

Copper Sulphate

REVISED: 05/09/2013

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name:	COPPER SULPHATE
Other names:	Copper Sulphate Pentahydrate; Sulphuric acid, copper (II) salt pentahydrate; Cupric sulphate pentahydrate; Bluestone; Blue vitriol; Copper vitriol
Chemical Formula:	$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
Product Code:	0002010 (25kg bag); 0002020 (1 tonne bag)
Recommended Use:	Fertiliser additive Animal Health product; a solid copper product for providing copper supplementation to grazing livestock
Company Identification:	Ravensdown Fertiliser Co-operative Limited
Address:	312 Main South Road, Hornby PO Box 1049 Christchurch
Customer Centre:	0800 100 123
National Poisons Information Centre:	0800 POISON (0800 764 766)
Emergency Telephone Number:	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
Transport Emergency Phone:	111 - tell operator what service is needed: Fire, Ambulance, Police

Section 2: HAZARD IDENTIFICATION

Hazard Classifications:	6.1D, 6.3A, 6.4A, 6.5B, 6.9B, 9.1A, 9.3C
Priority Identifiers:	WARNING KEEP OUT OF REACH OF CHILDREN
Secondary Identifiers:	6.1D = May be harmful if swallowed, inhaled or absorbed through the skin 6.3A = Skin irritant 6.4A = Eye irritant 6.5B = Contact sensitiser 6.9B = Harmful to human target organs or systems 9.1A = Very toxic to aquatic organisms 9.3C = Harmful to terrestrial vertebrates

Section 3: COMPOSITION INFORMATION

INGREDIENT	CAS No.	CONTENT
Copper Sulphate Pentahydrate	7758-99-8	98-100%

Section 4: FIRST AID MEASURES

First Aid Measures:	Consult the National Poisons Centre on 0800 POISON (0800 764 766) or a doctor immediately in every case of suspected poisoning.
Inhalation:	Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
Ingestion:	Never give anything by mouth to an unconscious person. If swallowed rinse mouth and give 1-2 glasses of water to dilute but DO NOT induce vomiting. For advice, contact the National Poisons Centre on 0800 POISON (0800 764 766). Seek medical assistance immediately.
Skin:	Remove contaminated clothing then wash affected area thoroughly with soap and water. If a large area is affected seek medical assistance.
Eye:	Flush with plenty of water holding eyelids open if necessary. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes.
Advice to Doctor:	No specific antidote. Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Flash Point:	Not applicable (non-flammable)
Combustion Products:	Sulphur oxides, copper oxides. May release copper dusts and fume.
Extinguishing Media:	Based on surrounding materials
Protective Equipment:	Breathing apparatus plus protective gloves
HAZCHEM Code:	22

Section 6: ACCIDENTAL RELEASE MEASURES

Spills and Disposal:	Wear appropriate protective clothing. Exclude non-essential people from the area. Contain spill and absorb with inert material such as soil, sand or absorbent granules and place in a sealable waste container. Dispose of waste safely in an approved landfill.
Protective Clothing:	For appropriate personal protective equipment see section 8.
Environmental Precaution:	Prevent from entering drains, waterways or sewers. If spill does enter waterways contact the local authority.

Section 7: HANDLING AND STORAGE

Handling:	Keep out of reach of children. Avoid contact with skin, eyes and inhalation of vapours. Use personal protective equipment as required.
Approved Handler:	Not required
Tracking:	Not required
Record Keeping:	Not required

Storage: Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs and seed. Store in accordance with NZS 8409; Management of Agrichemicals. This product is subject to signage when stored in quantities of 100 kg or more, either alone or in aggregate with substances of the same hazard classification. Storage of more than 100 kg requires emergency response plans. For full details refer to NZS 8409; Management of Agrichemicals and HSNO Regulations (Emergency Management and Identification Regulations).

Other Information: Always read the label before use. See label for further information on handling and storage.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Limits: No exposure limits have been assigned for this product.

Protective Equipment: Overalls, dust masks, goggles and gloves.

Engineering Controls: Handle in well-ventilated area. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. Avoid inhalation of dust.

Hygiene Precautions: Do not eat, drink or smoke while using this product. Remove protective clothing and wash hands and face before meals and after work. Wash protective clothing daily after work.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue crystals, granules or powder

Odour: Odourless

Specific Gravity: 2.29

pH: 3.5 - 4.5 (50g/l in water @ 20°C)

Solubility in Water: Soluble

Flash Point: Not applicable (non-flammable)

Melting Point Loses waters of crystallisation at 90-245°C, Decomposes at 340-650°C

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal conditions. When stored appropriately this product should show no significant degradation for at least 5 years from the date of manufacture.

Hazardous Polymerisation: Hazardous polymerisation is not likely to occur

Hazardous Decomposition Products: Sulphur oxides, copper oxides. May release copper dusts and fumes.

Conditions to Avoid: Heat; releases water of crystallisation when heated. High temperatures may result in release of copper fume.

Materials to Avoid: Hydroxylamine, acetylene.

Section 11: TOXICOLOGICAL INFORMATION

Hazard Classifications:	6.1D, 6.3A, 6.4A, 6.5B, 6.9B
Ingestion:	Acute Toxicity (Oral): LD50 (rat) 960mg/kg. Ingestion of large quantities may lead to vomiting, abdominal pain, dizziness, convulsions, shock, coma, and possible death.
Inhalation:	Irritation of mucous membranes (nose and throat). Inhalation of large amounts may lead to symptoms shown for ingestion.
Skin:	Irritant
Eye:	Irritant
Chronic Effects:	May be harmful to the kidneys
Reproductive Toxicity:	Data indicates no reproductive effects
Mutagenicity:	Non-mutagenic
Carcinogenicity:	Not considered to be carcinogenic

Section 12: ECOLOGICAL INFORMATION

Hazard Classifications:	9.1A, 9.3C
Ecotoxicity:	Very toxic to aquatic organisms Harmful to terrestrial vertebrates
Bioaccumulation:	Bioaccumulation unlikely to occur

Section 13: DISPOSAL INFORMATION

Product Disposal:	Dispose of product only by using according to label or at an approved landfill. Recycle where possible. Do not contaminate bodies of water with chemical or empty container.
Container Disposal:	Burn container in an appropriate incinerator if circumstance, such as wind direction permit. Otherwise bury in an approved landfill. Do not use container for any other purpose.

Section 14: TRANSPORT INFORMATION

Transport Information: It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport.

UN Number:	3077
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper sulphate pentahydrate)
DG Class:	9
Subsidiary Class:	None
Packing Group:	III
Marine Pollutant:	Yes
MTQ (non-commercial):	1,000 kg
HAZCHEM Code:	22
IERG Number:	47

Other information: Check the latest versions of the Land Transport Dangerous Goods Rule 45001 and associated Transport of Dangerous Goods on Land (NZS 5433) for additional information on maximum allowable transport quantities (MTQ's), placarding and segregation. Sea transport may require further segregation.

Section 15: REGULATORY INFORMATION

ACVM:	Exempt from Registration under the ACVM Act 1997
EPA:	Approved pursuant to the HSNO Act 1996, Approval number: HSR000824 See www.epa.govt.nz for approval controls.

Section 16: OTHER INFORMATION

This Safety Data Sheet was updated on the date shown on page 1 and supersedes all previous versions.

The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material. The information is provided in good faith based on current knowledge and experience. No warranty with regard to the product properties is expressed or implied.