

## Eliminate Brushkiller

### Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

<b>Product Name:</b>	<b>ELIMINATE BRUSHKILLER</b>
<b>Product Code:</b>	7925090 (20Lt) 7925093 (200Lt)
<b>Recommended Use:</b>	Selective herbicide for the control of brushweeds and spot treatment of many broadleaf weeds.
<b>Restrictions of Use:</b>	Refer to Section 15
<b>Company Identification:</b>	Ravensdown Limited
<b>Address:</b>	292 Main South Road, Hornby, Christchurch, 8042 PO Box 1049, Christchurch 8011
<b>Customer Centre:</b>	0800 100 123
<b>National Poisons Information Centre:</b>	0800 POISON (0800 764 766)
<b>Emergency Phone Number:</b>	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
<b>Transport Emergency Phone Number:</b>	111 - tell operator what service is needed: Fire, Ambulance or Police
<b>Date of SDS Preparation</b>	14 September 2020

### Section 2: HAZARD IDENTIFICATION

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

<b>EPA Approval No:</b>	HSR002485
<b>Pictograms:</b>	
<b>Signal Word:</b>	<b>Warning</b>

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.3B	H316	Causes mild skin irritation.	Skin Irrit. 3
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.5B	H317	May cause an allergic skin reaction.	Skin Sens. 1
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	STOT RE 2
9.1A	H400	Very toxic to aquatic life.	Aquatic Acute 1
9.2A	H421	Very toxic to the soil environment.	-
9.3C	H433	Harmful to terrestrial vertebrates.	-

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe fumes, vapours and spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code	Storage Statement
None allocated	

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

### Section 3: COMPOSITION INFORMATION

INGREDIENT	CAS No.	CONTENT
Triclopyr (present as the butoxyethyl ester)	64700-56-7	30%
Picloram ( present as the amine salt)	1918-02-1	10%
Diethylene glycol monobutyl ether	112-34-5	30-40%
Non hazardous materials		20-30%

### Section 4: FIRST AID MEASURES

<b>Routes of Exposure:</b>	
<b>If in eyes:</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>If on skin:</b>	Remove contaminated clothing and wash affected area thoroughly with soap and water. If skin irritation or rash occurs: Get medical advice/attention.
<b>If ingested:</b>	Never give anything by mouth to an unconscious person. If swallowed DO NOT induce vomiting. For advice, contact the National Poisons Centre on 0800 POISON (0800 764 766). Seek medical assistance immediately.
<b>If inhaled:</b>	Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
<b>Most important symptoms and effects, both acute and delayed</b>	
<b>Symptoms:</b>	
<b>Eyes:</b>	Causes serious eye irritation.
<b>Skin:</b>	Causes mild skin irritation. May cause an allergic skin reaction.
<b>Ingested:</b>	Harmful if swallowed. Amounts as single exposure swallowed incidental to normal handling are unlikely to cause injury. Ingestion of relatively large amounts can result in headaches, nausea, lethargy, motor weakness and lack of co-ordination.
<b>Inhaled:</b>	Not applicable.
<b>Chronic:</b>	May cause damage to organs through prolonged or repeated exposure.
<b>Notes to Doctor:</b>	Treat symptomatically.

### Section 5: FIRE FIGHTING MEASURES

<b>Hazard Type</b>	Non Flammable
<b>Hazards from combustion products</b>	If involved in a fire, toxic fumes may be emitted.
<b>Suitable Extinguishing media</b>	Water fog, foam, carbon dioxide or dry chemical.
<b>Precautions for firefighters and special protective clothing</b>	Full protective clothing and self-contained breathing apparatus.
<b>HAZCHEM CODE</b>	<b>3Z</b>

### Section 6: ACCIDENTIAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures:</b>
Wear appropriate protective clothing as detailed in Section 8. Exclude non-essential people from the area.

**Environmental precautions:**

Prevent from entering drains, waterways or sewers. If spill does enter waterways contact local authority.

**Methods and material for containment and cleaning up:**

Contain spill and absorb with inert material such as soil, sand or absorbent granules and place in a sealable waste container. Dispose of waste safely in an approved landfill. Dispose of according to Section 13.

