

DATE OF ISSUE 4 March 2008

**BARMAC INDUSTRIES PTY LTD**  
**BOX FLAT ESTATE SWANBANK RD. SWANBANK Q 4306**

**MATERIAL SAFETY DATA SHEET**

**PRODUCT NAME: BARMAC COPPER SULPHATE**

**PHONE: (07) 3280 3000**

**EMERGENCY AFTER HOURS NUMBER: (07) 3280 3000**

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**Classified as hazardous by Worksafe Australia Criteria**

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**IDENTIFICATION**

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**OTHER NAMES:** Cupric Sulphate; Blue Vitriol; Blue Stone; Blue Copperas

**USE:** Agriculture (soil additive, pesticides, Bordeaux mixture), feed additive, germicides, textile mordant, leather industry, pigments, electric batteries, electroplated coatings, copper salts, reagent in analytical chemistry, medicine, wood preservative, preservation of pulp wood and ground pulp, process engraving and lithography, ore flotation, petroleum industry, synthetic rubber, steel manufacture, treatment of natural asphalts. The anhydrous salt is used as a dehydrating agent.

**UN NUMBER:** N/A

**HAZCHEM CODE:** N/A

**DANGEROUS GOODS CLASS:** N/A

**POISONS SCHEDULE:** 6

**PHYSICAL DESCRIPTION/PROPERTIES**

**APPEARANCE:** Clear Blue crystalline granules or powder. White when de-hydrated. Odourless

**FLASHPOINT ( °C):** None

**BOILING POINT ( °C):** 150

**VAPOUR PRESSURE (\_\_\_):** N/A

**SPECIFIC GRAVITY:** 2.28

**FLAMMABILITY LIMITS (%):** N/A

**SOLUBILITY IN WATER (g/L):** 100

**OTHER PROPERTIES**

Soluble in water and methanol. Slightly soluble in alcohol and glycerol and methanol.

**INGREDIENTS**

<b>CHEMICAL ENTITY</b>	<b>CAS NO.</b>	<b>PROPORTION</b>
Copper Sulphate Pentahydrate	7758-98-7	100 %

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**HEALTH HAZARD INFORMATION**

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**HEALTH EFFECTS**

**ACUTE:**

**SWALLOWED:** Metallic taste in mouth. Burning sensation in throat and vomiting are typical effects. More severe poisoning causes irritation in digestive tract with abdominal pain, nausea, vomiting, ulceration and diarrhoea. May cause haemorrhaging of the digestive tract. Can be fatal.

**EYES:** May cause eye irritation and local inflammation, tissue destruction, corneal opacity and adhesion of the eyelid to the eye. May also cause conjunctivitis and ulcerations. Traces of sulphuric acid impurity may contribute to these effects.

**SKIN:** May cause skin irritations and discolouration of the skin.

**INHALED:** Breathing dust or mists may irritate the nose and throat. Ulceration and perforation of the nasal septum is possible if inhaled in excessive quantities. These effects may be due to traces of sulphuric acid impurities.

**CHRONIC:** Repeated exposure to the dust or fumes can damage the liver and/or lungs. It can also cause copper to deposit in the skin and hair, leaving a green colour. Metallic taste may also occur in the mouth. Repeated exposure can cause shrinking of the lining of the inner nose, with a watery discharge, or thickening of skin. Exposure may also cause skin allergy or dermatitis. If allergy develops, even low future exposures may trigger rash. Very irritating substances may affect the lungs. It is not known whether copper sulphate causes lung damage. Prolonged or repeated eye contact may cause conjunctivitis. This substance has adverse reproductive and foetal effects in animals. Copper is an essential element and its level in the body is strictly controlled. Under most conditions, excess copper is excreted in the urine and faeces.

No Data Available

**FIRST AID**

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**SWALLOWED:** If swallowed and if more than 15 minutes from a hospital induce vomiting, preferably using Ipecac Syrup APF. Do not give anything by mouth to an unconscious or convulsing person. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Rinse mouth with water.

