

Vulcan Herbicide



Section 1: Identification

Product name:	Vulcan Herbicide
Other names:	100 g/litre Picloram as the amine salt and 300g/litre Triclopyr as the butoxyethyl ester in the form of an emulsifiable concentrate.
Recommended use:	For the control of gorse, broom, blackberry and other brushweeds and certain broadleaf weeds in pasture, forestry, amenity turf and non-cropland areas.
Manufacturer/Importer details:	Agritrade 1 Robin Mann Place Christchurch Airport PO Box 292, Christchurch 8140 Phone: 03 372 0890
24 hour emergency contact:	0800 CHEMCALL (0800 243 622)
National Poison Centre:	0800 POISON (0800 764 766)

Section 2: Hazard identification

	Product is classified as hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020 of the HSNO Act, 1996.
HSNO Approval:	HSR000553
Hazardous classification:	Flammable liquid Category 4, Acute oral toxicity Category 4, Acute inhalation toxicity Category 4, Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1



Signal word:	WARNING
Hazard statements:	H227 Combustible liquid. H302 Harmful if swallowed. H312 Harmful in contact with skin. H332 Harmful if inhaled. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H373 May cause damage to organs through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects.

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	<p>H421 Very toxic to soil environment. H433 Harmful to terrestrial vertebrates.</p>
Prevention statements:	<p>P103 Read label before use. P210 Keep away from heat and open flames. No smoking. P260 Do not breathe vapours or spray mist. P264 Wash hands and exposed skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves, protective clothing, eye protection, face protection.</p>
Response statements:	<p>P101 If medical advice is needed, have product container or label at hand. P370+P378 In case of fire: Use carbon dioxide, dry chemical, foam or water fog for extinction. P301+P312 IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell. P330 Rinse mouth. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P313 If skin irritation or rash occurs: Get medical attention. P312 Call a POISON CENTRE or doctor if you feel unwell. P363 Wash contaminated clothing before re-use. P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTRE or doctor if you feel unwell. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical attention. P314 Get medical advice/attention if you feel unwell. P391 Collect spillage.</p>
Storage statements:	<p>P403+P235 Store in a well-ventilated place. Keep cool.</p>
Disposal statement:	<p>P501 Dispose of product and containers in accordance with local Regulations. See section 13 for more details.</p>
Additional Label Requirements:	<p>Do not apply directly into or onto water. Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.</p>

Section 3: Composition/information on ingredients

Chemical identity of ingredients with health or environmental hazards:

<i>Ingredient</i>	<i>CAS No.</i>	<i>Proportion w/w</i>
Triclopyr as butoxyethyl ester*	64700-56-7	35 – 38%
Picloram as hexyloxypropylamine salt	1918-02-1	8 -9%

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Diethylene glycol ethyl ether	111-90-0	3 -4%
Other non-hazardous ingredients	-	Balance

* Triclopyr (CAS No 55335-06-3) 25 -27% w/w

Section 4: First-aid measures

First aid measures:	If medical advice is needed, have product container or label at hand. For advice contact National Poisons Centre 0800 POISON [0800 764 766] or a doctor.
Inhalation:	Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice if person feels unwell.
Ingestion:	Rinse mouth. Get medical advice if person feels unwell.
Skin contact:	Wash with plenty of soap and water. Get medical advice if skin irritation or rash occurs.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice if eye irritation persists.
First aid facilities:	Provide eye baths and safety showers close to areas where product contact or splashing may occur.
Advice to doctor:	Treat symptomatically.

Section 5: Fire-fighting measures

Flammability:	Combustible liquid.
Appropriate extinguishing media:	Carbon dioxide (CO ₂), dry chemical, foam, water fog.
Combustion products:	May produce toxic and irritating vapours under fire conditions. Refer to Section 10.
Special protective equipment and precautions for fire-fighters:	Self-contained breathing apparatus may be required in confined spaces.
HAZCHEM code:	3Z

Section 6: Accidental release measures

Personal precautions:	Combustible liquid. No smoking. Extinguish or remove all sources of ignition. Wear protective equipment; chemical resistant coveralls, boots, gloves, eye protection. Do not touch or walk through spilled material. Stop leak when safe to do so.
Environmental precautions:	Contain spill. Prevent from entering waterways, drains, sewers. Notify local authorities if contamination of waterway. Prevent chemical contaminating soil.

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Procedure for clean up: Isolate sources of ignition. Contain and recover liquid into a suitable labelled container for disposal. Absorb residue or small spills with suitable inert material, e.g. sand, vermiculite. Wash contaminated area with water and detergent, absorb and put in container for disposal. Dispose of contaminated waste at an approved facility.

