



SAFETY DATA SHEET

COPPER/ZINC POWDER

Identification of the Material & Supplier

Product Name: Copper/Zinc Powder
Other Names: Copper Oxide and Zinc Oxide Powder
Recommended Use: Fertilizer
Supplier: Summit Fertilizers
29 Ocean St
Kwinana Beach WA 6167
Telephone: 9439 8999

Hazards Identification

Classification of the substance or mixture
Classification according to GHS

The classification is based on the criteria in the UN globally Harmonized system of Classifications and Labelling of Chemicals (GHS).

Acute Hazard to the aquatic environment level 1
Chronic hazard to the aquatic environment level 1
Labelling according to GHS

Label Element

- Hazard Pictogram



GHS09

- Signal word
- Hazard Statements
- Precautionary Statements

Warning
H400 Very Toxic to aquatic Life
H410 Very Toxic to aquatic life with long lasting effects
P273 Avoid release to the environment
P391 Collect spillage
P501 Disposal should be in accordance with local, State or national legislation.

Dust may have irritant effect on skin, eyes and air passages.

Composition/Information on Ingredients

Chemical Identity
Proportion of Ingredients

This product is a mixture:
Copper Oxide 33.9%
Zinc Oxide 66.1%
CAS No 1317-38-0
CAS No 1314-13-2

CAS Number



First Aid Measures

Eye Contact

If substance has gotten into eyes. Immediately wash out with plenty of water. Seek medical advice.

Skin Contact

After contact with skin, wash immediately with plenty of water. If symptoms develop, seek medical attention.

Inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. Symptoms may develop after several hours. Medical observations of berthing may be necessary.

Ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Give plenty of water to drink. If symptoms continue, get medical attention.

Most important symptoms and effects both acute and delayed

Gastro-intestinal symptoms are the first symptoms following high oral intake of copper compounds. Vomiting may occur. The most critical organ for delayed effects of Copper/Zinc excess is the liver. Nose lung irritation may occur after inhalation of dust

Indication of the immediate medical attention and special treatment needed

Treat symptomatically

Fire Fighting Measures

Advice for Fire Fighters

Fire- Fighters should wear complete protective clothing including self-contained breathing apparatus.

Suitable Extinguishing Media

As appropriate for surrounding fire. Extinguish with dry chemical, Water, Chemical Foam, carbon dioxide.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to the release of irritating gasses and vapours. Do not allow run off from fire-fighting to enter drains or water courses.

Accidental Release Measures

Emergency Procedures

Ensure full personal protection (Including respiratory protection) during removal of spillage. Avoid generating dust.

Methods and Materials for Containment & Cleanup

Clean up spills immediately. Avoid dust generation. containment and clean up Transfer to a container for disposal. Use appropriate container and disposal method to avoid environmental contamination.

Environmental Precautions

Avoid release to the environment. Do not allow to enter drains sewers and watercourses. Prevent further spillage.

Handling & Storage

Precautions for Safe Handling

Wear personal protective clothing, Ensure adequate ventilation, Avoid dust generation, Avoid Contact with skin, eyes and inhalation.

Conditions for Safe Storage

Non-combustible, keep in cool place out of direct sunlight, store in closed containers away from food products, Store away from incompatible materials. May react violently with acids.



Exposure Controls/Personal Protection

Occupational Exposure Limits

Product	CAS No	LTEL (8 hr TWA mg/m ₃)	Note
Zinc Oxide	1314-13-2	TWA 5mg/m ₃	Zinc Dust & mist as (Zn)
Copper Oxide	1317-38-0	TWA 1mg/m ₃	Copper Dust & mist as (Cu)
TWA is the Time-Weight average airborne Concentration over a 8 hour working day			

Engineering Controls

Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures. Avoid generating and inhaling dusts. Use with local exhaust ventilation or wear a dust mask.

Personal Protective Equipment

- **Eye/Face Protection** As a precautionary measure, it is advisable to wear suitable safety glasses with side-shields, goggles, or a full-face shield.
- **Skin Protection** As a precautionary measure, it is advisable to wear gloves made of an impervious material such as PVC. Wear appropriate clothing, including chemical resistant overalls where clothing is likely to be contaminated.
- **Respiratory Protection** In case of insufficient ventilation, wear suitable respiratory equipment. (P1 or P2 particulate filter respirator.) Final choice of appropriate breathing protection is dependent upon actual airborne concentrations.

