



SAFETY DATA SHEET

RESIDUAL HERBICIDE

1. SUBSTANCE IDENTIFICATION

Country Mile Residual Herbicide

Supplier name: Orion AgriScience Ltd
Supplier address: Unit 1, 15 Sir Gil Simpson Drive, Harewood, Christchurch, 8053
PO Box 39 071, Harewood, Christchurch, 8545
www.orionagriscience.co.nz | orders@orionagriscience.co.nz
Supplier phone: (03) 928 2386 (office hours) | 0800 674 6627 (free phone)
Emergency phone: Poison information: 0800 POISON (0800 764 766) 24 hours
Chemical emergency: 0800 CHEMCALL (0800 243 622) 24 hours
Use: Herbicide

2. HAZARDS IDENTIFICATION

HSNO Classifications: 6.1E, 6.4A, 6.8B, 6.9B, 9.1A, 9.2A, 9.3C

Pictograms:



Signal Word: WARNING

Hazard Statements

H303 May be harmful if swallowed
H319 Causes serious eye irritation
H361 Suspected of damaging fertility or the unborn child
H373 May cause damage to organs through prolonged or repeated exposure
H410 Very toxic to aquatic life with long lasting effects

Very toxic to some plant species (selective herbicide)
Harmful to terrestrial vertebrates

Prevention Statements

P101 If medical advice is needed, have product container or label at hand
P102 Keep out of reach of children
P103 Read carefully and follow all instructions
P264 Wash hands thoroughly after handling
P203 Obtain, read and follow all safety instructions before use
P280 Wear protective gloves/protective clothing/eye protection/face protection
P260 Do not breathe dust/fume/gas/mist/vapours/spray

Avoid contact with eyes and skin. Do not breathe in the spray mist. When mixing or applying, wear personal protection as described in section 8. Take all reasonable steps to ensure that this product does not cause any significant adverse effects to the environment beyond the application area. Do not apply directly into or onto water.

Response Statements

P301+P317 IF SWALLOWED: Get medical help
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing
P337+P317 If eye irritation persists: Get medical help
P318 If exposed or concerned, get medical advice
P319 Get medical help if you feel unwell
P391 Collect spillage

First aid measures described in section 4. Contain and collect spillage for disposal. In an emergency call 111, Police or Fire Brigade. For specialist advice in an emergency only, call 0800 CHEMCALL (0800 243 6225) (24 hrs).

Storage Statements

P405 Store locked up
Keep out of reach of children.

Disposal Statements

P501 Dispose of contents by using it in accordance with this label. Dispose of the container via AgRecovery after triple rinsing (use the rinsate for spraying).

3. COMPOSITION / INFORMATION ON INGREDIENTS

| COMMON NAME | CAS NUMBER | CONTENT (%w/v) |
|---|-------------|----------------|
| Terbutylazine (active ingredient) | 5915-41-3 | 35 |
| Glyphosate isopropylamine (active ingredient) | 38641-94-0 | 10 |
| Amitrole (active ingredient) | 61-82-5 | 7 |
| Terbutylazine (active ingredient) | 5915-41-3 | 35 |
| Other ingredients | Proprietary | Remainder |

4. FIRST - AID MEASURES

For advice call the National Poisons Centre 0800 POISON (0800 764 766) 24 hours or a doctor. If medical advice is needed have product container or label to hand.

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| Ingestion: | Seek medical advice |
| Skin Contact: | Wash with plenty of soap and water. Seek medical advice if irritation occurs. |
| Eye Contact: | Rinse cautiously with water for several minutes. Remove contact lenses, if easy to do so. Continue rinsing. Seek medical advice if irritation persists. |
| Inhalation: | Seek medical advice if feeling unwell |
| Workplace Facilities: | Hand wash facility. Eye wash facility |
| Advice to Doctor: | No specific antidote. Treat symptomatically |

Symptoms of Exposure which could occur if this material is not handled in accordance with instructions:

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|---------------|--|
| Ingestion: | Burning sensation in throat and chest, nausea, vomiting, diarrhoea |
| Skin Contact: | Mild Irritation |
| Eye Contact: | Irritation and eye damage |
| Inhalation: | Unknown |