Section 7: Handling and storage

Safe handling: Read label before use. Combustible liquid. No smoking. Keep away from heat and open flames. Wear personal protective equipment. To be used only by suitably qualified person and in compliance with HSNO Controls.

Safe storage: Keep out of reach of children. Keep container tightly closed when not in use. Combustible liquid. Store in secure, cool, well-ventilated area away from foodstuffs, seeds, fertilisers and human/animal health products. Storage must be in accordance with the current version NZS 8409 Management of Agrichemicals.

Section 8: Exposure controls/personal protection

Occupational exposure limits:

<i>Ingredient</i>	<i>Form of exposure</i>	<i>WES-TWA</i>	<i>WES-STEL</i>
Picloram	-	10 mg/m ³	-

Biological limit value: Not set.

Engineering controls: Use outdoors in well ventilated space. Otherwise use local extraction to keep below exposure guidelines.

Respiratory protection: Wear half or full mask fitted with particle filter when mixing or applying spray.

Hand protection: Chemical resistant gloves.

Eye protection: Chemical goggles or a face shield.

Skin protection: Overalls and boots.

General hygiene: Do not eat, drink or smoke while using. Wash hands and exposed skin thoroughly with soap and water before meals and after work. Wash protective clothing daily after work.

Section 9: Physical and chemical properties

(a) Appearance: Brown liquid.

(b) Odour: Mild

(c) Odour threshold: No data.

(d) pH: No data.

(e) Melting point/freezing point: Not applicable.

(f) Initial boiling point and boiling range: 196°C

(g) Flash point: 82°C

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(h)	Flammability (solid, gas):	No data.
(i)	Upper/lower flammability or explosive limits:	No data.
(j)	Vapour pressure:	10x10 ⁵ mm Hg at 33°C (triclopyr butoxyethyl ester) 65x10 ⁷ mm Hg at 35°C (picloram acid)
(k)	Vapour density:	No data.
(l)	Relative density:	1.124 at 20°C
(m)	Solubility:	Emulsifiable in water.
(n)	Partition coefficient: n-octanol/water:	No data.
(o)	Auto-ignition temperature:	No data.
(p)	Decomposition temperature:	No data.
(q)	Kinematic viscosity	No data.
(r)	Particle characteristics	Not applicable.

Section 10: Stability and reactivity

Stability of the substance:	Stable under normal conditions of storage and use.
Conditions to avoid:	Exposure to heat and sources of ignition.
Incompatible materials:	Oxidizing agents.
Hazardous decomposition products:	CO ₂ , and if combustion is incomplete, carbon monoxide and smoke oxides of nitrogen, hydrogen chloride gas, chlorides, and in some circumstances, phosgene.

Section 11: Toxicological information

	Toxicity classifications determined by assessment of the components in the formulated mixture.	
(i)	Acute toxicity:	Classified as acutely toxic if ingested or inhaled.
(ii)	Aspiration hazard:	Not classified as aspirant hazard.
(iii)	Respiratory irritation:	Not classified as respiratory irritant.
(iv)	Skin corrosion / irritation:	Mild skin irritant.
(v)	Serious eye damage / irritation:	Classified as serious eye irritant.
(vi)	Respiratory or skin sensitisation:	Triclopyr butoxyethyl ester is classified as a skin sensitizer.
(vii)	Germ cell mutagenicity:	Not classified as mutagenic.
(viii)	Carcinogenicity:	Not classified as carcinogenic.

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(ix) Reproductive toxicity:	Not classified as either a reproductive or developmental toxicant.
(x) Specific organ toxicity:	Target organ toxicant by repeated exposure. Picloram may affect liver and triclopyr butoxyethyl ester can have adverse effects on kidneys.
(xi) Narcotic effects:	Not classified.
Toxicological information for product:	Oral LD ₅₀ (rat): >2000 mg/kg bodyweight Dermal LD ₅₀ (rabbit): >2000 mg/kg
Toxicological information for triclopyr butoxyethyl ester:	Oral LD ₅₀ : 803 mg/kg bodyweight
Toxicological information for picloram:	Oral LD ₅₀ (mouse): 1061 mg/kg bodyweight

