



## Safety Data Sheet

Date of Issue: 01.07.2024

Date of Expiry: 01.07.2029

### 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Company Name** : ECP Limited  
**Address** : PO Box 34125, Birkenhead, Auckland 0746  
**Telephone** : +64 9 480 4386  
**Facsimile** : +64 9 480 4385  
**Emergency phone number** : 0800 243 622 (24 hours)

<b>Product Name</b>	<b>Fehling's Solution No. 1</b>
<b>Product Code</b>	2350
<b>CAS No.</b>	7758-98-7

**Recommended use** : Laboratory Investigations

### 2: Hazard's identification

#### Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Category. 1
- Hazardous to the aquatic environment, short-term (acute), Category. 1
- Hazardous to the aquatic environment, long-term (chronic), Category. 2

#### 2.2 GHS label elements, including precautionary statements

##### Label elements



**Signal word** : Danger

##### Hazard statement(s)

- H318 Causes serious eye damage  
H400 Very toxic to aquatic life  
H411 Toxic to aquatic life with long lasting effects

##### Precautionary statement(s)

- P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor/physician  
P391 Collect spillage.  
P501 Dispose of contents/container to an approved waste disposal facility

### 3: Composition/information on ingredients

#### Mixtures

Other components either not classified as Hazardous under the GHS, or below cut-off concentrations to be classified as Hazardous.

CAS no.: 7758-99-8;

EC no.: 231-847-6;

Index no.: 029-023-00-4

Components	Concentration
<b>Copper(II) sulfate pentahydrate</b>	<b>5 - &lt;= 10 % (weight)</b>
	CLASSIFICATIONS: Acute toxicity, oral, Cat. 4; Serious eye damage/eye irritation, Cat. 1; Hazardous to the aquatic environment, short-term (acute), Cat. 1; Hazardous to the aquatic environment, long-term (chronic), Cat. 1. HAZARDS: H302 - Harmful if swallowed; H318 - Causes serious eye damage; H400 - Very toxic to aquatic life; H410 - Very toxic to aquatic life with long lasting effects. [SCLs/M-factors/ATEs]: M=10

### 4: First aid measures

#### Description of necessary first-aid measures

General advice For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor (at once).

#### If inhaled

If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

#### In case of skin contact

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

#### In case of eye contact

If in eyes wash out immediately with water.

#### If swallowed

If swallowed, do NOT induce vomiting.

#### 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 in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

### 5: Firefighting measures

#### Suitable extinguishing media

Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

This material is substantially water.

#### Specific hazards arising from the chemical

Runoff may pollute waterways.

### **Special protective actions for fire-fighters**

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location

## **6: Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

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

### **Methods and materials for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel). Keep in suitable, closed containers for disposal.

## **7: Handling and storage**

### **Precautions for safe handling**

Avoid generating and inhaling mist.

### **Conditions for safe storage, including any incompatibilities**

Store in a cool, dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

## **8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Occupational Exposure Limits Table**

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### **8.2 Exposure controls**

#### **Appropriate engineering controls**

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn.

#### **Personal protective equipment**

##### **Eye/face protection**

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

##### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### **Body Protection**

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

## 9: Physical and chemical properties

### Basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Clear bright blue solution.
Color	:	Bright blue
Odor	:	Nil
Odor threshold	:	No data available.
Melting point/freezing point	:	No data available.
Boiling point or initial boiling point- and boiling range	:	>100 °C
Flammability	:	No data available.
Lower and upper explosion limit/flammability- limit	:	No data available.
Flash point	:	No data available.
Explosive properties	:	No data available.
Auto-ignition temperature	:	No data available.
Decomposition temperature	:	No data available.
Oxidizing properties	:	No data available.
pH	:	No data available.
Kinematic viscosity	:	No data available.
Solubility	:	No data available.
Partition coefficient n-octanol/water (log value):	:	No data available.
Vapor pressure	:	No data available.
Evaporation rate	:	No data available.
Density and/or relative density	:	1.04
Relative vapor density	:	No data available

### Particle characteristics

No data available.

