

## SAFETY DATA SHEET

### COPPER(II) SULPHATE 5-HYDRATE LAB

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#### 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 ]

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#### 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.

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#### 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.

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#### 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 <sup>3</sup>
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.

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#### 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.

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#### 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.

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

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