



Material Safety Data Sheet

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Infosafe No. NUOCR Issue Date : June 2002 ISSUED by NUFARM

Product Name : **Estercide 800 Herbicide**

Classified as hazardous according to criteria of NOHSC

COMPANY DETAILS

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

Tel/Fax Tel: (03) 9282-1000 Fax: (03) 9282-1001

Other Information

IDENTIFICATION

Product Code 0400

Product Name Estercide 800 Herbicide

Proper Shipping Name None Allocated

UN Number None Allocated

DG Class None Allocated

Packing Group None Allocated

Hazchem Code None Allocated

Poisons Schedule S5

Product Use For the control of broadleaf weeds before direct drilling or sowing of cereals and pastures; and in cereal crops (not oats), pastures, sugar cane and non-agricultural areas as per the Directions for Use table.

Physical Data

Appearance Clear brown liquid with typical solvent odour.

Melting Point -5°C

Boiling Point 183 - 210°C (solvent)

Vapour Pressure 1.39x10⁻³ mm Hg for ester, 0.5kPa @ 38°C for solvent

Specific Gravity 1.219

Flash Point 96°C

Flamm. Limit LEL Lower 0.9%, Upper 6%

Other Properties

Volatile Component ~20%

Vapour Density >1

Form Liquid

Other Information Forms an emulsion with water.

Ingredients

Ingredients	Name	CAS	Proportion
	2,4-D ethyl ester (expressed as 2,4-D acid)	533-23-3	800 g/L
	Proprietary mixture, ethylene oxide condensate type surfactants		0-10 %
	Dobenz HF		0-10 %
	Solvesso 150		15 %

HEALTH HAZARD INFORMATION

Health Effects



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Acute - Swallowed	The concentrate is considered harmful if swallowed, when classified according to the Worksafe Criteria. The spray solution is not considered a significant hazard due to the relatively low toxicity of the diluted product.
Acute - Eye	The concentrate will cause irritation but permanent damage not expected. Prolonged contact with the concentrate may cause damage and can lead to significant 2,4-D absorption.
Acute - Skin	Absorption through the skin is considered to be the major route whereby workers with 2,4-D ester are exposed. Good hygiene and effective protective equipment is important, especially when dealing with the concentrate. Prolonged or repeated exposure may cause defatting of skin which could lead to secondary dermatitis. Prolonged contact of the concentrate with skin is harmful.
Acute - Inhaled	Inhalation of solvent may cause headache, nausea or intoxication. Inhalation of 2,4-D ester from the concentrate is unlikely to be a concern; however inhalation of spray mist must be avoided.
Chronic	Chronic Over Exposure: Repeated absorption of relatively large amounts of 2,4-D presents a risk to the liver and kidneys.
Other Information	Acute Over Exposure: Headache, nausea, intoxication (solvent effect) followed by lethargy and inco-ordination (2,4-D effect).

First Aid

Swallowed	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. Make every effort to prevent vomit from entering the lungs by careful placement of the patient. The above first aid instructions are mandated by the Commonwealth Department of Health and Aged Care via the National Drugs and Poisons Schedule. These instructions are suitable for ingestion of spray solution and small amounts of concentrate; however, if SUBSTANTIAL AMOUNTS of the concentrate have been swallowed (more than about one tablespoon for an adult person) AND if medical assistance is more than 30 minutes away, the induction of vomiting should be CONSIDERED, preferably based on MEDICAL ADVICE if a physician can be contacted by phone. All care must be taken to prevent vomit from being inhaled. Do not give anything by mouth to a semi-conscious or unconscious person.
Eye	Irrigate for 15 minutes with copious quantities of water with eyelids held open.
Skin	Remove contaminated clothing and launder before re-use. Wash affected areas thoroughly with soap and water.
Inhaled	Remove to fresh air until recovered.
First Aid Facilities	If poisoning occurs, contact a Doctor or Poisons Information Centre 13 1126.

Advice to Doctor

Advice to Doctor	Be aware that the product contains hydrocarbon solvents. Aspiration of vomitus into the lung can lead to bronchopneumonia or pulmonary oedema.
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Other Health Hazard Information

PRECAUTIONS FOR USE

Exposure Limits	No exposure limits have been set for this product, however, a limit has been set for 2,4-D acid (solid) at 10 mg/m ³ .
Eng. Controls	Natural only except in confined spaces where a local exhaust should be used. Avoid build-up of solvent vapour.

