

Infosafe No™ 3NUYD	Issue Date : June 2017	ISSUED by NUFARM
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 Product Name **BARRACK Betterstick Fungicide**

Classified as hazardous

## 1. Identification

<b>GHS Product Identifier</b>	BARRACK Betterstick Fungicide
<b>Product Code</b>	5786
<b>Product Type</b>	Group M5 Fungicide
<b>Company Name</b>	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
<b>Address</b>	103-105 Pipe Road Laverton North Victoria 3026 Australia
<b>Telephone/Fax Number</b>	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
<b>Emergency phone number</b>	1800 033 498 (24hr Australia)
<b>Recommended use of the chemical and restrictions on use</b>	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.
<b>Other Information</b>	This Safety Data Sheet describes the properties of the concentrated product. The physical properties and the assessments may not apply to the properties of the product once it has been diluted for application.

## 2. Hazard Identification

<b>GHS classification of the substance/mixture</b>	CA2 Carcinogenicity: Category 2 SE-3RES STOT Single Exposure Category 3 (respiratory tract irritation) IT2 Acute Toxicity - Inhalation: Category 2 ED1 Eye Damage/Irritation: Category 1 SS-1 Sensitization - Skin: Category 1
<b>Signal Word (s)</b>	DANGER
<b>Hazard Statement (s)</b>	H351 Suspected of causing cancer. H335 May cause respiratory irritation. H330 Fatal if inhaled. H318 Causes serious eye damage. H317 May cause an allergic skin reaction.
<b>General Precautionary Statement (s)</b>	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use.
<b>Pictogram (s)</b>	Corrosion, Health hazard, Skull and crossbones, Exclamation mark, The below pictograms are GHS Hazard symbols for workplace use only. See SECTION 14 for Dangerous Goods information.



<b>Precautionary statement – Prevention</b>	P271 Use only outdoors or in a well-ventilated area. P260 Do not breathe mists or spray. P280 Wear protective gloves, clothing, eye and face protection. P284 Wear respiratory protection. P272 Contaminated work clothing should not be allowed out of the workplace.
<b>Precautionary statement – Response</b>	P308+P313 IF exposed or concerned: Get medical advice/attention. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/physician. 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 or doctor/physician. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
<b>Other Information</b>	Poisons Schedule S6

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### 3. Composition/information on ingredients

<b>Chemical Characterization</b>	Liquid		
<b>Ingredients</b>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Chlorothalonil	1897-45-6	720 g/L
	Other ingredients (considered non-hazardous)		Balance

### 4. First-aid measures

<b>Inhalation</b>	Remove affected person to fresh air until recovered. If symptoms persist, seek medical attention immediately.
<b>Ingestion</b>	Rinse mouth and then drink plenty of water. Do not give anything by mouth to a semi-conscious or unconscious person. If vomiting occurs, give more water to drink to assist dilution.
<b>Skin</b>	Remove contaminated clothing and launder before re-use. Wash affected areas thoroughly with soap and water. If irritation persists, seek medical advice.
<b>Eye contact</b>	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice.
<b>First Aid Facilities</b>	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
<b>Advice to Doctor</b>	Treat symptomatically. Persons having allergic reactions respond to treatment with antihistamines or steroid creams and/or systemic steroids.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog, foam, carbon dioxide or dry chemical.
<b>Hazards from Combustion Products</b>	May emit toxic fumes of hydrogen chloride or phosgene if involved in fires or exposed to extreme heat.
<b>Special Protective Equipment for fire fighters</b>	Breathable air apparatus must be worn when fighting a fire in which this product is involved.
<b>Specific hazards arising from the chemical</b>	Considered low risk due to water content, however upon evaporation of water the product is combustible.
<b>Other Information</b>	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

### 6. Accidental release measures

<b>Spills &amp; Disposal</b>	Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal. Dispose of at a landfill in accordance with local regulations.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8. If product has dried out and the possibility of dust generation exists, wear a suitable respirator.
<b>Clean-up Methods - Large Spillages</b>	Place damaged containers in recovery bins (if available) and return to manufacturer. If large liquid spills occur, attempt to recover as much spilt material from sumps and banded areas, as possible, before absorbing remaining material into vermiculite or other absorbent.
<b>Environmental Precautions</b>	Prevent from entering drains, waterways or sewers.

### 7. Handling and storage

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<b>Precautions for Safe Handling</b>	Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in the closed, original container in a dry, well ventilated area out of direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs. Store in a locked enclosure.
<b>Other Information</b>	Always read the label and any attached leaflet before use.

