



## Grassmate Herbicide

### 1. PRODUCT & COMPANY IDENTIFICATION

|                                     |   |
|-------------------------------------|---|
| <b>Product Identification/Name:</b> | Grassmate   |
| <b>Product Use:</b>                 | Herbicide   |
| <b>Company Identification:</b>      | Rainbow & Brown Limited<br>68A Tallyho Street, Rotorua, New Zealand<br><br>PO Box 10049, Mail Centre, Rotorua, 3046 |
| <b>Telephone:</b>                   | +64 7 350 2009  |
| <b>Fax:</b>                         | +64 7 350 2008  |
| <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>               | 18 January 2019   |
| <b>Latest Revision Date:</b>        | 18 January 2019   |

### 2. HAZARDS IDENTIFICATION

|   |  |
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| <b>Classification of the substance or mixture (HSNO):</b> | 6.1D oral – Acutely toxic substance if swallowed<br>6.3B – Mild skin irritant<br>6.4A – Eye irritant<br>6.5B – Contact sensitiser<br>6.9B oral – Harmful to human target organs or systems (kidneys, liver)<br>9.1A – Very ecotoxic to aquatic life with long lasting effects<br>9.2A – Very ecotoxic in the soil environment<br>9.3C – Harmful to terrestrial vertebrates |
| <b>Classification of the substance or mixture (GHS):</b>  | Acute toxicity: Oral Category 4<br>Skin corrosion/irritation Category 3<br>Serious eye damage/eye irritation Category 2<br>Systemic target organ systemic toxicity (single exposure) Category 2<br>Aquatic toxicity (chronic) Category 1   |



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| <b>Storage:</b>  | <p>P333 + P313 – If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P363 – Wash contaminated clothing before reuse.</p> <p>P309 + P311 – IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.</p> <p>P391 – Collect spillage.</p> |
| <b>Disposal:</b> | <p>P405 – Store locked up.</p> <p>P501 – In accordance with the EPA Hazardous Substances (Disposal) Notice 2017. Refer to Section 13 of this SDS.</p>   |

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Main Component                         | CAS Number | Concentration |
|--|------------|---------------|
| Triclopyr Butoxyethyl Ester            | 64700-56-7 | 30%           |
| Picloram (as amine salt)               | 1918-02-1  | 10%           |
| Diethylene glycol monobutyl ether      | 112-34-5   | 40%           |
| Ingredients not contributing to hazard |            | Balance       |

### 4. FIRST AID MEASURES

|                          |  |
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| <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>       | Remove to fresh air. If effects persist seek medical attention.  |
| <b>Advice to Doctor:</b> | No specific antidote. Ingestion may cause kidney and or liver damage. Treat symptomatically.   |

## 5. FIRE FIGHTING MEASURES

|                                      |  |
|--------------------------------------|--|
| <b>Flash Point:</b>                  | >110°C   |
| <b>Flammable Limits:</b>             | Not flammable or combustible   |
| <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 produced in a fire. Containers may burst when exposed to 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.</p> <p>Contain spill. Absorb with inert material such as clay or sand. Shovel or sweep up and place into a container for disposal. 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>    | N/A   |
| <b>Handling:</b> | Avoid formation of mists/sprays. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Remove contaminated clothing and |

|                 |   |
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|                 | wash hands and face before entering eating areas.<br>Wash clothing after use.   |
| <b>Storage:</b> | Keep out of reach of children. 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 in NZ for product.<br>Picloram ingredient WES TWA 10mg/m <sup>3</sup>  |
| <b>Engineering Controls:</b>   | Normal room ventilation is sufficient.  |
| <b>Respiratory Protection:</b> | No special precautions are necessary for respiratory protection under normal handling conditions. If exposed to unusually high mist/spray concentrations, then use an approved respirator with organic cartridge. |
| <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>       | Light amber liquid  |
| <b>Odour:</b>            | Mild ester odour  |
| <b>Odour Threshold:</b>  | Not determined  |
| <b>Boiling Point:</b>    | Approx. 200°C   |
| <b>Melting point:</b>    | Not available   |
| <b>Freezing point:</b>   | Not available   |
| <b>pH:</b>               | 6.5-8 (5% solution)   |
| <b>Solubility:</b>       | Emulsifiable  |
| <b>Evaporation rate:</b> | Not determined  |
| <b>Flash Point:</b>      | >110°C  |
| <b>Flammability:</b>     | Not flammable or combustible  |
| <b>LEL/UEL:</b>          | Not applicable  |
| <b>Vapour Pressure:</b>  | Not determined for product.<br>Triclopyr ingredient: 3.6 x 10 <sup>-6</sup> Pa @ 25°C |