Environmental Exposure Controls

Avoid release to the environment. Clean up spill immediately. Transfer to a container for disposal.

Physical & Chemical Properties

Appearance	Greyish Black fine powder.
Odour	None.
pH of 10% Solution	8.0 – 9.0.
Vapour Pressure	Not applicable
Boiling Point	Not applicable
Melting Point	1326 oC
Solubility	Not applicable
Specific Gravity	
Bulk Density	1.9 -2.6.

Stability & Reactivity

Stability	Stable
Conditions to Avoid	Under certain conditions, copper oxide may react violently with strong reactants such as acids, bases.
Incompatible Materials	Strong Oxidising agents, Magnesium, Chlorinated water Acid Bases
Decomposition Products	Copper & Zinc Oxide fumes will be released if copper & Zinc oxide is heated above melting point 1326 0 C
Hazardous Polymerization	Will not occur.

Toxicological Information

Health Effects

- **Eyes** May cause irritation (redness). Moderate irritant.
- **Skin** May cause irritation (redness and/or itching). LD50 > 2000 mg/kg.
- **Ingestion** May cause nausea, vomiting and diarrhoea. LD50 > 2500 mg/kg.
- **Inhalation** May cause respiratory irritation and coughing. LC50 > 5.03 mg/l.



Ecological Information




Toxicity	Toxicity to fish LC50 –Cyprinodon variegatus (sheepshead minnow)- >0.17 mg/l -96.0h 1317-39-1 and 1314-13-1 Toxicity to fish LC50 Oncorhynchus mykiss (rainbow trout) 1.1mg/l -96.0h Toxicity to daphnia and other aquatic invertebrates EC50 –Daphnia Magma (Water flea) -0.5mg/l -48h 1317-39-1 and 1314-13-1
Mobility	No Data
Persistence & Degradability	No Data
Bioaccumulative Potential	No Data
Other Adverse Effects	1317-39-1 and 1314-13-1 are very toxic to aquatic life with lasting effects.

Disposal Considerations

Disposal Methods & Containers	Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment wash waters. Dispose of waste effluents according to state and local regulations. Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal. Do not discharge.
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Transport Information

Under the Australian Code for transport of Dangerous Goods by road and rail (ADG) this product is not classified as Dangerous Good with in Australia

	Land transport (ADR/RID)	Sea Transport (IMDG)	Air transport (ICAO/IATA)
	ADR/RID Class 9 (M7) Miscellaneous dangerous substances and articles	IMDG Class 9	ICAO/IATA Class 9
UN Number	UN3077	UN 3077	UN3077
UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID N.O.S (Copper & Zinc Oxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID N.O.S (Copper & Zinc Oxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID N.O.S (Copper & Zinc Oxide)
Transport hazard Class(es)	9 	9 	9 
Packing Group	III	III	III
Environmental Hazardous substance	Environmentally Hazardous substance	Environmentally hazardous. Classified as a Marine Pollutant	Environmentally Hazardous substance
Special Precautions For user	No information available	No information available	No information available
Additional Information	IERG number: 47		Goods packing Method Number 5.9.9



Regulatory Information

Australian Regulatory Information

A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

Other Information

Key/Legend

NOHSC	National Occupational Health and Safety Commission
USEPA	United States Environmental Protection Authority
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
ACGIH	American Conference of Government Industrial Hygienists
OECD	Organisation for Economic Cooperation and Development
ES-TWA	Exposure Standard – Time weighted average
ES-STEL	Exposure Standard – Short term exposure level
ES-Peak	Exposure Standard – Peak level
LDLo	The lowest dose in an animal study in which lethality occurred.
LD50	Lethal dose 50. The single dose of a substance that causes death of 50% of an animal population from exposure other than inhalation
t/m ³	Tonnes per cubic metre
mg/m ³	Milligrams per cubic metre
mg/kg	Milligrams per kilogram
pH	Hydrogen ion concentration on a scale of 0-14

Disclaimer

The information contained in this SDS is offered in good faith as accurate but does not purport to be all-inclusive. Health and safety precautions in this SDS may not be adequate for all individuals and/or situations. It is the user's responsibility to determine the suitability of any material for a specific purpose, adopt such precautions as may be necessary and comply with all applicable laws and regulations.

Summit Fertilizers reserves the right to make changes to SDS data without notice.