

NUFARM COPPER HYDROXIDE 500 FUNGICIDE

Infosafe No.: 3NUQV
ISSUED Date : 27/02/2024
ISSUED by: NUFARM AUSTRALIA LIMITED.

Section 1 - Identification

Product Identifier

NUFARM COPPER HYDROXIDE 500 FUNGICIDE

Product Code

0463

Product Type

Group M4 Fungicide

Company Name

NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)

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Emergency Phone Number

1800 033 498 (24hr Australia)

Emergency Contact Name

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E-mail Address

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Recommended use of the chemical and restrictions on use

A water granule fungicide for the control of various diseases of fruits and vegetables as per the Directions for Use table on the label.

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Complies with the requirements of Special Provision AU01 and therefore exempted from being classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Classified as Dangerous Goods according to International Maritime Dangerous Goods Code (IMDG) and International Air Transport Association (IATA).

Acute toxicity: Category 4 - Oral

Acute toxicity: Category 3 - Inhalation

Eye damage/irritation: Category 1

Hazardous to the Aquatic Environment - Acute Hazard: Category 1

Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1

Signal Word (s)

DANGER

Hazard Statement (s)

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H410 Very toxic to aquatic life with long lasting effects.

Pictogram (s)

Skull and crossbones, Corrosion, Environment



Precautionary Statement–Prevention

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statement–Response

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P391 Collect spillage.

Precautionary Statement–Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Precautionary Statement–Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
copper(II) hydroxide	20427-59-2	500g/kg
Dispersants and fillers		Balance

Section 4 - First Aid Measures

Inhalation

Avoid becoming a casualty - to protect rescuer, use air-viva, oxy-viva or one-way mask. Remove affected person from contaminated area - Apply artificial respiration if not breathing. Do not give direct mouth to mouth resuscitation. Resuscitate in a well ventilated area. Seek IMMEDIATE medical attention.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

Skin

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.

First Aid Facilities

Eyewash, safety shower and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

Section 5 - Firefighting Measures

Suitable Extinguishing Media

Water fog, foam, carbon dioxide or dry chemical.

Hazards from Combustion Products

Non combustible material.

Specific hazards arising from the chemical

This product is non combustible.

Special Protective Equipment and Precautions for Firefighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

Hazchem Code

•3Z

Decomposition Temperature

Decomposes above 60°C to CuO and H₂O

Section 6 - Accidental Release Measures

Emergency Procedures

Evacuate all unprotected personnel. Do not allow contact with skin and eyes. Do not breathe dust. It is essential to wear self-contained breathing apparatus (S.C.B.A) and full personal protective equipment and clothing to prevent exposure. Avoid exposure to spillage by sweeping up material avoiding dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to suitable containers. Use absorbent paper dampened with water to pick up remaining material. Wash surfaces well with soap and water. Seal all wastes in labelled containers for subsequent recycling or disposal. Dispose of waste according to applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

Section 7 - Handling and Storage

Precautions for Safe Handling

Toxic solid. Avoid exposure. Exposure without protection must be prevented. Wear appropriate personal protective equipment and clothing to prevent exposure. Use in designated areas with local exhaust ventilation. DO NOT store or use in confined spaces. Build up of dust/solid in the atmosphere must be prevented. Avoid breathing in solid/dust. Do not smoke. Maintain high standards of personal hygiene i.e. washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for safe storage, including any incompatibilities

This material is Toxic and must be stored, handled and maintained according to the appropriate regulations. Limit quantity in storage. Restrict access to storage area. Post appropriate warning signs. Consider leak detection and alarm systems, as required. Structural materials and lighting and ventilation systems in storage area should be corrosion resistant. Store in a cool, dry, well-ventilated area away from sources of ignition, oxidizing agents, strong mineral acids, bases metal and/or water. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS/NZS 4452 -The storage and handling of toxic substances.

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Copper, dusts & mists (as Cu)

TWA: 1 mg/m³

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

Source: Safe Work Australia

Biological Monitoring

No biological limits allocated.

