



Safety Data Sheet

Date of Issue: 14.10.2024

Date of Expiry: 14.10.2029

1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name : ECP Limited
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Product Name	Zinc Powder
Product Code	54821 , 54828
CAS No.	7440-66-6

Recommended use : Laboratory Investigations

2: Hazard's identification

2.1 GHS Classification

Hazardous to the aquatic environment - acute hazard (Category 1), H400
Hazardous to the aquatic environment - chronic hazard (Category 1), H410

2.2 GHS Label elements, including precautionary statements

Pictogram



Warning

Hazard statement(s)

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

P273 Avoid release to the environment.

Response

P391 Collect spillage.

Disposal

P501 Dispose of contents/ container to an approved waste disposal Plant.

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

Component	Classification	Concentration
Zinc Powder, Zinc powder stabilized		
		<= 100 %
Zinc Oxide		
		>= 2.5 - < 10 %

4: First aid measures

4.1 Description of first-aid measures

No data available

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

Special powder against metal fire Sand Cement

Unsuitable extinguishing media

Water Foam

5.2 Special hazards arising from the substance or mixture

Zinc/zinc oxides

Combustible.

5.3 Advice for firefighters

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

5.4 Further information

No data available.

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

Component	CAS No	Value	Control Parameters	Basis
Zinc Oxide	1314-13-2	WES-TWA	2 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
		WES-TWA	0.1 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
		WES-STEL	5 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
		WES-STEL	0.5 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

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.

9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state	:	Dust
b) Color	:	dark Gray
c) Odor	:	Odorless
d) Melting point/freezing point	:	
Melting point/ range	:	420 °C - lit.
e) Initial boiling point and boiling range	:	907 °C - lit.
f) Flammability (solid, gas)	:	May form combustible dust concentrations in air.
g) Upper/lower flammability or explosive limits:	:	No data available
h) Flash point	:	Not applicable
i) Autoignition temperature	:	does not ignite
j) Decomposition temperature	:	No data available
k) pH	:	Not applicable
l) Viscosity	:	
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	> 500 mPa.s at 417 °C
m) Water solubility	:	0.0001 g/l at 20 °C - OECD Test Guideline 105- slightly soluble
n) Partition coefficient: n-octanol/water	:	Not applicable for inorganic substances
o) Vapor pressure	:	1.33 hPa at 487 °C
p) Density	:	7.133 g/cm ³ at 25 °C - lit.
Relative density	:	6.9 at 22 °C
q) Relative vapor density	:	No data available
r) Particle characteristics	:	No data available
s) Explosive properties	:	No data available
t) Oxidizing properties	:	none

10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Contains the following stabilizer(s):

Zinc oxide (<=33 %)

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

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

	ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous
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				Goods Regulations
14.1	UN Number	3077	3077	3077
14.2	UN Proper Shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc powder, zinc dust stabilized, Zinc oxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc powder, zinc dust stabilized, Zinc oxide)	Environmentally hazardous substance, solid, n.o.s. (zinc powder, zinc dust stabilized, Zinc oxide)
14.3	Transport Hazard Class	9	9	9
14.4	Packaging group	III	III	III
14.5	Environmental Hazards	Yes	Yes	Yes
14.6	Special precautions for user	None		
14.7	Incompatible materials	Strong oxidizing agents, Acids and bases		

Other regulations

Hazchem Code : 2Z

15: Regulatory information

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

National regulatory information

HSNO Approval Code:

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits 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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