



**Section 1 – Identification of the substance/preparation and the company**

**Product Name:** Donaghys Broadleaf Kill 2,4-D Amine  
**Company:** Donaghys Ltd.  
**Address:** 16 Sheffield Crescent  
PO Box 20 449  
Christchurch  
**Telephone Number:** NZ 0800 942 006  
AUS 1800 644 404  
**Recommended Use:** Selective herbicide  
**Emergency Contact** 0800 764 766 (National Poisons Centre)

**Section 2 – Hazard Identification**

**Classified as hazardous according to criteria in the Hazardous Substances (minimum degrees of hazards) Regulations 2001**

**EPA NZ Approval Code:** HSR000607

**HSNO Classification**

**Hazard Classes:** 6.1E, 6.4A, 6.9A, 9.1A, 9.2A, 9.3B



**6.1E** Substances that are acutely toxic – may be harmful, aspiration hazard

**6.4A** Substances that are irritating to the eye



**6.9A** Substances that are harmful to human target organs or systems

**9.1A** Substances that are very ecotoxic in the aquatic environment



**9.2A** Substances that are very ecotoxic in the soil environment

**9.3B** Substances that are ecotoxic to terrestrial vertebrates

**Hazard Statements**

- H303 May be harmful if swallowed
- H304 May be harmful is swallowed and enters airways
- H313 May be harmful if in contact with skin
- H319 Causes serious eye irritation
- H333 Harmful if inhaled
- H370 Causes damage to organs
- H400/410 Very toxic to aquatic life with long last effects



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H421 Very toxic to the soil environment

H433 Harmful to terrestrial vertebrates

### Prevention Statements (for more information see section 7)

P102 Keep out of reach of children

P103 Read Label before use

P260 Do not breath dust, mist, or spray

P264 Wash hands thoroughly after using

P270 Do not eat, drink, vape or smoke when using this product

P273 Avoid release to the environment

P280 Wear protective nitrile rubber gloves, protective overalls, chemical resistant safety glasses or full face protection

P281 Use personal protective equipment as required

### Response Statements (for more information see section 4)

P101 If medical advice is needed, have product container or label at hand

P314 Get medical attention is you feel unwell (see section 4)

P322 Specific first aid – see section 4

P330 Rinse mouth is ingested – see section 4

P363 Wash contaminated clothing before reuse

P301+312 If swallowed – call 0800 764 766 (national poison centre)

P304+340 If inhaled – Remove to fresh air and keep at rest in a position comfortable for breathing

P302+352 If on skin – wash with plenty of soap and water

### Section 3 – Composition Information

Chemical	CAS No.	Content
2,4-D dichlorophenoxyacetic acid (2,4-D Acid)	2569-01-9	400 g L <sup>-1</sup>
Triethanolamine	102-71-6	340 g L <sup>-1</sup>

Balance made up of non-hazardous material  
(ERMA New Zealand User Guide to the Thresholds and Classifications)

### IN CASE OF EMERGENCY PHONE

National Poisons Centre 0800 POISON (0800 764 766)

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### Section 4 – First Aid Measures

<b>General</b>	Never give anything by mouth to an unconscious person. Keep label or packaging available for emergency personal. Show this SDS to emergency personal if requested
<b>If Swallowed:</b>	DO NOT induce vomiting. Have person sip a glass of water if able to swallow. Get medical advice/attention immediately.
<b>If in eyes:</b>	Rinse cautiously with water for 15-20 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Contact the national POISON CENTRE or medical practitioner.
<b>If on skin:</b>	Wash with plenty of soap and water. Wash contaminated clothing before reuse. Contact a medical practitioner if symptoms persist.
<b>If inhaled:</b>	Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention. If person is not breathing, call 111 and request an ambulance.
<b>Advice for medical personal</b>	Treat according to symptoms. There are no specific antidotes

