

MATERIAL SAFETY DATA SHEET



Page: 1 of 5
Date of Issue: June 17, 2003

STATEMENT OF HAZARDOUS NATURE

Hazardous according to criteria of National Occupational Health & Safety Commission.

R41 - Risk of serious damage to eyes.

R22 - Harmful if swallowed.

COMPANY DETAILS:

Company: Bayer CropScience Pty Ltd A.B.N. 87 000 226 022
Address: 391 – 393 Tooronga Road, East Hawthorn
Victoria 3123 Australia
Telephone/Facsimile: (03) 9248 6888/(03) 9248 6800
Website Address: www.bayercropscience.com.au
Emergency Telephone Number: 1800 033 111 - SHE Pacific

IDENTIFICATION

Product Name:	Blue Shield® DF Copper Fungicide
Other Names:	Not applicable
Manufacturer's Product Code:	AE F11982900 WG50A1
SAP Product Code:	120493 or 4545507 (9 kg), 151971 or 4911449 (10 kg)
UN Number:	Not applicable
Dangerous Goods Class and Subsidiary Risk:	Not classified as dangerous goods for transport by road or rail.
Hazchem Code:	Not applicable
Proper Shipping Name:	Not applicable
Packing Group:	Not applicable
EPG:	Not applicable
Chemical Family:	Inorganic
Poisons Schedule Number:	6
Use:	Copper fungicide for fruit and vegetables

Physical Description/Properties

Appearance:	Light blue/green micro granules / no odour
Boiling Point/Melting Point:	Decomposition at 120° C
Vapour Pressure:	Negligible
Specific Gravity:	Not applicable
Bulk density:	800 g/L
Flashpoint:	Not applicable
Flammability Limits:	Not applicable
Solubility in Water:	Insoluble

Other Properties:

Formulation:	Dry flowable granules
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BLUE SHIELD DF COPPER FUNGICIDE

MATERIAL SAFETY DATA SHEET



Page: 2 of 5
Date of Issue: June 17, 2003

Ingredients:

Chemical Name:	CAS Number:	Proportion (g/kg):
Copper (2+) or cupric hydroxide technical, Cu(OH) ₂ (equivalent to 77 % copper hydroxide or 50 % elemental copper)	[20427-59-2]	856
Adjuvants	(non hazardous)	130
Inert ingredients	(non hazardous)	14

HEALTH HAZARD INFORMATION

Health Effects:

Acute:

- Swallowed: Harmful if swallowed.
- Eye: May be severely irritating or corrosive to the eyes. The material should not be allowed to contact the eyes.
- Skin: May be mildly irritating to the skin and in rare cases cause sensitisation reactions. The material should not be allowed to come into contact with the skin.
- Inhaled: Avoid breathing dust / spray. May cause irritation to the respiratory system.
- Chronic:* Ingestion of large amounts of copper salts may cause gastrointestinal disorders, haemolysis, liver and renal damage. Eye exposure may produce conjunctivitis / ulceration and corneal turbidity. Copper fumes may be toxic. Repeated or prolonged inhalation of copper / copper salts fumes or mist may cause irritation of the upper respiratory tract and occasionally ulceration and perforation of the nasal septum.

First Aid

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to a doctor.

- Swallowed: Seek medical advice immediately if swallowed. Do not give alcoholic drinks. Give plenty of water or milk to drink. Give egg white. Show this Material Safety Data Sheet to a doctor.
- Eye: Immediately hold eyes open, flood with water for at least 15 minutes and see a doctor.
- Skin: Immediately remove all contaminated clothing and footwear. Wash the skin thoroughly with soap and water.
- Inhaled: Remove from the source of vapour / dust / spray / fumes. Remove to

BLUE SHIELD DF COPPER FUNGICIDE

MATERIAL SAFETY DATA SHEET



Page: 3 of 5
Date of Issue: June 17, 2003

open space or fresh air. Keep warm and at rest. If breathing stops, start artificial respiration. Obtain medical attention immediately.

First Aid Facilities: An eyewash facility should be made available in the workplace.

