



Infosafe No™ 3NULO	Issue Date : July 2010	ISSUED by NUFARM
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Product Name **Opera® Fungicide**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name Opera® Fungicide

Product Code 5189

Product Type Group 3 and 11 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)

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Recommended Use For the control of a broad range of fungal diseases in wheat, barley and oat/oaten hay 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
R20/22 Harmful by inhalation and if swallowed.
R38 Irritating to skin.
R40 Limited evidence of a carcinogenic effect.
R43 May cause sensitization by skin contact.
R62 Possible risk of impaired fertility.
R63 Possible risk of harm to the unborn child.

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 S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Pyraclostrobin	175013-18-0	85 g/L
	Epoxiconazole	106325-08-0	62.5 g/L
	Water		30-60 %
	Solvent naphtha	64742-94-5	10-30 %
	Liquid Hydrocarbon	64742-94-5	10-30 %
	fatty alcohol ethoxylate	-	0-10 %
	Other ingredients (non-hazardous)		0-5 %

4. FIRST AID MEASURES

Inhalation Remove affected person to fresh air until recovered.
If symptoms develop or persist, seek medical advice.

Ingestion Rinse mouth and then drink plenty of water.

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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.
First Aid Facilities	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
Advice to Doctor	Treat symptomatically. If vomiting occurs, solvent and surfactants present may cause pulmonary pneumonitis.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.
Hazards from Combustion Products	If involved in a fire, the dehydrated components may emit oxides of carbon, oxides of nitrogen, hydrogen chloride and hydrogen fluoride.
Special Protective Equipment for fire fighters	Breathable air apparatus should be worn when fighting a fire in which this product is involved.
Emergency Action in case of Fire	If exposed to fire, keep container cool by spraying with water.
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	Prevent from entering drains, waterways or sewers. Use earthen bunds or absorbent bunding to prevent spreading of spillage.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Do NOT contaminate dams, rivers or streams, or any other water bodies with chemical or used containers.
Conditions for Safe Storage	Store in the closed, original container in a dry, cool well ventilated area out of direct sunlight.
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 ; 15ppm TWA, as total hydrocarbon.
Engineering Controls	Handle in well ventilated areas, generally natural ventilation is adequate.
Personal Protective Equipment	When opening the container, preparing the spray and using the prepared spray wear protective waterproof clothing, elbow-length PVC gloves, water resistant footwear and full-facepiece respirator (or goggles and half facepiece respirator). 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.
Requirements Concerning Special Training	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

Form	Liquid
Appearance	Off white liquid.

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Odour	Slight aromatic odour.
Solubility in Water	Disperses in water.
Specific Gravity	1.04
Vapour Pressure	<0.01 mPa @ 20°C for epoxiconazole and pyraclostrobin
Volatile Component	50%
Octanol/Water Partition Coefficient	Kow Log P is 3.99 (pH7) for pyraclostrobin; 3.44 (pH7) for epoxiconazole.
Flammability	Not flammable
Auto-Ignition Temperature	475°C

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	Breathing in high concentrations of vapours or aerosols of this material may cause headache, nausea, dizziness and weakness.
Ingestion	Low toxicity. However, swallowing large amounts of concentrate may cause nausea and vomiting.
Skin	Prolonged contact with the concentrate may cause irritation.
Eye	Will irritate the eyes.
Reproductive Toxicity	Regarded as causing developmental toxicity in humans based on strong presumption from studies on rats and rabbits. Possible risk of impaired fertility based on small but significant effects on reproduction in a 2nd generation study of rats.
Carcinogenicity	Worksafe Australia has classified epoxiconazole in the occupational environment as a Carcinogen Category 3 substance. This means that the substance is not classifiable as to carcinogenicity to humans.
Acute Toxicity - Oral	LD50 (rat) 200 - 2000 mg/kg for the formulation
Acute Toxicity - Dermal	LD50 (rat) >4000 mg/kg for the formulation
Acute Toxicity - Inhalation	LC50 (rat) (4hr) 3.22 mg/l for the formulation
Eye Irritation	The product is an eye irritant.
Skin Irritation	Mild skin irritant.
Skin Sensitisation	Product is a skin sensitiser.
Other Information	The Australian Acceptable Daily Intake (ADI) for pyraclostrobin for a human is 0.03 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 3 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). ADI for epoxiconazole is 0.01 mg/kg/day, NOEL 1 mg/kg/day.

12. ECOLOGICAL INFORMATION

Known Harmful Effects on the Environment	The product is a marine pollutant for sea transport.
Other Precautions	Do not contaminate dams, waterways or sewers with this product or the

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Environ. Protection containers which have held this product.
Spray drift can cause damage, read the label for more information.

Acute Toxicity - Fish The following data is for the product :
Toxic to fish. LC50 (96hr) for rainbow trout is 0.074 mg/l.
EC50 (48hr) is 0.14 mg/l.

Acute Toxicity - Daphnia
Acute Toxicity - Algae EC50 (72hr) for Pseudokirchneriella subcapitata 5.05 mg/l.

Acute Toxicity - Other Organisms The following data is for the product:
Birds: Not toxic to birds. LD50 for quail is >2000 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 on-site container disposal is necessary, triple rinse empty container with water, add rinsate to the spray tank. Puncture top, sides and bottom, crush and bury in an approved landfill or bury with at least 500 mm of soil cover away from pasture and crop areas, water supplies and houses. Empty containers and product should not be burnt.

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

IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

15. REGULATORY INFORMATION

Poisons Schedule S5

Packaging & Labelling CAUTION
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



Material Safety Data Sheet

CS: 1.4.93

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**Date of preparation
or last revision of
MSDS**

02/07/2010

Contact

Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000

Person/Point

After Hours: Shift Supervisor Phone: 1800 033 498

Revisions

First Issue

Highlighted

Other Information

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...End Of MSDS...

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