

Product Name: NOVAGUARD CHLORTHAL 750 WG HERBICIDE
APVMA Approval No: 68349/136490



Label Name:	NOVAGUARD CHLORTHAL 750 WG HERBICIDE
Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	ACTIVE CONSTITUENT: 750 g/kg CHLORTHAL-DIMETHYL
Mode of Action:	GROUP 3 HERBICIDE
Statement of Claims:	For pre-emergence weed control in certain vegetable crops including: Onions, Beans, Cabbages, Cauliflowers, Potatoes, Carrots and for weed control in Strawberries, Cotton, Lawns and Ornamentals as specified in the directions for use table.
Net Contents:	2 kg - 20 kg
Restrains:	
Directions for Use:	This section contains file attachment.
Other Limitations:	
Withholding Periods:	WITHHOLDING PERIOD: DO NOT GRAZE ANY TREATED AREAS OR CUT FOR STOCK FOOD.

Trade Advice:	
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General Instructions:	This section contains file attachment.
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Resistance Warning:	<p>RESISTANT WEEDS WARNING</p> <p>GROUP 3 HERBICIDE</p> <p>Novaguard Chlorthal 750 WG Herbicide is a member of the Benzoic acid group of herbicides. The product has the inhibitors of tubulin formation mode of action. For weed resistance management, the product is a Group 3 herbicide. Some naturally occurring weed biotypes resistant to the product and other Group 3 herbicides may exist through normal genetic variability in any weed population. The resistant individuals eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by this product or other Group 3 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Novaguard Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.</p>
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Precautions:	
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Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS DO NOT apply under weather conditions or from spraying equipment which may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT DO NOT contaminate streams, rivers or waterways with the chemical or used containers.</p>
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Storage and Disposal:	<p>STORAGE AND DISPOSAL</p> <p>Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.</p>
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Safety Directions:	<p>SAFETY DIRECTIONS</p> <p>Will irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale dust. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. When opening the container and preparing spray wear cotton overalls over normal clothing, buttoned to the neck and wrist, a washable hat, elbow-length PVC gloves, goggles and disposable face mask (dust) covering mouth and nose. If applying by hand, wear cotton overalls over normal clothing, buttoned to the neck and wrist, elbow-length PVC gloves and disposable face mask (dust) covering mouth and nose. After each day's use, wash gloves and goggles and contaminated clothing.</p>
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First Aid Instructions:	FIRST AID If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If skin contact occurs, remove contaminated clothing and wash skin thoroughly.
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First Aid Warnings:	
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DIRECTIONS FOR USE

Situation	Weeds Controlled	State	Rate/ha	Critical Comments	
Cabbage, Broccoli, Brussels sprouts,	Annual sedge Barnyard grass Black bindweed, Climbing buckwheat	<i>Cyperus</i> spp. <i>Echinochloa</i> spp. <i>Polygonum convolvulus</i>	All States/Territories	6-15 kg	Spray at time of seeding or transplanting. Use lower rates on lighter soils.
Beans, Snap beans, Mung beans, Soybeans, Castor beans	Blackberry nightshade Blue pimpernel Caltrop Canary grass	<i>Solanum nigrum</i> <i>Anagelis arvensis</i> var <i>Tribulus terrestris</i> <i>Phalaris canariensis</i>			
Peas	Cape gooseberries Capeweed Chickweed Columbus grass	<i>Physalis</i> spp, <i>Arctotheca calendula</i> <i>Stellaria media</i> <i>Sorghum almum</i>	Qld, Vic, SA, WA, TAS & NT only		Spray at time of seeding. use lower rate on lighter soils.
Tumips, Radish, Collards, Kale Mustard Greens, Turnips (greens and roots)	Corn spurry Crowsfoot grass Crabgrass, Storksbill Dandelion Deadnettle Docks Fescues Giant pigweed	<i>Spergula arvensis</i> <i>Eleusine indica</i> <i>Digitaria sanguinalis</i> <i>Erodium</i> spp. <i>Lamium amplexicaule</i> <i>Rumex</i> spp. <i>Festuca</i> spp. <i>Trianthema</i>	All States/Territories		
Onions, Garlic	<i>portulacastrum</i> Green amaranth Heliotrope <i>europaeum</i> Innocent weed Sand burr Johnson grass Kidney grass Love grasses Mexican clover Mossman River grass Mouse-ear chickweed Petty spurge Pheasants eye Pigeon grass Pigweed, Neverdie	<i>Amaranthus viridis</i> <i>Heliotropium</i> <i>Cenchrus pauciflorus</i> <i>Cenchrus tribuloides</i> <i>Sorghum halepense</i> <i>Dichondra repens</i> <i>Richardia brasiliensis</i> <i>Richardia brasiliensis</i> <i>Cenchrus echinatus</i> <i>Cerastium glomeratum</i> <i>Euphoria pepus</i> <i>Adonis microcarpa</i> <i>Setaria</i> spp. <i>Portulaca oleracea</i>			Spray at time of seeding or transplanting. Can be sprayed directly over transplants. Layby applications can be made on onions up to 14 weeks after planting or transplanting. Should weeds emerge, weed or cultivate prior to sowing.
Potatoes	Prickly paddy melon Prince of Wales Feather Red natal grass	<i>Cucumis myriocarpus</i> <i>Amaranthus</i> spp. <i>Rhynchelytrum repens</i>			
Sweet potatoes Yams	Redshank, Prince of Wales Feather Ribgrass, Lamb's Tongue Rolypoly, Buckbush Ryegrass	<i>Amaranthus cruentus</i> <i>Plantago lanceolata</i> <i>Salsola kali</i> <i>Lolium</i> spp.			Spray at transplanting. Lay-by application can be made up to 6 weeks after trans planting.
Carrots	Salvation Jane, Paterson's curse Scarlet pimpernel	<i>Echium plantagineum</i> <i>Anagallis arvensis</i>	Qld, Vic, SA, WA, TAS, NT only	11-15 kg	Spray at planting. Use lower rate on lighter soils.
Strawberries (new plantings)	Sow thistle, Milk thistle Spiny burr grass Spiny emex, Doublegee, Threecornered Jack Stagger weed	<i>Sonchus oleraceus</i> <i>Cenchrus pauciflorus</i> <i>Emex australis</i> <i>Stachys arvensis</i>		9-13 kg	Apply at transplanting. Use lower rate on lighter soils.