**Section 7: HANDLING AND STORAGE**

<b>Handling:</b>	<p>Read label before use.</p> <p>Avoid contact with skin, eyes and inhalation of spray mist.</p> <p>Do not breathe fumes, vapours and spray.</p> <p>Wash hands thoroughly after handling.</p> <p>Do not eat, drink or smoke when using this product.</p> <p>Use only outdoors or in a well-ventilated area.</p> <p>Contaminated work clothing should not be allowed out of the workplace.</p> <p>Avoid release to the environment.</p> <p>Wear protective clothing as detailed in Section 8.</p> <p>Record Keeping: Records of use as described in NZS 8409 Management of Agrichemicals must be kept.</p>
<b>Storage:</b>	<p>Keep out of reach of children.</p> <p>Store away from incompatible materials listed in Section 10.</p> <p>Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertiliser and seed.</p> <p>Store in accordance with NZS 8409 Management of Agrichemicals</p> <p>This product is subject to signage and secondary containment when stored in quantities of 100litres or more, either alone or in aggregate with substances of the same hazard classification. More than 100litres require emergency response plans. For full details refer to NZS 8409 Management of Agrichemicals and HSWA Regulations</p>

**Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION****WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

Substance		TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Picloram	[1918-02-1]	-	10	-	-

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2019 11<sup>TH</sup> EDITION.

**Engineering Controls:** Handle in well ventilated area, natural ventilation is normally adequate. Avoid inhalation of spray mist.

**Personal Protection Equipment:**

<b>Eyes:</b>	When opening the container, preparing spray and when contact with concentrate or solution is likely, wear safety goggles.
<b>Skin/Hands:</b>	When opening the container, preparing spray and when contact with concentrate or solution is likely, wear chemically resistant gloves, cotton overalls buttoned to the neck and wrist, and boots.
<b>Respiratory:</b>	Not required.
<b>General:</b>	Do not eat, drink or smoke while using this product. Remove protective clothing and wash hands and face before meals and after work. Wash protective clothing daily after work.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Liquid
<b>Colour</b>	Clear brown
<b>Odour</b>	Faint solvent odour
<b>Odour Threshold</b>	Not available
<b>pH</b>	3.0 – 5.0
<b>Boiling Point</b>	Not available

<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Not available
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Specific Gravity</b>	1.13
<b>Bulk Density</b>	Not available
<b>Water Solubility</b>	Emulsifies in water
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Kinematic Viscosity</b>	Not available
<b>Particle Characteristics</b>	Not available
<b>Other information</b>	(EC) Emulsifiable concentrate

## Section 10: STABILITY AND REACTIVITY

<b>Stability of Substance</b>	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.
<b>Possibility of hazardous reactions</b>	Not available
<b>Conditions to Avoid</b>	None known.
<b>Incompatible Materials</b>	Avoid contact with strong acids and oxidising agents.
<b>Hazardous Decomposition Products</b>	None known.

## Section 11: TOXICOLOGICAL INFORMATION

### Acute Effects:

<b>Swallowed</b>	Harmful if swallowed. LD <sub>50</sub> (rat) 803mg/kg for triclopyr butoxyethyl ester, 1061mg/Kg for picloram. Amounts as single exposure swallowed incidental to normal handling are unlikely to cause injury. Ingestion of relatively large amounts can result in headaches, nausea, lethargy, motor weakness and lack of co-ordination.
<b>Dermal</b>	Not triggered. LD <sub>50</sub> (rabbit) >2000mg/kg for triclopyr butoxyethyl ester
<b>Inhalation</b>	Not triggered. LC <sub>50</sub> (rat) (4hr) >4.8mg/l for triclopyr butoxyethyl ester, >0.035mg/L for picloram. Solvent content in the concentrate may cause irritation of the eyes and respiratory tract. When applying this product avoid inhalation of spray mist.
<b>Eye</b>	Causes serious eye irritation.
<b>Skin</b>	Causes mild skin irritation and may cause an allergic skin reaction.