Control Banding

Not available

Engineering Controls

This substance is toxic and should be used with a local exhaust ventilation system, drawing solid/dust away from workers' breathing zone. Alternatively, a process enclosure system such as a fume cupboard should be employed. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn. If local exhaust ventilation is used, ensure sufficient air is replaced to compensate the air that has been removed.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye and Face Protection

Safety glasses with full face shield should be used. Eye protection devices should conform to relevant regulations.

Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material such as nitrile or elbow-length PVC gloves. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Thermal Hazards

No further relevant information available.

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist and a washable hat is recommended. Chemical resistant apron is recommended where large quantities are handled.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Solid	Appearance	Green to blue granules
Colour	Green to blue	Odour	Odourless
Melting Point	Not available (Decomposes above 60°C to CuO and H ₂ O)	Boiling Point	Not available (Decomposes above 60°C to CuO and H ₂ O)
Decomposition Temperature	Decomposes above 60°C to CuO and H ₂ O	Solubility in Water	Disperses in water
Specific Gravity	Not available	pH	9.5-10.5 (1% in water)
Vapour Pressure	Negligible at 20°C	Relative Vapour Density (Air=1)	Not available
Evaporation Rate	Not available	Odour Threshold	Not available
Viscosity	Not available	Volatile Component	Not available
Partition Coefficient: n-octanol/water (log value)	Not available	Flash Point	Not available
Flammability	Non-combustible material	Auto-Ignition Temperature	Not available
Explosion Limit - Upper	Not available	Explosion Limit - Lower	Not available
Particle Size	Not available	Particle Characteristics	Not available

Section 10 - Stability and Reactivity

Reactivity

Reacts with incompatible materials.

Chemical Stability

Decomposes above 60°C to CuO and H₂O.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Incompatible with acids, calcium polysulphide, dithiocarbamates, alkaline pesticides such as lime sulphur, dinitro compounds, phosdrin, dimethoate, TMTD (thiram), calcium compounds and mercury compounds.

Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Toxicology Information

No toxicity data available for this material. The available acute toxicity data are given below.

Acute Toxicity - Oral

LD50 (rat): 1346 mg/kg

For a similar product

Acute Toxicity - Dermal

LD50 (rat): >2000 mg/kg

For a similar product

Acute Toxicity - Inhalation

LC50 (rat): 1.3 mg/l/4h

For a similar product

Ingestion

Harmful if swallowed. Ingestion of this product may cause irritation to the mouth, throat, oesophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

Not a likely route of exposure. Ingestion of large doses of copper salts may result progressively in irritation of the gastrointestinal tract, nausea, vomiting, salivation, gastric pain, hemorrhagic gastritis, diarrhea, capillary damage, liver and kidney damage, and central nervous system stimulation followed by depression. Jaundice, pain in the liver, and hemolytic anemia have been reported following acute human poisonings.

Inhalation

Toxic if inhaled. Inhalation may cause headaches, impairment of judgement and in extreme cases can lead to unconsciousness or death.

Avoid inhalation of spray mist. Excessive exposure to product dust may cause cough, mucous production and shortness of breath, reflecting metal fume fever. 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.

Skin

May be irritating to skin. The symptoms may include redness, itching and swelling.

Eye

Causes eye damage. Eye contact will cause stinging, blurring, tearing, severe pain and possible burns, necrosis, permanent damage and blindness.

Respiratory Sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ Cell Mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT - Single Exposure

Not expected to cause toxicity to a specific target organ.

STOT - Repeated Exposure

Not expected to cause toxicity to a specific target organ.

Aspiration Hazard

Not expected to be an aspiration hazard.

Chronic Effects

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.

Early onset symptoms related to exposure

Copper-intolerant individuals should not be exposed to this material.

No additional information is available on whether overexposure to this material would aggravate other existing special medical conditions.

