

Material Safety Data Sheet

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Infosafe No. 3NU21 Issue Date : December 2004 ISSUED by CRPCARE

Product Name : **TYRANT FUNGICIDE**

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name TYRANT FUNGICIDE
Product Code 5126
Product Use For the control of certain fungal diseases of bananas, peanuts, pineapples, stone fruit, sugarcane, wheat and other crops as specified in the Directions for Use table.
Company Name Crop Care Australasia Pty Ltd (ABN 53 061 362 347)
Address 77 Tingira Street Pinkenba
Queensland 4008 Australia
Emergency Tel. 1800 033 498
Telephone/Telex Number Tel: (07) 3867 9100 Fax: (07) 3867 9110
Product Type Group C Fungicide
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. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid

Ingredients	Name	CAS	Proportion
	Hydrocarbon Liquid	64742-94-5	654 g/L
	Propiconazole	60207-90-1	250 g/L
	Surfactant	9016-45-9	<10%

3. HAZARDS IDENTIFICATION

Harmful if swallowed.
Irritating to eyes.
Harmful: may cause lung damage if swallowed.

Other Information Poisons Schedule 6

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.
Skin Wash affected areas thoroughly with soap and water.
Remove contaminated clothing and launder 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

Extinguishing Media Water fog, foam, carbon dioxide or dry chemical.

Specific Hazards

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Hazardous If involved in a fire, it will emit oxides of carbon, oxides of nitrogen and
Combustion Products possibly toxic fumes of hydrogen chloride or phosgene.

Protective Equipment Breathable air apparatus may have to be worn in confined spaces.

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

Handling For personal protective equipment (PPE) and hygiene advice, refer Section 8.

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.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits No exposure standards have been set for this product or the active ingredients.
The manufacturer of the solvent has recommended an occupational exposure limit of 100 mg/m³; 17ppm TWA, as total hydrocarbon.

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.

Eng. Controls Handle in well ventilated areas, generally natural ventilation is adequate.

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

Appearance Clear yellow liquid

Odour Solvent odour

Solubility in Water Disperses in water. Solubility is low, 100 mg/l.

Boiling Point 180°C

Specific Gravity 0.99

(H₂O=1)

Vapour Pressure 2.7 x 10⁻² mPa @ 20°C (propiconazole)

Partition co-efficient, Kow Log P is 3.72 (propiconazole)

n-octanol/water

Flash Point >60.5°C

Flammability Combustible liquid C1.

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions.

Hazardous Polymerization Hazardous polymerisation is not possible.

Hazardous Reaction Keep away from strong oxidising agents.

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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 reproductive effects. Data indicates no teratogenic effects.
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) >2000 mg/kg for the product 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, 'ADI List', TGA, June 2004).

12. ECOLOGICAL INFORMATION

Known Harmful Effects on the Environment	Harmful to fish and other aquatic organisms.
Other Precautions	Do not spray in high winds. Do not contaminate dams, waterways or sewers with this product.
Environ. Protection	Spray drift should be avoided, read the label for more information.
Persistence / Degradability	Average field half life of propiconazole is 40 - 70 days. Propiconazole will slowly degrade in soil and aquatic systems.
Acute Toxicity - Fish	The following is data for the active ingredient, propiconazole. LC50 (96 hr) for rainbow trout is 5.3 mg/l. LC50 (96 hr) for carp is 6.8 mg/l.
Acute Toxicity - Daphnia	LC50 (96 hr) for daphnia is 4.8 mg/l.

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Acute Toxicity - Other Birds: Not toxic to birds. LD50 for japanese quail is 2223 mg/kg

Organisms 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 (ChemCollect).

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.
Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage.
Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport.

U.N. Number None Allocated

Proper Shipping Name None Allocated

DG Class None Allocated

Hazchem Code None Allocated

Packing Group None Allocated

Storage and Transport Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. REGULATORY INFORMATION

Risk Phrase R22 Harmful if swallowed.
R36 Irritating to eyes.
R65 Harmful: may cause lung damage if swallowed.

Safety Phrase S13 Keep away from food, drink and animal feeding stuffs.
S2 Keep out of reach of children.
S25 Avoid contact with eyes.

Poisons Schedule S6

Hazard Category Harmful, Irritant

Packaging & Labelling POISON

KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

AICS (Australia) All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Contact Person/Point Normal Hours: Mr Volker Maier Phone: (03) 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498

Revisions Highlighted The MSDS was reviewed. Minor changes were made to the information.

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