

1. Identification of Chemical Product and Company

Cheminova Australia Pty Ltd

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Substance:	Flumetsulam in a carrier system
Trade Name:	Multitude Herbicide
APVMA No.:	63570
Product Use:	For the control of weeds as described on the product label.

2. Hazards Identification

Non-hazardous according to the criteria of NOHSC.

Non Dangerous Goods for transport by road and rail

Dangerous Goods for transport by sea and air

Risk phrases	R36 Irritating to eyes
Safety phrases	S2 Keep out of reach of children S3/9/49 Keep only in the original container in a cool, well-ventilated place S20/21 When using do not eat, drink or smoke S24/25. Avoid contact with skin and eyes

3. Composition/Information on Ingredients

Ingredient Name	CAS No.	Proportion
Flumetsulam	98967-40-9	80% w/w
Other ingredients, non hazardous	-	To 100%

4. First Aid Measures

Inhalation	Remove affected person to fresh air until recovered.
Ingestion	If swallowed do NOT induce vomiting; seek medical advice immediately and show the container or label or contact the Poisons Information Centre on 131126 (Australia). Make every effort to prevent vomit from entering the lungs by careful placement of the patient. Do not give anything by mouth to a semi-conscious or unconscious person.
Skin	Wash affected areas thoroughly with soap and water. If effects occurs, seek medical advice.
Eye contact	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. If effects occur, seek medical advice.
First Aid	If poisoning occurs, contact a doctor or the Poisons Information Centre 131126 (Australia).
Advice to Doctor	Treat symptomatically.

5. Fire Fighting Measures

Suitable extinguishing media	Water, foam, carbon dioxide or dry chemical.
Fire and explosion hazards	Fire and explosion potential not determined but expected to be low
Protective equipment for fire fighters	Wear positive-pressure, self-contained breathing apparatus and full protective clothing
Flash point	Not determined (expected to be >90°C based on components)
Combustible	Not a combustible liquid

Flammable limits	Not applicable
HAZCHEM:	2X

6. Accidental Release Measures

Spills & Disposal	Do not touch or walk through spilled material. Wear overalls buttoned to neck and wrist, chemical resistant gloves and boots. Sweep spilled product and place in sealable container for disposal. Spill residues may be cleaned using water and detergent. Contain and absorb wash water for disposal.
Environmental Precautions	Prevent from entering drains, waterways or sewers.

7. Handling and Storage

Precautions for Safe Handling	Keep out of reach of children. Dust may cause eye irritation. Users should wash hands before eating, drinking or smoking
Conditions for safe storage, including any incompatibilities	Store in the closed, original container in a dry, well ventilated area out of direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.
Other Information	Always read the label and any attached leaflet before use.

8. Exposure Controls and Personal Protection

	These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions
Occupational exposure limit values	No exposure standard has been established for this product by SWA
Engineering controls	No special equipment is usually needed when occasionally handling small quantities. Refer to the product label. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.
Personal Protective Equipment	Eye Protection: Eye protection such as protective glasses or goggles is recommended when product is being used. Skin Protection: The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely. Protective Material Types: We suggest that protective clothing be made from the following: rubber, PVC. Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask.
Hygiene Measures	After each day's use, wash contaminated clothing and safety equipment. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.
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

Appearance	Tan to brown granules
Odour	Characteristic
pH	6
Bulk density	0.48 g/mL @ 22°C
Boiling Point	Not determined
Solubility in Water	Disperses in water
Vapour pressure	37×10^{-7} mPa @ 25°C (flumetsulam)

Corrosiveness | Not corrosive

10. Stability and Reactivity

Stability	Stable at normal temperatures and storage conditions
Incompatibility	(specific materials to avoid) None
Hazardous decomposition products	If product is involved in fire, oxides of nitrogen, oxides of sulphur and halogen derivatives may be formed.

11. Toxicological Information

Potential health effects	No harmful effects are expected if the precautions on the label and this MSDS are followed
Eye	May cause slight temporary eye irritation. Corneal injury is unlikely
Skin	Prolonged skin contact unlikely to cause irritation or result in absorption of harmful amounts. The LD ₅₀ for acute dermal toxicity in rabbits is >2000 mg/kg
Ingestion	Very low toxicity by injection. The acute oral LD ₅₀ for rats is >5000 mg/kg.
Inhalation	Prolonged exposure is not expected to cause adverse effects
Systemic (other target organ) effects	In animals, effects have been reported on the following organs: kidney and liver
Cancer information	Did not cause cancer in laboratory animals
Teratology (birth) effects	Unlikely
Reproductive effects	In animal studies did not interfere with reproduction

12. Ecological Information

Persistence / degradability	Theoretical oxygen demand is calculated to be 2.02 p/p
Movement & partitioning	Bioconcentration potential is low (BCF<100 or Log Pow <3). Log octanol/water partition coefficient (Log Pow) is estimated using a structural fragment method to be -0.288. Potential for mobility in soil is slight (Koc between 2000 and 5000. Soil organic carbon/water partition coefficient (Koc) is estimated to be 3100. Henry's Law Constant (H) is estimated to be 4.76E-15 atm·m ³ /mole
Bird toxicity	Practically non-toxic (LD ₅₀ >2000 mg/kg) on acute basis Practically non-toxic (LD ₅₀ >5000 mg/kg) on dietary basis
Bee toxicity	Acute oral LD ₅₀ >100 µg/bee) on acute basis
Aquatic toxicity	Maximum acceptable toxicant concentration is >197 mg/L in fathead minnow. Growth inhibition EC ₅₀ for diatom (<i>Navicula</i> sp.) is 51.1 mg/L Growth inhibition EC ₅₀ for blue-green alga (<i>Anabaena flow-aquae</i>) is 0.167 mg/L Growth inhibition EC ₅₀ for duckweed (<i>Lemna</i> sp.) is 5.1 µg/L Growth inhibition EC ₅₀ for green alga (<i>Selenastrum capricornutum</i>) is 4.93 µg/L

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.
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, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal

pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Empty containers and product should not be burnt.

14. Transport Information

Land transport	Non Dangerous goods under the Australian Dangerous Goods (ADG) code when being transported in IBCs or other receptacles <500 L (kg), (Special provision AU01)
Sea and air transport	Dangerous goods according to the International Maritime Dangerous Goods Code (IMDG) and the International Air Transport Association (IATA) Dangerous Goods Regulations
UN Number	3077
UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, NOS (FLUMETSULAM) Marine pollutant
Class	9
Packaging Group	3
Hazchem code	2x

15. Regulatory Information

Poisons Schedule	Not scheduled
APVMA No.	This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 63570.

16. Other Information

This Material Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

DISCLAIMER

This product must be used, stored and handled strictly as directed in accordance with the label and this Safety Data Sheet. To the extent permitted by law, Cheminova Australia Pty Ltd, the trademark owner, manufacturer and vendors of the product will not be liable for any loss or damage arising from use, storage or handling contrary to the product label and MSDS.