



Safety Data Sheet

SDS No.:
SDS-IM/FG-B/03

Blue Shield 40WG

Revision: 0, 1st Issue

Page 1 of 6

Section 1: Identification of the Hazardous Chemical and of the Supplier

1.1 Product Identifier

Product Name: Copper (II) Hydroxide 40% WG
Trade Name: Blue Shield 40WG
Active Ingredient: Copper (II) hydroxide, Cupric hydroxide
CAS No.(AI): 20427-59-2
Structural Formula:



Recommended Usage: Fungicide

1.2 Supplier's Information

Address: Agricultural Chemicals (M) Sdn. Bhd.
962, Lorong Perusahaan 8
Taman Perindustrian Perai
13600 Perai, Pulau Pinang
Malaysia
Tel.: +6-04-3907988
Fax: +6-04-3905703
Web: www.agrichem.com.my
Emergency Phone: +6-04-3907988

Section 2: Hazard Identification

Classification: Eye damage, category 1
Specific target organ toxicity-repeated exposure, category 2
(Respiratory System)

Pictogram:



Signal Word: Danger

Hazard Statement:

H318

Causes serious eye damage

H373

May cause damage to organs through prolonged or repeat exposure

Precautionary Statement:

P260

Do not breathe dust.



Safety Data Sheet

SDS No.:
SDS-IM/FG-B/03

Blue Shield 40WG

Revision: 0, 1st Issue

Page 2 of 6

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P310 Immediately call a POISON CENTER or doctor/physician.
P314 Get medical advice/attention if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Section 3: Composition and Information of the Ingredients of the Hazardous Chemical

Component	CAS No.	Weight, %	Hazard Code
Copper Hydroxide	20427-59-2	61.5 (40% of Copper content)	H318, H373

Section 4: First-aid Measures

Call a POISON CENTER or doctor/physician if you feel unwell.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.
Skin Contact: Remove/Take off all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion: DO NOT induce vomiting. Rinse mouth. Drink large quantity of milk or if not available, large quantity of water. Avoid alcohol. Get medical advice/attention.
Symptoms: No data available.
Notes to Physician: Probable mucosal damage may contraindicate use of gastric lavage.

Section 5: Fire-fighting Measures

Suitable Extinguishing Media: Foam, dry chemical powder, carbon dioxide (CO₂), or water spray.
Specific Hazard During Fire: Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.



Safety Data Sheet

SDS No.:
SDS-IM/FG-B/03

Blue Shield 40WG

Revision: 0, 1st Issue

Page 3 of 6

Special Protective Equipment: Fire fighters should wear full-faced self-contained breathing apparatus and protective clothing. If Copper Hydroxide is involved in a fire, avoid breathing smoke. Use a positive-pressure, self-contained breathing air supply. Avoid getting water from fire fighting into domestic or irrigation water supplies.

Section 6: Accidental Release Measures

Personal Precautions: Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Environmental Precautions: Avoid release to the environment.

Method for Cleaning Up: Wear protective clothing as indicated in Section 8. Evacuate non essential personnel. Wash with copious supply of water. Collect the spill into waste container for disposal. Wash the contaminated area with a little water and detergent. Adsorb with inert material such as clay or earth. Collect into the same container for disposal. Prevent the spillage from entering local drainage system.

Section 7: Handling and Storage

Precautions for Safe Handling: Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid release to the environment.

Conditions for Safe Storage: Store temperature below 125°F. Store in a well ventilated, dry place away from strong acids and ammonia. Store in a cool, clean area. Keep container tightly closed.

Incompatibles: Ammonia or acid vapours, strong acids. Copper is corrosive to aluminium, especially when in aqueous state and elevated temperatures.

