

Safety Data Sheet **COPPER (I) IODIDE**

SDS no. 0T9045NT • Version 1.0 • Date of issue: 2026-02-28

SECTION 1: Identification

GHS Product identifier

Product name COPPER (I) IODIDE

Product number CL221

Recommended use of the chemical and restrictions on use

Feed additive, in table salt as a source of dietary iodine (up to 0.01%), catalyst in organic reactions, coating in cathode-ray tubes, cloud seeding, bactericide and laboratory reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

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

SECTION 2: Hazard identification

General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, oral, Cat. 4
- Serious eye damage/eye irritation, Cat. 1
- Skin corrosion/irritation, Cat. 2
- Skin sensitizer, Cat. 1
- Specific target organ toxicity following single exposure, Cat. 3
- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

GHS label elements, including precautionary statements

Pictograms

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Signal word

Danger

Hazard statement(s)

H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H335	May cause respiratory irritation
H410	Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell,
P302+P352	IF ON SKIN: Wash with plenty of water/soap
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/physician if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight	190.44
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Component	Identification	Weight %	Classifications
Copper (I) iodide	CAS no.: 7681-65-4 EC no.: 231-674-6	<= 100 %	CLASSIFICATIONS: Hazardous to the aquatic environment, long-term (chronic), Cat. 1; Hazardous to the aquatic environment, short-term (acute), Cat. 1; Sensitization - skin, Cat. 1; Specific target organ toxicity, single exposure, Cat. 3; Skin corrosion/irritation, Cat. 2; Eye damage/irritation, Cat. 1; Acute toxicity, oral, Cat. 4. HAZARDS: H302 - Harmful if swallowed; H315 - Causes skin irritation; H317 - May cause an allergic skin reaction; H318 - Causes serious eye damage; H335 - May cause respiratory irritation; H336 - May cause drowsiness or dizziness; H400 - Very toxic to aquatic life; H410 - Very toxic to aquatic life with long lasting effects.

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SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	First Aid Facilities: Maintain eyewash fountain and drench facilities in work area.
If inhaled	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.
In case of skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If persistent irritation occurs, obtain medical attention.
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Small fire: Use dry chemical, CO₂, water spray or foam.

Large fire: Use water spray, fog or foam.

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.

Specific hazards arising from the chemical

Hazards from Combustion Products: Combustion products may include copper oxides, iodide and hydrogen iodide.

Special protective actions for fire-fighters

Wear SCBA and structural firefighter's uniform.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. For personal protection see section 8.

Methods and materials for containment and cleaning up

Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

Avoid release to the environment.

SECTION 7: Handling and storage

Precautions for safe handling

Wash hands and face thoroughly after working with material. Use in well ventilated areas away from all ignition sources. Avoid substance contact and generation and inhalation of dust. Avoid ingestion and inhalation of material. Avoid contact with eyes, skin and clothing.

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Conditions for safe storage, including any incompatibilities

Keep container tightly closed and in a cool, well-ventilated place, away from direct sunlight. Isolate from incompatible substances.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: (not specified)

Copper dusts &
mists (as Cu)

AU/SWA (Australia): 1 mg/m³ TWA

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face 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.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Body protection

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 an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/ NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance, such as physical state and colour	Powder
Colour	Off white or buff
Odour	Odourless.
Odour threshold	
Melting point and freezing point	605 °C

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Boiling point or initial boiling point and boiling range	1290 °C
Flammability	Not flammable
Lower and upper explosion limit or lower and upper flammability limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not determined
pH	Not determined
Kinematic viscosity	Not applicable
Solubility	Solubility in Water: Insoluble. Solubility in Organic Solvents: Soluble in aqueous solutions, ammonia, thiosulphates and iodides.
Partition coefficient — n-octanol/water (logarithmic value)	Not determined
Vapour pressure	Not determined
Density and relative density	Specific Gravity: 5.62
Relative vapour density	Not applicable
Particle characteristics	Not determined

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Stable under normal conditions of storage and handling.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Reacts violently with potassium.

Conditions to avoid

High temperatures, light, moist air, dust generation.

Incompatible materials

Oxidising agents, alkali metals, chloral hydrate, tartaric and other acids, potassium chlorate, metallic salts, iodates, acetylene and potassium.

Hazardous decomposition products

Hydrogen iodide, iodine.

SECTION 11: Toxicological information

Information on toxicological effects

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Acute toxicity

Acute Toxicity - Oral: LD50 Oral - Rat - female - 2,000 mg/kg
(OECD Test Guideline 420)

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. Acute symptoms of copper poisoning by ingestion include vomiting, hematemesis (vomiting of blood), hypotension (low blood pressure), melena (black tarry feces), coma, jaundice (yellowish pigmentation of the skin), and gastrointestinal distress.

Inhalation: Dust is irritating to mucous membranes and upper respiratory tract.

Skin corrosion/irritation

Causes skin irritation. May cause an allergic skin reaction. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Serious eye damage/irritation

Causes serious eye irritation.

Serious eye damage/irritation: Eye Damage/Irritation: Category 1
H318 Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitisation: Not classified based on available information.

Skin Sensitisation:

Sensitization - Skin: Category 1

H317 May cause an allergic skin reaction.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

Aspiration hazard

Not classified based on available information.

Additional information

Chronic Effects: May cause hepatic cirrhosis, brain damage and demyelination, kidney defects, copper deposition in cornea and hemolytic anemia.

SECTION 12: Ecological information

Toxicity

A harmful effect on aquatic organisms cannot be excluded in the event of improper handling or disposal.

SECTION 13: Disposal considerations

Disposal methods

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Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 3077

Class: 9

Packing Group: III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper (I) Iodide)

Hazchem emergency action code (EAC)

2X

IMDG

UN Number: 3077

Class: 9

Packing Group: III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper (I) Iodide)

IATA

UN Number: 3077

Class: 9

Packing Group: III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper (I) Iodide)

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: S6

SECTION 16: Other information

Further information/disclaimer

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.

Preparation information

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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', July 2020.

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Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)