



Glyphosate 360

1. PRODUCT & COMPANY IDENTIFICATION

Product Identification: Glyphosate 360
Product Use: Herbicide
Company Identification: Rainbow & Brown Limited
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Date of Issue: July 2015

2. HAZARDS IDENTIFICATION

Classified under the HSNO Act as:

- 6.1D Harmful if swallowed
- 6.4A Irritating to eyes
- 9.1B Ecotoxic in the aquatic environment

3. COMPOSITION/INFORMATION ON INGREDIENTS

<i>Ingredient</i>	<i>CAS Number</i>	<i>Proportion</i>
• Glyphosate acid as the IPA salt	1071-83-6	36% w/v
• Tallowamine ethoxylate	61791-26-2	10-20% w/v
• Other nonhazardous ingredients		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. Remove & 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:	Not flammable.
Extinguishing Media:	Water spray/fog, 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:	Addition of water may cause excessive foaming. Vapours may be toxic. Self-contained breathing apparatus required. Do not allow runoff to drains.

6. ACCIDENTAL RELEASE MEASURES

Spills:	Use appropriate protective clothing and equipment. Large spills: dike and pump as much as possible to a salvage container. Absorb remaining liquid and any smaller spills with clay, sand or other absorbent material and sweep to a waste container. Cover the spill area with water and absorb residue. Spills may be slippery and should be cleaned up promptly.
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7. HANDLING AND STORAGE

	Read the storage/handling precautions on the product label.
Handling:	Avoid eye, skin & clothing contact. Avoid inhaling spray mist. After work, remove protective clothing and equipment, wash hands before eating, drinking, smoking or using toilet. Wash clothing after use.
Storage:	Do not store in galvanised or unlined steel containers. 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.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure Guidelines:	None established by OSHA.
Engineering Controls:	Normal room ventilation is sufficient.
Respiratory Protection:	No special precautions are necessary for respiratory protection under normal handling conditions. If exposed to heated material, use an air respirator with organic vapour canister.
Skin Protection:	Wear overalls and chemical-resistant gloves while mixing or spraying.
Eye Protection:	Wear splash goggles while mixing or spraying.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Amber liquid
Boiling Point:	About 100°C
Density:	1165g/L
pH:	4-6 (1% solution)
Vapour Pressure:	Not available
Corrosivity:	Not corrosive
Oxidisation:	Not an oxidiser
Solubility:	Fully soluble in water

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Incompatibility:	Avoid using galvanised or unlined steel containers.
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 in some people.
Ingestion:	Harmful if swallowed.
Inhalation:	Moderately toxic by inhalation.
Toxicity Data:	Acute Oral LD ₅₀ (rat) >10,000mg/kg Acute Dermal LD ₅₀ (rabbit) >5,000mg/kg Inhalation LC ₅₀ 4hr (rat) 5-12mg/L air
Other Information:	No mutagenic, teratogenic, carcinogenic or adverse reproductive changes or neurotoxic effects.

12. ECOLOGICAL INFORMATION

Based on information for the active ingredient at 100% (this product c. 32%)

Aquatic toxicity: Fish LC₅₀ 96hr (rainbow trout) 86mg/L
LC₅₀ 48hr (water flea) 780mg/L
LC₅₀ 96hr (tadpole) >800mg/L
Soil toxicity: Not toxic to worms.
Terrestrial vertebrates: Not toxic to birds.
Terrestrial invertebrates: Not toxic to bees.

ERMA classifies this product as 9.1B (ecotoxic in aquatic environment)

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, liquid, NOS
(Glyphosate 360g/L)

Class: 9

Note: This product is not classified as a hazardous substance for land transport purposes when individual pack size does not exceed 5 litres, and a hazardous goods declaration is not required.

UN Number: 3082

Hazchem: 2X

15. REGULATORY INFORMATION

ACVM Registration No: P5441
ERMA Approval No: HSR000227
Approved Handler: Approved Handler certification is NOT required to purchase, handle or apply this product in any circumstances.
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