Advice to Doctor: Elevated urinary copper is indication of excess copper exposure. If swallowed, perform gastric lavage with water or 0.1% solution of potassium ferrocyanide. Mucosal damage may contraindicate gastric lavage. Many copper salts by skin contact cause itching, eczema and rarely, sensitisation reactions.

PRECAUTIONS FOR USE

Exposure Standards: Copper, dusts and mists (as Cu) TWA 1 mg/m³

TWA (Time Weighted Average) - Average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

Engineering Controls: Use local or general exhaust ventilation to meet exposure standard requirements.

Personal Protection: Eyes: Wear safety goggles. An eye bath should be available.

Clothing: Wear suitable protective clothing, such as cotton overalls buttoned to the neck and wrist and rubber boots.

Gloves: Wear suitable protective (impervious) gloves.

Respiratory: In case of insufficient ventilation, wear suitable respiratory equipment. Use an approved respirator with combined dust and chemical cartridge when exposed to a concentration above the exposure standard for a limited time.

Other: Do not eat, drink or smoke until after washing. Wash thoroughly after handling. Contaminated clothes are to be laundered before re-use.

Flammability: Not flammable or combustible.

MATERIAL SAFETY DATA SHEET



Page: 4 of 5
Date of Issue: June 17, 2003

SAFE HANDLING INFORMATION

Storage and Transport:

Corrosivity Hazards: None known.

Handling & Storage Precautions: Keep out of reach of children. Avoid contact with eyes and skin. Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Keep the container tightly closed. Keep away from food, drink and animal feed.

Transport: This product is not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Spills and Disposal:

Spillage or Leak Procedures: Personnel involved in clean up require adequate eye, skin, and respiratory protection – see Personal Protection section above. In case of spillage prevent the material from entering drains or watercourses. Contain spill, sweep up, collect and store in drums. Avoid creation of dust. Label and seal drums for safe disposal. Deal with all spillages immediately.

Waste Disposal Methods: Single rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. Puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Dispose of waste material via a licensed waste disposal contractor to a regulated landfill.

Fire/Explosion Hazard:

Extinguishing Media: Use extinguishing media suitable to the environment. Water fog, fine water spray, foam or dry agent.

Special Fire Fighting Procedures: Firefighters should use self-contained breathing apparatus and full protective clothing in case of fire. Prevent fire-fighting water from entering drains or watercourses.

Reactivity Hazards: The material is stable under normal conditions. Hazardous polymerisation will not occur. Incompatible with concentrated acids. Incompatible with ammonia. Decomposes when heated to form copper oxide (CuO) and water. Decomposes at 120° C. Not flammable. Irritating and toxic fumes are produced in a fire.

MATERIAL SAFETY DATA SHEET



Page: 5 of 5
Date of Issue: June 17, 2003

OTHER INFORMATION:

Toxicology:	Oral LD ₅₀ (mg/kg)	1300	Species	Rat
	Dermal LD ₅₀ (mg/kg)	> 2000	Species:	Rabbit
	Inhalation LC ₅₀ (mg/L)	> 11.45	Species:	Rat

Environmental / Ecological Effects (Data for 100% copper hydroxide): Toxic to fish and aquatic organisms.
Fish toxicity: LC₅₀, (96 h) Bluegill sunfish - > 180 ppm, LC₅₀ (24 h) rainbow trout – 0.08 mg/L
Bird toxicity: Acute oral LD₅₀ Bobwhite quail – 3400 mg/kg, mallard ducks > 5000 mg/kg
Toxicity to bacteria in effluent: No data
Other: Daphnia LC₅₀ 6.5 ppb. Non-toxic to honeybees.
Aquatic, air or soil environmental hazards: DO NOT contaminate streams, rivers or waterways with this product or the used container.

Special Precautions / Comments: Avoid contact with ammonia or acid vapours. Store at temperatures below 45° C.

Data Sources / References: Supplier - Material Safety Data Sheet
Sax, N.I. "Dangerous Properties of Industrial Materials".
NIOSH (USA) "Registry of toxic effects of Chemical Substances"
BCPC – "The Pesticide Manual" – 11th edition.

CONTACT POINT:

Emergency Contact Number: 1800 033 111 (SHE Pacific)
Development Manager: (03) 9248 6888

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

Blue Shield® is a Registered Trademark of Bayer.