**POISON CENTRE CONTACT: 0800 764 766 (National Poisons Information Centre)**

### Section 5 – Fire-fighting Measures

<b>Flashpoint:</b>	Not flammable (tested to 200 °C)
<b>Combustion Products:</b>	May give off toxic nitrogen oxides, and hydrogen chloride in a fire
<b>Flammability Limits:</b>	Not available
<b>Protective Equipment:</b>	Self-contained breathing apparatus, protective gloves and clothing
<b>Extinguishing Media:</b>	Water fog, Foam, carbon dioxide, dry chemicals
<b>HazChem Code</b>	2Z
<b>Special Fire Fighting Methods:</b>	Prevent run off entering waterways



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### Section 6 – Accidental Release Measures

#### Small Spill (non-emergency personal)

**Spills and Disposal:**

Absorb spill with an inert material and place in suitable labeled container. We recommend kitty litter. For final cleaning up, a detergent based solvent may be required.

**Protective Equipment:**

Wear protective nitrile rubber gloves, face/eye protection and appropriate half-mask respirator (see section 8).

**Environmental  
Precautions:**

Avoid entry into waterways or streams. Prevent washings from entering waterways by damming or covering drain entrances, if safe to do so.

#### Large Spill (emergency personal)

**Spills and Disposal:**

Absorb spill with an inert material and place in suitable labeled container. We recommend kitty litter. For final cleaning up, a detergent based solvent may be required.

**Protective Equipment:**

Wear protective nitrile rubber gloves, face/eye protection and appropriate half-mask respirator (see section 8).

**Environmental  
Precautions:**

Avoid entry into waterways or streams. Prevent washings from entering waterways by damming or covering drain entrances, if safe to do so.

**Prevention**

Level 1 emergency management plans need to be in place for quantities between 0.1 and 5 L

Level 2 emergency management plans need to be in place for all workplaces and or quantities between 5 L and 100 L

Level 3 emergency management plans need to be in place for quantities above 100 L

See Hazardous Substances (Emergency Management) Regulations 2001

### Section 7– Handling and Storage

**Storage:**

Store out of direct sunlight.

Keep out of reach of children.

Do not store near waterways.

Do not store where damage may occur.

Do not handle until all safety instructions have been read and understood.

**Handling:**

Wear eye / face protection.

In case of inadequate ventilation wear respiratory protection.

Contaminated work clothing should not be allowed out of the workplace.

Avoid unintended release to the environment.

**Approved Handler**

This hazardous substance must be under the personal control of and approved handler when the substance is applied in a wide dispersive manner; or used by a commercial contractor.

For more information see Regulations 4-6 Hazardous substances (Personnel Qualifications) Regulations 2001.

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**Tracking regulations:** Do not apply

**Record Keeping** Records of use as described in NZS 8409 Management of Agrichemicals must be kept where more than 3 kg of this product is used within 24 hours in a place where pesticide is likely to enter air or water and leave the application area.

### Section 8 – Exposure Controls/Personal Protection

**These precautions are suggested for conditions where the potential for exposure to the product exists. Emergency conditions may require additional precautions.**

**Exposure Limits:** Workplace exposure - Time weighted average (TWA) 10 mg/m<sup>3</sup>  
Tolerable Exposure Limits: (TEL): Not Available  
Environmental Exposure Limits (EEL): Not available

Observe good work place practices and avoid contact with skin and eyes. To protect your skin and eyes, wear protective overalls, chemical resistant safety glasses and nitrile rubber gloves when handling. Wear eye / face protection. In case of inadequate ventilation, wear half mask filter respiration unit suitable for dust.

**Gloves**  
Wear nitrile rubber gloves with a minimum layer thickness of 0.11 mm. Break through time: 480 min This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Protective Equipment:** **Respiratory protection**  
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards

**Hygiene Precautions:** Do not eat, drink or smoke when using this product. Be careful not to contaminate yourself when removing contaminated clothing.

**Engineering Controls:** Handle in well ventilated area. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. Avoid inhalation of dust.

