

Infosafe No™ 3NU5V	Issue Date : April 2011	ISSUED by NUFARM
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Product Name **Throttle Fungicide**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	Throttle Fungicide
Product Code	5152
Product Type	Group 3 Fungicide
Company Name	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address	103-105 Pipe Road Laverton North Victoria 3026 Australia
Emergency Tel.	1800 033 498 (24hr Australia)
Telephone/Fax Number	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
Recommended Use	For the control of certain fungal diseases of bananas, peanuts, pineapples, stone fruit, sugarcane, turf, wheat and other crops as specified in the Directions for Use table on the label.
Other Information	This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. HAZARDS IDENTIFICATION

Hazard Classification	Classified as hazardous HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. Hazard classification according to the criteria of NOHSC. Dangerous goods classification according to the Australia Dangerous Goods Code.
Risk Phrase(s)	Classified as hazardous R22 Harmful if swallowed. R43 May cause sensitization by skin contact. R65 Harmful: may cause lung damage if swallowed. R66 Repeated exposure may cause skin dryness and cracking. R67 Vapours may cause drowsiness and dizziness
Safety Phrase(s)	S13 Keep away from food, drink and animal feeding stuffs. S2 Keep out of reach of children. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S46 If swallowed, seek medical advice immediately and show this container or label.
Other Information	Poisons Schedule S6

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Propiconazole	60207-90-1	250 g/L
	Hydrocarbon Liquid	64742-94-5	654 g/L
	N-Methyl-2-pyrrolidone	872-50-4	0-10 %
	Other ingredients (considered non-hazardous)		0-10 %

4. FIRST AID MEASURES

Inhalation	Remove affected person to fresh air until recovered. Obtain medical assistance.
Ingestion	If swallowed DO NOT induce vomiting. Give a glass of water. Do not give anything by mouth to a semi-conscious or unconscious person. Obtain medical advice.

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Skin	Wash affected areas thoroughly with soap and water. Remove contaminated clothing and laundry before re-use.
Eye	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice if irritation develops or persists.
Advice to Doctor	Treat symptomatically. If vomiting occurs, solvent present may cause pulmonary pneumonitis. Pulmonary oedema is possible and may be delayed.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Water fog, foam, carbon dioxide or dry chemical.
Hazards from Combustion Products	If involved in a fire, it will emit oxides of carbon, oxides of nitrogen and possibly toxic fumes of hydrogen chloride or phosgene.
Special Protective Equipment for fire fighters	Breathable air apparatus may have to be worn in confined spaces.
Other Information	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal	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.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.
Environmental Precautions	Use earthen bunds or absorbent bunding to prevent spreading of spillage.

7. HANDLING AND STORAGE

Precautions for Safe Handling	For personal protective equipment (PPE) and hygiene advice, refer Section 8.
Conditions for Safe Storage	Store in the closed, original container in a dry, well ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.
Other Information	Always read the label and any attached leaflet before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	The manufacturer of the solvent has recommended an occupational exposure limit of 100 mg/m ³ ; 17ppm TWA, as total hydrocarbon. Safe Work Australia has set the following exposure standard for N-methyl pyrrolidone : TLV (TWA) 103 mg/m ³ , STEL 309. SK 'SK' notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.
Engineering Controls	Handle in well ventilated areas, generally natural ventilation is adequate.
Personal Protective Equipment	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, nitrile or neoprene gloves, goggles and disposable fume mask. Re-entry period: Do not enter treated area until spray has dried.
Hygiene Measures	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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Appearance	Clear yellow liquid

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Odour	Solvent odour
Boiling Point	180°C
Solubility in Water	Disperses in water. Solubility is low, 100 mg/l.
Specific Gravity	0.99
pH Value	6.5 - 7.5
Vapour Pressure	2.7 x 10 ⁻² mPa @ 20°C (propiconazole)
Octanol/Water Partition Coefficient	Kow Log P is 3.72 (propiconazole)
Flash Point	66°C
Flammability	Combustible liquid C1.

