



# Material Safety Data Sheet

Page 1 of 4

Infosafe No. 3NU4W Issue Date : July 2005 ISSUED by NUFARM

Product Name : **OPUS® 125 Fungicide**

Classified as hazardous according to criteria of NOHSC

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

**Product Name** OPUS® 125 Fungicide  
**Product Code** 5180  
**Product Use** For the control of leaf rust , stripe rust, and septoria nodorum blotch of wheat and leaf rust of barley, as specified in the Directions for Use table on the label.  
**Company Name** NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)  
**Address** 103-105 Pipe Road Laverton North  
Victoria 3026 Australia  
**Emergency Tel.** 24hr 1800 033 498  
**Telephone Number/Fax** Tel: (03) 9282-1000 Fax: (03) 9282-1001  
**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

<b>Ingredients</b>	<b>Name</b>	<b>CAS</b>	<b>Proportion</b>
	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

## 3. HAZARDS IDENTIFICATION

Possible risk of irreversible effects.  
May cause harm to the unborn child  
Possible risk of impaired fertility.

**Other Information** Poisons Schedule S5

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

## 5. FIRE FIGHTING MEASURES

**Extinguishing Media** If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.  
**Hazardous Combustion Products** If involved in a fire, the dehydrated components may emit oxides of carbon, oxides of nitrogen, hydrogen chloride and hydrogen flouride.

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**Emergency Action in case of Fire** If exposed to fire, keep container cool by spraying with water.

**Protective Equipment** Breathable air apparatus should be worn when fighting a fire in which this product is involved.

**Other Information** Hazchem code 2X .

## 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

**Handling** Do NOT contaminate dams, rivers or streams, or any other water bodies with chemical or used containers.

**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<sup>3</sup>; 15ppm TWA, as total hydrocarbon.

**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.

**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.

**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. By 1st September, 2005 all users must have received such training.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** Clear beige liquid

**Odour** Slight aromatic odour

**Solubility in Water** Disperses in water.

**Specific Gravity (H<sub>2</sub>O=1)** 1.02 - 1.08

**Vapour Pressure** <0.01 mPa @ 20°C for epoxiconazole

**Volatile Component** 50%

**Partition co-efficient, n-octanol/water** Kow Log P is 3.44 (pH7) for epoxiconazole

**Flammability** Non combustible material.

**Ignition Temperature** 420°C

## 10. STABILITY AND REACTIVITY

**Stability** Stable under normal conditions.

**Hazardous Polymerization** Hazardous polymerisation is not possible.

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**Hazardous Reaction** Keep away from strong oxidising agents.

## 11. TOXICOLOGICAL INFORMATION

<b>Toxicology Information</b>	No harmful effects are expected if the precautions on the label and this MSDS are followed.
<b>Inhalation</b>	Breathing in high concentrations of vapours or aerosols of this material may cause headache, nausea, dizziness and weakness.
<b>Ingestion</b>	Low toxicity. However, swallowing large amounts of concentrate may cause nausea and vomiting.
<b>Skin</b>	Prolonged contact with the concentrate may cause irritation.
<b>Eye</b>	Will irritate the eyes.
<b>Reproductive Toxicity</b>	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.
<b>Carcinogenicity</b>	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.
<b>Acute Toxicity - Oral</b>	LD50 (rat) >2200 mg/kg for the formulated product
<b>Acute Toxicity - Dermal</b>	LD50 (rat) >2000 mg/kg for the formulated product
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) (4hr) >3.26 mg/l for the formulated product
<b>Eye Irritation</b>	Mild eye irritant.
<b>Skin Irritation</b>	Mild skin irritant.
<b>Skin Sensitisation</b>	Product is not a skin sensitiser.
<b>Other Information</b>	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, 'ADI List', TGA, June 2004).

## 12. ECOLOGICAL INFORMATION

<b>Known Harmful Effects on the Environment</b>	The product is a marine pollutant for sea transport.
<b>Other Precautions</b>	Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
<b>Environ. Protection</b>	Spray drift can cause damage, read the label for more information.
<b>Acute Toxicity - Fish</b>	The following is data for a similar product. Toxic to fish. LC50 (96hr) for rainbow trout is 0.5 mg/l.
<b>Acute Toxicity - Daphnia</b>	LC50 (48 hr) for daphnia is 1.8 mg/l for the formulated product.
<b>Acute Toxicity - Other Organisms</b>	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

<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 (ChemCollect).
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Infosafe No.	3NU4W	Issue Date : July 2005	ISSUED by NUFARM
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**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

**U.N. Number** None Allocated  
**DG Class** None Allocated  
**Hazchem Code** 2X  
**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.  
**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 fatty alcohol ethoxylate)

## 15. REGULATORY INFORMATION

**Risk Phrase** R40(3) Possible risk of irreversible effects.  
 R61(1) May cause harm to the unborn child  
 R62 Possible risk of impaired fertility.  
**Safety Phrase** 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.  
**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

**Contact Person/Point** Normal Hours: Mr Volker Maier Phone: (03) 9282 1000  
 After Hours: Shift Supervisor Phone: 1800 033 498  
**Revisions Highlighted** First Issue  
**Other Information** © Registered trademark of BASF  
 ...End Of MSDS...