



Infosafe No™	1CH7I	Issue Date : July 2018	RE-ISSUED by CHEMSUPP
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Product Name : **ZINC OXIDE**

Classified as hazardous

1. Identification

GHS Product Identifier	ZINC OXIDE	
Company Name	CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)	
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia	
Telephone/Fax Number	Tel: (08) 8440-2000 Fax: (08) 8440-2001	
Recommended use of the chemical and restrictions on use	Accelerator activator, pigment and reinforcing agent in rubber, ointments, pigment and mold-growth inhibitor in paints, UV absorber in plastics, ceramics, floor tile, glass, zinc salts, feed additive, dietary supplement, seed treatment, cosmetics, photoconductor in office copying machines and in colour photography, driers, quick-setting cements, dental cement, manufacture of opaque and transparent glass, enamels, automobile tires, white glue, matches and porcelains, reagent in analytical chemistry, flame retardant, semiconductor, antiseptic, astringent and topical protectant, piezoelectric devices, artists' colourant and laboratory reagent.	
Other Names	Name	Product Code
	ZINC OXIDE AR	ZA009
	Zincite	
	Zinc white	
	Zinc monoxide	
	Flowers of zinc	
	Chinese white	
	Calamine	
	C.I. 77947	
Additional Information	Zinc compounds: If this compound is used for human internal use, then it may acquire a poison schedule of S4. When used for laboratory chemical analysis, it has no poison schedule.	
Other Information	EMERGENCY CONTACT NUMBER: +61 08 8440 2000 Business hours: 8:30am to 5:00pm, Monday to Friday.	

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

Other Information Occupational dermatitis (oxide pox) was reported among workers who made zinc oxide. The zinc oxide dust had combined with debris and bacteria to block sweat glands on the skin as a result of poor personal hygiene.
Gastrointestinal disturbances such as pressure in the stomach region, nausea and weakness occurred after working for several years in processes such as galvanizing metal, torch-cutting or welding of galvanized metal and from working in brass foundries.

3. Composition/information on ingredients

Chemical Characterization	Solid				
Ingredients	Name	CAS	Proportion	Hazard Symbol	Risk Phrase
	Zinc oxide	1314-13-2	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 with plenty of soap and water. Remove contaminated clothing and wash before re-use. 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 drench facilities 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

Specific Methods Use extinguishing media most appropriate for the surrounding fire.

Specific hazards arising from the chemical Material does not burn. Runoff may pollute waterways.

Hazchem Code 2Z

Decomposition Temp. Not applicable.

6. Accidental release measures

Personal Precautions Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

Personal Protection Wear appropriate personal protective equipment as specified in 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 contamination of soil and water. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for Safe Handling Avoid prolonged or repeated contact with skin, eyes and clothing. Do not breathe (dust, vapor or spray mist) Do not use in areas without adequate ventilation. Keep container closed when not in use. Wear suitable protective clothing, including gloves.
Avoid generating and inhaling dust.

Conditions for safe storage, including any incompatibilities Store in a cool, dry place. Keep containers securely sealed and protected against physical damage.

Storage Temperatures Store at room temperature (15 to 25 °C recommended).



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8. Exposure controls/personal protection

Occupational exposure limit values	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Zinc oxide			10		
Other Exposure Information	<p>A time weighted average (TWA) has been established for Zinc oxide (dust) (Safe Work Australia) of 10 mg/m3. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.</p> <p>A time weighted average (TWA) has been established for Zinc oxide (fume) (Safe Work Australia) of 5 mg/m3. The corresponding STEL level is 10 mg/m3. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL.</p>					
Appropriate engineering controls	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. These methods should be used in preference to personal protective equipment.					
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.					
Hand Protection	Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336. Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.					
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	Clean clothing or protective clothing should be worn, preferably with and apron. 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	Coarse white or grayish powder.
Odour	Odourless.
Decomposition Temperature	Not applicable.
Melting Point	1975 °C
Solubility in Water	Insoluble.
Solubility in Organic Solvents	Insoluble in alcohol.
Specific Gravity	5.61
pH	6.95 - 7.37
Flammability	Non combustible material.
Molecular Weight	81.37
Other Information	Bitter taste. Soluble in acids and alkalis. Absorbs carbon dioxide from the air. Has greatest UV absorption of all commercial pigments.

10. Stability and reactivity



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Chemical Stability	Stable under normal use conditons.
Conditions to Avoid	Incompatible materials.
Incompatible Materials	Magnesium, chlorinated rubber, strong acids and strong bases.
Possibility of hazardous reactions	Reacts violently with chlorinated rubber at 215 °C. Can react explosively with magnesium when heated. May react vigorously with strong acids. Forms water-soluble zincates with strong bases.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Ingestion	Large amounts may cause inflammation of the stomach (gastritis) and vomiting.
Inhalation	Irritating to respiratory system. May cause sweet, metallic taste, dry throat and coughing. May cause metal fume fever. Symptoms of metal fume fever occur about 4 to 12 hours after exposure and usually last about 24 hours. Recovery is complete with no apparent permanent disability. The symptoms resemble the 'flu' and include sweating, shivering, headache, reduced pulmonary function, fever, chills, tight chest, dyspnea, tales, blurred vision, low pack pain, thirst, muscle aches, nausea, vomiting, fatigue, lassitude, malaise, weakness and tiredness. Some workers may develop a short-term immunity (resistance) so that repeated exposure to zinc oxide fumes does not cause metal fume fever. This immunity (resistance) is quickly lost after short absences from work (weekends or vacations).
Skin	Irritating to skin.
Eye	Irritating to eyes.
Carcinogenicity	Not listed on IARC - International Agency for Research on Cancer database.
Chronic Effects	Limited evidence of being a teratogen.

12. Ecological information

Known Harmful Effects on the Environment	Highly toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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13. Disposal considerations**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 this Code 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

15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS).
Poisons Schedule	Not Scheduled

16. Other Information

Literature References	Commonwealth Department of Health and Aged Care, 'Standard for the Uniform Scheduling of Drugs and Poisons No. 18', Commonwealth of Australia, Canberra 2002.
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Safety Data Sheet

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South Australia Government, 'Approved Code of Practice for the Labelling of Workplace Substances', 1995.

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Worksafe Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]', AusInfo, Canberra 1999.

Worksafe Australia, 'List of Designated Hazardous Substances [NOHSC:10005(1999)]', AusInfo, Canberra 1999.

Worksafe Australia, 'National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]', AGPS, Canberra 1994.

Worksafe Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]', AusInfo, Canberra 1995.

Paul McCarthy Ph. (08) 8440 2000 **DISCLAIMER STATEMENT:**

**Contact
Person/Point**

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**Empirical Formula &
Structural Formula**

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