

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Copper Sulphate Pentahydrate

Recommended Use: Agriculture, germicide, water treatment.

Supplier: Midland Chemicals
ABN: 91 622 018 986

Street Address: 18 Elliott Street
Midvale
Western Australia

Telephone Number: +61 08 9274 1992

Facsimile: +61 08 9250 1710

Emergency Telephone: **1 800 033 111 (ALL HOURS)**

2. HAZARDS IDENTIFICATION

Hazardous to criteria of Work Safe Australia

Road and Rail; DANGEROUS GOODS.

Risk Phrases: Harmful if swallowed. Risk of damage to eyes.

Safety Phrases: Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

Poisons Schedule: S5
Packaging group number: N/A

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Risk Phrases
Copper Sulphate	7758-99-8	>98%	R36 R38
Water	7732-18-5	<1.8%	
Sulphuric Acid	7664-93-9	<0.2%	

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4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor at once.

Inhalation:

Remove victim from exposure- avoid becoming a casualty. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Seek Medical attention.

Skin Contact:

If skin contact occurs, remove contaminated clothing and wash skin thoroughly. Seek medical attention.

Eye Contact:

Immediately wash in and around the eye area with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Seek medical assistance.

Ingestion:

Immediately rinse mouth with water. If swallowed, and more than 15minutes from hospital induce vomiting preferably using Ipecac Syrup P.P.M. Seek medical attention.

Medical attention and special treatment:

Treat symptomatically based on judgement of doctor and individual reaction of patient. Penicillamine may be of value as a chelating agent.

5. FIRE FIGHTING MEASURES

Hazards from combustion products:

Avoid high temperatures. Incompatible with Acetylene Gas.

Precautions for fire fighters and special protective equipment:

Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition. Keep containers cool with water spray.

Suitable Extinguishing Media:

Use fine water spray, dry agent (carbon dioxide, chemical foam)

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures:

Clear area of all unprotected personnel. If heavy concentration of contamination of sewers or waterways has occurred advise local emergency services, or Environmental Protection Authority.

Methods and materials for containment and clean up:

Wear protective equipment to prevent skin and eye contact. Sweep up material. Place in suitable containers (labelled) Dispose of in approved waste disposal facility. Wash down area.

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7. HANDLING AND STORAGE

This material must be stored, maintained and used in accordance with the relevant regulations.

Conditions for safe storage:

Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Store away from foodstuffs. Keep containers closed when not in use - check regularly for leaks.

Precautions for safe handling:

Avoid skin and eye contact and breathing in vapour, mists and aerosols.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

Copper, Dust and mists T.W.A. = $1\text{mg}/\text{m}^3$
Copper Fumes T.W.A. = $0.2\text{mg}/\text{m}^3$

Engineering controls:

Ensure adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment:

Wear approved mask, gloves, eye glasses and or face protection. Avoid contact with skin and eyes. Wash hands after use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Crystals or Powder

Colour: Blue

Solubility: 31.6g/L @ 25°C

Specific Gravity: 2.28

Relative Vapour Density (air=1): N/A

Vapour Pressure (20 °C): N/A

Flash Point (°C): N/A

Flammability Limits (%): N/A

Decomposition Temperature: 177°C

Auto Ignition Temperature (°C): N/A

Boiling Point/Range (°C): 652°C

Melting Point: 150°C

pH: 4 @ 1% solution

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10. STABILITY AND REACTIVITY

Chemical stability:	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Conditions to avoid:	Store in a cool dry place away from sunlight.
Incompatible materials:	incompatible with Acetylene Gas.
Hazardous decomposition products:	None Known
Hazardous reactions:	None Known

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion:	May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhoea. May cause haemorrhaging of the digestive tract.
Eye contact:	May cause eye irritation. Exposure to particulates or solution may cause conjunctivitis, ulceration and corneal abnormalities.
Skin contact:	May cause skin irritation.
Inhalation:	May cause respiratory tract irritation. May cause ulceration and perforation of the nasal septum, if inhaled in excessive quantities.
Long Term Effects:	No information available for the product.
Toxicological Data:	No LD50 data available for the product.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Avoid contaminating waterways with heavy concentration.
Persistence and degradability	Possible hazardous short term degradation products are not likely. However, long term degradation products may arise.

13. DISPOSAL CONSIDERATIONS

Disposal methods:	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
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14. TRANSPORT INFORMATION

Road and Rail Transport

classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; DANGEROUS GOODS.

UN No: N/A

Class-Primary: N/A

Packing Group: N/A

Proper Shipping Name: Copper Sulphate Pentahydrate (Blue Vitriol)

Hazchem Code: N/A

Marine Transport

classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN No: N/A

Class-Primary: N/A

Packing Group: N/A

Proper Shipping Name: Copper Sulphate Pentahydrate (Blue Vitriol)

Hazchem Code: N/A

Air Transport

classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN No: N/A

Class-Primary: N/A

Packing Group: N/A

Proper Shipping Name: Copper Sulphate Pentahydrate (Blue Vitriol)

Hazchem Code: N/A

15. REGULATORY INFORMATION

Classification: Hazardous according to criteria of Safe work Australia; HAZARDOUS SUBSTANCE

Hazard Category: C: Corrosive

Risk Phrase(s): R36: Irritating to Eyes
R38: Irritating to Skin.
R41: Risk of serious damage to eyes.

Safety Phrase(s): S2: Keep out of reach of children.
S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

Poisons Schedule: S5

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16. OTHER INFORMATION

This material safety data sheet has been prepared by Midland Chemicals

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Midland Chemicals cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. If clarification or further information is needed, the user should contact Midland Chemicals at the contact details on page 1.

Midland Chemical's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.