

# WELLFARM DIFLUFENICAN 25 + MCPA ISO-OCTYL ESTER 250 EC HERBICIDE

**APVMA Product No:** 70185**Poison Schedule:** 5**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 SUBSTANCE / PREPARATION AND THE COMPANY

**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 + MCPA ISO-OCTYL ESTER 250 EC  
HERBICIDE  
**Product Type:** Group F I Herbicide  
**Formulation Type:** Emulsifiable Concentrate  
**Chemical Group:** Phenoxy + Nicotinilide  
**Recommended Use:** Agricultural Herbicide

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**HAZARDOUS SUBSTANCE (see Risk phrases below) – NON-DANGEROUS GOOD(road/rail)**  
**Combustible liquid. Dangerous to the aquatic environment.**

**Hazard classification** Hazardous ( National Occupational Health and Safety Commission – NOHSC)  
**Risk phrases** R20/21/22 – Harmful by inhalation, in contact with skin and if swallowed.  
R36/38 – Irritating to eyes and skin.  
**Safety phrases** See Sections 4, 5, 6, 7, 8, 10, 12, 13  
**ADG classification** See Section 14.  
**SUSDP classification** Schedule 5 (Standard for the Uniform Scheduling of Drugs and Poisons)  
**(Poison Schedule)**

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration (g/L)
MCPA iso-octyl ester	[29450-45-1]	390 (= 250 g/L MCPA)
Diflufenican	[83164-33-4]	25
Hydrocarbon solvent	[90438-79-2]	325
N-methyl-2-pyrrolidone	[872-50-4]	150
Non-ionic emulsifiers	(proprietary blend)	105

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## 4. FIRST AID MEASURES

If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 13 11 26 from anywhere in Australia.

<b>Inhalation</b>	If inhaled, remove to fresh air and keep at rest. Obtain medical advice if at all worried. If breathing stops or shows signs of failing, start artificial respiration. Call for prompt medical attention.
<b>Skin contact</b>	Carefully remove contaminated clothing. Wash affected areas with soap and water. Seek medical aid if symptoms persist.
<b>Eye contact</b> aid.	Rinse eyes immediately with plenty of clean water and obtain <b>urgent</b> medical aid.
<b>Ingestion</b>	Wash out mouth with water. Do NOT induce vomiting. Give water to drink. Keep patient at rest and seek medical advice. DO NOT attempt to give anything by mouth to a semi-conscious or unconscious person.
<b>First Aid facilities</b>	Provide eyewash and safety shower facilities in the workplace.
<b>Medical attention</b>	<u>Symptoms</u> Local: Skin sensitisation, local irritation. Systemic: headache, vomiting, lethargy, muscular twitching, liver and kidney function disturbance, hypotension/hypertension. Ingestion of large amounts may cause central nervous system depression, stupor, coma and respiratory failure.  <u>Note for physicians</u> This product contains a hydrocarbon solvent. Care should be taken to prevent pulmonary aspiration. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.  Monitor respiratory, cardiac, kidney, liver and CNS functions. Observe blood pressure, MCPA plasma level, urinary MCPA level and pH. Gastric lavage and charcoal administration Endotracheal intubation and artificial respiration, as necessary Elimination by dialysis – forced alkaline diuresis Anticonvulsant therapy as necessary. If required, give diazepam 5-10 mg i.v. for adults (pro rata for children) as necessary until fully sedated. There is no specific antidote and no contraindications. Recovery is expected to be spontaneous.

## 5. FIRE-FIGHTING MEASURES

<b>Extinguishing Media</b>	Water spray, alcohol-resistant foam, carbon dioxide, dry agent
<b>Hazards from</b>	Hydrogen fluoride, hydrogen chloride, and oxides of carbon and nitrogen may
<b>Combustion products</b>	be released in a fire.
<b>Precautions for fire fighters</b>	Combustible liquid. N-methyl-2-pyrrolidone vapours are heavier than air. Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Toxic decomposition products may be produced in a fire. If possible and without risk, remove intact containers from exposure to fire. Otherwise, spray unopened containers with water to keep cool. Keep unnecessary people away. Bund area to prevent

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contamination of water sources. Dispose of fire control water and spillage safely later.

