



Infosafe No™ NU01H                      Issue Date : May 2010                      ISSUED by NUFARM

Product Name **DIURON 900DF Herbicide**

Classified as hazardous

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name** DIURON 900DF Herbicide  
**Product Code** 0328  
**Product Type** Group C Herbicide  
**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 selective weed control in situations as per 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 Limited evidence of a carcinogenic effect.  
R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.  
**Safety Phrase(s)** S13 Keep away from food, drink and animal feeding stuffs.  
S2 Keep out of reach of children.  
S22 Do not breathe dust.  
S37 Wear suitable gloves.  
S46 If swallowed, seek medical advice immediately and show this container or label.  
**Other Information** Poisons Schedule : Not Scheduled

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Characterization** Solid

<b>Ingredients</b>	<b>Name</b>	<b>CAS</b>	<b>Proportion</b>
	Diuron	330-54-1	900 g/kg
	Proprietary surfactant mixture		Balance

## 4. FIRST AID MEASURES

**Inhalation** Remove affected person to fresh air until recovered.  
If symptoms develop or persist, seek medical advice.  
**Ingestion** If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.  
**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.  
**Advice to Doctor** Treat symptomatically.

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## 5. FIRE FIGHTING MEASURES

<b>Suitable</b>	Water fog, foam, carbon dioxide or dry chemical.
<b>Extinguishing Media</b>	Avoid strong water jets - airborne dusts may be an explosion hazard.
<b>Hazards from Combustion</b>	If involved in a fire, it will emit oxides of carbon and nitrogen, cyanides, phosgene and possibly hydrogen chloride.
<b>Products</b>	Combustible solid.
<b>Special Protective Equipment for fire fighters</b>	Breathable air apparatus should be worn when fighting a fire in which diuron is involved.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spills &amp; Disposal</b>	Recover the product by sweeping up or vacuuming without raising dust. Collect in sealed open top containers for disposal.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8.
<b>Environmental Precautions</b>	This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

## 7. HANDLING AND STORAGE

<b>Precautions for Safe Handling</b>	Avoid generating dusts while handling the product and mixing. If dusts are generated, it is advisable to wear a dust mask, refer Section 8.
<b>Conditions for Safe Storage</b>	Store in the closed, original container in a dry, cool well ventilated area out of direct sunlight.
<b>Other Information</b>	Always read the label and any attached leaflet before use.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>National Exposure Standards</b>	NOHSC has set the following exposure standard for diuron : TLV (TWA) 10 mg/m <sup>3</sup> , STEL -.
<b>Engineering Controls</b>	Handle in well ventilated areas, generally natural ventilation is adequate.
<b>Respiratory Protection</b>	If dusts are present, wear a class P1 dust mask.
<b>Personal Protective Equipment</b>	It is good practice to wear suitable personal protective equipment (PPE). When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat, nitrile or elbow-length PVC gloves and face shield or goggles.
<b>Hygiene Measures</b>	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.
<b>Requirements Concerning Special Training</b>	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

<b>Form</b>	Solid
<b>Appearance</b>	Pale, fawn coloured granules
<b>Odour</b>	Sweetish, pleasant odour.
<b>Melting Point</b>	160°C approx for diuron
<b>Boiling Point</b>	NA
<b>Solubility in Water</b>	Disperses in water. Solubility of diuron in water is 36 mg/l @ 25°C
<b>Specific Gravity</b>	NA
<b>Vapour Pressure</b>	1.1 x 10 <sup>-3</sup> mPa @ 25°C for diuron
<b>Vapour Density (Air=1)</b>	NA

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**Octanol/Water Partition Coefficient** Kow Log P is 2.85 for diuron

**Flammability** Combustible  
Danger of dust explosion.

## 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** May cause irritation to the respiratory tract.

**Ingestion** Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury. However, swallowing large amounts of concentrate may cause nausea and vomiting.

**Skin** The concentrated product may cause slight irritation on contact.

**Eye** May irritate the eyes.

**Chronic Effects** Evidence from animal studies indicate that repeated or prolonged exposure to diuron can result in blood disorders.

**Reproductive Toxicity** No such effects have been observed in the absence of maternal toxicity.

**Mutagenicity** The weight of evidence indicates that diuron does not present a mutagenic risk.

**Carcinogenicity** Limited evidence of a carcinogenic effect. Diuron has been assessed in animals and some data exists that diuron is a substance which causes some concern for humans owing to possible carcinogenic effects from long term exposure, but in respect of which the available information is not adequate for making a satisfactory assessment.

**Acute Toxicity - Oral** LD50 (rat) >3000 mg/kg for diuron

**Acute Toxicity - Dermal** LD50 (rabbit) >2000 mg/kg for diuron

**Acute Toxicity - Inhalation** LC50 (rat) (4hr) >5 mg/l for diuron

**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 diuron for a human is 0.007 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.7 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).

## 12. ECOLOGICAL INFORMATION

**Persistence / Degradability** Average field half life of diuron is 90 - 180 days.

**Other Precautions** Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.

**Environ. Protection** Spray drift should be avoided, read the label for more information.

**Acute Toxicity - Fish** The following is data for the active ingredient, diuron.  
LC50 (96hr) for rainbow trout is 5.6 mg/l.  
LC50 (96hr) for bluegill sunfish is 5.9 mg/l.



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**Acute Toxicity - Daphnia** LC50 (48hr) for daphnia is 12 mg/l for diuron.  
**Acute Toxicity - Algae** EC50 (72hr) for Scenedesmus quadricauda 0.0027 mg/l.  
**Acute Toxicity - Other Organisms** Not toxic to bees.  
Not toxic to birds.

### 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** Shake the last amount of product from the bag into application equipment. Thoroughly wash out the inner and add washings to the spray tank. Dispose of washed inner and cardboard box in 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.

### 14. TRANSPORT INFORMATION

**Storage and Transport** Considered non dangerous for road and rail transport (in packaging) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.  
For bulk shipments as Class 9, use UN 3077, HazChem code 2Z.

**UN Number (Sea Transport)** 3077

**IMO Class/Packing Group** Class 9; Packing Group III

**IMO Marine Pollutant** Marine Pollutant

**IMO Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains diuron)

### 15. REGULATORY INFORMATION

**Poisons Schedule** Not Scheduled

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

**Hazard Category** Harmful

**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 11/05/2010

**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. Changes made to sections:  
2 - risk & safety phrases;  
11 - carcinogenicity information;  
12 - acute toxicity algae;  
14 - transport information.  
...End Of MSDS...

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