

Product Name: MacPhersons CHLORTHAL 900 WG Herbicide
APVMA Approval No: 81334/135695



Label Name:	MacPhersons CHLORTHAL 900 WG Herbicide
Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	900 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:	HARVEST - NOT REQUIRED WHEN USED AS DIRECTED GRAZING – DO NOT GRAZE ANY TREATED AREAS OR CUT FOR STOCK FOOD

Trade Advice:	
General Instructions:	This section contains file attachment.
Resistance Warning:	<p>RESISTANT WEEDS WARNING:</p> <p>GROUP 3 HERBICIDE</p> <p>MacPhersons CHLORTHAL 900WG is a member of the Benzoic acid group of herbicides. This product has the inhibitors of tubulin formation mode of action. For weed resistance management, the product is a Group 3 herbicide.</p> <p>Some naturally occurring weed biotypes resistant to this product and other inhibitors of tubulin formation herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by this product or other inhibitors of tubulin formation herbicides.</p> <p>Since the occurrence of resistant weeds is difficult to detect prior to use, RONIC International Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.</p>
Precautions:	
Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS: DO NOT apply under weather conditions or from spraying equipment that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.</p> <p>PROTECTION OF LIVESTOCK, WILDLIFE, FISH, CRUSTACEAN AND ENVIRONMENT: Do NOT contaminate streams, rivers or watercourses with the chemical or used containers.</p>
Storage and Disposal:	<p>Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight.</p> <p>Shake and empty contents into spray tank. Do not dispose of undiluted chemicals on site. 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>

Safety Directions:	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, buttoned to the neck and wrist and a washable hat, elbow-length chemical resistant gloves, goggles and disposable dust, mist or fume face mask covering mouth and nose. If applying by hand wear cotton overalls, over normal clothing, buttoned to the neck and wrist elbow-length chemical resistant gloves and disposable dust, mist or fume face mask covering mouth and nose. After each day's use, wash gloves, goggles and contaminated clothing.
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First Aid Instructions:	If poisoning occurs, contact a doctor, or Poisons Information Centre (Phone Australia 131126, New Zealand 0800 764 766. 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

CROP	WEEDS CONTROLLED	Rate/ HA	Critical Comments
Cabbage, Broccoli, Brussels Sprouts, Cauliflower	Annual sedge Barnyard grass Black bindweed Climbing Buckwheat Blackberry Nightshade	5 - 12.5 kg	Spray at time of seeding. Use lower rate on lighter soils
Beans, Snap Beans, Mung Beans, Soybeans, Caster Beans	<i>Cyperus spp.</i> <i>Echinochloa spp.</i> <i>Polygonum convolvulus</i> <i>Solanum nigrum</i> <i>Anagallis avrensis var.</i> <i>caerulea</i> <i>Tribulus terrestris</i> <i>Phalaris canariensis</i> <i>Physalis spp.</i> <i>Arctotheca calendula</i>		
Peas	Blue Pimpernel Caltrop Canary grass Cape gooseberries Cape weed		
Turnips, Radish, Collards, Kale Mustard, Greens, Turnips (greens and roots)	Chickweed Columbus grass Corn spurry Crowfoot grass Crabgrass Crowfoot, Storksbill Dandelion Deadnettle Docks Dodder Fat-hen		
Onions, Garlic	Chickweed Columbus grass Corn spurry Crowfoot grass Crabgrass Crowfoot, Storksbill Dandelion Deadnettle Docks Dodder Fat-hen		
Potatoes	Fescues Giant pigweed Green Amaranth Heliotrope Innocent Weed, Sand burr Johnson grass Kidney weed		
Sweet Potatoes, Yams	Love grasses Mexican clover Mossman River grass Mouse-ear chickweed Petty spurge Pheasants Eye		
Carrots	Pigeon grass Pigweed, Neverdie Prickly paddy melon		
Strawberries (new planting's)	Prince of Wales Feather Red Natal grass		
Strawberries (established planting's)			