|                                   |  |
|-----------------------------------|--|
|                                   | Picloram ingredient: $6.16 \times 10^{-7}$ Pa @ 25°C |
| <b>Decomposition Temperature:</b> | Not available  |
| <b>Autoignition Temperature:</b>  | Not determined                                       |
| <b>Specific Gravity:</b>          | 1.125 g/mL @ 20°C                                    |
| <b>Partition Coefficient:</b>     | Not determined                                       |
| <b>Viscosity:</b>                 | Not determined                                       |

## 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 bases. Keep away from food, feedstuffs, seeds and fertilisers. |
| <b>Hazardous Decomposition Products:</b> | Oxides of carbon and nitrogen, hydrogen chloride gas, may be formed.   |
| <b>Hazardous Polymerisation:</b>         | Will not occur.  |

## 11. TOXOLOGICAL INFORMATION

|   |   |
|---|---|
| <b>ACUTE EFFECTS:</b>   |   |
| <b>Acute Effects: Ingestion:</b>                                | LD <sub>50</sub> approx. 1600 mg/kg, by calculation. Harmful if swallowed.              |
| <b>Acute Effects: Inhalation:</b>                               | Not expected to be harmful by inhalation under normal conditions of use.                |
| <b>Acute Effects: Skin:</b>                                     | Not expected to be harmful by skin contact. Mild skin irritant.                         |
| <b>Acute Effects: Eye:</b>                                      | Irritating to eyes.   |
| <b>Sensitisation:</b>   | Skin sensitiser. May cause an allergic skin reaction on prolonged or repeated exposure. |
| <b>CHRONIC EFFECTS:</b>   |   |
| <b>Carcinogenicity, Reproductive Toxicity, or Mutagenicity:</b> | No known carcinogenic, reproductive/developmental or mutagenic effects.                 |
| <b>Specific Target Organ Toxicity:</b>                          | May cause damage to kidneys and/or liver via ingestion.                                 |

## 12. ECOLOGICAL INFORMATION

|                                   |   |
|-----------------------------------|---|
| <b>Ecotoxicity:</b>               | LC/EC <sub>50</sub> < 1 mg/L<br><br>Very ecotoxic to aquatic life with long lasting effects. Avoid losses to the environment wherever possible. |
| <b>Persistence/degradability:</b> | Not readily biodegradable.  |
| <b>Bioaccumulation:</b>           | Not bioaccumulative   |
| <b>Soil toxicity:</b>             | Very ecotoxic in the soil environment. Soil DT <sub>50</sub> > 30 days.   |
| <b>Terrestrial vertebrates:</b>   | Harmful to terrestrial vertebrates.   |
| <b>Terrestrial invertebrates:</b> | No known toxicity.  |
| <b>Mobility:</b>                  | Picloram is very mobile and persistent.   |

## 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

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|--|---|
| <b>Dangerous Goods Classification:</b> | Classified as a Dangerous Good for transport in accordance with NZS5433:2012, IMDG or IATA. |
| <b>Shipping Name:</b>                  | Environmentally hazardous substance, liquid, N.O.S. (Triclopyr, Picloram)                   |
| <b>Class:</b>                          | 9   |
| <b>UN Number:</b>                      | 3082  |
| <b>Packaging group:</b>                | III   |
| <b>Marine Pollutant:</b>               | Yes   |
| <b>EmS Code:</b>                       | F-A S-F   |

## 15. REGULATORY INFORMATION

|                              |         |
|------------------------------|---------|
| <b>ACVM Registration No:</b> | P007417 |
|------------------------------|---------|

|                                       |  |
|---------------------------------------|--|
| <b>EPA Approval No:</b>               | HSR002485  |
| <b>Assignment Description:</b>        | Water emulsifiable concentrate containing 300g/L Triclopyr and 100g/L Picloram.  |
| <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>       | 100L   |
| <b>Secondary Containment:</b>         | 100L   |
| <b>Signage:</b>                       | 100L   |
| <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. 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. |
| <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<br>(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: 18 January 2019

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

Further Information:                      Rainbow & Brown Limited  
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