

# SAFETY DATA SHEET (SDS)



## Copper (II) Sulphate 0.1M

Issue date: 11-11-2025

### Section 1: Product Identifier and Chemical Identity

Product Identifier	
Product Name:	Copper (II) sulphate 0.1M
Product Codes:	MC91.10 MC92.10
Other means of identification:	
Chemical formula, alternative names:	CuSO <sub>4</sub> (aq)
Recommended use of the chemical and restrictions on use	
Recommended Use:	For laboratory use only.
Suppliers name, address and phone number	
Supplier's Name:	Southern Biological
Supplier's ABN:	94 630 703 810
Supplier's Address:	168 Fulham Road Alphington Victoria 3078 Australia
Supplier's Phone No.:	1300 138 561
Emergency Phone number (BH)	1300 138 561

### Section 2: Hazard Identification

Classification of the Hazardous Chemical	
Hazard Category	Acute toxicity (ingestion) – category 4 Serious eye irritation – category 2A Hazardous to the aquatic environment (acute) – category 1 Hazardous to the aquatic environment (chronic) – category 1
Label elements	
Hazard Pictograms:	  exclamation mark environment
Signal Word:	Warning
Hazard Statements:	Harmful if swallowed Causes serious eye irritation Very toxic to aquatic life with long-lasting effects
Precautionary Statements:	Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not ingest.
Other Hazards	
Results of PBT and vPvB assessment:	PBT: Not applicable vPvB: Not applicable

### Section 3: Composition/information on ingredients

Ingredients		
Name	CAS	Proportion
Water	7732-18-5	97.5%
Copper (II) Sulphate pentahydrate	7758-99-8	2.5%

### Section 4: First Aid Measures

Necessary first aid measures	
After inhalation:	Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms; call a doctor.
After skin contact:	Wash with water and soap and rinse thoroughly. If skin irritation occurs: get medical advice/ attention.
After eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
After swallowing:	Wash out mouth with water. Obtain emergency medical attention. Call a POISON CENTRE or doctor/physician if you feel unwell.
Symptoms caused by exposure	
The most important symptoms and effects are described in section 11	
Medical attention and special treatment	
Indications of any immediate medical attention and special treatment needed	For advice in an emergency call Poisons Information (ph: 131 126 in Australia) or a doctor.

### Section 5: Firefighting measures

Extinguishing media	
Suitable extinguishing equipment:	Use extinguishing measures that are appropriate to local circumstances and the surrounding fire
Specific hazards arising from the chemical:	Oxides of sulphur, oxides of copper, copper fume. Runoff may pollute waterways.
Advice for firefighters	
Special protective equipment and precautions:	Do not enter the fire area without proper protective equipment including respiratory equipment.

### Section 6: Accidental release measures

General Information	
Personal precautions, protective equipment and emergency procedures:	Follow personal protective equipment recommendations found in Section 8 of this SDS. Prevent the spread of any spill to minimise harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum.
Environmental precautions:	Prevent entry to sewers and public waters. Avoid release to the environment. Notify authorities if spill to sewers or public waters.
Methods and material for containment and cleaning up:	Dispose of contaminating material as waste according to item 13. Ensure adequate ventilation.
Reference to other sections:	See Section 7 for information on safe handling. See Section 8 for information on protective equipment. See Section 13 for disposal information.

## Section 7: Handling and Storage

General Information	
Precautions for safe handling:	Avoid ingestion and inhalation of dust. Avoid prolonged or repeated exposure. Ensure good ventilation/exhaustion at the workplace. Wash hands after use. Do not eat, drink or smoke when using this product. Wash contaminated clothing and protective equipment prior to entering eating area.
Information about fire – and explosion protection:	No special measures required.
Conditions for safe storage, including any incompatibilities.	
Storage:	Store in cool dry area out of direct sunlight and incompatible materials. Keep containers closed when not in use. Store in suitably labelled containers.
Requirements to be met by storerooms and receptacles:	No special requirements.
Information about storage in one common storage facility:	Not required.
Further information about storage conditions:	Keep container tightly sealed. Keep out of direct sunlight.

