Infosafe No™ 1CHA4	Issue Date :July 2021	RE-ISSUED by CHEMSUPP

Product Name **NICKEL CARBONATE Tetrahydrate**

Classified as hazardous

1. Identification

GHS Product Identifier NICKEL CARBONATE Tetrahydrate

Company Name CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)

Address 38 - 50 Bedford Street GILLMAN
SA 5013 Australia

Telephone/Fax Number Tel: (08) 8440-2000

Emergency phone number CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

E-mail Address www.chemsupply.com.au

Recommended use of the chemical and restrictions on use Electroplating, preparation of nickel catalysts for organic chemical manufacture, ceramic colours, glazes, petroleum refining, edible oil hardening and laboratory reagent.

Other Names

Name	Product Code
Nickel (II) carbonate	
Nickel carbonate, basic	
NICKEL CARBONATE Tetrahydrate LR	NL007
Nickel hydroxide carbonate	
Nickel carbonate hydroxide	

Other Information

ChemSupply Australia 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 ChemSupply Australia 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 ChemSupply Australia 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 - category 4
Acute toxicity - category 2
Carcinogenicity - category 1A
Germ cell mutagenicity - category 2
Eye irritation - category 2A
Specific target organ toxicity (repeated exposure) - category 1
Reproductive toxicity - category 1B
Skin sensitisation - category 1
Long-term (chronic) aquatic hazard - Category 1

Signal Word (s) DANGER

Hazard Statement (s)
H302 Harmful if swallowed
H330 Fatal if inhaled
H350i May cause cancer by inhalation
H341 Suspected of causing genetic defects
H319 Causes serious eye irritation
H372 Causes damage to organs through prolonged or repeated exposure if inhaled
H360D May damage the unborn child
H317 May cause an allergic skin reaction
H410 Very toxic to aquatic life with long lasting effects

Pictogram (s) Health hazard, Skull and Crossbones, Environment

Classified as hazardous



Precautionary statement – Prevention

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
P284 Wear respiratory protection.
P273 Avoid release to the environment.

Precautionary statement – Response

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P391 Collect spillage.

Precautionary statement – Storage

P403 + P233 Store in a wellventilated place. Keep container tightly closed.
P405 Store locked up.

Precautionary statement – Disposal

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

3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Nickel carbonate tetrahydrate	39430-27-8	100 %

4. First-aid measures

Inhalation

If inhaled, remove from contaminated area to fresh air immediately, avoid becoming a casualty. Make patient comfortable, keep warm and at rest until fully recovered. If breathing is difficult (or develops a bluish skin discolouration), supply oxygen by a qualified person. Apply artificial respiration with a respiratory medical device if not breathing. Do not use mouth to mouth resuscitation. Immediately medical attention is required.

Ingestion

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Skin

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

Eye contact

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek medical advice if effects persist.

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

Suitable extinguishing media No limitations to the type of extinguishing media. Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Hazards from Combustion Products Carbon monoxide, carbon dioxide, nickel/nickel oxides, irritating and toxic gases and vapours (such as nickel carbonyl).

Specific Methods Small fire: Use dry chemical, CO2, water spray or foam.
Large fire: Use water spray, fog or foam.

Specific hazards arising from the chemical Material does not burn. Runoff may pollute waterways. Fire or heat may produce irritating, poisonous and/or corrosive fumes. Containers may explode when heated.

Hazchem Code 2X

Precautions in connection with Fire Wear SCBA and structural firefighter's uniform.

6. Accidental release measures

Personal Precautions Evacuate the area of all non-essential personnel. 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 entering into drains, ditches, rivers or the sea.

7. Handling and storage

Precautions for Safe Handling Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure. Wear suitable protective clothing. Use with adequate ventilation. Work under hood. In case of insufficient ventilation, wear suitable respiratory equipment If you feel unwell, seek medical attention and show the label when possible.

Conditions for safe storage, including any incompatibilities Store in cool, dry conditions in well sealed containers. Keep well protected from direct sunlight and moisture. Store away from foodstuffs. Do not store together with acids. Carcinogenic, teratogenic or mutagenic materials should be stored in a separate locked safety storage cabinet or room.

Corrosiveness Corrosive to zinc, aluminium and magnesium.

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

Unsuitable Materials Zinc, aluminium and magnesium.

8. Exposure controls/personal protection

Occupational exposure limit values

Name	STEL		TWA		
	mg/m3	ppm	mg/m3	ppm	Footnote
Nickel carbonate tetrahydrate			0.1		Nickel, soluble compounds (as Ni)

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) has been established for Nickel, soluble compounds (as Ni) (Safe Work Australia) 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: Substance is known to act as sensitiser.
Appropriate engineering controls	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	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
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 impervious clothing should be worn. 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	Light green crystals or brown powder.
Odour	Odourless.
Solubility in Water	Insoluble in cold water (93 mg/l water @ 25 °C).
Solubility in Organic Solvents	Soluble in ammonia and in diluted acids.
Specific Gravity	2.6 (Water = 1)
Evaporation Rate	Negligible at 20 °C.
Flammability	Non combustible material.
Molecular Weight	376.24

10. Stability and reactivity

Chemical Stability	Stable under normal temperatures and pressures.

Incompatible Materials	Strong oxidizing agents, Strong acids.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, nickel/nickel oxides, irritating and toxic gases and vapours (such as nickel carbonyl).
Possibility of hazardous reactions	Nickel carbonate reacts violently with aniline, hydrogen sulfide, flammable solvents, hydrazine and metal powders, especially zinc, aluminium and magnesium, causing fire and explosion hazard.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat): 840 mg/kg.
Ingestion	Harmful if swallowed. May cause irritation of the digestive tract.
Inhalation	Fatal if inhaled. May cause allergic respiratory reaction.
Skin	May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause severe irritation and possible burns. May cause dermatitis.
Eye	Causes eye irritation.
Respiratory sensitisation	Not classified based on available information.
Skin Sensitisation	Skin sensitisation – category 1 H317 May cause an allergic skin reaction
Germ cell mutagenicity	Germ cell mutagenicity – category 2 H341 Suspected of causing genetic defects
Carcinogenicity	Nickel compounds (NB: Evaluated as a group) are evaluated in the IARC Monographs (Vol. 49; 1990) as Group 1: Carcinogenic to humans. Carcinogenicity – category 1A H350i May cause cancer by inhalation
Reproductive Toxicity	Reproductive toxicity – category 1B H360D May damage the unborn child
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	Specific target organ toxicity (repeated exposure) – category 1 H372 Causes damage to organs through prolonged or repeated exposure if inhaled
Chronic Effects	Repeated or prolonged contact may cause skin sensitization. Repeated or prolonged inhalation exposure may cause asthma. The substance may have effects on the lungs.
Mutagenicity	Not classified based on available information.

12. Ecological information

Ecotoxicity	Quantitative data on the ecological effect of this product are not available. Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

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 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. - (Nickel carbonate tetrahydrate)
Transport hazard class(es)	9
Hazchem Code	2X
Packing Group	III
EPG Number	9C1
IERG Number	47
Environmental Hazards	Highly toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.

15. Regulatory information

Regulatory Information	All the constituents of this product are listed on the Australian Inventory of Chemical Substances (AICS), or exempted. 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. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'. Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.
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. ChemSupply Australia Pty Ltd 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	Empirical Formula: $CH_4Ni_3O_7 \cdot 4H_2O$ Structural Formula: $NiCO_3 \cdot 2Ni(OH)_2 \cdot 4H_2O$

...End Of MSDS...