### Chronic Effects:

<b>Carcinogenicity</b>	Not applicable.
<b>Reproductive Toxicity</b>	Not applicable.
<b>Germ Cell Mutagenicity</b>	Not applicable.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	Not applicable.
<b>STOT/RE</b>	May causes damage to organs through repeated or prolonged exposure. Excessive exposure may have adverse effects on liver and kidneys.

## Section 12: ECOLOGICAL INFORMATION

HSNO Classes: 9.1A = Very toxic to aquatic life.  
9.2A = Very ecotoxic to the soil environment.  
9.3C = Harmful to terrestrial vertebrates.

### Product:

<b>Persistence and degradability</b>	Rapidly hydrolysed to triclopyr acid in soil and water. Triclopyr has a half-life of approximately 40 days depending on temperature and soil type. Leaching may be possible on light soils with high rainfall. Picloram is relatively persistent in the soil with an estimated average half-life of 90 days. Picloram is relatively mobile in the soil.
<b>Bioaccumulation</b>	Triclopyr is excreted via the urinary system as the unchanged compound. Unlikely to bioaccumulate. Picloram does not bioaccumulate in organisms.
<b>Mobility in Soil</b>	No data available.
<b>Other adverse effects</b>	Avoid unintended release into streams and waterways.

**Ecotoxicity:**

**Acute Toxicity (fish)**  
 LC<sub>50</sub> (bluegill sunfish) (96hr) 0.39mg/l (triclopyr butoxyethyl ester), 39.9mgae/L (picloram)  
 LC<sub>50</sub> (rainbow trout) (96hr) 0.65mg/l (triclopyr butoxyethyl ester), 13.7mgae/L (picloram)

**Acute Toxicity (daphnia)**  
 LC<sub>50</sub> (48hr) 12mg/l (triclopyr butoxyethyl ester), EC<sub>50</sub> 68.5mgae/L (picloram)

**Very toxic to fish and other aquatic organisms**

**Acute toxicity to birds**  
 LD<sub>50</sub> (bobtail quail) 735mg/kg (triclopyr), LD<sub>50</sub> (mallard duck) >2510mgae/L (picloram)

**Not toxic to birds**

**Acute toxicity (bees)**  
 LD<sub>50</sub> >100µg/bee (triclopyr), >100µg/bee (picloram)

**Not toxic to bees**

### Section 13: DISPOSAL INFORMATION

Disposal Method:	Triple rinse container and add rinsate to spray tank.
Container Disposal:	Triple rinsed containers containing the Agrecovery logo on the label and that are free of all residues and have an intact legible label may be taken to an Agrecovery collection site for disposal. Otherwise crush and bury in an approved landfill. Do not use container for any other purpose.
Precautions or methods to avoid:	Do not allow to enter waterways.

### Section 14: TRANSPORT INFORMATION

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012



#### Road, Rail, Sea and Air Transport

<b>UN No</b>	3082
<b>Class - Primary</b>	9
<b>Packing Group</b>	III
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (triclopyr 30%, picloram 10%)
<b>Marine Pollutant</b>	Yes
<b>Special Provisions</b>	If the product's individual container is below 5L, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

### Section 15: REGULATORY INFORMATION

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

<b>EPA Approval Code:</b>	HSR002485
<b>HSNO Classification:</b>	6.1D(oral), 6.3B, 6.4A, 6.5B, 6.9B, 9.1A, 9.2A, 9.3C

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	100L (9.1A)
Emergency Response Plan (Schedule 5)	100L (9.1A)
Secondary Containment (Schedule 5)	100L (9.1A)
Tracking (Schedule 26)	Not required
Certified Handlers	Not required
HSNO Additional Controls (Restrictions of use)	
77A -	The substance must not be applied onto or into water.
Hazardous Property Controls Notice 2017	
HPC Notice Part 4 Clause 47	Equipment for class 9 substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of class 9 pesticides and plant growth regulators
HPC Notice Part 3	Hazardous substances in a place other than a workplace.
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances
HPC Notice Part 4 Subpart C	Qualifications required for application of class 9 pesticides.

**Section 16: OTHER INFORMATION****Glossary**

EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

## References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

**Disclaimer**

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Please contact Ravensdown, if further information is required.

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