


**GA200 HERBICIDE****1. PRODUCT & COMPANY IDENTIFICATION**

<b>Product Identification/Name:</b>	GA200
<b>Product Use:</b>	Herbicide
<b>Company Identification:</b>	Rainbow & Brown Limited 68A Tallyho Street, Rotorua, New Zealand  PO Box 10049, Mail Centre, Rotorua, 3046
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<b>Toll-Free Phone:</b>	0508 299 299
<b>After Hours Emergency</b>	+64 27 498 2574
<b>National Poisons Centre</b>	0800 764 766
<b>Website:</b>	<a href="http://www.rainbowbrown.co.nz">www.rainbowbrown.co.nz</a>
<b>Date of Issue:</b>	17 January 2019
<b>Latest Revision Date:</b>	17 January 2019

**2. HAZARDS IDENTIFICATION**

<b>Classification of the substance or mixture (HSNO):</b>	6.1E oral – Acutely toxic substance if swallowed 6.3B – Mild skin irritant 6.4A – Eye irritant 6.8B – Suspected reproductive or developmental toxicant 6.9A oral – Toxic to human target organs or systems (kidneys) via ingestion 9.1C – Harmful to aquatic life with long lasting effects 9.2B – Ecotoxic in the soil environment 9.3C – Harmful to terrestrial vertebrates
<b>Classification of the substance or mixture (GHS):</b>	Acute toxicity: Oral Category 5 Skin corrosion/irritation Category 3 Serious eye damage/eye irritation Category 2 Reproductive toxicity Category 2 Specific target organ systemic toxicity oral (repeated exposure) Category 1 Aquatic toxicity (chronic) Category 3

	There are no GHS equivalent classifications for soil toxicity and terrestrial vertebrate toxicity.
<b>Label Elements:</b>	
<b>Pictogram</b>	
<b>Signal Word</b>	<b>DANGER</b>
<b>Hazard Statements</b>	<p>H303 May be harmful if swallowed.</p> <p>H316 Causes mild skin irritation.</p> <p>H319 Causes serious eye irritation.</p> <p>H361 Suspected of damaging fertility or the unborn child.</p> <p>H372 Causes damage to organs (kidneys) through prolonged or repeated exposure via ingestion</p> <p>H412 Harmful to aquatic life with long lasting effects.</p> <p>H422 Toxic to the soil environment.</p> <p>H433 Harmful to terrestrial vertebrates.</p>
<b>Precautionary Statements</b>	
<b>Prevention:</b>	<p>P201 – Obtain special instructions before use.</p> <p>P202 – Do not handle until all safety precautions have been read and understood.</p> <p>P260 – Do not breathe mist/vapours/spray.</p> <p>P264 – Wash hands, exposed skin, thoroughly after use.</p> <p>P270 – Do not eat, drink or smoke when using this product.</p> <p>P280 – Wear eye protection/face protection.</p> <p>P273 – Avoid release to the environment.</p>
<b>Response:</b>	<p>P332 + P313 – If skin irritation occurs: Get medical advice/attention.</p> <p>P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313 – If eye irritation persists: Get medical advice/attention.</p> <p>P308 + P313 – If exposed or concerned: Get medical advice/attention.</p> <p>P391 – Collect spillage.</p>

<b>Storage:</b>	P405 – Store locked up.
<b>Disposal:</b>	P501 – In accordance with the EPA Hazardous Substances (Disposal) Notice 2017. Refer to Section 13 of this SDS.
<b>Other:</b>	Must not be applied onto or into water.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Main Component	CAS Number	Concentration
Glufosinate-ammonium	77182-82-2	20%
Alkylpolyglucoside	68515-73-1	<10%
Sodium alkyl ether sulphate	68585-34-2	<10%
Ingredients not contributing to hazard		Balance

### 4. FIRST AID MEASURES

<b>Eye Contact:</b>	Hold eyes open, flush with water for at least 15 minutes. Seek medical attention if irritation develops and persists.
<b>Skin:</b>	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.
<b>Ingestion:</b>	Contact a doctor or Poisons Information Centre (0800 POISON – 0800 764 766). Do not induce vomiting unless directed to do so by doctor/physician. Rinse mouth. Do not give anything by mouth to an unconscious person.
<b>Inhalation:</b>	If inhaled, remove to fresh air. If effects persist seek medical attention.
<b>Advice to Doctor:</b>	Endotracheal intubation and gastric lavage should be performed as soon as possible, followed by charcoal and sodium sulphate administration. Respiratory, cardiac and central nervous systems should be monitored with particular regard to ECG, electrolyte balance (especially for potassium) and signs of increased intracranial pressure. In the event of a large exposure, dialysis and or hemoperfusion should be conducted as soon as possible to eliminate the

	compound from the body. In the event of convulsions, administer phenobarbital or diazepam. There is no specific antidote. Glufosinate-ammonium does not inhibit cholinesterase; thus atropine and 2-PAM are contraindicated. Recovery is normally spontaneous within 48 hours.
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## 5. FIRE FIGHTING MEASURES

