

WELLFARM DIFLUFENICAN 25 + BROMOXYNIL 250 EC HERBICIDE

APVMA Product No: 70423**Poison Schedule:** 6**Emergency Telephone Number:**

The Australian Poisons Information Centre: Dial 13 11 26 (from anywhere in Australia)

Specialist Advice In An Emergency Only 1800 033 111 All Hours Australia Wide

In A Transport Emergency Dial 000 Police Or Fire Brigade

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company: Wellfarm Pty Ltd
Website: www.wellfarm.com.au
Email: info@wellfarm.com.au
Postal Address: 22 Calypso Crescent, Point Cook, Vic 3030

Product Name: WELLFARM DIFLUFENICAN 25 + BROMOXYNIL 250 EC HERBICIDE
Product Type: GROUP C F HERBICIDE
Formulation Type: Emulsifiable Concentrate
Product Use: Agricultural Herbicide

2. HAZARDS IDENTIFICATION

Emergency Overview	
HAZARDOUS SUBSTANCE	HAZARDOUS SUBSTANCE
Hazardous classification	Hazardous (National Occupational Health and Safety Commission - NOHSC)
Risk Phrases	R22 - Harmful if swallowed. R23 - Toxic by inhalation. R36/37/38 - Irritating to eyes, respiratory system and skin. R43 - May cause sensitization by skin contact. R61 - May cause harm to the unborn child. R65 - Harmful: may cause lung damage if swallowed.
Safety Phrases	See sections 4, 5, 6, 7, 8, 10, 12, 13.
ADG Classification	"Dangerous goods" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. - See Section 14.
SUSMP classification (Poison Schedule)	Schedule 6 (Standard for the Uniform Scheduling of Medicines and Poisons)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
Bromoxynil/Diflufenican 250:25 g/l

Ingredient (common name)	CAS Number	Proportion(%)
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Bromoxynil octanoate	1689-99-2	34
Diflufenican	83164-33-4	2.3
N-Methyl-2-pyrrolidone	872-50-4	>= 10.00 - <= 20.00
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	>= 30.00 - <= 40.00
Other ingredients (non-hazardous) to 100%		

4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.

Inhalation	Move the victim to fresh air and keep at rest. Oxygen or artificial respiration if needed. If symptoms persist, call a physician.
Skin	Take off contaminated clothing and shoes immediately. Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
Eyes	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Risk of product entering the lungs on vomiting after ingestion. Rinse out mouth and give water in small sips to drink. Never give anything by mouth to an unconscious person.
Notes to physician	
Symptoms	Local: Sensitisation, Irritation; Systemic: Lethargy, Thirst, Anxiety, Hyperventilation, Tachycardia, Muscle rigidity, Nausea, Vomiting, Sweating, Salivation, Convulsions.
Risks	Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard.
Treatment	Watch for pulmonary edema, which may develop in serious cases of poisoning even after 24-48 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. In case of hyperthermia physical cooling is advisable; in case of muscle rigidity muscle relaxants and mechanical ventilation may support in counteracting hyperthermia. There is no specific antidote.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media which shall not be used for safety reasons	High volume water jet
Hazards from combustion products	Dangerous gases are evolved in the event of a fire. In the event of fire the following may be released: Hydrogen bromide (HBr) Hydrogen cyanide (hydrocyanic acid) Hydrogen fluoride

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	Nitrogen oxides (NO _x) Carbon dioxide (CO ₂) Carbon monoxide (CO)
Precautions for fire-fighting	Wear self-contained breathing apparatus and protective suit. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire fighting to enter drains or water courses.
Hazchem Code	3Z

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Keep people away from and upwind of spill/leak. Avoid contact with spilled product or contaminated surfaces.
Environmental precautions	When dealing with a spillage do not eat, drink or smoke. Retain and dispose of contaminated wash water. Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations.
Reference to other sections	Keep in suitable, closed containers for disposal. Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