5. FIRE FIGHTING MEASURES

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|-------------------------------------|--|
| Fire/Explosion Hazard: | Non-Flammable |
| HAZCHEM Code: | 3Z |
| ERP Guide No.: | 47 |
| Extinguishing Media: | Water spray, foam, dry chemical or CO ₂ . Avoid water jet. |
| Fire Fighting Instructions: | During a fire, toxic fumes may be emitted. Wear self-contained breathing apparatus. Contain runoff. |
| Specific Hazards Arising from Fire: | No data available |

6. ACCIDENTAL RELEASE MEASURES

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| Personal Precautions: | Caution: Floors may be slippery if wet. Wear personal protective clothing and equipment as described in section 8. Exclude non-essential people from the area. |
| Environmental Precautions: | Prevent further spillage or leakage. Prevent material from entering drains, waterways, etc. |
| Clean Up: | Absorb spillage with inert material such as spill kit, sand or cat litter. Collect and place in a sealable container for disposal. Wash down affected area with water and detergent. Absorb and collect washings for disposal. Dispose of safely to a suitable landfill. |

7. HANDLING AND STORAGE

Storage: Keep out of reach of children. Store in the original tightly closed container in a locked and secure area.
Handling and Use: Refer to Prevention statements in section 2 above. Exclude people and animals from the application area, both during application and for the duration of the REI. Do not exceed the maximum application rate of 25 L/ha, and do not apply more than twice per year.
REI: Until spray has dried

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Tolerable Exposure Limit: None established
Workplace Exposure Standards: Amitrole 0.2 mg/m³ (8hr TWA)
Engineering Controls: Select spray application equipment to minimize exposure to operator and bystanders

Personal Protection:
Eye: Safety glasses/goggles when mixing or applying
Skin: Chemical resistant overalls snugly fitting at the neck, wrist and ankle, boots and gloves
Respiratory: Not required where spray mist is not inhaled. Otherwise, respirator (organic vapour and particulate matter) is required. Clean protective equipment after use.

9. PHYSICAL AND CHEMICAL PROPERTIES

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|----------------------------------|--------------------------------|----------------------------|---------------------|
| Appearance / State / Odour: | Off-white liquid, Non-specific | pH: | 4.0 - 10.0 |
| Odour: | Non-specific | Vapour Pressure: | No data available |
| Odour Threshold: | No data available | Vapour Density: | No data available |
| Melting Point/Freezing Point: | No data available | Relative Density: | 1.15 g/mL (approx.) |
| Boiling Point: | >100°C | Solubility in Water: | Dispersible |
| Flash Point: | Not Applicable | Auto ignition Temperature: | Not Applicable |
| Flammability: | Not Applicable | Decomposition Temperature: | No data available |
| Upper/Lower Flammability Limits: | Not Applicable | Kinematic Viscosity: | No data available |

Partition Coefficient: n-octanol/water: See section 12

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions
Hazardous Reactions: None Expected
Incompatibility: None Known Hazardous
Decomposition Products: None Known

11. TOXICOLOGICAL INFORMATION

Acute Oral: LD50 > 2000 mg/kg
Acute Dermal: LD50 > 5000 mg/kg
Acute Inhalation: LD50 > 5 mg/L

Skin Irritant/Corrosive: None
Eye Irritant/Corrosive: Strongly Irritating
Sensitisation Effects: None
Mutagenic Effects: None
Carcinogenic Effects: None
Reproductive Effects: Animal feeding studies have found that rats fed amitrole at 5 – 25 mg/kg/day had fewer pups per litter, and weight at weaning was reduced. Animal feeding studies have found that amitrole at high doses (high enough to produce signs of toxicity in dams) birth defects occurred.
Specific Organ Toxicity: Animal feeding studies have found that rats fed amitrole at 3 - 6 mg/kg/day for 2 weeks showed enlarged thyroid glands, and long oral exposure can cause reversible goiter. Animal feeding studies have found that liver toxicity occurred in dogs and mice fed oxyfluorfen at 33 mg/kg/day.

12. ECOLOGICAL INFORMATION

The following information is presented in respect of the active ingredient.