CROP	WEEDS CONTROLLED	Rate/ HA	Critical Comments
Cotton	Redshank or Prince of Wales Feather Ribgrass, Lamb's tongue Rolypoly, Buckbush Ryegrass Salvation Jane, Paterson's curse	5 – 12.5kg	Apply at time of planting. Use higher rate for areas under irrigation. Lay-by application can be made at 6 -11 kg/ha after bolls open.
Lawns (established Ornamentals)	Scarlet Pimpernel Sow thistle, Milk thistle Spiny Burr grass Spiny emex, Three cornered jack, Doublegee Stagger weed Stinging nettle Summer grass Toadflax Urochloa or Liverseed grass Wards weed Wild gooseberry, Apple-of-Peru Winter grass Wireweed	9 - 12.5 kg	Apply autumn and early spring to prevent winter grass and crab grass from germinating. Do NOT use on Carnations, Geum, Mesembryanthemum, Pansy, Phlox. Sweet William or Telanthera. DO NOT use on bent grass lawns.

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 **MacPhersons CHLORTHAL 900WG**. 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 **MacPhersons CHLORTHAL 900WG** include Galinsoga (Potato weed). Mustard, Clover, Bathurst Burr, Fumitory, Wild Oats and Nut grass. The following list 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>	Pepper 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>Bindens pilosa</i>	Spear thistle	<i>Cirsium vulgare</i>
Common cotula	<i>Cotula australis</i>	Starr burr	<i>Acanthospermum hispidum</i>
Fumitories	<i>Fumaria spp.</i>	Stinking Roger	<i>Tagetes minuta</i>
Hairy Jo-Jo	<i>Solvia anthemifolia</i>	Tares, Vetch	<i>Vicia spp.</i>
Indian Mustard	<i>Brassica juncea</i>	Thornapples	<i>Da tura 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 fatua</i>
Mexican tea	<i>Chenopodium arnbrosioides</i>	Wild radish	<i>Raphanus raphanistrum</i>
Mint weed	<i>Salvia refiexa</i>	Wild Turnip	<i>Brassica toumefortii</i>

CROP PLANT BACK:

DO NOT plant crops other than those on the label within 8 months of application. If replanting is required because of an early crop failure the planting of onions or potatoes may result in crop injury. However, all crops on this label may be planted following harvest of a crop treated with **MacPhersons CHLORTHAL 900WG**.

CROP SAFETY:

Applied according to directions and under conditions favourable for good plant growth

MacPhersons CHLORTHAL 900WG will not harm crops for which its use is recommended.

However, conditions such as high salt concentration, seedling diseases, cold weather, deep planting, excessive moisture or drought may injure or weaken crops normally tolerant to

MacPhersons CHLORTHAL 900WG, thereby increasing the possibility of herbicide damage.

Under any of these conditions, one or more of the following may result: delayed crop development, reduced yields or reduced quality.

MacPhersons CHLORTHAL 900WG is recommended for use in the following deciduous and evergreen trees & shrubs, ground cover plants and herbaceous and flowering ornamental plants.

The tolerance of all species, cultivars or varieties of ornamentals has not been determined therefore it is advisable to test crop safety on a small area first.

MacPhersons CHLORTHAL 900WG can be Safely used in the following Ornamental Plants :

