



## Safety Data Sheet

Date of Issue: 08.07.2024

Date of Expiry: 08.07.2029

### 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Company Name** : ECP Limited  
**Address** : PO Box 34125, Birkenhead, Auckland 0746  
**Telephone** : +64 9 480 4386  
**Facsimile** : +64 9 480 4385  
**Emergency phone number** : 0800 243 622 (24 hours)

<b>Product Name</b>	<b>Zinc Powder</b>
<b>Product Code</b>	54821 , 54828
<b>CAS No.</b>	7440-66-6

**Recommended use** : Laboratory Investigations

### 2: Hazard's identification

#### 2.1 GHS Classification

Self-heating substances and mixtures (Category 1)  
Substances and mixtures which in contact with water emit flammable gases (Category 1)  
Hazardous to the aquatic environment - acute hazard (Category 1)  
Hazardous to the aquatic environment - chronic hazard (Category 1)

#### 2.2 GHS Label elements, including precautionary statements

##### Pictogram



Signal Word : Warning

##### Hazard statement(s)

H251 Self-heating: may catch fire.  
H260 In contact with water releases flammable gases which may ignite spontaneously.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

##### Precautionary statement(s)

###### Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.  
P231 + P232 Handle and store contents under inert gas. Protect from moisture.  
P233 Keep container tightly closed.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

##### Response

P302 + P335 + P334 IF ON SKIN: Brush off loose particles from skin. Immerse in

cool water.  
P302 + P335 + P334 IF ON SKIN: Brush off loose particles from skin. Immerse in cool water or wrap in wet bandages.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P391 Collect spillage.

### Storage

P403 + P235 Store in a well-ventilated place. Keep cool.  
P407 Maintain air gap between stacks or pallets.  
P410 Protect from sunlight.

## 3: Composition/information on ingredients

### 3.2 Mixtures

Formula	:	Zn
Molecular weight	:	65.39 g/mol
CAS-No.	:	7440-66-6
EC-No.	:	231-175-3
Index-No.	:	030-001-01-9

## 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>) Dry powder

#### Unsuitable extinguishing media

Water Foam

### 5.2 Special hazards arising from the substance or mixture

Zinc/zinc oxides

Combustible.

May not get in touch with: Water

Development of hazardous combustion gases or vapours possible in the event of fire.

### **5.3 Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

### **5.4 Further information**

Prevent fire extinguishing water from contaminating surface water or the ground water System.

## **6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains. Risk of explosion.

### **6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts

### **6.4 Reference to other sections**

For disposal see section 13.

## **7: Handling and storage**

### **7.1 Precautions for safe handling**

#### **Advice on safe handling**

Work under hood. Do not inhale substance/mixture. Keep workplace dry. Do not allow product to come into contact with water.

### **7.2 Conditions for safe storage, including any incompatibilities**

#### **Storage conditions**

Tightly closed. Keep away from heat and sources of ignition.

Never allow product to get in contact with water during storage.

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## **8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

#### **National Exposure Standards**

No exposure standards have been established for this material. However, the National Occupational Health And Safety Commission (NOHSC) TWA exposure standard for dust not otherwise specified is 10 mg/m<sup>3</sup> and the Occupational Safety and Health Service of the New Zealand Department of Labour has set a WES for inspirable dust of 10 mg/m<sup>3</sup> and 3 mg/m<sup>3</sup> for respirable dust.

## 8.2 Exposure controls

### Appropriate engineering controls

Change contaminated clothing. Wash hands after working with substance.

### Personal protective equipment

#### Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

#### Control of environmental exposure

Do not let product enter drains. Risk of explosion.

## 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	:	Solid , Powder
Appearance	:	White metal with blueish-Gray lustre.
Melting Point	:	419 °C
Boiling Point	:	907 °C
Solubility in Water	:	Insoluble.
Solubility in Organic solvents	:	Soluble in acids and alkalis.
Specific Gravity	:	7.14
Vapour Pressure	:	1 mm @ 487 °C
Flash Point	:	680°C Spark Ignition of Dust Cloud, 460°C Powder Layer on heated surface.
Flammability	:	Contact with moisture or water liberates flammable gases.
Flammable Limits Lower	:	- 0.5 kg/m <sup>3</sup>
Flammable Limits Upper	:	- Not applicable.
Molecular Weight	:	65.38

## 10: Stability and reactivity

### 10.1 Reactivity

Self-heating; may catch fire.

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### 10.2 Chemical stability

Sensitive to air.

### **10.3 Possibility of hazardous reactions**

Dust may form explosive mixture in air.

### **10.4 Conditions to avoid**

Avoid moisture, Exposure to air, Moisture.

### **10.5 Incompatible materials**

Strong oxidizing agents, Acids and bases

### **10.6 Hazardous decomposition products**

In the event of fire: see section 5

## **11: Toxicological information**

### **11.1 Information on toxicological effects**

Acute Toxicity - Oral LD50 (Rat) >2000 mg/kg.

#### **Ingestion**

May cause irritation of stomach. In severe cases, may cause stomach damage and vomiting.

#### **Inhalation**

Inhalation of zinc dusts or fume may cause METAL FUME FEVER, which is characterised by chills, fever, tightness of chest and coughing.

#### **Skin**

Reaction with moisture on skin may cause irritation. Particles embedded under the skin may cause prolonged gaseous blisters.

#### **Eye**

May cause irritation.

#### **Carcinogenicity**

No evidence of carcinogenic properties.

#### **Mutagenicity**

No evidence of mutagenic properties.

Ames-Test: negative.

#### **Other Information**

Persons with pre-existing skin disorders or impaired respiratory function may be more susceptible to the effects of zinc.

## **12: Ecological information**

### **12.1 Ecological Information**

Product reacts with water.

#### **Ecotoxicity**

Hazardous to the Aquatic Environment - Acute Hazard: Category 1

Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1

#### **Other Information**

> 10 mg/l zinc ions per litre, the bacteriological self-purification of water is inhibited or suppressed.

Contamination of ground water involves risks for drinking water catchment.

Do not allow to enter waters, waste water or soil.

### 13: Disposal considerations

#### Disposal Considerations

Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

### 14: Transport Information Table

		<b>ADR/RID – European packaging certification</b>	<b>IMDG International Maritime Dangerous Goods Code</b>	<b>IATA – DGR International Air Travel Association – Dangerous Goods Regulations</b>
14.1	<b>UN Number</b>	1436	1436	1436
14.2	<b>UN Proper Shipping name</b>	ZINC POWDER	ZINC POWDER	Zinc Powder
14.3	<b>Transport Hazard Class</b>	4.3	4.3	4.3
14.4	<b>Packaging group</b>	II	II	II
14.5	<b>Environmental Hazards</b>	Yes	Yes	Yes
14.6	<b>Special precautions for user</b>	None		
14.7	<b>Incompatible materials</b>	Strong oxidizing agents, Acids and bases		

### 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### National regulatory information

HSNO Approval Number: HSR001301

HSNO Group Standard Approval: HSR002692 - Laboratory Chemicals and Reagent Kits (Class 4) Group Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

### 16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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