Terbuthylazine

Acute Oral LD50 (Ducks) >1000 mg/kg
 LC50 (96 hr) (Rainbow trout) 3.8 – 4.6 mg/l
 LC50 (48 hr) (Daphnia) 21 – 50.9 mg/l
 EC50 (72 hr) (Algae) 0.016 – 0.024 mg/l
 Very toxic to some plant species (selective herbicide)
 Non - toxic to bees

Glyphosate isopropylamine

LC50 (96 hr) (Rainbow trout) >1000 mg/l
 LC50 (48 hr) (Daphnia) >930 mg/l
 LC50 (96 hr) (Green Algae) 72.9 mg/l
 Very toxic to plant species (herbicide)
 Non - toxic to bees

Amitrole

Acute Oral LD50 (Bobwhite quail) >2150 mg/kg
 LC50 (96 hr) (Rainbow trout) >1000 mg/l
 LC50 (48 hr) (Daphnia) >10 mg/l
 LC50 (96 hr) (Green Algae) 9 mg/l
 Very toxic to plant species (herbicide)
 Non - toxic to bees

Oxyfluorfen

Acute Oral LD50 (Bobwhite quail) >947 mg/kg
 LC50 (96 hr) (Bluegill sunfish) 0.2 mg/l
 LC50 (48 hr) (Daphnia) 1.5 mg/l
 EC50 (96 hr) (Algae) 5.04 mg/l
 Very toxic to some plant species (selective herbicide)
 Non - toxic to bees

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| Persistence/degradability: | Biodegradable. DT50 (soil) 30 - 60 days (terbuthylazine) Biodegradable. DT50 (soil) 3 - 174 days (glyphosate) Biodegradable. DT50 (soil) 18 days (amitrole) Biodegradable. DT50 (soil) 5 - 55 days (oxyfluorfen) |
| Bioaccumulative Potential: | Octanol-water partition coefficient LogP = 3.21 (high) (terbuthylazine) LogP = -5.4 (low) (glyphosate) LogP = -0.97 (low) (amitrole) LogP = 4.86 (high) (oxyfluorfen) |
| Soil Mobility: | Soil organic carbon water partitioning coefficient Koc = 39 (mobile) (terbuthylazine) Koc = 28 (mobile) (glyphosate) Koc = 28 (mobile) (amitrole) Koc = 28 (mobile) (oxyfluorfen) |
| Environmental Exposure Limit: | None established |

13. DISPOSAL CONSIDERATIONS

Product: Dispose of product by using it in accordance with the label. Waste product should be disposed of to a suitable landfill. For disposal of large quantities contact Orion AgriScience Ltd.
 Container: Dispose of to a suitable landfill or via AgRecovery. Do not burn. Do not use packaging for any other purpose.

14. TRANSPORT INFORMATION

| | LAND TRANSPORT (NZS 5433) | SEA TRANSPORT (IMDG / IMO) | AIR TRANSPORT (IATA / ICAO) |
|---------------------------|---|---|---|
| UN Number | 3082 | 3082 | 3082 |
| Proper Shipping Name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TERBUTHYLAZINE 35%, GLYPHOSATE ISOPROPYLAMINE 10%, AMITROLE 6%, OXYFLUORFEN 1.5%) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TERBUTHYLAZINE 35%, GLYPHOSATE ISOPROPYLAMINE 10%, AMITROLE 6%, OXYFLUORFEN 1.5%) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TERBUTHYLAZINE 35%, GLYPHOSATE ISOPROPYLAMINE 10%, AMITROLE 6%, OXYFLUORFEN 1.5%) |
| Transport hazard class | 9 | 9 | 9 |
| Packing Group | III | III | III |
| Additional Information | MARINE POLLUTANT | MARINE POLLUTANT | MARINE POLLUTANT |
| MTQ (Non-Commercial) | 1000 litres | 1000 litres | 1000 litres |
| Passenger Service Vehicle | No restriction | No restriction | No restriction |

15. REGULATORY INFORMATION

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| EPA Approval No.: | HSR007866 |
| ACVM Registration No. | Not required |
| Qualified Person: | Required |
| Certified Handler: | Not required |
| Workplace Only: | No |
| Tracking: | Not required |
| Record Keeping: | Not required (unless > 3 L applied within 24 hours, and which is likely to leave the application area) |

Site Requirements under EPA Notice and HSWHS Regs:

- A hazardous substance location compliance certificate is not required
- A hazardous area is not required
- Separation distances for class 3 and class 6 substances to protected places and public places is not applicable
- Fire extinguishers are not required
- Signage is required for more than 100 litres
- An emergency response plan is required for more than 100 litres
- Secondary containment is required for more than 100 litres
- Segregation from incompatible substances is not applicable

Refer to NZS 8409:2004 'Management of Agrichemicals', and relevant local and regional council plans