Situation	Weeds Controlled	State	Rate/ha	Critical Comments
Strawberries (established plantings)	Stinging nettle <i>Urtica urens</i> Summer grass <i>Digitaria sanguinalis</i> Toadflax <i>Kickxia</i> Urochloa or Liverseed grass <i>Urochloa panicoides</i> Wards weed <i>Vella annua</i> Wild gooseberry, <i>Physalis viscosa</i>	Qld, Vic, SA, WA, TAS, NT only	9-13 kg	Apply in autumn and early spring. Do NOT apply after first bloom. Can be sprayed over plants without injury.
Cotton	Apple of Peru Wintergrass <i>Poa annua</i>	All States/Territories	6-15 kg	Apply at time of planting. Use higher rate for areas under irrigation. Lay-by application can be made at 6-11 kg/ha but not after bolls open.
Lawns (established) Ornamentals		Qld, Vic, SA, WA, TAS, NT only	11-15 kg	Apply to lawns in autumn and early spring to prevent winter grass and crab grass from germinating. DO NOT use on Bent grass lawns. DO NOT use on Bugle, Carnation, Geum, Mesembryanthemum, Pansy, Phlox, Sweet William or Telanthera

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.

GENERAL INSTRUCTIONS

Spray before weed seeds germinate. For best results cultivate and seed or plant and then spray and water-in on the same day. DO NOT apply more than 3 days after cultivation. If weeds have emerged the crop should be weeded or cultivated and watered prior to application. The quantity applied can be reduced by spraying strips over the crop and using cultivation or other herbicides between the rows. The lower rate is effective on lighter soils depending on weeds to be controlled and period of control required whereas the higher rate is recommended for heavier soil types or if soil incorporation is required.

SOIL PREPARATION

Soil should be moist to the surface at the time of application. Soil must be thoroughly prepared to a fine even tilth, free of or low in trash. Seed or transplant within 24 hours of final cultivation. Spray immediately after seeding, transplanting or lay-by cultivation. Use sprinkler irrigation immediately after spraying or furrow irrigation until soil is wet. If rain is unlikely and sprinkler irrigation unavailable, shallow soil incorporation may improve effectiveness. DO NOT incorporate more than 2.5 cm deep. Cultivation will reduce effectiveness and should be avoided for as long as possible after application.

MIXING

Mix the required quantity thoroughly with water and add to spray tank with agitation. Maintain agitation during spraying. Use 450 litres or more of water per hectare.

WEEDS NOT CONTROLLED

Some weed species are not effectively controlled by Novaguard Chlorthal 750 WG Herbicide. In many cases these specific weeds are highly susceptible to other herbicides and can be selectively controlled with these in some crops. Known species that are not controlled by Novaguard Chlorthal 750 WG Herbicide include Galinsoga (Potato weed), Mustard, Clover, Bathurst Burr, Fumitory, Wild Oats and Nut grass. The following is a more detailed list.

Common Name	Botanical Name	Common Name	Botanical Name
Annual ragweed	<i>Ambrosia artemisiifolia</i>	Noogoora burr	<i>Xanthium pungens</i>
Bathurst burr	<i>Xanthium spinosum</i>	Pep per cress	<i>Lepidium spp.</i>
Bellvine	<i>Ipomoea plebeia</i>	Potato weed	<i>Galinsoga parviflora</i>
Bitter cress, Lesser swine cress	<i>Coronopus didymus</i>	Prairie grass	<i>Bromus unioloides</i>
Bladder ketmia	<i>Hibiscus trionum</i>	Prickly lettuce	<i>Lactuca serriola</i>
Blue billygoat weed	<i>Ageratum houstonianum</i>	Shepherds purse	<i>Capsella bursa-pastoris</i>
Charlock	<i>Sinapis arvensis</i>	Slender celery	<i>Apium leptophyllum</i>
Cobblers pegs	<i>Bidens pilosa</i>	Spear thistle	<i>Cirsium vulgare</i>
Common cotula	<i>Cotula australis</i>	Starburr	<i>Acanthospermum hispidum</i>
Fumitories	<i>Fumaria spp.</i>	Stinking roger	<i>Tagetes minuta</i>
Hairy Jo-Jo	<i>Soliva anthemifolia</i>	Tares, Vetch	<i>Vicia spp.</i>
Indian mustard	<i>Brassica juncea</i>	Thornapples	<i>Datura spp.</i>
Loosestrife	<i>Lythrum spp.</i>	Townsville lucerne	<i>Stylosanthes humilis</i>
Marshmallow	<i>Malva spp.</i>	Turnip weed	<i>Rapistrum rugosum</i>
Medics	<i>Medicago spp.</i>	Variogated thistle	<i>Silybum marianum</i>
Mexican poppy	<i>Argemone mexicana</i>	Wild oats	<i>Avena spp.</i>
Mexican tea	<i>Chenopodium ambrosioides</i>	Wild radish	<i>Raphanus raphanistrum</i>
Mint weed	<i>Salvia reflexa</i>	Wild turnip	<i>Brassica tournefortii</i>