

Terbagran

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name:	Terbagran
Product Code:	7954107 (10Kg)
Recommended Use:	Selective herbicide for the control of broadleaf and grass weeds in forestry, lucerne, maize, sweetcorn, peas, certain orchard crops and non crop situations.
Restrictions of Use:	Refer to Section 15
Company Identification:	Ravensdown Limited
Address:	292 Main South Road, Hornby, Christchurch, 8042 PO Box 1049, Christchurch 8011
Customer Centre:	0800 100 123
National Poisons Information Centre:	0800 POISON (0800 764 766)
Emergency Phone Number:	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
Transport Emergency Phone Number:	111 - tell operator what service is needed: Fire, Ambulance or Police
Date of SDS Preparation	9 May 2024 v2

Section 2: HAZARD IDENTIFICATION

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No:	HSR000388
Pictograms:	
Signal Word:	Warning

GHS Classification and Category	Hazard Code	Hazard Statement
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Acute inhalation toxicity Cat. 4	H332	Harmful if inhaled.
Hazardous to the aquatic environment acute Cat. 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment chronic Cat. 1	H410	Very toxic to aquatic life with long lasting effects.
Hazardous to soil organisms	H421	Hazardous to soil organisms
Hazardous to terrestrial vertebrates	H433	Hazardous to terrestrial vertebrates

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P261	Avoid breathing dust, fumes, gas, mist, vapours or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

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
Terbutylazine	5915-41-3	90%
Non-hazardous ingredients		10%

Section 4: FIRST AID MEASURES

Routes of Exposure:	
If in eyes:	Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
If on skin:	Remove contaminated clothing and wash affected area thoroughly with soap and water. If skin irritation or rash occurs: Get medical advice/attention.
If ingested:	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.
If inhaled:	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.
Most important symptoms and effects, both acute and delayed	
Symptoms:	
Eyes:	Not applicable.
Skin:	Not applicable.
Ingested:	Harmful if swallowed.
Inhaled:	Harmful if inhaled.
Chronic:	Not applicable.
Notes to Doctor:	No specific antidote. Treat symptomatically

Section 5: FIRE FIGHTING MEASURES

Hazard Type	Non Flammable. Forms explosive mixture with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.
Hazards from combustion products	If involved in a fire may evolve hydrogen chloride, carbon oxides and nitrogen oxides. Vapors are heavier than air and may spread along floors.
Suitable Extinguishing media	Water fog, foam, carbon dioxide or dry chemical.
Precautions for firefighters and special protective clothing	Full protective clothing and self-contained breathing apparatus.
HAZCHEM CODE	2Z

Section 6: ACCIDENTIAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

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:

Sweep up solids without generating dust. Contain liquid 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 and of according to Section 13.

Section 7: HANDLING AND STORAGE

Handling:	<p>Read carefully and follow all instructions.</p> <p>Avoid breathing dust, fumes, gas, mist, vapours or 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>Avoid release to the environment.</p> <p>Record keeping: Records of use as described in NZS 8409 Management of Agrichemicals must be kept where more than 3kg of this product is used within 24hrs in a place where the pesticide is likely to enter air or water and leave the place.</p>
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Storage:	<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 100kg or more, either alone or in aggregate with substances of the same hazard classification. More than 100kg require emergency response plans. For full details refer to NZS 8409 Management of Agrichemicals and HSWA Regulations.</p>
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Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
No ingredients have exposure limits.				

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 2023 14TH EDITION.

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 spray mist.
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Personal Protection Equipment:	
	
Eyes:	When opening the container, preparing spray and when contact with concentrate or solution is likely, wear safety goggles.
Skin/Hands:	When opening the container, preparing spray and when contact with concentrate or solution is likely, wear waterproof gloves, cotton overalls buttoned to the neck and wrist, and boots.
Respiratory:	Not required.
General:	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

Appearance	Granule
Colour	Light brown
Odour	Odourless
Odour Threshold	Not available
pH	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Density	Not available
Specific Gravity	Not available
Bulk Density	Not available
Water Solubility	Disperses in water
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available
Other information	(DF) Dry Flowable

Section 10: STABILITY AND REACTIVITY

Stability of Substance	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.
Possibility of hazardous reactions	Hazardous polymerization does not occur. At elevated temperatures it will undergo rapid, gas evolving thermal decomposition.
Conditions to Avoid	Strong heating.
Incompatible Materials	Avoid contact with strong oxidising agents.
Hazardous Decomposition Products	May decompose at high temperatures forming toxic gases. Refer to Section 5.

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

Swallowed	Harmful if swallowed. LD ₅₀ (rat) 1590-2000mg/kg for terbuthylazine Amounts as single exposure swallowed incidental to normal handling are unlikely to cause injury.
Dermal	LD ₅₀ (rat) >2000mg/kg for terbuthylazine
Inhalation	Harmful if inhaled. LC ₅₀ (rat) (4hr) >5.3mg/l for terbuthylazine
Eye	Not applicable.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Section 12: ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

Hazardous to soil organisms.

Hazardous to terrestrial vertebrates.

Product:

Persistence and degradability / Mobility in Soil	Potential for mobility as terbuthylazine is only weakly adsorbed by the soil. Microbial degradation is the major cause of loss from the soil. Half-life in soil is typically 30-60days. Degradation is slower in cold temperatures and dry soils.
Bioaccumulation	No data available.
Other adverse effects	Avoid unintended release into streams and waterways.

Ecotoxicity:

Acute Toxicity (fish) (terbuthylazine)

LC₅₀ (rainbow trout) (96hr) 3.8-4.6mg/l

Acute Toxicity (daphnia) (terbuthylazine)

EC₅₀ (48hr) 21-50mg/l

Very toxic to aquatic organisms

Hazardous to terrestrial vertebrates

Acute Toxicity (bees)

LD₅₀ >100ug/bee

Non-toxic to bees

Section 13: DISPOSAL INFORMATION

Disposal Method:	Triple rinse container and add rinsate to the spray tank where practical to do so. Dispose of product only by using in accordance with label directions, or through Agrecovery Chemical Recovery Service or alternative approved programs.
Container Disposal:	Ensure packaging is completely empty, triple rinse where practical to do so. Recycle any packaging where possible through an approved program. Otherwise crush and bury in a suitable landfill or other approved facility. Do not burn. Do not use container for any other purpose.
Precautions or methods to avoid:	Do not allow product or empty container to contaminate any waterway.

Section 14: TRANSPORT INFORMATION

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2020



Road, Rail, Sea and Air Transport

UN No	3077
Class - Primary	9
Packing Group	III
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (terbuthylazine 90%)
Marine Pollutant	Yes
Special Provisions	If the product's individual container is below 5kg, 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 2020

EPA Approval Code: HSR000388

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	100L
Emergency Response Plan (Schedule 5)	100L
Secondary Containment (Schedule 5)	100L
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.
ACVM Act and Regulations	
See www.foodsafety.govt.nz for registration conditions	P9967

Section 16: OTHER INFORMATION

Glossary

Cat	Category
EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	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 2023 14th edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact Ravensdown, if further information is required.

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