

Infosafe No™ 3NU9B Issue Date : June 2013 ISSUED by NUFARM

Product Name **ESTERCIDE 800 Herbicide**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name ESTERCIDE 800 Herbicide
Product Code 0400
Product Type Group I 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 the control of broadleaved weeds in wheat and barley, and in fallow situations before direct drilling or sowing of cereals, grain legumes, canola and pastures in WA only as per the Directions for Use table on the label. This is a PHENOXY HERBICIDE that can cause severe damage to susceptible crops such as cotton, grapes, tomatoes, oilseed crops and ornamentals. Avoid spray drift onto any non-target vegetation.
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
 R22 Harmful if swallowed.
 R43 May cause sensitization by skin contact.
 R65 Harmful: may cause lung damage if swallowed.
Safety Phrase(s) S13 Keep away from food, drink and animal feeding stuffs.
 S2 Keep out of reach of children.
 S24 Avoid contact with skin.
 S37 Wear suitable gloves.
 S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.
Other Information Poisons Schedule S6

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid

Ingredients	Name	CAS	Proportion
	2,4-D (present as the ethyl ester)	94-75-7	800 g/L
	Liquid Hydrocarbons	64742-94-5	10-30 %
	Other ingredients (non-hazardous)		10-30 %

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 Remove contaminated clothing and launder before re-use.

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Eye Wash affected areas thoroughly with soap and water.
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 present may cause pulmonary pneumonitis.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Water fog, foam, carbon dioxide or dry chemical.

Hazards from Combustion Products Although material is not flammable, the concentrate is combustible.
May emit toxic fumes of hydrogen chloride or phosgene if involved in fires or exposed to extreme heat.

Special Protective Equipment for fire fighters Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.

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.
On-site disposal of concentrate is not acceptable.

Personal Protection For appropriate personal protective equipment (PPE), refer Section 8.

Clean-up Methods - Large Spillages Place damaged containers in recovery bins (if available) and return to manufacturer.
If large liquid spills occur, attempt to recover as much spilt material from sumps and bunded areas, as possible, before absorbing remaining material into vermiculite or other absorbent.

Environmental Precautions This product is a herbicide and spills can damage crops, pastures and desirable vegetation.
Prevent from entering drains, waterways or sewers.

7. HANDLING AND STORAGE

Precautions for Safe Handling Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers.

Conditions for Safe Storage Store in the closed, original container in a cool, well ventilated area.
Do not store for prolonged periods in direct sunlight.

Other Information Do not use on or in situations where damage to susceptible crops or plants such as cotton, tobacco, tomatoes, flowers, vines, fruit trees or other susceptible crop plants may result from direct application or drift.
Always read the label and any attached leaflet before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards No exposure standard for this product has been set, however, an exposure standard has been set for 2,4-D at 10 mg/m³.
The manufacturer of the solvent has recommended an occupational exposure limit of 100 mg/m³; 17ppm TWA, as total hydrocarbon.

Engineering Controls Handle in well ventilated areas, generally natural ventilation is adequate.
Local exhaust ventilation may be required in confined spaces.

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.

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

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Form	Liquid
Appearance	Clear brown liquid
Odour	Typical solvent odour
Boiling Point	296°C (2,4-D ethyl ester); 179 - 219°C (solvent)
Solubility in Water	Disperses in water.
Specific Gravity	1.219
Vapour Pressure	145 mPa @ 20°C for 2,4-D ethyl ester; 83 mPa @ 20°C for solvent.
Vapour Density (Air=1)	>1
Octanol/Water Partition Coefficient	Kow Log P is 3.2 (pH 1-10)
Flash Point	47°C; firepoint 122°C.
Flammability	Combustible liquid C1 as firepoint >100°C
Auto-Ignition Temperature	>400°C for solvent
Flammable Limits - Lower	0.6% for solvent
Flammable Limits - Upper	7.0% for solvent

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Hazardous Reactions	Keep away from strong oxidising agents, may react violently.
Hazardous Polymerization	Hazardous polymerisation is not possible.

11. TOXICOLOGICAL INFORMATION

Inhalation	When applying the product as a spray avoid breathing in spray mist. High vapour concentrations of the solvent while handling the concentrate are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, and may have other central nervous system effects.
Ingestion	Ingestion of the concentrate in relatively large amounts can result in headache, nausea, lethargy, motor weakness and incoordination.
Skin	Prolonged contact with the concentrate may result in absorption of 2,4-D in harmful amounts. Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis. Prolonged or repeated exposure may cause skin sensitisation.
Eye	May irritate the eyes.
Chronic Effects	Chronic Overexposure: Repeated absorption of relatively large amounts of 2,4-D presents a risk to the liver and kidneys.
Reproductive Toxicity	Data indicates no reproductive effects.
Mutagenicity	Data indicates no teratogenic effects.
Carcinogenicity	The weight of evidence indicates that 2,4-D does not present a mutagenic risk.
Acute Toxicity - Oral	The weight of the evidence is that 2,4-D is not carcinogenic.
Acute Toxicity - Dermal	LD50 (rat) 720 - 982 mg/kg for a similar 2,4-D formulation
Acute Toxicity - Inhalation	LD50 (rat) >2000 mg/kg for a similar 2,4-D formulation
Eye Irritation	LC50 (rat) (4hr) >5.4 mg/l for a similar 2,4-D formulation
Skin Irritation	Not an eye irritant.
Skin Sensitisation	Mild skin irritant.
	Prolonged and repeated skin contact may result in skin sensitisation.

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Other Information The Australian Acceptable Daily Intake (ADI) for 2,4-D 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', March 2013).

12. ECOLOGICAL INFORMATION

Known Harmful Effects on the Environment 2,4-D ethyl ester hydrolyses rapidly in natural waters. 2,4-D acid is readily biodegradable.

Environ. Protection Spray drift can cause damage, read the label for more information.

Acute Toxicity - Fish LC50 (96hr) for zebra fish is 2.7 mg/l for the formulated product

Acute Toxicity - Daphnia EC50 (48hr) for daphnia magna is 5.1 mg/l for the formulated product.

Acute Toxicity - Algae EC50 (48hr) for algae 7.3 mg/l for the formulated product.

Acute Toxicity - Other Organisms Moderately toxic to birds.
Not toxic to bees.

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 or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority 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. Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage. 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.

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 transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. REGULATORY INFORMATION

Poisons Schedule S6

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

Hazard Category Harmful, Irritant

Other Information This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 31209.

16. OTHER INFORMATION

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Date of preparation or last revision of MSDS Reviewed 27/06/2013
This MSDS replaces document dated May 2013.

Contact Person/Point Normal Hours: Mrs Kathleen Marsh 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.
Recommended use information in Section 1 updated as per the label.
...End Of MSDS...

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