<b>Flash Point:</b>	Not applicable
<b>Flammable Limits:</b>	Not flammable
<b>Extinguishing Media:</b>	Water spray, dry chemical, alcohol resistant foam, CO <sub>2</sub>
<b>Fire &amp; Explosion Hazards:</b>	Not a fire or explosion hazard. Toxic fumes and irritating vapours may be formed during a fire. Containers may explode at very high temperatures due to pressure build-up.
<b>Fire Fighting Equipment:</b>	Use self-contained breathing apparatus.
<b>Fire Fighting Instructions:</b>	Do not allow runoff to drains.
<b>Hazchem Code:</b>	2X

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	Clear area of all unprotected personnel. Keep unnecessary and unprotected personnel from entering area. Use appropriate protective clothing and equipment.
<b>Spills:</b>	<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. Spills may be slippery.</p> <p>Absorb liquid spill with clay, sand or other absorbent material and sweep into a waste disposal container. Do not use water for clean-up unless it can be entirely contained and absorbed for disposal.</p> <p>Label disposal containers. Dispose of waste in accordance with Section 13.</p>

## 7. HANDLING AND STORAGE

<b>Label:</b>	Read product label before use.
<b>Handling:</b>	Avoid contact with skin and eyes. Avoid inhaling mist/vapours/spray. 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.
<b>Storage:</b>	Store locked up. 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

<b>Exposure Guidelines:</b>	No established workplace exposure standard (WES) in NZ for the substance.
<b>Engineering Controls:</b>	Use in well-ventilated area.
<b>Respiratory Protection:</b>	Use an approved organic vapour respirator if there is a risk of inhaling mist/vapours/spray.
<b>Skin Protection:</b>	Wear protective clothing and chemical resistant gloves while handling.
<b>Eye Protection:</b>	Wear safety glasses with side shields while handling.
<b>Dust:</b>	N/A

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Blue-green liquid
<b>Odour:</b>	Weakly pungent
<b>Odour Threshold:</b>	Not determined
<b>Boiling Point:</b>	Not available
<b>Melting point:</b>	Not available
<b>Freezing point:</b>	Not available
<b>pH:</b>	5-7.5 (1% solution)
<b>Solubility:</b>	Soluble in water
<b>Evaporation rate:</b>	Not determined
<b>Flash Point:</b>	Not applicable

<b>Flammability:</b>	Not flammable or combustible
<b>LEL/UEL:</b>	Not applicable
<b>Vapour Pressure:</b>	Not available
<b>Decomposition Temperature:</b>	Not available
<b>Autoignition Temperature:</b>	Not determined
<b>Specific Gravity:</b>	1.100 g/mL @ 20°C
<b>Partition Coefficient:</b>	Not available
<b>Viscosity:</b>	Not available

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions.
<b>Reactivity:</b>	Not reactive under normal conditions of use.
<b>Conditions to Avoid:</b>	No special requirements.
<b>Incompatibility:</b>	Avoid strong oxidisers, strong acids and strong alkalis. Ammonia may be produced on contact with strong alkalis.
<b>Hazardous Decomposition Products:</b>	Oxides of carbon, phosphorus, sulphur and nitrogen may be formed during a fire. Ammonia may be formed in abnormal use conditions if product is mixed with strong alkalis.
<b>Hazardous Polymerisation:</b>	Will not occur.

