

Material Safety Data Sheet



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

Product name: FLUOMETURON 500 SC HERBICIDE

Synonyms: Crop Care MSDS No. 42348

CAS-No.:

Molecular Formula:

Supplier: Crop Care Australasia Pty Ltd

ACN: 061 362 347

Street Address: 77 Tingira Street

Pinkenba 4008

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Recommended use: Herbicide.

Appearance: White to beige coloured liquid.

CHEMICAL ENTITY	CAS NO.	PROPORTION
Water	7732-18-5	HIGH
Fluometuron	2164-17-2	44% (500 g/L)
Additives (surfactants, antifoam, preservative, dye, etc.)	-	LOW
Propylene glycol	57-55-6	LOW

		100%

PROPORTION (% weight per weight):

VHIGH >60, HIGH 30-60, MED 10-29, LOW 1-9, VLOW <1

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS) or are National Registration Authority (NRA) approved active constituents.

3. HAZARDS IDENTIFICATION

Based on available information, not classified as hazardous according to criteria of Worksafe Australia.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Product name: FLUOMETURON 500 SC HERBICIDE

Substance Key: 000504234801

Issued : 22.03.2000

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Poisons Schedule (Aust)/Toxic Substance (NZ): N/A - Not Applicable

4. FIRST AID MEASURES

Ingestion: Rinse mouth with water. Give plenty of water to drink. If vomiting occurs give further water. Seek medical advice.

Eye contact: Irrigate with copious quantities of water for at least 15 minutes. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Skin contact: Wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Notes to physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Specific hazards: Non-combustible liquid.

Fire fighting further advice: Not combustible, however following evaporation of aqueous component residual material can burn if ignited. Decomposes on heating emitting toxic fumes including those of fluoride. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition.

Suitable extinguishing media: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS: Wear protective equipment to prevent skin and eye contamination. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers for disposal. Wash area down with detergent and excess water.

LARGE SPILLS: Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Contain using sand or soil - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled drums for disposal. Wash area down with detergent and excess water. If contamination of crops or waterways has occurred advise emergency services or State Department of Agriculture.

7. HANDLING AND STORAGE

Product name: FLUOMETURON 500 SC HERBICIDE

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Storage: Store in the closed, original container in a cool, well-ventilated room or place away from animals, food, feedstuffs, drink containers, seed and fertilisers. Do not store for prolonged periods in direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits

No value assigned for this specific material by the National Occupational Health and Safety Commission (Worksafe Australia).

Engineering measures: Use in well ventilated area. Keep containers closed when not in use.

Personal protection equipment: OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES (Short).
Code:B -Orica Personal Protection Guide No.1, 1998

MANUFACTURING, PACKAGING AND TRANSPORT: Avoid skin and eye contact and the inhalation of vapour or mist. Wear overalls safety glasses and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. If inhalation risk exists, wear organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

PREPARATION AND USE OF PRODUCT: Avoid contact with eyes and skin. Do not inhale spray mist. 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, safety glasses and contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: White to beige coloured liquid.

Solubility: Dispersible in water. Soluble in ethanol and acetone.

Specific Gravity (20 C)	: 1.145	Melting Point (C)	: N App
Rel Vapour Density (air=1)	: N App	Boiling Point (C)	: N Av
Vapour Pressure (20 C)	: N Av	Decomp. Point (C)	: N Av
Flash Point (C)	: N Av	Sublimation Point	: N App
Flammability Limits (%)	: N Av	pH	: N Av
Autoignition Temp (C)	: N Av	Viscosity	: N App
Volatility	: N Av	Evaporation Rate	: N App
Solubility in water	: Dispersible	(n-Butyl acetate=1)	
log Pow (Fluometuron)	: 2.38		
(Typical values only - consult specification sheet)			
N Av = Not available		N App = Not applicable	

10. STABILITY AND REACTIVITY

Stability: May react with oxidising agents.

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11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled are:

Acute Effects

Ingestion: No adverse effects expected, however large amounts may cause nausea and vomiting.

Eye contact: May be an eye irritant.

Skin contact: Contact with skin may result in irritation.

Inhalation: Inhalation of mists or aerosols may produce respiratory irritation.

Long Term Effects

No information available for product.

Acute toxicity / Chronic toxicity

No LD50 data available for product. However, for the active constituent, FLUOMETURON:

Oral LD50 (rat): >6000 mg/kg. (1)

Dermal LD50 (rat): >2000 mg/kg. (1)

EYES: Mild irritant (rabbit). (1)

SKIN: Mild irritant (rabbit). (1)

Not a skin sensitiser. (1)

In 2 year feeding studies (diet) NOEL's (No Observed Effect Levels) of 19 and 10 mg/kg were reported in rats and dogs, respectively. (1)

Lifetime feeding studies with rats and mice showed a slight increase in liver tumours in male mice only. (2) These particular data are not considered relevant to normal industrial use but emphasise the need for care in handling.

Fluometuron technical has been classified by the International Agency for Research on Cancer (IARC) as a Group 3 agent.

Group 3 - The agent is not classifiable as to its carcinogenicity to humans.

ADI (Acceptable Daily Intake) for humans is 0.02 mg/kg/day. (3)

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

For the active constituent, FLUOMETURON (1):

AQUATIC TOXICITY -

Harmful to aquatic organisms.

96hr LC50 (rainbow trout): 47 mg/L.

96hr LC50 (bluegill sunfish): 96 mg/L.

96hr LC50 (catfish): 55 mg/L.

96hr LC50 (crucian carp): 170 mg/L.

48hr EC50 (Daphnia magna): 10 mg/L.

TERRESTRIAL TOXICITY -

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Non-hazardous to terrestrial species.

Oral LD50 (mallard ducks): 2974 mg/kg.

8 day dietary LD50 (ring-necked pheasants): 3150 mg/kg.

8 day dietary LD50 (Japanese quail): 4620 mg/kg.

Non toxic to bees - 48 hr Oral and Topical LD50 (bee): >155 ug/bee.

ENVIRONMENTAL FATE, PERSISTENCE AND DISTRIBUTION -

Metabolised and eliminated by plants and animals.

Decomposed by UV radiation.

In soil microbial degradation is significant and rapid. The median half life in soil is 30 days. Degradation is dependent on environmental factors with dry conditions reducing breakdown.

Photodecomposition and volatisation are insignificant.

13. DISPOSAL CONSIDERATIONS

Triple or preferably pressure rinse empty 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 500mm in a disposal pit specifically marked and set up for this purpose clear of water ways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

Based on available information, not classified as hazardous according to criteria of Worksafe Australia.

Poisons Schedule (Aust)/Toxic Substance (NZ): N/A - Not Applicable

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16. OTHER INFORMATION

Literary reference

- (1), In 'The Pesticide Manual' 11th ed.', (Ed. Tomlin C.D.S) - pp 578-579, (British Crop Protection Society, UK 1997).
- (2), In 'Handbook of Pesticide Toxicology' (Eds. Hayes W.J. and Laws E.R.), Vol 3, p 180. (Academic Press, California, USA, 1991)
- (3) ADI List, Commonwealth Department of Health and Family Services. 05/98.

This Material Safety Data Sheet has been prepared by SHE Pacific Pty Ltd on behalf of Orica Ltd and its subsidiary companies.

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Reason(s) For Issue: Five Yearly Update.

- Change in Formulation
- Change in Health Effects Data.
- Change in First Aid Requirements.
- New Toxicological Data.
- Change in Personal Protection Requirements.
- Change in Spills Management Requirements.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Orica Limited and its subsidiaries cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.