

BARRACK BETTERSTICK FUNGICIDE

Infosafe No.: 3NUYD
ISSUED Date : 24/01/2023
ISSUED by: NUFARM AUSTRALIA LIMITED.

Section 1 - Identification

Product Identifier

BARRACK BETTERSTICK FUNGICIDE

Product Code

5786

Product Type

Group M5 Fungicide

Company Name

NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)

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Emergency Contact Name

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E-mail Address

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Recommended use of the chemical and restrictions on use

For the control of fungus diseases on almonds, bananas, cucurbits, grapes, ornamentals, peanuts, pulses, stone fruits, tobacco and vegetables as specified in 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.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Acute toxicity: Category 2 - Inhalation

Eye damage/irritation: Category 1

Sensitisation - skin: Category 1

Carcinogenicity: Category 2

Specific target organ toxicity (single exposure): Category 3 (Respiratory tract irritation)

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)

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H330 Fatal if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H410 Very toxic to aquatic life with long lasting effects.

Pictogram (s)

Skull and crossbones, Corrosion, Health hazard, Environment



Precautionary Statement–Prevention

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284 [In case of inadequate ventilation] wear respiratory protection.

Precautionary Statement–Response

P308+P313 IF exposed or concerned: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of water.
P362+P364 Take off contaminated clothing and wash it before reuse.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 Immediately call a POISON CENTER/doctor.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER/doctor if you feel unwell.
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
chlorothalonil (ISO)	1897-45-6	720 g/L
Propylene glycol	57-55-6	<10 %
Ingredients determined not to be hazardous		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

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. 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 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

May emit toxic fumes of hydrogen chloride or phosgene if involved in fires or exposed to extreme heat.

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

2X

Decomposition Temperature

Not available

Section 6 - Accidental Release Measures

Emergency Procedures

Evacuate all unprotected personnel. Do not allow contact with skin and eyes. Do not breathe mist/vapour. 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 collecting the material using vacuum and transfer into suitable 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.

Clean-up Methods - Large Spillages

Place damaged containers in recovery bins (if available) and return to manufacturer.

Section 7 - Handling and Storage

Precautions for Safe Handling

Toxic liquid. 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 mists or vapours in the atmosphere must be prevented. Avoid breathing in spray or mists or vapours. Do not smoke. Maintain high standards of personal hygiene i.e. washing hands prior to eating, drinking, smoking or using toilet facilities. Do not handle until all safety precautions have been read and understood. Always read the label and any attached leaflet before use.

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.

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:

Propylene Glycol

TWA: 150 ppm, 474 mg/m³ (vapour and particulates)

TWA: 10 mg/m³ (particulates)

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 vapours 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 vapours/mists 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 vapor/mist 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 PVC. 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 is recommended. Chemical resistant apron is recommended where large quantities are handled.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Liquid	Appearance	White opaque liquid
Colour	White	Odour	Not available
Melting Point	Not available	Boiling Point	Not available
Decomposition Temperature	Not available	Specific Gravity	1.310
pH	Not available	Vapour Pressure	0.076 mPa @ 25°C for chlorothalonil
Relative Vapour Density (Air=1)	Not available	Evaporation Rate	Not available
Odour Threshold	Not available	Viscosity	Not available
Volatile Component	~40%	Flash Point	Not available
Auto-Ignition Temperature	Not available	Flammable Limits - Lower	Not available
Flammable Limits - Upper	Not available	Explosion Properties	Not available
Oxidising Properties	Not available	Particle Characteristics	Not available

Section 10 - Stability and Reactivity

Reactivity

Reacts with incompatible materials.

Chemical Stability

Stable under normal conditions of storage and handling.

Possibility of hazardous reactions

Reacts with incompatible materials.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Strong oxidising agents.

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

Acute Toxicity

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

Acute Toxicity - Oral

Chlorothalonil

LD50 (rat): >5000 mg/kg

Acute Toxicity - Dermal

Chlorothalonil

LD50 (rat): >5000 mg/kg

Acute Toxicity - Inhalation

Chlorothalonil

LD50 (rat): 0.1 mg/l/4h

Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Inhalation

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

May cause respiratory irritation. Inhalation of product vapours can cause irritation of the nose, throat and respiratory system.