## 11. TOXOLOGICAL INFORMATION

<b>ACUTE EFFECTS:</b>	
<b>Acute Effects: Ingestion:</b>	LD <sub>50</sub> >2000 - <5000 mg/kg, Harmful if swallowed.
<b>Acute Effects: Inhalation:</b>	LC <sub>50</sub> > 5 mg/L mist/spray. Not expected to be harmful by inhalation under normal conditions of use.
<b>Acute Effects: Skin:</b>	LD <sub>50</sub> > 5000 mg/kg. Not expected to be harmful by skin contact under normal conditions of use. Mild skin irritant.
<b>Acute Effects: Eye:</b>	Irritating to eyes.
<b>Sensitisation:</b>	Not expected to be a respiratory or contact sensitiser.
<b>CHRONIC EFFECTS:</b>	

<b>Carcinogenicity, Reproductive Toxicity, or Mutagenicity:</b>	Suspected human reproductive and developmental toxicant from repeated oral exposure.
<b>Specific Target Organ Toxicity:</b>	Causes damage to human target organs or systems (kidneys) via ingestion through prolonged or repeated exposure.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	LC/EC <sub>50</sub> >10 but ≤ 100 mg/L Harmful to aquatic life with long lasting effects. Avoid losses to the environment wherever possible.
<b>Persistence/degradability:</b>	Product is persistent.
<b>Bioaccumulation:</b>	Not determined
<b>Soil toxicity:</b>	EC <sub>50</sub> >1 and ≤10 mg/kg Ecotoxic in the soil environment. Soil DT <sub>50</sub> > 30 days.
<b>Terrestrial vertebrates:</b>	Harmful to terrestrial vertebrates.
<b>Terrestrial invertebrates:</b>	Not expected to be ecotoxic to terrestrial invertebrates.
<b>Mobility:</b>	Not available

## 13. DISPOSAL CONSIDERATIONS

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

## 14. TRANSPORT INFORMATION

<b>Dangerous Goods Classification:</b>	Not classified as a Dangerous Good for transport in accordance with NZS5433:2012, IMDG or IATA.
<b>Shipping Name:</b>	N/A
<b>Class:</b>	N/A
<b>UN Number:</b>	N/A
<b>Packaging group:</b>	N/A
<b>Marine Pollutant:</b>	N/A
<b>EmS Code:</b>	N/A

## 15. REGULATORY INFORMATION

<b>ACVM Registration No:</b>	P009422
<b>EPA Approval No:</b>	HSR007813
<b>Assignment Description:</b>	Water soluble concentrate containing 200 g/L Glufosinate-ammonium
<b>Certified Handler:</b>	Not required
<b>Tracking:</b>	Not required
<b>Compliance Certificate:</b>	Not required
<b>Quantity that must be secured:</b>	Not required
<b>Emergency Response Plan:</b>	1000L
<b>Secondary Containment:</b>	1000L
<b>Signage:</b>	1000L
<b>Fire Extinguishers:</b>	No fire extinguisher requirement specified.
<b>Training requirements:</b>	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.
<b>Other regulatory requirements:</b>	The substance must not be applied onto or into water.

## 16. OTHER INFORMATION

<b>Glossary</b>	
<b>AEL</b>	Acceptable Exposure Limit
<b>DT<sub>50</sub></b>	Time (days) for 50% loss
<b>EC<sub>50</sub></b>	Median effective concentration
<b>EEL</b>	Environmental Exposure Limit
<b>EPA</b>	Environment Protection Authority
<b>GHS</b>	Globally Harmonised System
<b>HSNO</b>	Hazardous Substances & New Organisms Act
<b>Koc</b>	Organic carbon partition coefficient



<b>LFL</b>	Lower Flammability Limit
<b>LC<sub>50</sub></b>	Lethal Concentration in air or water for 50% of test organisms
<b>LD<sub>50</sub></b>	Lethal Dose for 50% of test organisms
<b>NOEL</b>	No Observable Effect Level
<b>OSHA</b>	Occupational Safety & Health Administration (USA)
<b>OSH or Worksafe</b>	Worksafe New Zealand
<b>PEL</b>	Permissible Exposure Level
<b>Pow</b>	Octanol water partition coefficient (ratio of concentration of a chemical in octanol and water at equilibrium and at a specified temp.)
<b>pH</b>	Measure of acidity/alkalinity of a substance on a 1-14 scale (1=strong acid, 14 = strongly alkali)
<b>STEL</b>	Short Term Exposure Limit
<b>TEL</b>	Tolerable Exposure Limit
<b>TLV</b>	Threshold Limit Value – an exposure limit set by a competent authority
<b>TWA</b>	Time Weighted Average – average concentration of a chemical in air over a total exposure time (usually 8 hours)
<b>UFL</b>	Upper Flammability Limit
<b>WES</b>	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: 17 January 2019

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

Further Information:                      Rainbow & Brown Limited  
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