Infosafe No™	1CH7J	Issue Date : August 2018	RE-ISSUED by CHEMSUPP

Product Name : **ZINC Powder**

Classified as hazardous

1. Identification

GHS Product Identifier ZINC Powder

Company Name CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

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Recommended use of the chemical and restrictions on use Galvanising iron and other metals, storage and dry cell batteries, fungicides, metal spraying, electroplating, alloys (brass, bronze and die-casting alloys), electrical fuses, nutrition (essential growth element), auto parts and laboratory reagent.

Other Names

Name	Product Code
ZINC Powder LR	ZL010
Zinc dust	

Additional Information Non-Dangerous Goods Grade.

Other Information

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture Hazardous to the Aquatic Environment - Acute Hazard: Category 1
Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1

Signal Word (s) WARNING

Hazard Statement (s) H410 Very toxic to aquatic life with long lasting effects.

Pictogram (s) Environment



Precautionary statement – Prevention P273 Avoid release to the environment.

Precautionary statement – Disposal P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Composition, information on ingredients

Chemical Characterization Solid

Ingredients

Name	CAS	Proportion	Hazard Symbol	Risk Phrase

Classified as hazardous

	Zinc	7440-66-6	100 %

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.
Skin	Wash skin with water using soap if available. If persistent irritation occurs, obtain medical attention.
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open.In all cases of eye contamination it is a sensible precaution to seek medical advice.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Fire Fighting Measures	Original packaging can be wetted using water for extinguishing surrounding fire in well ventilated areas. Wetted powder will heat and release gases (hydrogen) Isolate wetted packaging and powder from combustible materials and dry powder and store in an well ventilated area. Avoid runoff to sewers.
Specific Methods	DO NOT USE WATER OR FOAM. DO NOT USE chlorinated hydrocarbon type extinguishers. Small fire: Use dry chemical, soda ash, lime or dry sand. Large fire: Use DRY sand, dry chemical, soda ash or lime or withdraw and let the fire burn. If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out. Avoid getting water inside the containers.
Specific hazards arising from the chemical	Produce flammable substances on contact with water. May ignite on contact with water or moist air. May react violently or explosively on contact with water. May be ignited by heat, sparks or flame. May re-ignite after fire is extinguished. Some are kept in or under flammable liquids. Fire will produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Run-off may create multiple fire or explosion hazard. Fine dust dispersed in air in sufficient concentrations, and in presence of an ignition source is a potential dust explosion hazard.
Hazchem Code	2Z
Precautions in connection with Fire	Wear SCBA and chemical splash suit. Structural firefighter's uniform will provide limited protection.
Other Information	Releases flammable hydrogen gas upon contact with acids or alkali hydroxides. Contact with strong oxidizers may cause fire.

6. Accidental release measures

Spills & Disposal	Eliminate all ignition sources (no smoking, flares, sparks or flame) within at least 25m. Do NOT touch or walk through spilled material. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas. Water spray may be used to knock down or divert vapour clouds. DO NOT GET WATER inside containers or in contact with substance. Small spill: Cover with DRY earth, sand or other non-combustible material followed by a plastic sheet to minimize spreading or contact with rain. Large Spill: SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.
Personal Precautions	Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.
Environmental Precautions	Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

7. Handling and storage

Precautions for Safe Handling	Avoid generation or accumulation of dusts. Prevent all contact with water and with moist atmosphere. When using do not eat, drink or smoke. Avoid prolonged or repeated contact with skin, eyes and

Conditions for safe storage, including any incompatabilities	clothing . Ensure the appropriate personal protective equipment is used when handling this material. Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure. Store in a cool,dry place. Store in well ventilated area. Store away from sources of heat or ignition. Keep containers closed at all times. Prevent all contact with water and with moist atmosphere.

8. Exposure controls/personal protection

Other Exposure Information	These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity. A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by Safe Work Australia for this product. There is a blanket limit of 10 mg/m3 for dusts or mists when limits have not otherwise been established.
Appropriate engineering controls	Special ventilation is not normally required. Nevertheless, adequate ventilation to keep mists and/or vapour levels to a minimum should be provided. Maintain eyewash and safety shower facilities.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
Hand Protection	Hand protection should comply with AS 2161 Industrial Safety Gloves and Mittens (Excluding Electrical and Medical Gloves).
Personal Protective Equipment	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
Footwear	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
Body Protection	Wear suitable protective clothing to prevent skin contact. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Solid
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 alkalies.
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/m3
Flammable Limits - Upper	Not applicable.
Molecular Weight	65.38

10. Stability and reactivity

Reactivity	Stable at room temperature in closed containers under normal storage and handling conditions. Moist zinc dust can react exothermically and ignite spontaneouly in air.
Conditions to Avoid	Incompatibile materials.
Incompatible Materials	Reacts violently with acids and alkali's (resulting in evolution of hydrogen gas), water, sulfur and halogens. Explosion hazard in contact with acids, ammonium nitrate, barium oxide, barium nitrate, cadmium, carbon disulfide, chlorates, chlorine, chloro trifluoride, chromium trioxide, (ethyl acetoacetate + tribromoneopentyl alcohol), fluorine, hydrazine mononitrate, hydroxylamine, lead trinitrate, (magnesium + Ba(NO3)2 + BaO2), manganese chloride, nitric acid, oxidising agents, performic acid, potassium perchlorate, potassium nitrate, potassium peroxide, selenium, sodium perchlorate, sodium peroxide, sulfur, tellurium, and water.

11. Toxicological Information

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

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

Transport Information	Class 9 Miscellaneous dangerous goods shall not be loaded in a vehicle with: - Class 1 Explosives - Class 5. 1 Oxidizing agents (when Class 9 substance capable of igniting and burning - Class 5. 2 Organic peroxides (when Cl. 9 capable of igniting/burning) Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the Australian Dangerous Goods when transported by road or rail in; (a) packagings that do not incorporate a receptacle exceeding 500 kg(L); or (b) IBCs.
U.N. Number	3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Transport hazard class(es)	9
Hazchem Code	2Z
Packing Group	III
EPG Number	9C1
IERG Number	47

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UN Number (Sea Transport)	IMO / IMDG Classification UN 3077 Environmentally hazardous substance, solid, N.O.S. (Zinc). Marine pollutant Class: 9 Packaging Group: III Emergency schedules (EmS): F-A, S-F
UN Number (Air Transport, ICAO)	IATA Class UN 3077 Environmentally hazardous substance, solid, N.O.S. (Zinc) Class: 9 III Passenger and Cargo Aircraft Quantity limitation: 400 kg Packaging instructions: 911 Cargo Aircraft Only Quantity limitation: 400 kg Packaging instructions: 911 Limited Quantities - Passenger Aircraft Quantity limitation: 30 kg Packaging instructions: Y911
Other Information	The product qualities covered by this SDS have been tested according to the criteria for classes 4.1, 4.2 and 4.3. The test results show that these qualities don't meet the criteria for classification as dangerous goods in the classes 4.1, 4.2, or 4.3 for transport.

15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	Not Scheduled

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007. Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010. Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'. Safe Work Australia, 'Hazardous Substances Information System, 2005'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995) 3rd Edition]'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. Chem-Supply accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.
Empirical Formula & Structural Formula	Zn

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