Section 12: Ecological information

	Ecotoxicological classifications determined by assessment of the components in the formulated mixture.
(a) Aquatic toxicity:	Toxic to aquatic life with long lasting effects.
(b) Terrestrial vertebrate toxicity:	Harmful to terrestrial vertebrates.
(c) Terrestrial invertebrate toxicity:	Not classified.
(d) Persistence and degradability:	Triclopyr ethoxyethyl ester and picloram are persistent and do not rapidly degrade. DT ₅₀ in soil >30 days.
(e) Potential to be bioaccumulative:	Triclopyr ethoxyethyl ester and picloram are not identified as being bioaccumulative in aquatic species.
(f) Mobility in soil:	Triclopyr ethoxyethyl ester and picloram are mobile in soil.
Ecotoxicological information for Triclopyr ethoxyethyl ester:	<i>Lepomis macrochirus</i> (bluegill sunfish) LC ₅₀ (96hr) 0.36 mg/L <i>Navicula pelliculosa</i> (freshwater diatom) EC ₅₀ (24hr) 0.10 mg/L <i>Daphnia magna</i> EC ₅₀ (48 hr) 1.7 mg/L <i>Crassostrea virginica</i> (Eastern oyster) EC ₅₀ (96hr) 0.46 mg/L Alfalfa EC ₂₅ 0.0129 mg/kg soil <i>Apis mellifera</i> (honey bee) LD ₅₀ (48hr) 14.5 µg/bee
Ecotoxicological information for picloram:	<i>Salvelinus namaycush</i> (lake trout) LC ₅₀ (96hr) 1.55 mg/kg <i>Selenastrum capricornutum</i> (green alga) EC ₅₀ (72hr) 36.79 mg/L <i>Daphnia magna</i> LC ₅₀ (48hr) 50.7 mg/L Bobwhite quail LD ₅₀ (21 days) 735 mg/kg

Section 13: Disposal considerations

Product disposal:	Dispose of this product only by using according to the label or through Agrecovery chemical disposal or similar approved service or to an approved landfill.
Container disposal:	Recycle through Agrecovery if possible or appropriate recycling facility. Alternatively, crush and bury in an approved landfill. Do not use container for any other purpose. Avoid contamination of any water supply or stream with product or empty container.

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Section 14: Transport information

UN number: 3082
UN proper shipping name: ENVIRONMENTALLY HAZRDOUS SUBSTANCE, LIQUID, N.O.S (contains Triclopyr 30%, Picloram 10%)
UN class: 9
Packing group: III
Subsidiary risk: -
Environmental hazards: Marine pollutant.
Special precautions: -

This product is classified as a Dangerous Good. Consult the Land Transport Rule: Dangerous Goods 2005 and NZS 5433:2020 Transport of Dangerous Goods on Land for more information

Section 15: Regulatory information

HSNO: Approved substance under the HSNO Act 1996.
HSNO approval number: HSR000553; Emulsifiable concentrate containing 100 - 170 g/litre picloram as the amine salt and 300 - 420 g/litre triclopyr as the butoxyethyl ester.
Tolerable exposure limit / environmental exposure limit: Not set.
HSNO controls: See www.epa.govt.nz
Additional controls: This substance must not be applied onto or into water.

Safety Data Sheet:	Any quantity
Restricted to workplace only:	No
Quantity that requires management in accordance with HSW HS Regulations:	100 L
Quantity for secondary containment and emergency response plan:	100 L
Quantity for signage:	100 L
Record of use if more that 3 kg applied to area within 24 hour period	Yes
Qualified handler required	Yes
Fire extinguishers:	2 required when 500L or more stored

Label requirements;

- Do not apply directly onto or into water.
- Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.

Refer to HS Notices (www.epa.govt.nz) and HSW HS Regulations (www.worksafe.govt.nz)

ACVM:

ACVM registration number: Registered under the Agricultural Compounds Veterinary Medicines Act 1997.

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Conditions of registration:	P009418 See www.foodsafety.govt.nz
Section 16: Other information	
Date of issue:	30/09/2021
Reason for reissue:	Updated regulations – GHS terminology and revised hazard classifications.
Replaces:	SDS issued March 2020.
Information references:	Supplier Safety Data Sheet NZ EPA Approved hazardous substances with controls Workplace Exposure Standards and Biological Exposure Indices
Abbreviations:	ACVM: Agricultural Chemicals and Veterinary Medicines Group HSNO: Hazardous substances and New Organisms Act 1996 (HSNO Act) EPA: Environmental Protection Authority of New Zealand CAS Number: Chemical Abstracts Service Number LD50: Lethal Dose 50% (Population) LC50: Lethal Concentration 50% (Population) WES-TWA: Workplace exposure standards – Time-weighted average WES-STEL: Workplace exposure standards – Short-term exposure limit

The data provided in this safety data sheet is based on current knowledge and experience. The purpose of this document is to describe the product in terms of its safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.