


Decision

1. PRODUCT & COMPANY IDENTIFICATION

Product Identification/Name:	Decision
Product Use:	Herbicide
Chemical Family	Flumetsulam
Company Identification:	Rainbow & Brown Limited 68A Tallyho Street, Rotorua, New Zealand PO Box 10049, Mail Centre, Rotorua, 3046
Telephone:	+64 7 350 2009
Fax:	+64 7 350 2008
Toll-Free Phone:	0508 299 299
After Hours Emergency	+64 27 498 2574
National Poisons Centre	0800 764 766
Website:	www.rainbowbrown.co.nz
Date of Issue:	21 September 2018
Latest Revision Date:	21 September 2018

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture (HSNO):	9.1A – Very ecotoxic in the aquatic environment. 9.2A – Very ecotoxic in the soil environment.
Classification of the substance or mixture (GHS):	Aquatic toxicity (chronic) Category 1 There is no GHS equivalent for soil toxicity.
Label Elements:	
Pictogram	
Signal Word	WARNING
Hazard Statements	H410 Very toxic to aquatic life with long lasting effects.

	H421 Very toxic to the soil environment.
Precautionary Statements	
Prevention:	P273 – Avoid release to the environment.
Response:	P391 – Collect spillage.
Disposal:	P501 - In accordance with the EPA Hazardous Substances (Disposal) Notice 2017. Refer to Section 13 of this SDS.
Other:	Must not be applied onto or into water.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Main Component	CAS Number	Concentration
Flumetsulam	98967-40-9	80%
Ingredients not contributing to hazard		Balance

4. FIRST AID MEASURES

Eye Contact:	Hold eyes open, flush with water for at least 15 minutes. Seek medical attention if irritation develops and persists.
Skin:	Wash skin with plenty of soap and water, while removing contaminated clothing and shoes. Wash contaminated clothing before re-use. Seek medical attention if skin irritation develops and persists.
Ingestion:	Product is unlikely to be hazardous by ingestion. If large amounts are ingested and/or symptoms occur contact a doctor or Poisons Information Centre (0800 POISON, 0800 764 766)
Inhalation:	If dust is inhaled, remove to fresh air. If effects persist seek medical attention.
Advice to Doctor:	No specific antidote. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flash Point:	>100°C
Flammable Limits:	Not flammable
Extinguishing Media:	Water spray, dry chemical, foam, CO ₂
Fire & Explosion Hazards:	Not a fire or explosion hazard but may be ignited by intense heat or open flame.
Fire Fighting Equipment:	Use self-contained breathing apparatus.
Fire Fighting Instructions:	Hazchem Code 2X. Addition of water may increase contamination area. If conditions permit, allow fire to burn itself out. Do not allow runoff to drains.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Clear area of all unprotected personnel. Keep unnecessary and unprotected personnel from entering area. Use appropriate protective clothing and equipment.
Spills:	<p>Ensure there is appropriate and adequate personal protective equipment, trained personnel and clean up materials for management of accidental release. Avoid release to the environment.</p> <p>Shovel or sweep up spill and place into a container for disposal. Do not flush with water.</p> <p>Label disposal containers. Dispose of waste in accordance with Section 13.</p>

7. HANDLING AND STORAGE

Label:	Read the storage/handling precautions on the product label.
Handling:	Avoid contact with skin and eyes. Avoid inhaling dust. Do not eat, drink or smoke when using this product. Remove contaminated clothing and wash hands and face before entering eating areas. Wash clothing after use.
Storage:	Store in tightly closed original container in a cool, dry, well-ventilated and secure area when not in use. Do not store with food, feedstuffs, seeds or fertilisers.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure Guidelines:	No established workplace exposure standard in NZ.
Engineering Controls:	Normal room ventilation is sufficient.
Respiratory Protection:	No special precautions are necessary for respiratory protection under normal handling conditions. If exposed to unusually high dust concentrations, then use an approved dust respirator.
Skin Protection:	Wear overalls and chemical resistant gloves while mixing or during application.
Eye Protection:	Wear face shield/goggles while mixing or during application.
Dust:	Recommend TWA of 10mg/m ³ for dust exposure as a safe guideline.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light yellowish granule
Odour:	No definitive odour
Odour Threshold:	Not determined
Boiling Point:	Not available
Melting point:	Not available
Freezing point:	Not applicable
pH:	6-8.5 (1% solution)
Solubility:	Dispersible
Evaporation rate:	Not determined
Flash Point:	>100°C
Flammability:	Not flammable or combustible
LEL/UEL:	Not applicable
Vapour Pressure:	3.7 x 10 ⁻⁷ Pa at 25°C (as Flumetsulam)
Decomposition Temperature:	Not determined
Autoignition Temperature:	Not determined
Bulk Density:	600-700 g/cm ³
Partition Coefficient:	Not determined
Viscosity:	Not applicable

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Reactivity:	Not reactive under normal conditions of use.
Conditions to Avoid:	Exposure to excessive heat or open flame. Do not apply onto or into water.
Incompatibility:	Strong oxidisers. Keep away from food, feedstuffs, seeds and fertilisers.
Hazardous Decomposition Products:	Oxides of nitrogen, oxides of sulphur and halogen derivatives may be formed.
Hazardous Polymerisation:	Will not occur.

