

SAFETY DATA SHEET

COPPER(II) SULPHATE 5-HYDRATE LAB

1. Identification of the substance/preparation and of the company or firm

1.1 Identification of the substance or preparation:

Catalogue no. : KA171

Product name : Copper(II) sulphate 5-hydrate AR

1.2 Use of the substance/preparation: For laboratory utilisation, analysis, research and fine chemistry.

1.3 Identification of the company or firm: Elago Enterprises Pty Ltd, 5 The Cloisters, Cherrybrook, N.S.W. 2126, Australia

Tel no. (61) 2 98998169

Fax no. (61) 2 98997976

1.4 Emergency telephone: (61) 2 98998169 (9:00am - 5:00 pm) [Office hours]

2. Identification of dangers

2.1 Classification of the substance.

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Acute toxicity, Oral, Category 4: Toxic if swallowed.

Hazardous to the aquatic environment, chronic, Category 1: Very toxic to aquatic life with long lasting effects.

Eye irritation, Category 2: Causes serious eye irritation.

Skin irritation, Category 2: Causes skin irritation.

2.2 Label elements.

Hazard pictograms



Signal words : Warning.

Hazard statements (H) :

H302 : Harmful if swallowed.

H315 : Causes skin irritation.

H319 : Causes serious eye irritation.

H410 : Very toxic to aquatic life with long lasting effects.

Precautionary statements (P) :

P273 : Avoid release to the environment

P301+P312 : IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell.

P302+P352 : IF ON SKIN: Wash with plenty of water/...

P332+P313 : If skin irritation occurs: Get medical advice/attention.

P337+P313 : If eye irritation persists: Get medical advice/attention.

P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3 Other hazards.

None known.

3. Composition/information on ingredients

3.1 Substance / Preparation.

Copper(II) sulphate 5-hydrate

Formular: $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$

CAS No : 7758-99-8

Molecular weight : 249.68

Contains no other components or impurities which will influence the classification of the product.

3.2 Mixture.

Not applicable.

4. First-aid measures

4.1 Description of first aid measures.

Inhaling: Take the person out into the fresh air. If breathing is irregular or stops, perform artificial respiration. Seek medical assistance.

- Skin contact: Wash with plenty of water. Remove contaminated clothing.
- Eyes: Wash with plenty of water, keeping eyelids open. Seek immediate medical assistance.
- Ingestion: Never induce vomiting. Rinse mouth thoroughly with water immediately. Seek immediate medical attention.
- 4.2 Most important symptoms and effects, both acute and delayed.
Harmful Product, repeated or prolonged contact can cause redness, causes skin irritation and serious eye irritation.
Swallowing the material can be harmful.
- 4.3 Indication of any immediate medical attention and special treatment needed.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.
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5. Fire-fighting measures

- 5.1 Suitable extinguishing media.
Recommended extinguishing methods: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- 5.2 Special hazards arising from the substance.
Special risks: Under fire conditions, hazardous fumes will be present. Not combustible.
- 5.3 Advice for firefighters.
Do not enter fire area without proper protective equipment, including respiratory protection.
Fire protection equipment: According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.
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6. Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures.
For exposure control and individual protection measures, see section 8.
- 6.2 Environmental precautions.
Product dangerous for the environment. Do not allow it to enter the drainage system. Avoid pollution of the soil, water supplies and drains.
- 6.3 Methods and material for containment and cleaning up.
The contaminated area should be immediately cleaned with an appropriate de-contaminator. Store away from other materials. Collect spillage.
- 6.4 Reference to other sections.
For exposure control and individual protection measures, see section 8.
For later elimination of waste, follow the recommendations under section 13.
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7. Handling and storage

- 7.1 Precautions for safe handling.
Ensure good ventilation and renewal of the air in the premises. Avoid breathing dust, fume, gas, mist, vapours, spray.
Do not eat, drink or smoke when using this product.
- 7.2 Conditions for safe storage, including any incompatibilities.
Well sealed containers. In well ventilated premises. Away from sources of ignition and heat. Keep away from oxidising agents and from highly acidic or alkaline materials.
- 7.3 Specific end use(s).
None.
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8. Exposure controls/personal protection