**Hazchem code** Not applicable

## 6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. Extinguish or remove possible sources of ignition. When dealing with spills do not eat, drink or smoke and wear protective clothing and equipment as described in Section 8 – PERSONAL PROTECTION. Keep people and animals away and upwind. Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid contact with eyes and skin, and do not inhale vapour. When opening the container and preparing the spray, wear cotton overalls buttoned to the neck and wrist, washable hat, elbow length PVC gloves and face shield or goggles. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles, and contaminated clothing. Keep away from all ignition sources.
<b>Storage</b>	Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.
<b>Flammability</b>	Combustible liquid, Class C1 – flashpoint between 61° C and 150° C.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Exposure standards</b>	<p>The NOHSC exposure standard for N-methyl-2-pyrrolidone is:</p> <p>TWA 25 ppm (103 mg/m<sup>3</sup>); STEL 75 ppm (309 mg/m<sup>3</sup>). Skin notation.</p> <p>The manufacturer of the hydrocarbon solvent recommends the following occupational exposure limit:</p> <p>TWA: 50 ppm (323 mg/m<sup>3</sup>), as vapour.</p> <p><u>Definitions:</u></p> <p>Exposure standard – Time Weighted Average (TWA) means the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.</p> <p>Exposure standard – Short term exposure limit (STEL) means a 15 minute TWA exposure which should not be exceeded at any time during the working day.</p> <p>Skin notation – Absorption through the skin may be a significant source of exposure.</p>
<b>Biological limit values</b>	None allocated
<b>Engineering controls</b>	Control process conditions to avoid contact. Use local exhaust ventilation during manufacturing operations. Use in a well-ventilated area only.
<b>Personal Protective Equipment</b>	<p>Face-shield or goggles.</p> <p>Cotton overalls buttoned to the neck and wrist and a washable hat.</p> <p>Elbow-length PVC gloves</p>

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If inhalation exposure is likely to exceed the exposure levels above, an AS/NZS 1715/1716 approved respirator suitable for organic vapours should be worn.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Dark brown liquid
<b>Odour:</b>	Strong ester odour
<b>pH:</b>	Not available
<b>Vapour pressure:</b>	0.34 kPa (hydrocarbon solvent)
<b>Vapour density:</b>	Not available
<b>Boiling point:</b>	176 – 200°C (hydrocarbon solvent)
<b>Freezing/melting point:</b>	Not available
<b>Solubility:</b>	Emulsifies in water
<b>Specific Gravity:</b>	0.995 at 20°C
<b>Flash Point:</b>	>66°C - closed cup, which is the flash point of the hydrocarbon solvent
<b>Flammability (explosive) limits:</b>	LEL: 0.8; UEL: 6.7 Vol. % in air (hydrocarbon solvent) 321°C (hydrocarbon solvent)
<b>Auto-ignition temperature:</b>	
<b>Partition coefficient (octanol/water):</b>	Diflufenican: $\text{Log } P_{ow} = 4.9$ MCPA (acid): $\text{Log } P_{ow} = 2.75$ (pH 1)

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable under normal conditions of use.
<b>Conditions to avoid</b>	Avoid sources of ignition and extreme heat.
<b>Incompatible materials</b>	Incompatible with acids, bases, oxidising and reducing agents. The rubber components present in some spraying units may be affected by exposure to the solvents in product.
<b>Hazardous decomposition products</b>	Hydrogen fluoride, hydrogen chloride, and oxides of carbon and nitrogen may be generated under extreme heat conditions or in a fire.
<b>Hazardous reactions</b>	May produce an exothermic reaction with strong acids or alkalis.

## 11. TOXICOLOGICAL INFORMATION

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## POTENTIAL HEALTH EFFECTS

<b>Inhalation</b>	Harmful if inhaled. May irritate mucous membranes of nose and mouth.
<b>Skin contact</b>	Will irritate the skin. Harmful in contact with skin, as this product can be absorbed through the skin. Repeated exposure to the solvent in this product may cause skin dryness or cracking.
<b>Eye contact</b>	Will irritate eyes.
<b>Ingestion</b>	Harmful if swallowed.