11. TOXOLOGICAL INFORMATION

ACUTE EFFECTS:	
Acute Effects: Ingestion:	LD ₅₀ > 5000 mg/kg (rat)
Acute Effects: Inhalation:	Not expected to be harmful by inhalation under normal conditions of use.
Acute Effects: Skin:	Not expected to be harmful by skin contact. Not expected to be a skin irritant.
Acute Effects: Eye:	Not expected to be an eye irritant.
Sensitisation:	Not expected to be a respiratory or skin sensitiser.
CHRONIC EFFECTS:	
Carcinogenicity, Reproductive Toxicity, or Mutagenicity:	No known carcinogenic, reproductive/developmental or mutagenic effects.
Specific Target Organ Toxicity:	No known effects.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	EC ₅₀ (algal) 0.0032 mg/L (Flumetsulam). Very toxic to aquatic life with long lasting effects. Avoid losses to the environment wherever possible.
Persistence/degradability:	Not readily biodegradable
Bioaccumulation:	No
Soil toxicity:	Very toxic in the soil environment. Soil DT ₅₀ > 30 days.
Terrestrial vertebrates:	No evidence of toxicity

Terrestrial invertebrates:	No evidence of toxicity
Mobility:	No data

13. DISPOSAL CONSIDERATIONS

Disposal Method:	Do not dispose of product down drains or sewers. Dispose via an approved waste disposal contractor.
Container Disposal:	Triple rinse empty containers before disposal. Recycle through an approved recycling facility or dispose of via an approved waste disposal contractor.

14. TRANSPORT INFORMATION

Dangerous Goods Classification:	Classified as a Dangerous Good for transport in accordance with NZS5433:2012, IMDG or IATA.
Shipping Name:	Environmentally hazardous substance, solid, N.O.S. (Flumetsulam)
Class:	9
UN Number:	3077
Packaging group:	III
Marine Pollutant:	Yes
EmS Code:	F-A S-F
Transport limitations:	Up to 3kg may be carried on a public passenger vehicle. No limitation on non-passenger vehicles. Must be transported in original sealed and labelled container.

15. REGULATORY INFORMATION

ACVM Registration No:	P8368
EPA Approval No:	HSR000458
Assignment description:	Water dispersible granule containing 800g/kg flumetsulam
Certified Handler:	Not required
Tracking:	Not required
Compliance Certificate:	Not required
Quantity that must be secured:	Not required

Emergency Response Plan:	100kg
Secondary Containment:	Not a pooling substance.
Signage:	100kg
Fire Extinguishers:	No fire extinguisher requirement specified.
Training requirements:	<p>All workplace personnel handling this substance are required to be trained on the safe handling and PPE requirements for the hazards associated with this substance in accordance with Clause 4.5 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.</p> <p>In addition, any person preparing the product for application or applying the product must be a qualified loader, contractor or person as applicable. Refer to EPA Hazardous Substances (Hazardous Property Controls) Notice 2017 Part 4, Subpart C.</p>

16. OTHER INFORMATION

Glossary	
AEL	Acceptable Exposure Limit
DT₅₀	Time (days) for 50% loss
EC₅₀	Median effective concentration
EEL	Environmental Exposure Limit
EPA	Environment Protection Authority
GHS	Globally Harmonised System
HSNO	Hazardous Substances & New Organisms Act
Koc	Organic carbon partition coefficient
LFL	Lower Flammability Limit
LC₅₀	Lethal Concentration in air or water for 50% of test organisms
LD₅₀	Lethal Dose for 50% of test organisms
NOEL	No Observable Effect Level
OSHA	Occupational Safety & Health Administration (USA)
OSH or Worksafe	Worksafe New Zealand
PEL	Permissible Exposure Level
Pow	Octanol water partition coefficient (ratio of concentration of a chemical in octanol and water at equilibrium and at a specified temp.)

pH	Measure of acidity/alkalinity of a substance on a 1-14 scale (1=strong acid, 14 = strongly alkali)
STEL	Short Term Exposure Limit
TEL	Tolerable Exposure Limit
TLV	Threshold Limit Value – an exposure limit set by a competent authority
TWA	Time Weighted Average – average concentration of a chemical in air over a total exposure time (usually 8 hours)
UFL	Upper Flammability Limit
WES	Workplace Exposure Standard – set by WorkSafe NZ

The data in this Safety Data Sheet relates only to this product alone, and not to its use in combination with other substances or products. In such circumstances, assuming the combination is permitted (refer to product labels, and contact manufacturer if in doubt), be guided by the most hazardous of the substances involved and observe the more stringent of all hazard controls applicable to the products used.

Date of Safety Data Sheet: 21 September 2018

Reason for Revision: Review and update to new legislative requirements.

Further Information: Rainbow & Brown Limited
Toll-Free Phone (0508) 299 299