- 8.1 Control parameters.
The product does NOT contain substances with Professional Exposure Environmental Limit Values.
The product does NOT contain substances with Biological Limit Values.
- 8.2 Exposure controls.
Personal protection : Avoid all unnecessary exposure.
Respiratory protection : Wear approved mask.
Hand protection : Wear protective gloves.
Eye protection : Chemical goggles or safety glasses.
Others : When using, do not eat, drink or smoke.
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9. Physical and chemical properties

- Appearance: Solid.
- Colour: Blue crystals.
- Odour: Odourless.
- pH value: ~4 (50g/l)
- Melting Point: No data available.
- Boiling Point: No data available.
- Flash point: No data available.
- Flammability (solid, gas) : No data available.

Lower explosion limit:	No data available.
Upper explosion limit:	No data available.
Evaporation rate :	No data available.
Vapour pressure:	No data available.
Vapour density :	No data available.
Solubility :	330 g/l (20 °C).
Relative density :	2,284 g/cm ³
Partition coefficient: n-octanol/water:	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	> 110 °C.
Viscosity :	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

10. Stability and reactivity

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

The product stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions.

Neutralization can occur on contact with bases.

10.4 Conditions to avoid.

Avoid contact with bases.

10.5 Incompatible materials.

Keep away from bases.

10.6 Hazardous decomposition products.

Depending on conditions of use, can be generated corrosive vapors or gases.

11. Toxicological information

11.1 Acute toxicity:

LD50 oral rat : 960 mg/kg

LD50 dermal rat : 2000 mg/kg

Inhalation: Based on available data, the classification criteria are not met.

Dermal: Causes skin irritation.

Ingestion: Harmful if swallowed.

Corrosion: Based on available data, the classification criteria are not met.

Irritation: Causes serious eye irritation.

Sensitization: Based on available data, the classification criteria are not met.

Mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Toxic for reproduction: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.

12. Ecological information

12.1 Toxicity.

Toxicity to fish.

LC50 Oncorhynchus mykiss : 0.11 mg/l; 96 h

Toxicity to Aquatic invertebrates.

EC50 Daphnia magna : 0.02 mg/l; 48 h

12.2 Persistence and Degradability.

Biodegradable.

12.3 Bioaccumulative potential.

Not established.

12.4 Mobility in soil

Not established.

12.5 Results of PBT and vPvB assessment.

The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

13. Disposal considerations

13.1 Waste treatment methods.

Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

14. Transport information

14.1 UN number.

UN No: UN3077

14.2 UN proper shipping name.

ADR: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER (II) SULPHATE 5-HYDRATE), 9, PG III

IMDG: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER (II) SULPHATE 5-HYDRATE), 9, PG III

ICAO: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER (II) SULPHATE 5-HYDRATE), 9, PG III

14.3 Transport hazard class(es).

Class : 9

14.4 Packing group.

Packing group: III

14.5 Environmental hazards.

Marine pollutant: Yes

14.6 Special precautions for user.

Labels: 9

Hazard number: 90

ADR LQ: 5kg

Provisions concerning carriage in bulk ADR:

VC1: Carriage in bulk in sheeted vehicles, sheeted containers or sheeted bulk containers is permitted.

VC2: Carriage in bulk in closed vehicles, closed containers or closed bulk containers is permitted.

Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): F-A, S-F

Proceed in accordance with point 6.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.

The product is not transported in bulk.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance.

Ensure all national/local regulations are observed.

The product is not affected by REACH Restrictions - Annex XVII

The product is not affected by REACH Authorisation - Annex XIV

15.2 Chemical safety assessment.

Not Scheduled.

16. Other Information

Abbreviations and acronyms :

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

EC50: Effective concentration, 50%

IC50: Inhibitory Concentration, 50%

LC50: Lethal concentration, 50%.

LD50: Lethal dose, 50%.

IATA: International Air Transport Association.

ICAO: International Civil Aviation Organization.

IMDG: International Maritime Code for Dangerous Goods.

PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative.

Sources of key data used.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Review number and date.

v. 1.0

Date published.

18-Apr-2016

Further information.

None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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