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Hazardous Reactions	Keep away from strong oxidising agents.
Hazardous Polymerization	Hazardous polymerisation is not possible.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	No harmful effects are expected if the precautions on the label and this MSDS are followed.
Inhalation	The components of the product are of low volatility and no adverse effects are expected from 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. Breathing vapour can result in headaches, dizziness and possible nausea.
Ingestion	Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury. If aspirated into the lung, e.g. from vomiting, the presence of solvent may result in chemical pneumonitis or other lung damage.
Skin	Prolonged contact with the concentrate may cause irritation. Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.
Eye	The concentrate may cause irritation of the eyes.
Reproductive Toxicity	Data indicates no teratogenic effects. Evidence from animal studies suggests the potential for developmental toxicity on repeated or prolonged exposure to N-Methyl pyrrolidone (NMP). This product contains <5% NMP.
Mutagenicity	Data indicates no mutagenic effects.
Carcinogenicity	An incidence of liver tumours was noted in long-term studies with propiconazole in rodents. As the mechanism involved is not relevant to humans, and the dose levels were very high, the potential carcinogenic risk to humans is considered negligible.
Acute Toxicity - Oral	LD50 (rat) 1517 mg/kg for propiconazole
Acute Toxicity - Dermal	LD50 (rat) >4000 mg/kg for propiconazole
Acute Toxicity - Inhalation	LC50 (rat) (4hr) 9.46 mg/l for propiconazole
Eye Irritation	Mild eye irritant.
Skin Irritation	Mild skin irritant.
Other Information	The Australian Acceptable Daily Intake (ADI) for propiconazole for a human is 0.04 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 4 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', December 2008).

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12. ECOLOGICAL INFORMATION

Persistence / Degradability	Average field half life of propiconazole is 40 - 70 days.
Known Harmful Effects on the Environment	Propiconazole will slowly degrade in soil and aquatic systems.
Other Precautions	Harmful to fish and other aquatic organisms.
Environ. Protection	Do not spray in high winds. Do not contaminate dams, waterways or sewers with this product. Do not graze any treated turf or feed turf clippings from any treated area to poultry or livestock. Spray drift should be avoided, read the label for more information.
Acute Toxicity - Fish	The following is data for the active ingredient, propiconazole. LC50 (96hr) for rainbow trout is 4.3-5.3 mg/l. EC50 (48hr) for daphnia is 10.2 mg/l.
Acute Toxicity - Daphnia	
Acute Toxicity - Algae	EC50 (72hr) for Selenastrum capricornutum 17.0 mg/l for a similar formulation.
Acute Toxicity - Other Organisms	Birds: Not toxic to birds. LD50 for japanese quail is 2223 mg/kg LD50 for bobwhite quail is 2825 mg/kg LD50 for mallard duck is >2510 mg/kg Bees: Not toxic to bees. LD50 >100 µg/bee.

13. DISPOSAL CONSIDERATIONS

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	Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. 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. 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. Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage.

14. TRANSPORT INFORMATION

Transport Information	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.
Storage and Transport	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.
UN Number (Sea Transport)	For bulk shipments as Class 9, use UN 3082, HazChem code 2Z. 3082
IMO Class/Packing Group	Class 9
IMO Marine Pollutant	Marine Pollutant

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IMO Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains propiconazole)
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15. REGULATORY INFORMATION

Poisons Schedule	S6
Packaging & Labelling	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Hazard Category	Harmful, Irritant
AICS (Australia)	All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Date of preparation or last revision of MSDS	Revised 15/04/2011
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Contact Person/Point	Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498
Revisions Highlighted	The MSDS was reviewed. Minor changes were made to the information. See reproductive toxicology in section 11. Product is now a Group 3 Fungicide (formerly Group C). ...End Of MSDS...

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