### Section 9 – Physical and Chemical Properties

**Appearance:** Creamy yellow liquid

**Odour** Slight phenolic/ammonical odour

**pH:** 7.5-9.5

**Vapour Pressure:** 1.40 × 10<sup>-7</sup> mm Hg at 20 °C (2,4-D)  
3.59X10<sup>-6</sup> mm Hg at 25 °C

**Vapour Density** Not available

**Boiling Point:** 160 °C at 4 mm Hg (2,4-D)  
350 °C at 4 mm Hg (Triethanolamine)

**Freezing/Melting point** 138 °C (2,4-D)

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21.5 °C at 4 mm Hg (Triethanolamine)

**Flash Point:** Not available

**Solubility:** Miscible in water (2,4-D 677 ppm at 25 °C)

**Specific Gravity:** 1.10-1.30 (mixture)

**Dissociation Constant (pK<sub>a</sub>)** 2.73 (2,4-D)  
7.76 (Triethanolamine)

### Section 10 – Stability and Reactivity

**Stability:** Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Conditions to Avoid:** Avoid direct sunlight, avoid generation of dust and excessive heat

**Materials to Avoid:** Incompatible with acids and oxidizing agents

**Hazardous Decomposition Products:** May give off toxic nitrogen oxides, and hydrogen chloride in a fire

### Section 11 – Toxicological Information

**Oral LD<sub>50</sub>:** Rat > 3000 mg kg<sup>-1</sup>  
The ingestion of several ounces of triethanolamine can probably be tolerated by man, but unless the liquid is partly neutralized with acid, alkali burns of the mouth, pharynx and esophagus are likely.

**Inhalation LC<sub>50</sub>:** Rat > 5.8 mg L<sup>-1</sup>

**Dermal:** Triethanolamine has been identified as causing allergic contact dermatitis, erythematous vesicular lesions, eczema, contact dermatitis, and irritation in workers exposed to triethanolamine in their occupations.

2,4-D contact with the skin may cause a rash prolonged exposure can cause dermatitis.

**Ocular:** Mild irritation

**Carcinogenicity:** Consensus from Worksafe is that 2,4-D does not cause cancer  
Triethanolamine is not classifiable as to its carcinogenicity to humans

**Reproductive toxicity** No conclusive evidence

**Genotoxicity** Not genotoxic.

**Neurotoxicity** No subchronic neurotoxicity.  
No neurodevelopmental toxicity.

### Section 12 - Ecological Information

**EPA Classification:** 9.1A, 9.2A, 9.3C

**Aquatic toxicity:** Very toxic to the aquatic environment

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<b>Vertebrate toxicity</b>	Substances that are ecotoxic to terrestrial vertebrates
<b>Invertebrate toxicity</b>	Substances that are ecotoxic to terrestrial invertebrates
<b>Soil toxicity</b>	Substances that are very ecotoxic in the soil environment
<b>Bioaccumulation</b>	No evidence
<b>Atmospheric toxicity</b>	Rapidly degrades in the atmosphere
<b>General</b>	2,4-D should not be used if there is a risk to bees and a risk of run off into waterways.

### Section 13 – Disposal Considerations

<b>Product Disposal:</b>	When empty, triple rinse container and add residues to spray tank. Dispose of empty container at an approved landfill or other approved facility. Avoid contamination of any water supply with product or empty container. Do not re-use container
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### Section 14 – Transport Information

<b>Proper Shipping Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID N.O.S (Contains 2,4-D))
<b>UN Number:</b>	3082
<b>DG Class:</b>	9
<b>Subsidiary Risk Class:</b>	N/A
<b>Packing Group:</b>	III
<b>HAZCHEM Code:</b>	2Z

### Section 15 – Regulatory Information

<b>EPA NZ Registration Code:</b>	HSR000607
<b>ACVM Approval Number:</b>	P007647
<b>Approved handler:</b>	This hazardous substance must be under the personal control of and approved handler when the substance is applied in a wide dispersive manner; or used by a commercial contractor. For more information see Regulations 4-6 Hazardous substances (Personnel Qualifications) Regulations 2001.
<b>Tracking requirements:</b>	Not required

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### Section 16 – Other Information

The information in this SDS is provided in good faith, but no warranty, expressed or implied is made. Contact Donaghys Ltd for more information.

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