Product Name: Copper Sulfate Solution

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# **Section 1 - Identification of The Material and Supplier**

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**Chemical nature:** Water solution of inorganic salt.

Trade Name: Copper Sulfate Solution
Product Use: Agricultural product.
Creation Date: December, 2003

This version issued: September, 2024 and is valid for 5 years from this date. Poisons Information Centre: Phone 13 1126 from anywhere in Australia

# **Section 2 - Hazards Identification**

# **Statement of Hazardous Nature**

SUSMP Classification: S5

ADG Classification: Class 9: Miscellaneous Dangerous Goods.

UN Number: 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER SULFATE)



# **GHS Signal word: NONE**

Hazardous to aquatic environment Short term/Chronic Category 2

#### **HAZARD STATEMENT:**

H411: Toxic to aquatic life with long lasting effects.

# **PREVENTION**

P262: Do not get in eyes, on skin, or on clothing.

P280: Wear protective gloves, protective clothing and eye or face protection.

#### **RESPONSE**

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P370+P378: In case of fire: Use carbon dioxide, dry chemical, foam, coarse spray, to extinguish.

#### STORAGE

P410: Protect from sunlight.

P402+P404: Store in a dry place. Store in a closed container.

P403+P235: Store in a well-ventilated place. Keep cool.

#### **DISPOSAL**

P501: If they can not be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

## **Emergency Overview**

Physical Description & colour: Pale blue liquid.

Odour: No odour.

Major Health Hazards: no significant risk factors have been found for this product.

#### Section 3 – Composition/Information on Ingredients Ingredients CAS No Conc.% TWA (mg/m3) STEL (mg/m3) 7758-98-7 6.7 Copper sulfate not set not set 7732-18-5 to 100 Water not set not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

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## **Section 4 - First Aid Measures**

#### **General Information:**

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**Skin Contact:** Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed. If in doubt obtain medical advice.

**Eye Contact:** If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

**Ingestion:** First aid is not generally required. If swallowed, rinse mouth with water; do NOT induce vomiting. If in doubt, contact a Poisons Information Centre or a doctor.

# **Section 5 - Fire Fighting Measures**

**Fire and Explosion Hazards**: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

This product is likely to decompose only after heating to dryness, followed by further strong heating.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** Not Combustible. Use extinguishing media suited to burning materials.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flammability Class: Does not burn.

## **Section 6 - Accidental Release Measures**

**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

# **Section 7 - Handling and Storage**

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this class of poison. Store packages of this product in a cool place. Make sure that the product does not come into contact with substances listed under "Materials to avoid" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

# Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

# SWA Exposure Limits TWA (mg/m³) STEL (mg/m³)

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

**Ventilation:** No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

**Eve Protection:** Eye protection such as protective glasses or goggles is recommended when product is being used.

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**Skin Protection:** The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when handling this product.

Protective Material Types: We suggest that protective clothing be made from the following: rubber, PVC.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

# **Section 9 - Physical and Chemical Properties:**

**Physical Description & colour**: Pale blue liquid. **Odour:** No odour.

**Boiling Point:** Approximately 100°C at 100kPa.

Flash point:
Upper Flammability Limit:
Lower Flammability Limit:
Does not burn.
Does not burn.

**Autoignition temperature:** Not applicable - does not burn.

Freezing/Melting Point: Approximately 0°C. Volatiles: Water component.

**Vapour Pressure:** 2.37 kPa at 20°C (water vapour pressure).

Vapour Density: No data.

**Specific Gravity:** No data. Expected to be slightly more than 1.0

Water Solubility: Completely soluble in water.

**pH:** No specific data. Expected to be slightly acidic.

Volatility: No data. Evaporation Rate: No data. Coeff Oil/water distribution: No data

Particle Characteristics: Not applicable to liquids.

# Section 10 – Stability and Reactivity

**Reactivity**: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: None known.

**Incompatibilities:** bases, strong reducing agents, amines.

**Fire Decomposition:** This product is likely to decompose only after heating to dryness, followed by further strong heating. Oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Water, copper compounds.

Polymerisation: This product is unlikely to undergo polymerisation processes.

# **Section 11 - Toxicological Information**

**Local Effects:** 

**Target Organs:** There is no data to hand indicating any particular target organs.

# Classification of Hazardous Ingredients

Ingredient Health Hazard Statement Codes

Copper sulfate H302, H319, H315, H410

Acute toxicity – category 4

- Eye irritation category 2
- Skin irritation category 2
- Hazardous to the aquatic environment (acute) category 1
- Hazardous to the aquatic environment (chronic) category 1

# **Potential Health Effects**

# Inhalation

**Short term exposure:** Significant inhalation exposure is considered to be unlikely. Available data indicates that this product is not harmful. In addition product is unlikely to cause any discomfort or irritation.

**Long Term exposure:** No data for health effects associated with long term inhalation.

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## **Skin Contact:**

**Short term exposure:** Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be mildly irritating, but is unlikely to cause anything more than mild discomfort which should disappear once contact ceases.

**Long Term exposure:** No data for health effects associated with long term skin exposure.

# **Eye Contact:**

**Short term exposure:** Exposure via eyes is considered to be unlikely. This product is believed to be mildly irritating, to eyes, but is unlikely to cause anything more than mild transient discomfort.

Long Term exposure: No data for health effects associated with long term eye exposure.

# Ingestion:

**Short term exposure:** Significant oral exposure is considered to be unlikely. This product, while believed to be not harmful, is likely to cause headache and gastric disturbance such as nausea and vomiting if ingested in significant quantities. This product is unlikely to cause any irritation problems in the short or long term.

Long Term exposure: No data for health effects associated with long term ingestion.

# Carcinogen Status:

**SWA:** No significant ingredient is classified as carcinogenic by SWA. **NTP:** No significant ingredient is classified as carcinogenic by NTP. **IARC:** No significant ingredient is classified as carcinogenic by IARC.

# Section 12 - Ecological Information

This product does not degrade naturally. It may cause ecological problems if released in high volumes as copper salts may be toxic to some organisms.

# **Section 13 - Disposal Considerations**

**Disposal:** Containers should be emptied as completely as practical before disposal. If possible, recycle containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site. This product should be suitable for landfill. However, check with local Waste Disposal Authority before sending there. Please do NOT dispose into sewers or waterways.

## Section 14 - Transport Information

Not subject to the ADG Code when transported by Road or Rail in Australia, in packages 500kg(L) or less; or IBCs, but classed as Dangerous by IATA and IMDG/IMSBC when carried by Air or Sea transport (see details below).

UN Number: 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER SULFATE)

Hazchem Code: •3Z

Special Provisions: 179, 274, 331, 335, AU01

Limited quantities: ADG 7 specifies a Limited Quantity value of 5 L for this class of product.

Dangerous Goods Class: Class 9: Miscellaneous Dangerous Goods.

Packing Group: III

Packing Instruction: P001, IBC03, LP01

Class 9 Miscellaneous Dangerous Goods shall not be loaded in the same vehicle or packed in the same freight container with Dangerous Goods of Class 1 (Explosives).

# **Section 15 - Regulatory Information**

**AllC:** All of the significant ingredients in this product are compliant with AlCIS regulations. The following ingredients: Copper sulfate, are mentioned in the SUSMP.

#### **Section 16 - Other Information**

## This SDS contains only safety-related information. For other data see product literature.

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

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Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (July 2020) and GHS Revision 7

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