



Material Safety Data Sheet

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Infosafe No. 3NU7V Issue Date : September 2005 ISSUED by NUFARM

Product Name : **OnDuty® Herbicide for Clearfield* Canola**

Not classified as hazardous according to criteria of NOHSC

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

Product Name OnDuty® Herbicide for Clearfield* Canola
Product Code 0667
Product Use For the early post-emergence control of certain annual grass and broadleaf weeds as part of the Clearfield* Production Systems for canola and wheat as specified in the Directions for Use section of 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 B Herbicide
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 Solid

Ingredients	Name	CAS	Proportion
	Other ingredients (considered non-hazardous)		Balance
	Clay	1332-58-7	100 - 300 g/kg
	Imazapic	104098-48-8	525 g/kg
	Imazapyr	81334-34-1	175 g/kg

3. HAZARDS IDENTIFICATION

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.
If poisoning occurs, contact a doctor or Poisons Information Centre on 13 11 26 (Australia).

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.

5. FIRE FIGHTING MEASURES

Extinguishing Media Water fog, foam, carbon dioxide or dry chemical.
Avoid strong water jets - airborne dusts may form a flammable dust cloud.

Hazardous Combustion Products If involved in a major fire, could evolve oxides of carbon or nitrogen.

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

Other Information Prevent fire water from entering drains or water bodies.

6. ACCIDENTAL RELEASE MEASURES

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Spills & Disposal	Collect spilled material and waste in sealable open-top type containers for disposal. On-site disposal of concentrate is not acceptable. Dispose of at a landfill in accordance with local regulations.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8. If the possibility of dust generation exists, wear a suitable respirator.
Environmental Precautions	This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

7. HANDLING AND STORAGE

Handling	Avoid generating dusts while handling the product and mixing. Do not mix, store or apply the product or spray solutions of the product in aluminium, galvanised steel or unlined steel containers or spray tanks.
Storage	Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.
Tank Cleaning	Thoroughly flush all spray equipment with water following the use of this product and before use with other products. After using in mixtures with MCPA, thoroughly clean all spray equipment, especially plastic spray lines, using ammonium solution or washing soda, before using on sensitive crops such as canola and legumes.
Other Information	Always read the label and any attached leaflet before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Clay			10		
Other Exposure Information	Kaolin as inspirable dust containing no asbestos and less than 0.1% crystalline silica.					
Respiratory Protection	If dusts are present, wear a class P1 dust mask.					
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 gloves and goggles. See label for re-entry period information.					
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	Beige granules
Odour	No odour
Solubility in Water	Disperses in water.
Vapour Pressure	<0.01 mPa (imazapic); <0.013 (imazapyr)
Partition co-efficient, n-octanol/water	Kow Log P is 0.393 (imazapic) ; 0.11 (imazapyr)
Flammability	Combustible
Other Information	pKa is 2, 3.6, 11 (imazapic, imazapyr) Bulk density is 590 kg/m3

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Hazardous Polymerization	Hazardous polymerisation is not possible.

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Materials to Avoid Do not mix, store or apply the product or spray solutions of the product in galvanised steel or unlined steel (except stainless steel) containers or spray tanks.
Not compatible with aluminium.

Hazardous Reaction Keep away from strong oxidising agents.

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.

Ingestion The concentrate is of low toxicity if swallowed.

Skin Prolonged contact with the concentrate may cause irritation.

Eye The concentrate may cause irritation of the eyes.

Chronic Effects Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Reproductive Toxicity Data indicates no reproductive effects.

Mutagenicity Data indicates no mutagenic effects.

Carcinogenicity Data indicates no carcinogenic effects.

Acute Toxicity - Oral LD50 (rat) >5,000 mg/kg for imazapic
LD50 (rat) >5,000 mg/kg for imazapyr

Acute Toxicity - Dermal LD50 (rat) >2,000 mg/kg for imazapic
LD50 (rat) >2,000 mg/kg for imazapyr

Acute Toxicity - Inhalation LC50 (rat) (4hr) >4.38 mg/l for imazapic
LC50 (rat) (4hr) >5.1 mg/l for imazapyr

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 imazapic for a human is 0.3 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 137 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, December 2004).
ADI for imazapyr is 2.5 mg/kg/day, NOEL 250 mg/kg/day.

12. ECOLOGICAL INFORMATION

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.

Persistence / Degradability Loss from soil is principally by microbial degradation.
Not readily biodegradable.
Refer to minimum re-cropping interval tables on the label for more information.

Acute Toxicity - Fish LC50 (96 hr) for rainbow trout is >100 mg/l for imazapic
LC50 (96 hr) for rainbow trout is >100 mg/l for imazapyr

Acute Toxicity - Daphnia LC50 (48 hr) for daphnia is >100 mg/l for imazapic.
LC50 (48 hr) for daphnia is >100 mg/l for imazapyr.

Acute Toxicity - Other Organisms Birds: Not toxic to birds. LD50 for mallard duck and bobwhite quail is >2150 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).



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Container Disposal Do not use this container for any other purpose.
Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank.
Dispose of in accordance with local regulations.
Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

U.N. Number 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

Poisons Schedule S5

Packaging & Labelling CAUTION
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 First Issue

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...End Of MSDS...