Other Information

The Australian Acceptable Daily Intake (ADI) for copper for a human is 0.2 mg/kg/day, set for the public for daily, lifetime exposure. This ADI is based on the upper safe limit for adults of 0.2 mg/kg bw/d recommended by Australian Total Diet Studies are undertaken by Food Standards Australia New Zealand (FSANZ) as a provisional maximum tolerable daily intake.

Therefore, there is no NOAEL, LOAEL or safety factor.

Section 12 - Ecological Information

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Not available

Mobility

Not available

Bioaccumulative Potential

Not available

Other Adverse Effects

Not available

Environmental Protection

Do not discharge this material into waterways, drains and sewers. Spray drift should be avoided, read the label for more information.

Acute Toxicity - Fish

Copper hydroxide

LC50 (rainbow trout): 0.017 mg/l/24h.

Acute Toxicity - Daphnia

Copper hydroxide

LC50(daphnia magna): 0.038 mg/l/48h.

Acute Toxicity - Algae

LC50 (Selenastrum capricornutum): 0.022 mg/l/72h.

For a similar product

Acute Toxicity - Other Organisms

Not toxic to bees.

Hazardous to the Ozone Layer

This product is not expected to deplete the ozone layer.

Section 13 - Disposal Considerations

Disposal Considerations

Dispose of waste according to applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. To minimise personal exposure, refer to Section 8 - Exposure Controls and Personal Protection.

Container disposal:

Do not use this container for any other purpose.

Empty containers and product should not be burnt.

If recycling, replace cap and return clean containers to recycler or designated collection point.

Triple or preferably pressure rinse containers before disposal. Add rinsing to the spray tank.

If not recycling break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste disposal facility.

If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations.

Section 14 - Transport Information

Transport Information

Road and Rail Transport (ADG Code):

This product complies with the requirements of Special Provision AU01 and is therefore exempted from being classified as Dangerous Goods according to the ADG Code.

Note: Special Provision AU01:

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in: packagings that do not incorporate a receptacle exceeding 500 kg(L); or IBCs.

Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Class/Division: 9

UN No: 3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contains Copper Hydroxide)

Packing Group: III

EMS: F-A, S-F

Special Provisions: 274, 335, 966, 967, 969

Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Class/Division: 9

UN No: 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.(Contains Copper Hydroxide)

Packing Group: III

Label: Miscellaneous

Packaging Instructions (passenger & cargo): 956

Packaging Instructions (cargo only): 956

Special provisions: A97, A158, A179, A197, A215

UN Number

None Allocated

Proper Shipping Name

None Allocated

Transport Hazard Class

None Allocated

Hazchem Code

•3Z

Special Precautions for User

Not available

IMDG Marine pollutant

Yes

Transport in Bulk

For bulk shipments as Class 9, use UN 3077, HazChem code 2Z.

Section 15 - Regulatory Information

Regulatory Information

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

WHS Schedule 11: Classification not listed.

Poisons Schedule

S6

Montreal Protocol

Not listed

Stockholm Convention

Not listed

Rotterdam Convention

Not listed

International Convention for the Prevention of Pollution from Ships (MARPOL)

Not available

Agricultural and Veterinary Chemicals Act 1994

APVMA product number: 69351.

This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA).

Basel Convention

Not listed

Section 16 - Any Other Relevant Information

Date of Preparation

SDS Reviewed: February 2024

Supersedes: February 2019

Version Number

3.0

Literature References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Code of Practice for Supply Diversion into Illicit Drug Manufacture.

National Code of Practice for Chemicals of Security Concern.

Agricultural Compounds and Veterinary Chemicals Act.

International Agency for Research on Cancer (IARC) Monographs.

Montreal Protocol on Substances that Deplete the Ozone Layer.

Stockholm Convention on Persistent Organic Pollutants (POPs).

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.

International Air Transport Association (IATA) Dangerous Goods Regulations.

International Maritime Dangerous Goods (IMDG) Code.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition).

Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

User Codes

User Title Label	User Codes
Field 4	Y

END OF SDS

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