



Infosafe No™ 3NU4W

Issue Date :December 2008

ISSUED by NUFARM

CS: 1.4.21

Product Name **OPUS® 125 Fungicide**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	OPUS® 125 Fungicide
Product Code	5180
Product Type	Group C 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 including stripe rust of wheat and specified fungal diseases of barley, 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 R40(3) Possible risk of irreversible effects. R61(1) May cause harm to the unborn child R62 Possible risk of impaired fertility.
Safety Phrase(s)	S13 Keep away from food, drink and animal feeding stuffs. S2 Keep out of reach of children. S36/37 Wear suitable protective clothing and gloves. 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	<table><thead><tr><th><u>Name</u></th><th><u>CAS</u></th><th><u>Proportion</u></th></tr></thead><tbody><tr><td>Epoxiconazole</td><td>106325-08-0</td><td>125 g/L</td></tr><tr><td>Other ingredients (non-hazardous)</td><td></td><td>30-60 %</td></tr><tr><td>Alkoxylated fatty alcohol</td><td>68002-96-0</td><td>10-30 %</td></tr><tr><td>Liquid Hydrocarbon</td><td>64742-94-5</td><td>10-30 %</td></tr><tr><td>Water</td><td></td><td>Balance</td></tr></tbody></table>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	Epoxiconazole	106325-08-0	125 g/L	Other ingredients (non-hazardous)		30-60 %	Alkoxylated fatty alcohol	68002-96-0	10-30 %	Liquid Hydrocarbon	64742-94-5	10-30 %	Water		Balance
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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.
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.



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First Aid Facilities Seek medical advice.
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 flouride.

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/m³; 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 NSW regulations require that people who use pesticides in their job or business must have training in the application of the materials.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Liquid

Appearance Clear beige liquid

Odour Slight aromatic odour

Solubility in Water Disperses in water.

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Specific Gravity	1.02 - 1.08
Vapour Pressure	<0.01 mPa @ 20°C for epoxiconazole
Volatile Component	50%
Octanol/Water Partition Coefficient	Kow Log P is 3.44 (pH7) for epoxiconazole
Flammability	Combustible liquid C2.
Auto-Ignition Temperature	420°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) >2200 mg/kg for the formulated product
Acute Toxicity - Dermal	LD50 (rat) >2000 mg/kg for the formulated product
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >3.26 mg/l for the formulated product
Eye Irritation	Mild eye irritant.
Skin Irritation	Mild skin irritant.
Skin Sensitisation	Product is not a skin sensitiser.
Other Information	The Australian Acceptable Daily Intake (ADI) for epoxiconazole 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 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', September 2007).

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 containers which have held this product.
Environ. Protection	Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish	The following is data for a similar product. Toxic to fish. LC50 (96hr) for rainbow trout is 0.5 mg/l.



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Acute Toxicity - Daphnia LC50 (48hr) for daphnia is 1.8 mg/l for the formulated product.

Acute Toxicity - Other Organisms The following data is for the active ingredient, epoxiconazole.
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 Storage and Transport It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport. Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Exempt from classification as a Dangerous Good in packs less than 3,000 kg or L as per ADG7, SP no. AU01. For bulk shipments as Class 9, use UN 3082, HazChem code •3Z.

UN Number (Sea Transport) 3082

IMO Class/Packing Group Class 9; Packing Group III

IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains epoxiconazole and fatty alcohol alkoxyate)

15. REGULATORY INFORMATION

Poisons Schedule S5

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

Hazard Category Toxic

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 11/12/2008

Contact Person/Point Normal Hours: Mr Volker Maier 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.

Other Information ® Registered trademark of BASF
...End Of MSDS...



Material Safety Data Sheet

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