## ANIMAL TOXICITY DATA

<b>Acute:</b>	
<b>Oral toxicity</b>	LD <sub>50</sub> rat: 1580 mg/kg (similar product)
<b>Dermal toxicity</b>	LD <sub>50</sub> rat: > 2040 mg/kg (similar product)
<b>Inhalation toxicity</b>	Inhalation LC <sub>50</sub> rat: > 5.11 mg/L (4 h) (MCPA-2-ethyl hexyl ester) Inhalation LC <sub>50</sub> rat: > 5.12 mg/L (4 h) (diflufenican)
<b>Skin irritation</b>	Slightly to moderately irritating (rabbit) (similar product)
<b>Eye irritation</b>	Slightly irritating (rabbit) (similar product)
<b>Sensitisation</b>	Sensitising (guinea pig) (similar product)

**Chronic:** In long term toxicity studies with MCPA (acid) at high doses, the target organs were the liver, kidneys and skin.

Diflufenican is not mutagenic, teratogenic or oncogenic. In animal studies, N-methyl-2-pyrrolidone showed a developmental toxic effect in high doses which were maternally toxic.

## 12. ECOLOGICAL INFORMATION

Dangerous to fish. Low hazard to bees and earthworms. Sprayed weeds may become more palatable to stock and a higher intake of some weeds may result in stock poisoning and death from causes such as nitrate poisoning. DO NOT contaminate streams, rivers or waterways with the chemical or used containers

<b>Ecotoxicity</b>	<u>MCPA-2-ethylhexyl:</u> Fish toxicity: LC <sub>50</sub> (96 h) rainbow trout 50-560 mg/L, bluegill sunfish > 150 mg/L Bird toxicity: LC <sub>50</sub> (96 h) bobwhite quail 377 mg/kg Daphnia toxicity: LC <sub>50</sub> (48 h) > 190 mg/L Algae toxicity: EC <sub>50</sub> Selenastrum capricornutum > 392 mg/L
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## 2. ECOLOGICAL INFORMATION (CONTINUED)

<b>Environmental fate, persistence and degradability, mobility</b>	<p>Diflufenican:</p> <p>Fish toxicity: LC<sub>50</sub> (96 h) rainbow trout &gt; 109 µg/L</p> <p>Bird toxicity: LD<sub>50</sub> bobwhite quail &gt; 2150 mg/kg</p> <p>LD<sub>50</sub> mallard duck &gt; 4000 mg/kg</p> <p>Daphnia toxicity: LC<sub>50</sub> (48 h) Daphnia magna &gt; 240 µg/L</p> <p>Algae toxicity: EC<sub>50</sub> (96 h) &gt; 10 mg/L</p>
	<p>MCPA-ethylhexyl: Hydrolyses rapidly in natural waters and soil water mixtures. DT<sub>50</sub> in soil &lt; 7 days after initial lag phase (acid form).</p> <p>Diflufenican: Not readily biodegradable. Bioconcentration factor (BCF): 1.596. DT<sub>50</sub> varies from 85.6 – 282 days depending on soil type and water content.</p> <p>N-methyl-2-pyrrolidone is readily biodegradable.</p>

## 13. DISPOSAL CONSIDERATIONS

When returnable container is empty or contents no longer required return it to the point of purchase. For non-returnable containers, triple or (preferably) pressure rinse them 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. Dispose of waste material via a reputable waste disposal contractor.

## 14. TRANSPORT INFORMATION

<b>UN number</b>	UN 3082
<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (contains diflufenican, MCPA-2-ethylhexyl ester)
<b>Class and Subsidiary Risk</b>	Class 9
<b>Packing Group</b>	Packing Group III
<b>Hazchem code</b>	3Z
<b>Note for Road and Rail Transport</b>	According to AU01, Environmentally Hazardous Substances in packagings, IBCs or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code

## 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994.  
 Australian Pesticides and Veterinary Medicines Authority approval number: 31525  
 See also Section 2.

## 16. OTHER INFORMATION

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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).