



# SAFETY DATA SHEET

## Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

<b>Product Name:</b>	<b>COPPER SULPHATE</b>
<b>Other names:</b>	Copper Sulphate Pentahydrate; Sulphuric acid, copper (II) salt pentahydrate; Cupric sulphate pentahydrate; Bluestone; Blue vitriol; Copper vitriol
<b>Chemical Formula:</b>	CuSO <sub>4</sub> .5H <sub>2</sub> O
<b>Product Code:</b>	0002010 (25kg bag); 0002020 (1 tonne bag)
<b>Recommended Use:</b>	Fertiliser additive and Animal Health product
<b>Company Identification: Address:</b>	Ravensdown Fertiliser Co-operative Limited Level 1, 32 Oxford Terrace PO Box 1049 Christchurch
<b>Customer Centre:</b>	0800 100 123
<b>National Poisons Information Centre:</b>	0800 POISON (0800 764 766)
<b>Emergency Telephone Number:</b>	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
<b>Transport Emergency Phone:</b>	111 - tell operator what service is needed: Fire, Ambulance, Police

## Section 2: HAZARD IDENTIFICATION

<b>Hazard Classifications:</b>	6.1D, 6.3A, 6.4A, 6.5B, 6.9B, 9.1A, 9.3C
<b>Priority Identifiers:</b>	WARNING KEEP OUT OF REACH OF CHILDREN
<b>Secondary Identifiers:</b>	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

<b>First Aid Measures:</b>	Consult the National Poisons Centre on 0800 POISON (0800 764 766) or a doctor immediately in every case of suspected poisoning.
<b>Inhalation:</b>	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.
<b>Ingestion:</b>	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.



<b>Skin:</b>	Remove contaminated clothing then wash affected area thoroughly with soap and water. If a large area is affected seek medical assistance.
<b>Eye:</b>	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.
<b>Advice to Doctor:</b>	No specific antidote. Treat symptomatically.

## Section 5: FIRE FIGHTING MEASURES

<b>Flash Point:</b>	N/A (Non-flammable)
<b>Combustion Products:</b>	Sulphur oxides, copper oxides. May release copper dusts and fume.
<b>Extinguishing Media:</b>	Based on surrounding materials
<b>Protective Equipment:</b>	Breathing apparatus plus protective gloves
<b>HAZCHEM Code:</b>	2Z

## Section 6: ACCIDENTAL RELEASE MEASURES

<b>Spills and Disposal:</b>	Wear appropriate protective clothing. Exclude non-essential people from the area. Contain spill and sweep up. Dispose of waste safely in an approved landfill. Avoid generating dusts.
<b>Protective Clothing:</b>	For appropriate personal protective equipment see section 8.
<b>Environmental Precaution:</b>	Prevent from entering drains, waterways or sewers. If spill does enter waterways contact local authority.

## Section 7: HANDLING AND STORAGE

<b>Handling:</b>	Keep out of reach of children. Avoid contact with skin, eyes and inhalation.  <b>Approved Handler:</b> Not required <b>Tracking:</b> Not required <b>Record Keeping:</b> Not required
<b>Storage:</b>	Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs.
<b>Other Information:</b>	Always read the label before use. See label for further information on handling and storage.

## Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

<b>Exposure Limits:</b>	N/A
<b>Protective Equipment:</b>	Overalls, dust masks, goggles and gloves.
<b>Engineering Controls:</b>	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.
<b>Hygiene Precautions:</b>	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

<b>Appearance:</b>	Blue crystals, granules or powder
<b>Odour:</b>	Odourless
<b>Specific Gravity:</b>	2.29



<b>pH:</b>	3.5 - 4.5 (50g/l in water @ 20°C)
<b>Solubility in Water:</b>	Soluble
<b>Flash Point:</b>	N/A
<b>Melting Point</b>	Loses waters of crystallisation at 90-245°C, Decomposes at 340-650°C
<b>Other Information:</b>	

### Section 10: STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions. When stored appropriately this product should show no significant degradation for at least 5 years from the date of manufacture.
<b>Hazardous Polymerisation:</b>	Hazardous polymerisation is not likely to occur
<b>Hazardous Decomposition Products:</b>	Sulphur oxides, copper oxides. May release copper dusts and fumes.
<b>Conditions to Avoid:</b>	Heat. Releases water of crystallisation when heated. High temperatures may result in release of copper fume.
<b>Materials to Avoid:</b>	Hydroxylamine, acetylene.

### Section 11: TOXICOLOGICAL INFORMATION

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

### Section 12: ECOLOGICAL INFORMATION

<b>ERMA Classifications:</b>	9.1A, 9.3C
<b>Ecotoxicity:</b>	Very toxic to aquatic organisms and harmful to terrestrial vertebrates
<b>Bioaccumulation:</b>	Unlikely to bio-accumulate.

### Section 13: DISPOSAL INFORMATION

<b>Product Disposal:</b>	Dispose of product only by using according to label or at an approved landfill
<b>Container Disposal:</b>	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**

<b>RAIL/ROAD:</b>	<b>UN Number:</b> 3077
	<b>Proper Shipping Name:</b> ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contains Copper Sulphate Pentahydrate)
	<b>DG Class:</b> 9
	<b>Packing Group:</b> III
	<b>Marine Pollutant:</b> No
<b>SEA (IMDG Code):</b>	<b>UN Number:</b> 3077
	<b>Proper Shipping Name:</b> ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contains Copper Sulphate Pentahydrate)
	<b>DG Class:</b> 9
	<b>Packing Group:</b> III
	<b>Marine Pollutant:</b> No
<b>AIR: (ICAO/IATA)</b>	<b>UN Number:</b> 3077
	<b>Proper Shipping Name:</b> ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contains Copper Sulphate Pentahydrate)
	<b>DG Class:</b> 9
	<b>Packing Group:</b> III
	<b>Marine Pollutant:</b> No

**Section 15: REGULATORY INFORMATION**

<b>ACVM:</b>	Exempt from Registration under the ACVM Act 1997
<b>ERMA:</b>	Approved pursuant to the HSNO Act 1996, Approval number HSR000824 See <a href="http://www.erna.govt.nz">www.erna.govt.nz</a> for approval controls.

**Section 16: OTHER INFORMATION**

This SDS supersedes all previous versions and was reviewed to include HSNO requirements.

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.