## Section 8: Exposure controls/personal protection.

General information			
Additional information about design of technical facilities:		No further data: see section 7	
Control parameters:			
Ingredients with limit values that require monitoring at the workplace: None			
Name		STEL	TWA
Additional information	These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity. The STEL 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 exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5-day working week.		
Exposure Controls:			
General protective and hygienic measures:	Use only in systems, processes and procedures in which effective ventilation has been provided. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with eyes.		
Respiratory protection:	In case of significant exposure use respiratory filter device. Not normally required.		
Clothing / Foot-wear and equipment	No special requirements.		
Protection of hands:	PVC or rubber gloves		
Eye protection:	Tightly sealed goggles		
Skin protection:	Laboratory Coat		

## Section 9: Physical and chemical properties

Appearance:	
Form:	Liquid
Colour:	Blue
Odour:	Not determined
Odour Threshold:	Not determined
pH value:	Not determined
Change in Condition:	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Flash point:	Not determined
Flammability (solid / gaseous)	Not determined
Ignition Temperature	
Decomposition temperature:	Not determined
Self-igniting:	Not determined
Danger of explosion:	Not determined
Explosion limits	
Lower:	Not determined
Upper:	Not determined
Vapour pressure:	Not determined
Density:	Not determined
General Info	
Relative density:	Not determined
Vapour density:	Not determined
Evaporation rate:	Not determined
Solubility in/ Miscibility with water:	Miscible
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	Not determined
Other information:	Not determined

## Section 10: Stability and reactivity

Reactivity	
General	No further relevant information available.

Chemical Stability	
Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
Possibility of hazardous reactions:	No dangerous reactions known.
Conditions to avoid:	Avoid storing in direct sunlight and avoid extremes of temperature
Incompatible materials:	Water-reactive chemicals, acetylene gas, finely powdered metals, sodium hypobromite solutions, plain steel, galvanised pipes, strong reducing agents, hydroxylamine, strong oxidising agents
Hazardous decomposition products:	No data available

## Section 11: Toxicological information

Information on toxicological effects			
Ingestion:	May cause burning 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 repeated vomiting, nausea, diarrhoea, salivation, headache, cold sweat, weak pulse, metallic taste. Prolonged exposure may lead to corrosion and necrosis of the gastrointestinal tract with possible perforation. Copper poisoning may lead to capillary damage, kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, internal bleeding, paralysis and coma. Death may occur from shock or renal failure.		
Skin corrosion/irritation	Irritating to skin. May cause redness and itching.		
Serious eye damage/irritation:	Causes serious eye irritation, local inflammation, conjunctivitis, ulceration, clouding of the cornea, tissue destruction, corneal opacity and adhesion of the eyelid to the eye.		
Inhalation:	Irritation to the respiratory tract. Symptoms may include coughing, wheezing, sore throat and shortness of breath. May result in ulceration and perforation of respiratory tract. When heated, this compound may give off copper fume which can cause symptoms similar to the common cold including chills and stuffiness of the head.		
Germ cell mutagenicity:	No data available		
Carcinogenicity:	No data available		
Reproductive toxicity:	No data available		
Specific target organ toxicity (STOT) – single exposure:	No data available		
Specific target organ toxicity (STOT) – repeated exposure:	No data available		
Chronic effects:	Chronic ingestion may cause liver, brain, muscle and kidney disfunction. Prolonged or repeated skin exposure may cause dermatitis. Prolonged or repeated exposure to dusts of copper salts may cause discolouration of the skin or hair, blood and liver damage, ulceration and perforation of the nasal septum, runny nose, metallic taste, and atrophic changes and irritation of the mucous membranes.		
Toxicology data for the components:			
Component	LD50 oral	LD50 dermal	LD50 intravenous
Copper (II) sulphate	482 mg/kg (rat)	2000 mg/kg (rat)	48.9 mg/kg (rat)

## Section 12. Ecological information

Ecotoxicity	
Severe marine pollutant. Very toxic to aquatic life	
Acute toxicity:	EC50 (Daphnia magna): 0.02 mg/L/48h
Persistence and degradability:	When released into soil, this material is not expected to biodegrade and may leach into groundwater. When released into water, this material is not expected to biodegrade or evaporate significantly.
Behaviour in environmental systems	
Bio-accumulative potential:	This material is expected to bioaccumulate significantly.
Mobility in soil:	No further relevant information available.
Additional ecological information	
Results of PBT and vPvB assessment	PBT: Not applicable vPvB: Not applicable
Other adverse effects:	No further relevant information available.

## Section 13. Disposal Considerations

Waste treatment methods	
Recommendation	Prevent this material from entering waterways, drains and sewers. Comply with official regulations.
Uncleaned packaging:	
Recommendation:	Disposal must be made according to official regulations.
Recommended cleansing agents:	Water, if necessary, together with cleansing agents.

## Section 14. Transport information

General	UN number: 3082 Proper shipping name or technical name: Environmentally hazardous substance, liquid, NOS copper (II) sulphate Transport hazard class: 9 Packing group number: III RQ: 4.54 kg
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## Section 15. Regulatory Information

Safety health and environmental regulations/legislation specific for the substance or mixture	
Australian Inventory of Chemical Substances:	Substances are listed.
Chemical safety assessment:	A Chemical Safety Assessment has not been carried out.

## Section 16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- End of SDS -