Personal Protection



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Protective Equip. Avoid contact with eyes and skin. When preparing product for use wear cotton overalls buttoned to the neck and wrist and washable hat, elbow length PVC gloves and face shield. 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, gloves and face shield. Obtain an emergency supply of Ipecac Syrup APF. Wash concentrate from skin and eyes immediately. Avoid working in and breathing spray mist.

Flammability

Fire Hazards Combustible.

SAFE HANDLING INFORMATION

Storage and Transport

Storage and Transport STORAGE:

Keep container tightly sealed and do not store with seeds, fertilizers or other pesticides

ROAD TRANSPORT:

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

SEA TRANSPORT:

Environmentally hazardous substances, liquid, NOS
(2,4-D)

UN 3082 Class: 9

Packaging Group: III

Proper Shipping Name None Allocated

Spills and Disposal

Spills & Disposal Contain spill and absorb with sand or proprietary absorbent (vermiculite). Prevent from entering drains, waterways or sewers. Collect in sealed open top containers for disposal. Disposal by industrial incineration or at a site approved by local authorities. Triple rinse containers, add rinsate to the spray tank, then offer container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. On-site disposal of concentrate is not acceptable.

Fire/Explosion Hazard

Fire/Explos. Hazard May emit toxic fumes of hydrogen chloride or phosgene if involved in fires or exposed to extreme heat.
Fire fighting: Breathable air apparatus may be required in confined spaces.
Extinguishing media: 'Alcohol' foam, water fog, dry chemical, carbon dioxide.

Hazardous Reaction Violent reaction may occur if exposed to strong oxidising agents.
Polymerisation is not possible.

Hazchem Code None Allocated

OTHER INFORMATION



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Toxicology

Technical 2,4-D:
Toxicity to mammals:
2,4-D acid. Acute oral LD50 (rats) 699mg/kg
2,4-D esters. Acute oral LD50 (rats) 620 - 900 mg/Kg
Acute dermal LD50 (rats) >2,000mg/Kg
Acute inhalation LD50 (rats) >1.79mg/L (4hr)(max. attainable concentration)
Toxicity to fish:
Moderately toxic to fish
LC50 Bluegill sunfish 5 - 62 mg/L
LC50 Rainbow trout 62 - 153 mg/L
Toxicity to bees:
Not toxic to bees
In trials using 2,4-D as a drug, studies on volunteers have shown that doses of between 5 and 36mg/kg body weight do not cause any acute toxic effects.
Formulated 2,4-D products can be absorbed by ingestion, inhalation (spray mist) and through the skin. Studies of users (sprayers) has shown that absorption through the skin is the most common route. When used with good agricultural spraying practice and good personal hygiene, absorption of 2,4-D is very low.
2,4-D does not accumulate in the body; a single dose of 2,4-D is rapidly excreted (in a few days), mainly in the urine.
The Australian Acceptable Intake(ADI) of 2,4-D for a human is 0.01mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1.0mg/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, March 2002).

Environ. Protection

Marine pollutant
2,4-D products do not appear to pose any threat to birds.
2,4-D esters are more toxic to fish than 2,4-D. The literature indicates wide variations in toxicity to fish, eg for bluegill sunfish, LC50 from 5-68 mg/L and for rainbow trout, LC50 from 62 to 153 mg/L.
Do not spray in high winds.
Do not contaminate dams, rivers or streams with pesticide or used containers. Do not use the container for any other purpose. Triple rinse empty container and add rinsate to spray tank. Puncture top, sides and bottom of container and dispose of in an approved manner.
Equipment that has been used for this product should not be used for the application of other materials to sensitive plants unless it has been well washed out with hot soapy water followed by several clear water rinses.
Do not use on or in situations where damage to susceptible crop plants such as cotton, tobacco, tomatoes, flowers, vines, fruit trees or other susceptible species may result from direct application or from spray drift.

Pkg. & Labelling

WARNING
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING
The product has been assessed according to the Worksafe criteria for classifying hazardous substances and is classified as hazardous:
Risk Phrases:
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed
Safety Phrases:
S2 Keep out of reach of children
S13 Keep away from food, drink and animal feeding stuffs

CONTACT POINT

Contact Normal Hours: Mr Volker Maier Phone: (03) 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498



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...End Of MSDS...