## 8. Exposure controls/personal protection

<b>Occupational exposure limit values</b>	Safe Work Australia has set the following exposure standard for propylene glycol : TLV (TWA) 474 mg/m <sup>3</sup> , STEL -.
<b>Appropriate engineering controls</b>	Use in a well ventilated area only.
<b>Respiratory Protection</b>	Do not inhale spray mist.
<b>Personal Protective Equipment</b>	When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles and appropriate respiratory protection.
<b>Hygiene Measures</b>	After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.
<b>Requirements Concerning Special Training</b>	Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

## 9. Physical and chemical properties

<b>Form</b>	Liquid
<b>Appearance</b>	White opaque liquid
<b>Solubility in Water</b>	Disperses in water.
<b>Specific Gravity</b>	1.310
<b>Vapour Pressure</b>	0.076 mPa @ 25°C for chlorothalonil
<b>Volatile Component</b>	~40%
<b>Partition Coefficient: n-octanol/water</b>	Kow Log P is 2.92 (25°C, chlorothalonil)
<b>Flammability</b>	Non combustible material.

## 10. Stability and reactivity

<b>Chemical Stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Keep away from strong oxidising agents.
<b>Hazardous Polymerization</b>	Hazardous polymerisation is not possible.

## 11. Toxicological Information

<b>Acute Toxicity - Oral</b>	LD50 (rat) >5,000 mg/kg for chlorothalonil
<b>Acute Toxicity - Dermal</b>	LD50 (rat) >5,000 mg/kg for chlorothalonil
<b>Acute Toxicity - Inhalation</b>	LC50 (4hr) (rat) 0.1 mg/l for chlorothalonil
<b>Ingestion</b>	May cause irritation to mouth, throat and stomach. Possible symptoms of exposure include: nausea, vomiting and central nervous system depression.
<b>Inhalation</b>	Not a likely route of exposure when handling the concentrate. However, care should be taken to avoid the inhalation of excessive amounts of spray mist during field spraying, respiratory irritation may occur.

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<b>Skin</b>	May irritate the skin. Prolonged or repeated exposure may cause skin sensitisation.
<b>Eye</b>	The concentrate will cause severe irritation and possible damage unless washed off immediately.
<b>Skin Sensitisation</b>	Chlorothalonil is a skin sensitiser.
<b>Carcinogenicity</b>	Chlorothalonil is classified as a suspected human carcinogen based on limited evidence from animal studies.
<b>Reproductive Toxicity</b>	Data indicates no reproductive effects.
<b>Chronic Effects</b>	Liver and kidney damage has been noted in laboratory animals that have been fed excessive doses of chlorothalonil. Reports of human experience in use of chlorothalonil products demonstrate that some individuals become sensitive to contact with this compound.
<b>Serious eye damage/irritation</b>	The product is an eye irritant.
<b>Respiratory Irritation</b>	The product is a respiratory irritant.
<b>Skin corrosion/irritation</b>	Mild skin irritant.
<b>Other Information</b>	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: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', March 2016).

## 12. Ecological information

<b>Persistence and degradability</b>	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.
<b>Known Harmful Effects on the Environment</b>	Highly toxic to fish and aquatic organisms.
<b>Environmental Protection</b>	Marine pollutant.
<b>Acute Toxicity - Fish</b>	The following is data for the active ingredient, chlorothalonil. LC50 (96hr) for rainbow trout is 0.043 mg/l. LC50 (96hr) for bluegill sunfish is 0.059 mg/l.
<b>Acute Toxicity - Daphnia</b>	LC50 (48hr) for daphnia magna is 0.070 mg/l.
<b>Acute Toxicity - Algae</b>	EC50 (120hr) for Selenastrum capricornutum 0.21 mg/l.
<b>Acute Toxicity - Other Organisms</b>	The following data is for the active ingredient, chlorothalonil. Not toxic to bees. Birds: Not toxic to birds. LD50 for mallard ducks is >4,640 mg/kg

## 13. Disposal considerations

<b>Product Disposal</b>	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®).
<b>Container Disposal</b>	Do not use this container for any other purpose. Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. 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.

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

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.

## 14. Transport information

**Transport Information Storage and Transport** It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs. Considered non dangerous for road and rail transport (in packaging, including IBCs not greater than 3000 Lt each) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.

For bulk shipments as Class 9, use UN 3082, HazChem code 2Z.

**UN Number (Sea Transport)** 3082

**IMO Class/Packing Group** Class 9; Packing Group III

**IMO Marine Pollutant** Marine Pollutant

**IMO Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Chlorothalonil)

## 15. Regulatory information

**Regulatory Information** WHS Schedule 11, item 34: Acute toxicity category 2.

**Poisons Schedule** S6

**Packaging & Labelling** POISON  
KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

**Other Information** This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 61016.

## 16. Other Information

**Date of preparation or last revision of SDS** 28/06/2017

**Contact Person/Point** Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000  
After Hours: Shift Supervisor Phone: 1800 033 498

**Revisions Highlighted** The SDS was reviewed. Minor changes were made to the information and product has been rebranded.  
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