7. HANDLING AND STORAGE

Handling	Hygiene measures When using, do not eat, drink or smoke. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Advice on protection against fire and explosion Keep away from heat and sources of ignition. Vapours may form explosive mixture with air. Take measures to prevent the build up of electrostatic charge.
storage	Requirements for storage areas and containers Keep out of the reach of children. Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from freezing. Keep away from direct sunlight. Advice on common storage Keep away from food, drink and animal feeding stuffs C1 Combustible Liquids Flash Point > 60 °C - ≤ 150 °C
Flammability	

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
N-Methyl-2-pyrrolidone	872-50-4	19 ppm (TWA)		OES BCS
N-Methyl-2-pyrrolidone	872-50-4	309 mg/m ³ / 75 ppm (STEL)	08 2005	AU OEL
N-Methyl-2-pyrrolidone	872-50-4	103 mg/m ³ / 25 ppm (TWA)	08 2005	AU OEL

N-Methyl-2-pyrrolidone 872-50-4 Skin designation: Can be absorbed through the skin.
For further details on the Occupational Exposure Standards, see Section 16.

Personal protective equipment - End user

Respiratory protection	AS/NZS 1715/1716 approved respirator Use respiratory protection for organic vapours.
Hand protection	Elbow-length PVC or nitrile gloves
Eye protection	Face-shield or goggles
Skin and body protection	Cotton overall buttoned to the neck and wrist Washable hat

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Form	liquid, clear
Colour	light yellow to dark brown
Odour	aromatic
Safety data	
pH	ca. 4.2 at 10 % (23 °C)
Flash Point	66 °C
Ignition temperature	> 200 °C
Upper explosion limit	The data refer to the solvent. 7.00 %(V)
Lower explosion limit	The data refer to the solvent. 0.6 %(V)
Vapour pressure	The data refer to the solvent. no data available
Relative vapour density	no data available
Density	ca. 1.09 g/cm ³ at 20 °C
Water solubility	emulsifiable
Partition coefficient: noctanol/water	no data available
Other information	Further safety related physical-chemical data are not known.

10. STABILITY AND REACTIVITY

Conditions to Avoid	Elevated temperatures Heat, flames and sparks.
Materials to Avoid	Strong acids Strong bases Oxidizing agents Store only in the original container.
Hazardous Decomposition Products	Thermal decomposition can lead to release of: Hydrogen bromide (HBr) Hydrogen cyanide (hydrocyanic acid) Hydrogen fluoride Oxides of carbon

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Hazardous Reactions	Nitrogen oxides (NO _x) Will not occur. No hazardous reactions known.
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11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Inhalation	Harmful if inhaled.
Skin	Irritating to skin. May cause sensitization by skin contact.
Eye	Causes eye irritation.
Ingestion	Harmful if swallowed.
Acute oral toxicity	LD ₅₀ (rat) 1,113 mg/kg Test conducted with a similar formulation.
Acute inhalation toxicity	LC ₅₀ (rat) 2.1 mg/l Exposure time: 4 h Irritating to respiratory system. The information is derived from the properties of the individual components.
Acute dermal toxicity	LD ₅₀ (rat) > 2,000 mg/kg Test conducted with a similar formulation.
Skin irritation	No skin irritation (rabbit)
Eye irritation	Test conducted with a similar formulation. Irritating to eyes. (rabbit)
Sensitisation	Test conducted with a similar formulation. Sensitising (guinea pig) The information is derived from the properties of the individual components.
Chronic toxicity	Bromoxynil octanoate caused specific target organ toxicity in experimental animal studies in the following organ(s): liver. The observed effects do not appear to be relevant for humans. Diflufenican did not cause specific target organ toxicity in experimental animal studies. N-methyl-2-pyrrolidone caused specific target organ toxicity in experimental animal studies in the following organ(s): testes.
Assessment Mutagenicity	Bromoxynil octanoate was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests. Diflufenican was not mutagenic or genotoxic in a battery of in vitro and in vivo tests. N-methyl-2-pyrrolidone was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Assessment Carcinogenicity	Bromoxynil octanoate caused at high dose levels an increased incidence of tumours in the following organ(s): liver. The mechanism of tumour formation is not considered to be relevant to man. Diflufenican was not carcinogenic in lifetime feeding studies in rats and mice. N-methyl-2-pyrrolidone was not carcinogenic in lifetime feeding studies in rats and mice.
Assessment Toxicity to Reproduction	This product contains ≥ 1% naphthalene. Naphthalene caused an increased incidence of tumours after chronic inhalation of high vapour concentrations in the following organ: Respiratory Tract. The tumours seen with naphthalene were caused through a non-genotoxic mechanism, which is not relevant at low doses. Bromoxynil octanoate did not cause reproductive toxicity in a two-generation study in rats. Diflufenican did not cause reproductive toxicity in a two-generation study in rats.
Assessment developmental toxicity	N-methyl-2-pyrrolidone caused testicular damage and male infertility Bromoxynil octanoate caused a delayed foetal growth, an increased incidence of nonspecific malformations. Bromoxynil octanoate

