



## MATERIAL SAFETY DATA SHEET

Date of Issue: 17.10.07

### STATEMENT OF HAZARDOUS NATURE

Classified as hazardous according to criteria of Worksafe Australia

### COMPANY NAME & ADDRESS

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### PRODUCT IDENTIFICATION

**Product Name** : Kocide® Blue Fungicide  
**Size** : Twin Pack  
**Other Name** : Copper Hydroxide.  
**UN Number** : Not classified as a Dangerous Good.  
**Dangerous Goods Class** : Not applicable.  
**Packaging group** : Not applicable.  
**Hazchem Code** : Not applicable.  
**Poisons Schedule No** : Schedule 6 Poison (SUSDP 14).  
**Use** : Home Garden fungicide.

### PHYSICAL PROPERTIES & DESCRIPTION

**Appearance** : Light Blue granule  
**Boiling / Melting Point** : No data  
**Vapour Pressure** : No data  
**Bulk density** : 670 g/L  
**Flashpoint** : Not applicable  
**Flammability Limits** : No data  
**pH** : 8.2 ( 1% dispersion in water)  
**Solubility in Water** : Disperses to form a suspension. Copper hydroxide is insoluble in cold water and decomposes in hot water.

### OTHER PROPERTIES

#### **Ingredients:**

<b>Chemical Name:</b>	<b>CAS Number:</b>	
Copper Hydroxide:	20427-59-2	54% w/w
Calcium Carbonate:	1317-65-3	10-30% w/w
Telrasodium pyrophosphate:	7755-88-5	1-10% w/w
Sodium Hydroxide:	1310-73-2	1-10% w/w

All other components have been identified as not hazardous according to criteria of NOHSC.

## **HEALTH HAZARD INFORMATION**

### **ACUTE EFFECTS:**

- Swallowed : Slightly toxic by oral exposure. Acute oral LD<sub>50</sub> = 1346 mg/kg. This material may produce toxicity if ingested in large quantities. Symptoms of over-exposure to copper salts may include nausea and vomiting, abdominal pain, and central nervous system depression, which if severe enough, may lead to death.
- Eye : Dusts or powdered granules will cause severe irritation with possible reversible corneal opacification.
- Skin Irritation : Non-irritant. Excessive exposure, especially if prolonged, may produce skin irritation, itching and eczema and on rare occasions a sensitising reaction. Repeated exposure may cause allergic contact dermatitis.
- Skin Absorption : Low dermal toxicity. Acute dermal LD<sub>50</sub> > 5000 mg/kg.
- Inhaled : Slightly toxic by inhalation. Excessive exposure may cause cough, mucous production, shortness of breath, reflecting metal fume fever. May cause irritation of the mucous membranes. Acute inhalation of dust or powdered granules LC<sub>50</sub> = 1.311mg/L (rat – 4 hour).
- Chronic : Low chronic toxicity unless excessive exposure is encountered. Excessive exposure to copper by inhalation may result in irritation of the upper respiratory tract which, if severe, may lead to perforation of the nasal septum after long periods of exposure. Repeated ingestion of copper salts may result in anemia, liver, and kidney damage. Chronic inhalation exposure may cause a metallic taste in the mouth, irritation of the upper respiratory tract such as the nasal mucosa that may progress to perforation of the nasal septum. Chronic cough may also occur.
- Special Health Effects : Copper-intolerant individuals should not be exposed to this material. No additional information is available on whether over-exposure to this material would aggravate other existing special medical conditions.

### **FIRST AID:**

- Swallowed : If poisoning occurs, contact a doctor or Poisons Information Centre Phone Australia 131126. Drink promptly a large quantity of milk, egg white, gelatine solution or if these are not available, large quantities of water.
- Eye : Hold eyelids open and flush with water for 15-20 minutes. Get medical attention.
- Skin : Remove contaminated clothing and shoes. Wash with plenty of soap and Water for 15-20 minutes until no evidence of chemical remains.
- Inhaled : Remove victim to fresh air.

