderate Hazard Substances

 UN Number
 3082

 Hazchem
 3Z

 Pack Group
 III

Special Provision No Data Available

## Land Transport (New Zealand)

NZS5433

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Pyrithione Zinc)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

**EPG** 47 Low To Moderate Hazard Substances

 UN Number
 3082

 Hazchem
 3Z

 Pack Group
 III

**Special Provision** No Data Available

## Land Transport (United States of America)

**US DOT** 

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Pyrithione Zinc)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

**ERG** 171 Substances (Low to Moderate Hazard)

 UN Number
 3082

 Hazchem
 3Z

 Pack Group
 III

**Special Provision** No Data Available

#### Sea Transport

**IMDG** Code

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Pyrithione Zinc)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

 UN Number
 3082

 Hazchem
 3Z

 Pack Group
 III

**Special Provision** No Data Available

EMS F-A, S-F
Marine Pollutant Yes

## **Air Transport**

IATA DGR

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Pyrithione Zinc)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

 UN Number
 3082

 Hazchem
 3Z

 Pack Group
 III

Special Provision No Data Available

# National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**Dangerous Goods Classification** 

NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods

by Road & Rail (ADG Code)

### 15. REGULATORY INFORMATION

General InformationPYRITHIONE ZINCPoisons Schedule (Aust)Schedule 6

#### **Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code Not Assessed

## **National/Regional Inventories**

Australia (AIIC) Listed

Canada (DSL) Not Determined

Canada (NDSL) Not Determined

China (IECSC) Not Determined

Europe (EINECS) Not Determined

**Europe (REACh)** Not Determined

Japan (ENCS/METI) Not Determined

Korea (KECI) Not Determined

Malaysia (EHS Register) Not Determined

New Zealand (NZIoC) Listed

Philippines (PICCS) Not Determined

Switzerland (Giftliste 1) Not Determined

Switzerland (Inventory of Notified

Substances)

Not Determined

Taiwan (NCSR) Not Determined

USA (TSCA) Not Determined

### **16. OTHER INFORMATION**

Related Product Codes ZIPYRI1000, ZIPYRI1001, ZIPYRI1002, ZIPYRI1003, ZIPYRI2000, ZIPYRI2101, ZIPYRI2000, ZIPYRI3000,

ZIPYRI4000

Revision 2

**Revision Date** 12 May 2020

**Key/Legend** < Less Than > Greater Than

**AICS** Australian Inventory of Chemical Substances

atm Atmosphere

**CAS** Chemical Abstracts Service (Registry Number)

cm² Square CentimetresCO2 Carbon Dioxide

**COD** Chemical Oxygen Demand **deg C (°C)** Degrees Celcius

EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Farenheit

g Grams

g/cm<sup>3</sup> Grams per Cubic Centimetre

g/I Grams per Litre

**HSNO** Hazardous Substance and New Organism **IDLH** Immediately Dangerous to Life and Health **immiscible** Liquids are insoluable in each other.

inHg Inch of Mercury inH2O Inch of Water

**K** Kelvin **kg** Kilogram

kg/m3 Kilograms per Cubic Metre

Ih Pound

**LC50** LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

**LD50** LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

**Itr** or **L** Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH20 Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

 $\mbox{\bf NIOSH}$  National Institute for Occupational Safety and Health

**NOHSC** National Occupational Heath and Safety Commission

**OECD** Organisation for Economic Co-operation and Development

Oz Ounce

**PEL** Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

R Rankine

**RCP** Reciprocal Calculation Procedure

**STEL** Short Term Exposure Limit

**TLV** Threshold Limit Value

tne Tonne

**TWA** Time Weighted Average

ug/24H Micrograms per 24 Hours

**UN** United Nations

wt Weight