Section 8: Exposure Control and Personal Protection

Exposure Limit:

Source	Component	CAS No.	Limit	
OSHA	Copper dust and mist	-	PEL	1 mg/m ³
ACGIH			TLV	1 mg/m ³

Engineering Control: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure



Safety Data Sheet

SDS No.:
SDS-IM/FG-B/03

Blue Shield 40WG

Revision: 0, 1st Issue

Page 4 of 6

limit. Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

Individual Protection Measure: Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required

Personal Protective Equipment:

Eye Protection: Protective goggles, safety glasses or full face shield

Skin Protection: Chemical resistant gloves, protective clothing

Respiratory Protection: NIOSH approved respirator

Section 9: Physical and Chemical Properties

Appearance: Pale blue microgranules

Odour: Odourless

Odour Threshold: No data available

pH: 7.0 – 9.5

Melting/Freezing Point: Decompose at 140°C

Initial Boiling Point: Not applicable

Boiling Range: Not applicable

Flash Point: Not applicable

Evaporation Rate: No data available

Flammability: Not applicable

Upper Flammability Limit: Not applicable

Lower Flammability Limit: Not applicable

Vapour Pressure: No data available

Vapour Density: No data available

Relative Density: No data available

Solubility in Water: 2.9 mg/l at 25°C

Partition Coefficient $P_{o/w}$: No data available

Auto-ignition Temperature: Not inflammable

Decomposition Temperature: 140°C

Viscosity: No data available

Section 10: Stability and Reactivity

Reactivity: No data available.

Chemical Stability: Stable under normal condition. However may decompose if heated.

Hazardous Reaction: No data available.

Condition to Avoid: Temperatures over 125°F. Avoid exposure to high moisture conditions for prolonged periods.

Incompatible Material: Ammonia or acid vapours, strong acids. Copper is corrosive to aluminium, especially when in aqueous state and elevated temperatures.



Safety Data Sheet

SDS No.:
SDS-IM/FG-B/03

Blue Shield 40WG

Revision: 0, 1st Issue

Page 5 of 6

Hazardous Decomposition

Product:

Decomposes in high temperatures to CuO + H₂O.

Section 11: Toxicological Information

11.1 Acute Toxicity

Ingestion, Oral LD ₅₀ :		
	Rat	1300 mg/kg
Skin Contact, Dermal LD ₅₀ :		
	Rat	>2600 mg/kg
Inhalation, LC ₅₀ :		
	Rabbit	>1.692 mg/m ³

11.2 Chronic Effect from Short and Long Term Exposure

Skin Contact: Mild temporary irritant. Prolonged or repeated contact may cause irritation.

Non sensitizing (Guinea pig)

Eye Contact: Causes serious eye damage.

Inhalation: Moderately irritating to respiratory tract. Prolonged inhalation may be harmful.

Ingestion: May be harmful if swallowed.

Carcinogenicity: Not listed in OSHA, NTP and IARC.

Mutagenicity: No evidence of effects during in vivo and in vitro studies.

Teratogenicity: No data available.

11.3 Symptoms

No data available.

Section 12: Ecological Information

Ecotoxicity:

Component: Technical		
Fish Toxicity, LC ₅₀ :		
	Blue Gill (96hr)	180 ppm
	Rainbow Trout (96hr)	25 ppm
Avian Toxicity, LD ₅₀ :		
	Bobwhite Quail	340 mg/kg
	Mallard Duck	>500 mg/kg
Bee Toxicity:		Non toxic

Persistence and Degradability: No data available



Safety Data Sheet

SDS No.:
SDS-IM/FG-B/03

Blue Shield 40WG

Revision: 0, 1st Issue
Page 6 of 6

Bioaccumulative Potential: No data available
Mobility in Soil: No data available
Other Adverse Effect: No data available

Section 13: Disposal Information

Dispose of contents/container to Kualiti Alam / authorized body by DOE.

Section 14: Transportation Information

Land (ADR/RID)	Not regulated
Sea (IMDG)	Not regulated
Air (IATA)	Not regulated

Section 15: Regulatory Information

Classification: Eye damage, category 1
Specific target organ toxicity-repeated exposure, category 2
(Respiratory System)

Signal Word: Danger

Pictogram:



Pesticides Act: III
Classification: Harmful

Section 16: Other Information

Date of Preparation: 4 January 2015
Date of Revision: -
Reference Document: ICOP on Chemicals Classification and Hazard Communication 2014
GHS Purple Book

Disclaimer: To the best of our knowledge, the information contained herein is accurate. However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein.