

WARNING – KEEP OUT OF REACH OF CHILDREN. ECOTOXIC



ravensdown

HERBICIDE

Terbagran™

A selective herbicide for the control of broadleaf and grass weeds in forestry, lucerne, maize, sweetcorn, peas, certain orchard crops and non crop situations.

ACTIVE INGREDIENT:

Contains 900g/kg terbuthylazine in the form of a water dispersible granule.

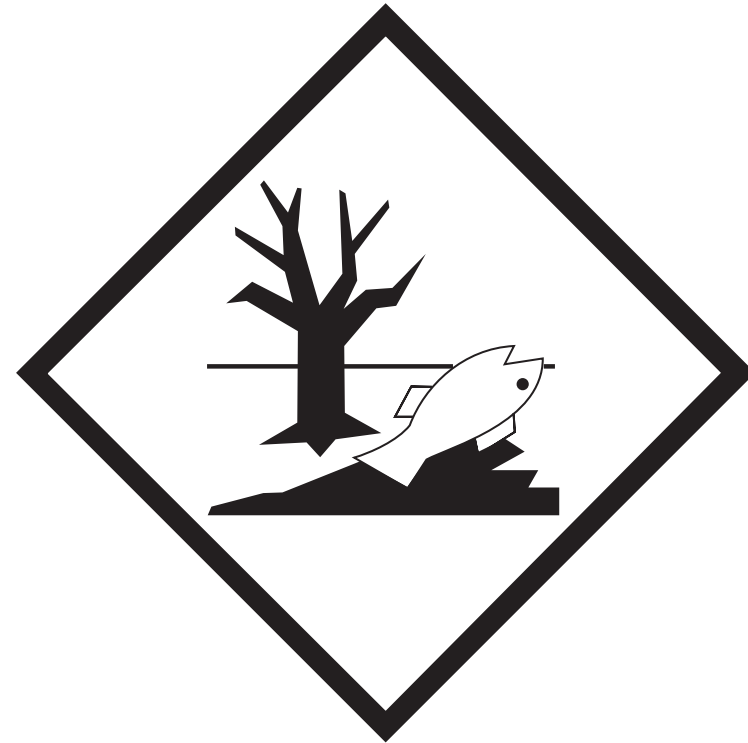


NET CONTENTS
10Kg

Registrant: Ravensdown Ltd
292 Main South Road
Hornby, Christchurch 8042
New Zealand
Phone: 03 353 4600
ravensdown.co.nz

BATCH:
D.O.M:

Proper shipping name:
ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, SOLID, N.O.S.
(contains terbuthylazine)



TERBAGRAN™

In a 24 hour emergency phone 0800 Chemcall (0800 243 622)

UN NUMBER
3077

PACKING GROUP
III

HAZCHEM
22

ravensdown

TERBAGRAN™ | READ LABEL CAREFULLY BEFORE USING

This product must not be used for any purpose, or in any manner, contrary to the label unless authorised under appropriate legislation.

HAZARD CLASSIFICATION: 6.1D, 9.1A, 9.2A, 9.3C.	
QUALIFIED PERSON: This product must be under the control of a Qualified Person or Contractor, as per Part 4C of the Hazardous Property Controls EPA Notice.	
TOXICITY WARNING: Harmful if swallowed. Inhaled or absorbed through the skin.	ECOTOXICITY Very toxic to aquatic organisms. Avoid contamination of any water supply with chemical or empty container. Do not apply directly into or onto water. Very toxic to the soil environment. Selective herbicide - very toxic to some plant species. Decontaminate spray equipment before use on a sensitive crop. Beware - apply this product carefully. Spray drift may cause serious damage to desirable plants. Harmful to terrestrial vertebrates. Ensure any granules are not accessible to birds
HANDLING PRECAUTIONS	
STORAGE Keep out of the reach of children Storage must be in accordance with the current version of NZS 8409 Management of Agrichemicals. Store in the original container in a secure, dry, cool area away from foodstuffs, fertilisers and seeds. Avoid storage at temperatures below 5°C and above 35°C. Stores containing 100kg of TERBAGRAN are subject to signage and secondary containment. More than 100kg require emergency response plans.	EQUIPMENT Apply using well maintained and accurately calibrated equipment. Do not use strainers finer than 300 micrometres. Clean equipment thoroughly after use with clean water. RECORD KEEPING Records of use as described in NZS 8409 Management of Agrichemicals must be kept if more than 3kg of TERBAGRAN is applied within a 24 hour period. DISPOSAL Triple rinse container and add rinseate to spray tank. Crush and bury empty packaging in an approved landfill. Do not burn. Do not use container for any other purpose. Dispose of product only by using in accordance with label directions or dispose of safely at a managed landfill.
PERSONAL PROTECTION Avoid contact with skin and eyes. Do not inhale spray mist. When handling, wear eye protection, waterproof gloves, boots and overalls. Remove protective clothing and wash hands and face thoroughly before meals and after work. Do not eat, drink or smoke while using.	

FIRST AID

If medical advice is needed, have product container or label at hand. If swallowed, rinse mouth. DO NOT induce vomiting. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If splashed in eyes, wash out immediately with water. For advice, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor if you feel unwell.

SPILLAGE

In case of spillage, wear appropriate protective clothing and prevent material from entering waterways. Exclude non-essential people from the area. Sweep up solids without creating a dust. Contain liquid spills and absorb with inert material such as soil or sand etc. and place in waste containers. Wash area with water and absorb with further inert material. Dispose of waste safely in an approved landfill.

EMERGENCY RESPONSE

In transport emergency call 111, Police or Fire Brigade. For 24hr specialist advice in an emergency only call 0800 CHEMICAL (0800 243 622).

SAFETY DATA SHEET

If additional safety information is required, refer to the Safety Data Sheet. For a copy, contact the customer centre on 0800 100 123.

TRANSPORT

Do not carry more than 10kg TERBAGRAN on a passenger service vehicle.

SHELF LIFE

When stored appropriately this product should show no significant degradation for two years from the date of manufacture. Contact your supplier for further information about the use of any product that is older than this.

GENERAL DIRECTIONS

TERBAGRAN controls a wide range of weeds. The weed spectrum includes: barley grass, black nightshade, browntop, catsear, chickweed, clovers, cocksfoot, clove's foot, fathen, Kentucky bluegrass, lotus, nodding thistle, Poa spp, redroot, Scotch thistle, seedling gorse, shepherd's purse, storkbill, sweet vernal, willow weed, Yorkshire fog, plus many other annual grasses and broadleaf weeds. It does not control deep rooted perennial grasses such as paspalum, kikuyu and Indian doab.

TERBAGRAN is absorbed through the roots and leaves, with signs of activity taking 1-3 weeks to become apparent. Rainfall within three hours of spraying will reduce the efficacy of a post-emergence application. For both pre and post emergence treatments, rainfall or irrigation within one week of spraying is necessary to optimise residual control.

For pre-emergence use, TERBAGRAN should be applied to a clean soil surface with a firm fine till and good soil moisture.

WARRANTY AND LIMITATION

IMPORTANT: Read this notice before opening the container.

The registrant warrants that when packed the active ingredient of this product is as specified on this label within accepted analytical tolerances. The registrant gives only those other warranties that are required by law in relation to this product and limits its liability to the cost paid by the claimant for the product. The registrant declines all liability for damage resulting from the handling, storage or use of this product. The user bears the risk from the handling, storage or use of this product. The registrant is not liable for any use of this product which is contrary to the label directions given or any Act or Regulation.

APPLICATION EQUIPMENT

Apply using well maintained and accurately calibrated equipment. Do not use strainers finer than 300 micrometres. Clean equipment thoroughly after use with clean water.

MIXING

TERBAGRAN mixes readily with water. While agitating, slowly add the required quantity of TERBAGRAN to a half-filled spray tank and continue filling. Maintain agitation during filling and spraying and agitate thoroughly after a stoppage before recommencing spraying.

When using with liquid herbicides, add the TERBAGRAN first and ensure it is thoroughly mixed before adding the other herbicides.

COMPATIBILITY

TERBAGRAN is compatible with most other commonly used herbicides.

SPRAYER DECONTAMINATION

Always wash tank and flush equipment thoroughly with clean water after use. To avoid subsequent injury to sensitive crops, immediately after spraying thoroughly remove all traces of TERBAGRAN from mixing and spraying equipment as follows:
1. Drain tank, then flush tank, booms and hoses with clean water.
2. Half fill the tank with clean water and add 125g of an alkali detergent per 100L of water. Circulate through the system for at least 15 minutes with agitation then drain.
3. Drain the whole system.
4. Nozzles and filters should be removed and cleaned separately.
5. Finally, rinse tank thoroughly with clean water, flush through hoses and boom and allow to drain.

SOIL RESIDUES

Residue of TERBAGRAN can adversely affect crops such as brassicas, beetroot, beans, cucurbits, lettuce and tomatoes. DO NOT plant crops other than maize or sweetcorn unless the area treated has been ploughed and thoroughly cross-cultivated. An indicator crop such as radishes can be used to show if residues remain.

RESISTANCE MANAGEMENT:

TERBAGRAN contains terbuthylazine, a Group B herbicide. From the triazine chemical group with the inhibition of photosynthesis at photosystem II mode of action. Naturally occurring weed biotypes resistant to terbuthylazine and other triazine herbicides are known to exist. These become more prevalent after many years of continuous use of the product. Species with known resistant biotypes include fathen and willow weed. To prevent or delay development of resistant biotypes, use TERBAGRAN in tank mixture or rotation with herbicides of a different mode of action against the weed. Consult www.resistance.nzpps.org/ for alternative modes of action and details of resistance management strategies (if any) for the crops listed on the label.



DIRECTIONS FOR USE		
CROP	RATE	NOTES
Lucerne (Established)	830g - 11kg/ha in 200-200 litres/ha of water	Stands must be at least 2 years old. Use in a mix with 1.6-2.4L/ha of paraquat 25%ai. Lucerne must be completely dormant and closely grazed. Apply preferably mid-winter. Use the higher rate for clovers or where longer residual control is required. Do not exceed the higher dosage rate as yield may be affected.
Maize and sweetcorn	1.7 - 2.0kg/ha in 200-300 litres/ha of water 1.7kg/ha in 200-300 litres/ha of water	Pre-emergence: application of a suitable herbicide is needed to control grass weeds. Apply to a freshly worked seedbed after the crop has been sown but before seedlings have emerged. Post-emergence: apply to actively growing weeds no larger than 5cm high. Add a non-ionic surfactant at the recommended label rate. NOTE: where weeds such as fathen are resistant to triazine herbicides an appropriate post-emergence herbicide such as dicamba is required for control.
Peas	830g - 11kg/ha in 200-300 litres/ha of water	Use the higher rate for dry conditions. Apply to a freshly worked seedbed after the crop has been sown but before seedlings have emerged. Do not use on light sandy soils or on soils which are low in organic matter.
Industrial weed control	8.3-11.0kg/ha	For long term residual control in non-crop areas such as roadsides, footpaths, pipelines, industrial storage and waste sites and around farm buildings. Add glyphosate at recommended label rates for the knockdown of existing vegetation and to control deep rooted perennial weeds.
Orchards; pipfruit - citrus - grapes - lawfruit	3.3 - 4.4kg/ha in 200-300 litres/ha of water	Do not apply to trees/vines less than one year old or plants growing in light sandy/loam soils. Pre-emergence: apply in spring to weed free soil Post-emergence: to control established weeds tank-mix with glyphosate at recommended label rates.

It is an offence for users of this product to cause residues exceeding the relevant MRL in the Food Notice: Maximum Residue Levels for Agricultural Compounds.

WITHHOLDING PERIODS: Lucerne - 28 days.

FORESTRY:

Radiata pine, Douglas fir, Eucalyptus species (E. delegatensis, fastigata, and saligna) TERBAGRAN may be applied either pre-planting or as a release treatment over newly planted bare rooted trees. For optimum results, apply TERBAGRAN to bare ground or when the weed population is less than 10cm high before rapid spring growth occurs.

NOTE: Where grass weeds predominate, especially the more difficult to kill perennial grasses, it is recommended that TERBAGRAN be tank-mixed with an approved selective grass killer such as Execute® 360 or Valiant® 520 at recommended label rates.

Broadcast Treatment

Apply 8.3-11.0kg TERBAGRAN in 150-300litres of water/ha (refer application table for more detail).

Spot Treatment

Carefully calibrate equipment to apply 0.83-1.1g TERBAGRAN per square metre in sufficient water to obtain good coverage. Treat approximately two square metres around each tree (refer to the application table for suggested dilution rates).

FORESTRY USE			
PRODUCT	RATE		NOTES
	Broadcast Treatment	Spot Treatment	
	Rate/ha applied in 150-300 litres/ha of water	Rate/litre applied at 20ml spray solution per sq. metre	
TERBAGRAN	8.3-11.0kg	42-55g	General broadleaf and grass weed control, where existing vegetation is below 10cm in height. Add a non-ionic surfactant at the recommended label rate.
TERBAGRAN + Execute 360 + Collaborate Oil	8.3 - 11.0kg 670ml 1 litre/100 litres water	42-55g 2.3ml 10ml	For improved knockdown where grass weeds predominate and exceed 10cm in height

NOTE: use the higher rate of TERBAGRAN to control gorse seedlings.

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Registered pursuant to the ACVM Act 1997, No P9967 See: www.foodsafety.govt.nz for registration conditions.
Approved pursuant to the HSN Act 1996, approval code HSR000388 See: www.epa.govt.nz for controls applying to the substance.

PHONE 0800 100 123