



MSF600 Herbicide

1. PRODUCT & COMPANY IDENTIFICATION

Product Identification: MSF600
Product Use: Herbicide
Company Identification: Rainbow & Brown Limited
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Date of Issue: August 2015

2. HAZARDS IDENTIFICATION

Classified under the HSNO Act as:

- 6.3B Harmful if swallowed
- 6.4A Irritating to eyes
- 9.1A Very ecotoxic in the aquatic environment
- 9.2A Very ecotoxic to plants

3. COMPOSITION/INFORMATION ON INGREDIENTS

<i>Ingredient</i>	<i>CAS Number</i>	<i>Proportion</i>
• Metsulfuron-methyl	74233-64-6	60%
• Ingredients not contributing to the hazards		Balance

4. FIRST AID MEASURES

Eyes: Flush with cold water immediately for at least 15 minutes. Seek medical advice.

Skin: Wash skin well with soap and water. Wash contaminated clothing before re-use.

Ingestion: Do not induce vomiting unless high doses have been swallowed. Drink plenty of water to dilute. Contact a doctor or Poisons Information Centre (0800 POISON – 0800 764 766).

Inhalation: If ill-effects occur, move to fresh air. If ill-effects persist seek medical attention.

Advice to Doctor: No specific antidote. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flash Point:	None.
Flammable Limits:	LFL 0.135g/L in air UFL Not Applicable
Extinguishing Media:	Water spray, dry chemical, foam, CO ₂
Fire & Explosion Hazards:	Not a fire or explosion hazard.
Fire Fighting Equipment:	Use self-contained breathing apparatus.
Fire Fighting Instructions:	If area is heavily exposed to fire and conditions permit, allow fire to burn itself out as water may increase the contaminated area.
HAZCHEM:	2X

6. ACCIDENTAL RELEASE MEASURES

Spills:	Use appropriate person protection clothing and equipment (see Section 8). Shovel or sweep up. Do not flush with water. Place spilled material in a container for disposal. If spill area is onto soil near valuable trees, remove top 50mm of soil after initial cleanup.
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7. HANDLING AND STORAGE

Handling:	Read the storage/handling precautions on the product label. Avoid eye, skin & clothing contact. Avoid inhaling vapour, dust or spray mist. After work, remove protective clothing and equipment, wash hands before eating, drinking, smoking or using toilet. 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, seed or fertilisers. Keep out of reach of children. Stores containing more than 100kg of this product, either alone or in aggregate with other hazardous substances, are subject to a requirement for an emergency response plan, secondary containment and signage.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure Guidelines:	AEL 10mg/m ³ (8 & 12 hour TWA)
Engineering Controls:	Use only with adequate ventilation.
Respiratory Protection:	No special precautions are necessary for respiratory protection under normal handling conditions. Concentrations exceeding the exposure guideline above will require an approved dust respirator.
Skin Protection:	Wear overalls and gloves while mixing or spraying
Eye Protection:	Wear face shield/goggles while mixing or spraying

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Off white/grey-brown granule
Melting Point:	158°C
Bulk Density:	700g/L
pH:	6-8 (1% solution)
Vapour Pressure:	3.3 x 10 ⁻⁷ Pa @ 25°C
Corrosivity:	Not corrosive
Oxidisation:	Not an oxidiser

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Incompatibility:	None known.
Hazardous Decomposition Products:	Decomposition will not occur.
Hazardous Polymerization:	Will not occur.

11. TOXOLOGICAL INFORMATION

Potential Health Effects. This section includes the possible adverse health effects that could occur if the substance is not handled as recommended.

Acute Effects-

Eye:	May cause eye irritation
Skin:	May cause skin irritation or sensitisation.
Ingestion:	Not considered toxic by ingestion.
Inhalation:	Not considered toxic by inhalation.
Toxicity Data:	(Data for 100% metsulfuron-methyl) Acute Oral LD ₅₀ (rat) >5,000mg/kg Acute Dermal LD ₅₀ (rabbit) >2,000mg/kg Inhalation LC ₅₀ 4hr (rat) 5mg/L air
Other Information:	No mutagenic, teratogenic, carcinogenic or adverse reproductive changes or neurotoxic effects.

12. ECOLOGICAL INFORMATION

Based on information for the metsulfuron-methyl active at 100%.
(note that this product is 60% active)

Aquatic toxicity: Fish LC₅₀ 96hr (rainbow trout, bluegill) >150mg/L
Soil toxicity: Worms LC₅₀ >1,000mg/kg soil.
Terrestrial vertebrates: Mallard LD₅₀ >5,0000mg/kg
Terrestrial invertebrates: Bee – not toxic
ERMA classifies this product as 9.1A and 9.2A

13. DISPOSAL CONSIDERATIONS

Disposal Method: Follow the label directions.
Triple rinse empty containers before disposal.
Do not burn empty containers that have not been rinsed. Burn in an appropriate incinerator if circumstances such as wind direction permit.
Otherwise crush or puncture and bury in a suitably approved landfill. Do not dispose of this product down drains or sewers. Follow all local, regional and national laws and regulations regarding hazardous waste disposal.

14. TRANSPORT INFORMATION

Dangerous Goods Classification:

Shipping Name: Environmentally hazardous substance, solid NOS
(metsulfuron-methyl)
Class: 9
UN Number: 3077
Packaging group: III
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: P7027
ERMA Approval No: HSR03008
Approved Handler: Approved Handler certification is NOT required to purchase, handle or apply this product, unless applied in wide dispersive manner, applied over water, or applied by a commercial contractor.
Tracking: Not required.

16. OTHER INFORMATION

Glossary

AEL	Acceptable Exposure Limit
DT ₅₀	Time (days) for 50% loss
EC ₅₀	Median effective concentration
EEL	Environmental Exposure Limit
ERMA	Environmental Risk Management Authority
HSNO	Hazardous Substances & New Organisms Act
Koc	Organic carbon partition coefficient (ml soil water/g organic carbon)
LFL	Lower Flammability Limit
LC ₅₀	Lethal Concentration in air or water for 50% of test organisms
LD ₅₀	Lethal Dose for 50% of test organisms
NOEL	No Observable Effect Level
OSHA	Occupational Safety & Health Administration (USA)
OSH	Occupational Safety & Health service (NZ)
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 ERMA/OSH

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 manufacturers 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.

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