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caused developmental toxicity only at dose levels toxic to the dams.
Diflufenican did not cause developmental toxicity in rats and rabbits.
N-methyl-2-pyrrolidone is considered a developmental toxicant
based on developmental toxicity studies in rats.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish

LC50 (Rainbow trout (*Oncorhynchus mykiss*)) > 0.109 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient diflufenican.

Toxicity to aquatic invertebrates

EC50 (Water flea (*Daphnia magna*)) 0.046 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient bromoxynil octanoate.

Toxicity to aquatic plants

EC50 (Water flea (*Daphnia magna*)) > 0.24 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient diflufenican.
EC50 (*Desmodium subspicatus*) 1 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient bromoxynil octanoate.

Toxicity to other organisms

EC50 (Algae) > 10 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient diflufenican.
LD50 (*Colinus virginianus* (Bobwhite quail)) > 2,150 mg/kg
The value mentioned relates to the active ingredient diflufenican.
LD50 (*Anas platyrhynchos* (Mallard duck)) > 4,000 mg/kg
The value mentioned relates to the active ingredient diflufenican.
LD50 (*Anas platyrhynchos* (Mallard duck)) 2,350 mg/kg
The value mentioned relates to the active ingredient bromoxynil octanoate.
LD50 (*Colinus virginianus* (Bobwhite quail)) 170 mg/kg
The value mentioned relates to the active ingredient bromoxynil octanoate.

Additional ecological information

No further ecological information is available.

Stability in soil

in Laboratory trial: DT50 1 d. The value mentioned relates to the active ingredient bromoxynil.
DT50 85.6 - 282 d. Depending on soil type and water content.
The value mentioned relates to the active ingredient diflufenican.

Bioaccumulation

Bioaccumulation

Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 230
The value mentioned relates to the active ingredient bromoxynil.
Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 1.60
The value mentioned relates to the active ingredient diflufenican.

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13. DISPOSAL CONSIDERATIONS

Metal drums and plastic containers:

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm 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

ADG	UN number	3082
	Class	9
	Subsidiary Risk	None
	Packaging group	III
	Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BROMOXYNIL OCTANOATE SOLUTION)
	Hazchem Code	3Z

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code.

IMDG	UN number	3082
	Class	9
	Subsidiary Risk	None
	Packaging group	III
	EmS	F-A, S-F
	Marine pollutant	YES
	Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BROMOXYNIL OCTANOATE SOLUTION)
IATA	UN number	3082
	Class	9
	Subsidiary Risk	None
	Packaging group	III
	Environm. Hazardous Mark	YES
	Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BROMOXYNIL OCTANOATE SOLUTION)

15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994

16. OTHER INFORMATION

All information contained in this document is as accurate as possible based on information submitted by raw material suppliers. Wellfarm Pty Ltd will NOT be responsible for any damages that may result from reliance on the information contained herein.

The Australian Poisons Information Centre: Dial 13 11 26 (from anywhere in Australia).

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