### **ADVICE TO DOCTOR:**

Treat symptomatically :Acute oral over-exposure to copper hydroxide, a major component of this product, may cause hypotension, hemolysis, and rarely, methemoglobinemia. Severe intoxication is associated with serum copper levels greater than 500 mcg/dl. Copper hydroxide is an emetic, however, dilution with fluids, adsorption with activated charcoal, or lavage may be indicated. Chelation therapy with BAL or D-penicillamine has proved useful in cases of acute over-exposure. Unless extensive vomiting has occurred, empty the stomach by gastric lavage with water, milk, sodium bicarbonate solution of a 0.1% solution of potassium ferrocyanide. (Gosselin, Clinical Toxicology of Commercial Products, 5<sup>th</sup> Ed.). Administration of gastric lavage should be performed by qualified medical personnel. Probable mucosal damage may contraindicate use of gastric lavage.

### **PRECAUTIONS FOR USE**

Exposure Standards : No NOHSC exposure standard has been established for copper hydroxide. The following standards apply to some of the ingredients:

Calcium Carbonate	5 mg/m <sup>3</sup> (TWA)
Tetrasodium pyrophosphate	5 mg/m <sup>3</sup> (TWA)
Sodium Hydroxide	5 mg/m <sup>3</sup> (TWA)

TWA = Time Weighted Average concentration of the substance over an 8 hour working day, for a 5 day working week.

Engineering Controls : Thoroughly ventilate all transport vehicles prior to unloading. General air replacement or dilution ventilation is sufficient for material handling and storage.

Personal Protection : Wear cotton overalls buttoned to the neck and wrist or equivalent clothing, waterproof gloves and shoes and socks, when using or applying product or spray. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Keep and wash personal protective equipment (PPE) separately from other laundry.

Flammability : Not flammable.

### **SAFE HANDLING INFORMATION**

Transport & Storage : This product is not classified as a Dangerous Good. Store product in a cool, well ventilated place. Store below 35°C. Keep container tightly closed. Do not store near feed, food or within the reach of children. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. This material is stable under normal temperatures and storage conditions.

Spills : Thoroughly ventilate area, use self-contained breathing apparatus. Emergency response personnel should wear chemical resistant coveralls, waterproof gloves, waterproof boots and face-eye protection. If dust occurs, use goggles and NOHSC approved dust mask. Dike spill. Prevent material from entering sewers, waterways or low areas. Shovel or sweep up and place in suitable containers for later disposal.

- Water Spill : If feasible, copper may be precipitated / ultra filtrated with caustics or other chemicals and resulting sludge disposed of in a chemical landfill.
- Waste Disposal : Treatment, storage, transportation and disposal must be in accordance with applicable regulations. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not flush to surface water or sanitary sewer.
- Fire / Explosion Hazard : Negligible fire hazard when exposed to heat or flame. Use dry chemical, carbon dioxide, water spray, or foam. Wear protective clothing and self-containing breathing apparatus. Decomposes to CuO and H<sub>2</sub>O above 60°C.

### **STABILITY AND REACTIVITY**

- General : This material is stable under normal conditions.
- Incompatible Materials : None Known.
- Conditions to Avoid : Excessive heat.
- Hazard. Polymerization : Material is not known to polymerize.

### **OTHER INFORMATION**

- Environmental Info : This product is very toxic to fish and aquatic organisms. Do not contaminate sewers, drains, dams, creeks or any other waterways with product or the used container. The toxicity to birds is low with acute oral LD<sub>50</sub> for Bobwhite quail > 3400 mg/kg and Mallard Ducks > 5000 mg/kg. Practically non-toxic to bees.

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### **DISCLAIMER**

This Material Safety Data Sheet has been developed according to Worksafe Australia / NOHSC Guidelines.

All information is as accurate and up to date as possible. Since Multicrop (Aust.) Pty. Ltd. cannot anticipate or control the conditions under which this information may be used, each user should review the information in the specific context of the intended application. Multicrop (Aust.) Pty. Ltd. will not be responsible for damages of any nature resulting from use of or reliance upon this information.

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