Skin

May cause an allergic skin reaction. 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

May cause an allergic skin reaction

Germ Cell Mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Suspected of causing cancer. Classified as a suspected human carcinogen.

Chlorothalonil is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT - Single Exposure

May cause respiratory irritation.

STOT - Repeated Exposure

Not expected to cause toxicity to a specific target organ.

Aspiration Hazard

Not expected to be an aspiration hazard.

Other Information

The Australian Acceptable Daily Intake (ADI) for chlorothalonil for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1.5 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Australian Pesticides and Veterinary Medicines Authority (APVMA) December 2022.)

Section 12 - Ecological Information

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

No ecological data available for this material. The available ecological data for the ingredients is given below:

Persistence and degradability

Average field half life of chlorothalonil is 7 - 30 days.

Adsorption studies indicate that chlorothalonil has very low mobility.

In water, half life for chlorothalonil is 4.5 hours to 9 days.

Mobility

Not available

Bioaccumulative Potential

Not available

Environmental Protection

Do not discharge this material into waterways, drains and sewers.

Acute Toxicity - Fish

Chlorothalonil

LC50 (rainbow trout): 0.043 mg/l/96h.

Acute Toxicity - Daphnia

Chlorothalonil

LC50 (daphnia magna): 0.07 mg/l/48h.

Acute Toxicity - Algae

Chlorothalonil

LC50 (Selenastrum capricornutum): 0.21 mg/l/120h.

Acute Toxicity - Other Organisms

Chlorothalonil

Birds: Not toxic to birds. LD50 for (mallard ducks is >4,640 mg/kg

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.

Product Disposal

On site disposal of the concentrated product is not acceptable.

Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).

Container Disposal and Methods

Do not use this container for any other purpose.

drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMuster symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program.

Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage.

If no landfill is available, bury the containers below 500mm 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.

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

If not recycling, puncture or shred and bury containers in local authority landfill.

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

Section 14 - Transport Information

Transport Information

This material is classified as Dangerous Goods Division 6.1 Toxic Substance

Dangerous Goods are incompatible in a placard load with any of the following:

- Class 1: Explosives
 - Class 3: Flammable Liquids, if the Class 3 dangerous goods are nitromethane
 - Class 5, Oxidizing Substances and Organic Peroxides. If the Class 6 substance is a fire risk substance
 - Class 8: Corrosive substances, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids
- And are incompatible with food and food packaging in any quantity.

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: 6.1

UN No: 2902

Proper Shipping Name: PESTICIDE, LIQUID, TOXIC, N.O.S. (CONTAINS: CHLOROTHALONIL)(MARINE POLLUTANT)

Packing Group: II

EMS : F-A, S-A

Special Provisions: 61, 274

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: 6.1

UN No: 2902

Proper Shipping Name: PESTICIDE, LIQUID, TOXIC, N.O.S. (Contains: Chlorothalonil)

Packing Group: II

Packaging Instructions (passenger & cargo): 654

Packaging Instructions (cargo only): 662

Hazard Labels: Toxic

Special Provisions: A3, A4

UN Number

2902

Proper Shipping Name

PESTICIDE, LIQUID, TOXIC, N.O.S.(Contains Chlorothalonil)

Transport Hazard Class

6.1

Packing Group

II

Hazchem Code

2X

IERG Number

34

Special Precautions for User

Not available

IMDG Marine pollutant

Yes

Transport in Bulk

Not available

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, item 34: Acute toxicity category 2.

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 listed

Agricultural and Veterinary Chemicals Act 1994

APVMA product number: 61016.

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: January 2023

Supersedes: August 2021

Version Number

2.0

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.

Contact Person/Point

Normal hours: SDS coordinator : Phone +61 3 9282 1000

After hours: Shift supervisor : Phone 1800 033 498

END OF SDS

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