**EYE:** Immediately flush eyes with running water for 15 minutes, lifting the upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN:** Immediately flush skin with running water for 15 minutes. Remove contaminated clothing and shoes; wash before re-use get immediate medical attention if symptoms persist.

**INHALED:** Remove to fresh air. Give artificial respiration if not breathing. If breathing is difficult, give oxygen. Get immediate medical attention if symptoms persist.

**FIRST AID FACILITIES:** A supply of Ipecac Syrup APF should be kept on hand. Ensure an eye bath and shower are available and are ready to use.

**ADVICE TO DOCTOR**

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

**TOXICITY DATA**

Oral LD50	=	300mg/kg (rat) ; 60 mg/kg (dog)
Oral LDLo	=	1088mg/kg (human) ; 60mg/kg (dog)
Dermal =	LD50	Not Available
Inhalation	LC50 =	Not Available
Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP or OSHA		

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**PRECAUTIONS FOR USE**

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**EXPOSURE STANDARDS:**

Worksafe Australia recommends the following exposure limits:

Copper, dusts and mists (as Cu) : TWA = 1mg/m<sup>3</sup>

Copper (fume) : TWA = 0.2 mg/m<sup>3</sup>

**ENGINEERING CONTROLS:** Adequate ventilation required.

**PERSONAL PROTECTION:** Long sleeved shirt, trousers, safety shoes, rubber gloves, and rubber apron. Chemical goggles unless a full face piece respirator is also worn. Always wear a NIOSH-approved respirator. Use good industrial hygiene and avoid all unnecessary contact.

**FLAMMABILITY:** Material is non-flammable under conditions of use.

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**SAFE HANDLING INFORMATION**

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**STORAGE AND TRANSPORT:** Store in a cool, dry, well ventilated place away from direct sunlight and heat in original containers and incompatible materials. Keep bags or fibre drums dry at all times. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Keep out of reach of children. Minimise dust generation and accumulation. Store away from structural steel.

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**PACKAGING/LABELLING**

Polywoven fibre bags.

U.N No : N/A

Pack Group : N/A

Class : N/A

EPG No : N/A

Subs Risk : N/A

Hazchem Code : N/A

Shipping Name : COPPER SULPHATE PENTAHYDRATE

Hazard: HARMFUL

**RISK PHRASES**

**R22** Harmful if swallowed

**R36/38** Irritating to eyes and skin

**SAFETY PHRASES**

**S2** Keep out of reach of children

**S22** Do not breathe dust.

**SPILLS AND DISPOSAL:** Wear protective equipment including rubber boots, rubber gloves, rubber apron, and a self contained breathing apparatus in the pressure demand mode or a supplied air respirator. If the spill is small, a full face piece air-purifier cartridge respirator equipped with particulate filters may be satisfactory. In any event always wear eye protection. For small spills, sweep up and dispose of in approved waste containers. Wash all spills with copious amounts of water. Keep out of sewers, storm drains, surface waters and soil. Consult Federal, State and Local regulators to ascertain proper disposal procedures.

**FIRE/EXPLOSION HAZARD:** Material is stable under normal conditions of storage and use. Avoid high temperatures and incompatible materials. Incompatible with acetylene gas, aluminium powder, hydroxylamine magnesium and moist air. Hazardous decomposition products include oxides of sulphur and oxides of copper. Hazardous polymerisation has not been reported.

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**EXTINGUISHING MEDIA**

Use equipment/media appropriate to surrounding fire conditions. Fire-fighters should wear full protective clothing including self-contained breathing apparatus. Closed containers exposed to heat may explode. When heated to decomposition toxic fumes of sulfur dioxide are produced.

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NOTICE: Information for this product is believed to be reliable, however buyer and user assume all risk of use, handling and storage whether in accordance with directions or not. Barmac Industries Pty Ltd and its agents give no guarantee or warranty of any kind express or implied concerning the use of this product, and will not accept any responsibility whatsoever whether in contract or tort for any loss, including consequential loss arising out of the use of this product or caused by this product.

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