Infosafe No™ 3CH50 Issue Date :April 2013 RE-ISSUED by CHEMSUPP

Product Name **COBALT (II) OXALATE Dihydrate**

Classified as hazardous

1. Identification

GHS Product Identifier	COBALT (II) OXALATE Dihydrate
Company Name	CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)
Address	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	Catalysts, manufacture of cobalt metal powder and other cobalt salts, manufacture of cemented carbides and laboratory reagent.

Other Names

Name	Product Code
COBALT (II) OXALATE Dihydrate LR	CL411

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	Acute Toxicity - Dermal: Category 4 Acute Toxicity - Oral: Category 4
Signal Word (s)	WARNING
Hazard Statement (s)	H302 Harmful if swallowed. H312 Harmful in contact with skin.
Pictogram (s)	Exclamation mark

Precautionary statement – Prevention	P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement – Response	P301+P312+P330 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P312 Call a POISON CENTER or doctor/physician if you feel unwell.
Other Information	In animals, administration of cobalt salts produces polythemia. In humans, a single case of poisoning, liver and kidney damage has been attributed to cobalt.

3. Composition/information on ingredients

Chemical Characterization Solid

Ingredients

Name	CAS	Proportion	Hazard Symbol	Risk Phrase

Classified as hazardous

Cobalt (II) oxalate dihydrate	5965-38-8	100 %	

4. First-aid measures

Inhalation Remove from exposure, rest and keep warm. If breathing has stopped, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.

Ingestion Rinse mouth thoroughly with water immediately. Give plenty of water to drink. Never give anything by mouth to an unconscious person. If swallowed, do NOT induce vomiting. Seek medical attention.

Skin Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical attention.

Eye contact Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.

First Aid Facilities Maintain eyewash fountain and drench facilities in work area.

Advice to Doctor Treat symptomatically.

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

Hazards from Combustion Products Carbon monoxide, carbon dioxide, cobalt/cobalt oxides.

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

Decomposition Temp. 250 °C.

6. Accidental release measures

Personal Protection Wear protective clothing specified for normal operations (see Section 8)

Clean-up Methods - Small Spillages Sweep up and remove to a suitable, claerly labelled container for disposal in accordance with local regulations.

7. Handling and storage

Precautions for Safe Handling Avoid inhalation of dust, vapour or spray mist. Avoid contact with eyes, skin, or clothing. Avoid prolonged or repeated exposure. Ensure good ventilation at the workplace. Operations should be carried out in an efficient fume hood or equivalent system. Wear suitable protective clothing. Chemicals should be used only by those trained in handling potentially hazardous materials.

Conditions for safe storage, including any incompatabilities Store in tightly sealed containers, in a cool, dry, well-ventilated area. Protect and store away from water/moisture. Store away from oxidizing agents.

8. Exposure controls/personal protection

Occupational exposure limit values

Name	STEL		TWA		
	mg/m3	ppm	mg/m3	ppm	Footnote
Cobalt (II) oxalate dihydrate			0.05		Cobalt, metal dust & fume (as Co)

Other Exposure Information A time weighted average (TWA) has been established for Cobalt, metal dust & fume (as Co) (Worksafe Aust) of 0.05 mg/m³, for Cobalt carbonyl (as Co) (Worksafe Aust) of 0.1 mg/m³ and for Cobalt hydrocarbonyl (as Co) (Worksafe Aust) of 0.1 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. Note: Sensitiser.

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.

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, Occupational protective gloves - Selection, use and maintenance.
Body Protection	Clean clothing or protective clothing should be worn, preferably with an 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	Pale pink to purple, crystalline powder.
Odour	Odourless.
Decomposition Temperature	250 °C.
Melting Point	229-231°C (decomposes); 250 °C (decomposes).
Solubility in Water	Slightly soluble in water.
Solubility in Organic Solvents	Soluble in ammonia and slightly soluble in acids.
Specific Gravity	3.02.
Flammability	Non flammable.
Molecular Weight	182.98

10. Stability and reactivity

Chemical Stability	Stable under ordinary conditions of use and storage.
Conditions to Avoid	Extreme light, heat or moisture.
Incompatible Materials	Oxidizing agents, strong acids, water/moisture.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, cobalt/cobalt oxides.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Ingestion	Harmful if swallowed. Oxalates are powerful irritants and corrosive to tissue. May cause a caustic effect, or burning in the mouth, oesophagus, and stomach. Symptoms may include sensitization, nausea, flushing of the face, ringing in the ears, absorption and severe kidney damage.
Inhalation	Harmful by inhalation. Oxalates are powerful irritants and corrosive to tissue. Dust and fumes may be irritating to nasal passages and respiratory tract. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, labored breathing, headache, nausea, vomiting, sensitization, flushing of the face and ringing in the ears. High concentrations are extremely destructive to tissues of the mucous membranes and upper respiratory tract. Cobalt is an experimental neoplastigen and

	tumorigen and experimental carcinogen of the lungs.
Skin	Harmful in contact with and if absorbed through skin. Powerful skin irritant. High concentrations are extremely destructive to tissues of the skin. Symptoms may include sensitization, nausea, flushing of the face and ringing in the ears by skin contact and absorption.
Eye	Dust may be irritating to eyes. High concentrations are extremely destructive to tissues of the eyes.
Carcinogenicity	Cobalt [7440-48-4] and cobalt compounds are evaluated in the IARC Monographs (Vol. 52; 1991) as Group 2B: Possibly carcinogenic to humans.
Chronic Effects	Repeated or prolonged skin contact may cause chronic dermatitis. Chronic ingestion may result in pericardial effusion, polycardial effusion, polycythemia, cardiac failure, vomiting, convulsions, thyroid enlargement and damage to the thyroid, lungs, connective tissue, liver and kidneys. Possible risk of irreversible effects.

12. Ecological information

Ecological Information	May be hazardous to the aquatic environment.
Environmental Protection	Do not allow to enter waters, waste water, or soil!

13. Disposal considerations

Disposal Considerations	Dispose of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information	Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. Regulatory information

Poisons Schedule	Not Scheduled

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons No. 3', Commonwealth of Australia, June 2012. 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. 'Labelling of Hazardous Workplace Chemicals, Code of Proctice' Safe Work Australia. Standards Australia 'AS 1940-2004 The Storage and Handling of Flammable and Combustible Liquids. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010. Worksafe Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)]'. Worksafe Australia, 'Hazardous Substances Information System, 2005'. Worksafe Australia, 'National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]'. Worksafe Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]'.
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.

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Empirical Formula & Structural Formula

Empirical Formula: CoC2O4•2H2O.
Structural Formula: (O(O)CC(O)O)2Co•2H2O.

User Codes

User Field Title	User Code
CAS No.	5965-38-8

...End Of MSDS...