16. OTHER INFORMATION

Glossary

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| ADE | Acceptable Daily Exposure – A daily dose, received via any route, below which no adverse effects are expected over a lifetime of exposure |
| ACVM | Agricultural Compounds and Veterinary Medicines group of the Ministry of Primary Industries |
| Cat. | GHS category |
| Ceiling | A concentration that should not be exceeded at any time during any part of the working day Certified Handler |
| DT50 | Time (days) for 50% reduction in concentration |
| EC50 | Concentration required to produce an effect in 50% of organisms |
| Environmental Exposure Limit | Maximum concentration limit of a substance in an environmental medium, e.g., water, soil. |
| EPA Notice | Hazardous Property Controls Notice 2017 |
| ERP Guide | Dangerous Goods – Initial Emergency Response Guide SNZ HB 76:2008 |
| GHS | Globally harmonized system of classification and labelling of chemicals |
| Hazardous Substance Location Compliance Certificate | For locations storing hazard substances of certain classes above threshold quantities |
| Hazardous Area | A designated area designed for the presence of flammable substances - Refer AS/NZS 60079.10.1:2009 |
| HAZCHEM Code | Emergency action code for emergency services |
| HSWHS Regs | Health and Safety at Work (Hazardous Substances) Regulations 2017 |
| LC50 | Concentration that will kill 50% of organisms |
| MTQ | Maximum Transport Quantity. The maximum amount of dangerous goods that can be transported by road by the user |
| Notification | Advance notice given to neighbours and other affected parties, of details of proposed application, and other details as described |
| Octanol-Water Partition Coefficient | The partition coefficient of a substance between n-octanol and water, used as the Logarithm base 10 form, as an indicator that a substance may bioaccumulate |
| PDE | Permitted Daily Exposure - A daily dose below which no adverse effects are expected over a lifetime of exposure |
| Protected Place | Residential properties, schools, hospitals, kindys, factories, shops, warehouses, etc., and other places where people assemble |
| Public Place | A place frequented by the public, including roads (does not include private property) |

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| Qualified Person | A requirement for the loader, contractor or person applying the product to hold a qualification such as a GROWSAFE Certificate, Unit Standard 21563, etc. |
| Record Keeping | Includes a spray diary or other record of application |
| REI | Restricted Entry Interval – The length of time after application before entry into the treated area is permitted without the use of protective equipment. For indoor environments, this time period commences once ventilation after treatment begins. |
| Segregation | Certain classes of substances must not be in contact with, and must be stored separately from, certain other classes as specified in HSWHS Regs |
| Separation Distances | The distances specified in Part 11 and Part 13 of HSWHS Regs between storage and/or use of hazardous substances and protected places and/or public places |
| Signage | Positioned at entrances to commercial premises providing information on the hazardous substances present |
| Soil Adsorption Coefficient (Kd) | The ratio of the concentrations of a substance adsorbed onto a solid sorbent to that dissolved in a liquid phase. The higher the value the less mobile the chemical is in soil |
| Soil Organic Carbon-Water | The ratio of the mass of a chemical that is adsorbed in the soil per unit mass of organic carbon in the soil. |
| Partitioning Coefficient (Koc) | The ratio of the mass of a chemical that is adsorbed in the soil per unit mass of organic carbon in the soil. The higher the value the less mobile the chemical is in soil |
| STEL | Short term exposure level – 15 minute time weighted average |
| Tolerable Exposure Limit | Maximum concentration limit of a substance above which persons must not be exposed |
| Tracking | For some particularly hazardous substances, a record must be kept of the transport, storage, sale and use of the product |
| TWA | Time weighted average calculated over an 8 hour working day |
| Workplace Exposure Standard | An occupational health standard limiting concentrations of specified substances to which persons are exposed |
| Workplace Only | A product that is restricted to a workplace only and under the supervision of a certified handler |

Users must ensure that the most up to date version of this safety data sheet is used. This Safety Data Sheet summarises information on this product, and how to safely handle and use the product. Each user should familiarise themselves with the product label and Safety Data Sheet, and consider the information in the context of how the product will be handled and used, including in conjunction with other products. Orion AgriScience Ltd assumes no responsibility for the accuracy, completeness or suitability of this information. The user is responsible for determining the suitability and accuracy of this information for their particular purposes. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

End of Safety Data Sheet