### Supplemental information regarding physical hazard classes

No data available.

### Further safety characteristics (supplemental)

No data available

## 10: Stability and reactivity

### Reactivity

None under normal use conditions.

### Chemical stability

Stable under ordinary conditions of use and storage.

### Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

### Conditions to avoid

Avoid storing in direct sunlight and avoid extremes of temperature.

### Incompatible materials

Strong oxidizing agents

### Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

## 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

Ingestion: May cause repeated vomiting, burning pain in the mouth, throat, oesophagus and stomach, diarrhoea, nausea, abdominal pain and ulceration of the gastrointestinal tract. If vomiting does not occur immediately, systemic copper poisoning may occur. Symptoms may include capillary damage, headache, cold sweat, weak pulse, kidney and liver damage, central nervous excitation followed by depression, jaundice, convulsions, blood effects, paralysis and coma. Death may occur from shock or renal failure.

Inhalation: Mist may cause irritation of the nasal passages, throat and respiratory tract. Symptoms may include coughing, sore throat and shortness of breath. May result in ulceration and perforation of the respiratory tract.

#### Skin corrosion/irritation

May cause redness and itching. Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

#### Serious eye damage/irritation

Risk of serious damage to eyes.

#### Respiratory or skin sensitization

No data available.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

No data available.

#### Reproductive toxicity

No data available.

#### Summary of evaluation of the CMR properties

No data available.

#### Specific target organ toxicity (STOT) - single exposure

No data available.

#### Specific target organ toxicity (STOT) - repeated exposure

No data available.

#### Aspiration hazard

No data available.

#### Additional information

Chronic Effects: Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelination, kidney defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has led to haemolytic anemia and accelerates arteriosclerosis.

## 12: Ecological information

### Toxicity

Information on Ecological Effects: Severe marine pollutant - IMDG Code.

Toxic to aquatic life.

96-hour LC50 (fish): <1 mg/L (Cu).

96-hour LC50 (algae): <1 mg/L (Cu).

Environmental Protection: Contain spillage.

When released into the soil, this material is not expected to biodegrade and may leach into ground water. When released into the water, this material is not expected to biodegrade or evaporate significantly. This material is expected to bioaccumulate significantly.

Acute Toxicity - Fish: The following applies to copper compounds: biological effects: toxic for aquatic organisms; copper ions toxic for fish at concentrations below 1mg/l.

Fish (C. auratus): toxic from 0.01 mg/l

Acute Toxicity - Other Organisms: The following applies to copper compounds: biological effects: toxic for aquatic organisms; copper ions toxic for other organisms at concentrations below 1mg/l

Mussels: 0.55 mg/l lethal in 12 hr.

Oysters: 0.1 mg/l toxic.

#### **Persistence and degradability**

No data available.

#### **Bioaccumulative potential**

No data available.

#### **Mobility in soil**

No data available.

#### **Results of PBT and vPvB assessment**

No data available.

#### **Endocrine disrupting properties**

No data available.

#### **Other adverse effects**

No data available.

### **13: Disposal considerations**

#### **Disposal methods**

##### **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.

### **14: Transport Information Table**

		<b>ADR/RID – European packaging certification</b>	<b>IMDG International Maritime Dangerous Goods Code</b>	<b>IATA – DGR International Air Travel Association – Dangerous Goods Regulations</b>
<b>14.1</b>	<b>UN Number</b>	3082	3082	3082
<b>14.2</b>	<b>UN Proper Shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

		(Copper sulphate)	(Copper sulphate)	(Copper sulphate)
14.3	Transport Hazard Class	9	9	9
14.4	Packaging group	III	III	III
14.5	Environmental Hazards	Yes	Yes	Yes
14.6	Special precautions for user	No data available		

## 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with requirements.

#### Chemical safety assessment

For this product a chemical safety assessment was not carried out.

## 16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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