Abelia (<i>Abelia</i>)	Euonymus (<i>Euonymus</i>)	Mourning bride (<i>Scabiosa</i>)
Ageratum (<i>Ageratum</i>)	Evening primrose (<i>Oenothera</i>)	Nasturtium (<i>Tropaeolum</i>)
Alyssum (<i>Alyssum, Lobularia</i>)	Feverfew (<i>Chrysanthemum</i>)	Oak (<i>Quercus</i>)
Andromeda - Japanese (<i>Pieris</i>)	Fir (<i>Abies</i>)	Orpine (<i>Sedum</i>)
Arborvitae (<i>Thuja</i>)	Forget-me-not (<i>Myosotis</i>)	Pachysandra (<i>Pachysandra</i>)
Ash (<i>Fraxinus</i>)	Forsythia (<i>Forsythia</i>)	Peony (<i>Paeonia</i>)
Aster (<i>Aster</i>)	Four o'clock (<i>Mirabilis</i>)	Petunia (<i>Petunia</i>)
Azalea (<i>Azalea</i>)	Foxglove (<i>Digitalis</i>)	Pine (<i>Pinus</i>)
Baby's Breath (<i>Gypsophila</i>)	Gaillardia (<i>Gaillardia</i>)	Pittosporum (<i>Pittosporum</i>)
Barberry (<i>Berberis</i>)	Geranium (<i>Geranium</i>)	Podocarpus (<i>Podocarpus</i>)
Bellflower (<i>Campanula</i>)	Gladiolus (<i>Gladiolus</i>)	Poplar (<i>Populus</i>)
Birch (<i>Betula</i>)	Golddust (<i>Aucuba</i>)	Privet (<i>Ligustrum</i>)
Bleedingheart (<i>Dicentra</i>)	Hawthorn (<i>Crataegus</i>)	Privet – variegated (<i>Ligustrum</i>)
Bloodleaf (<i>Iresine</i>)	Heath, pink (<i>Erica</i>)	Redbud (<i>Cercis</i>)
Boxwood (<i>Buxus</i>)	Helichrysum (<i>Helichrysum</i>)	Red-hot poker (<i>Kniphofia</i>)
Bugloss (<i>Anchusa</i>)	Holly (<i>Ilex</i>)	Rhododendron (<i>Rhododendron</i>)
Camellia (<i>Camellia</i>)	Honeysuckle (<i>Lonicera</i>)	Rose (<i>Rosa</i>)
Candytufts (<i>Iberis</i>)	Honey locust (<i>Gleditsia</i>)	Russian olive (<i>Elaeagnus</i>)
Chestnut (<i>Castanea</i>)	Hydrangea (<i>Hydrangea</i>)	Sage – scarlet (<i>Salvia</i>)
Chrysanthemum (<i>Chrysanthemum</i>)	Iris (<i>Iris</i>)	Snapdragon (<i>Antirrhinum</i>)
Cinquefoil (<i>Potentilla</i>)	Ivy – Baltic, English (<i>Hedera</i>)	Spiderwort (<i>Tradescantia</i>)
Coleus (<i>Coleus</i>)	Juniper (<i>Juniperus</i>)	Spirea (<i>Spirea</i>)
Columbine (<i>Aquilegia</i>)	Lantana (<i>Lantana</i>)	Spruce (<i>Picea</i>)
Coneflower – purple (<i>Echinacea</i>)	Larkspur – candle (<i>Delphinium</i>)	Stonecrop (<i>Sedum</i>)
Coreopsis (<i>Coreopsis</i>)	Lavender – cotton (<i>Santolina</i>)	Sunflower (<i>Helianthus</i>)
Coral Bells (<i>Heuchera</i>)	Lilac (<i>Syringa</i>)	Sweet pea (<i>Lathyrus</i>)
Cosmos (<i>Cosmos</i>)	Lily (<i>Lilium</i>)	Sycamore (<i>Platanus</i>)
Cotoneaster (<i>Cotoneaster</i>)	Liquidambar (<i>Liquidambar</i>)	Tree peony (<i>Paeonia</i>)
Cottonwood (<i>Populus</i>)	Lupin (<i>Lupinus</i>)	Tulip tree (<i>Liriodendron</i>)
Crab apple (<i>Pyrus</i>)	Magnolia (<i>Magnolia</i>)	Viburnum (<i>Viburnum</i>)
Cuphea (<i>Cuphea</i>)	Maple (<i>Acer</i>)	Violet – African (<i>Saintpaulia</i>)
Cypress (<i>Cupressus, Taxodium</i>)	Marguerite – golden (<i>Chrysanthemum</i>)	Walnut (<i>Juglans</i>)
Dahlia (<i>Dahlia</i>)	Marigold (<i>Calendula, Tagetes</i>)	Weigela (<i>Diervilla</i>)
Delphinium (<i>Delphinium</i>)	Mock orange (<i>Philadelphus</i>)	Willow (<i>Salix</i>)
Deutzia (<i>Deutzia</i>)	Morning glory (<i>Ipomoea</i>)	Wormwood (<i>Artemisia</i>)
Dogwood (<i>Cornus</i>)	Moss – rose (<i>Portulaca</i>)	Yarrow – fernleaf (<i>Achillea</i>)
Elaeagnus (<i>Elaeagnus</i>)	Mother-of-Thyme (<i>Thymus</i>)	Yew (<i>Taxus</i>)
Elm (<i>Ulmus</i>)	Mountain laurel (<i>Kalmia</i>)	Zinnia (<i>Zinnia</i>)

DO NOT use MacPhersons CHLORTHAL 900WG on the following Ornamental Plants:

Bugle (Yellow, Blue)	<i>Ajuga</i>
Button pink	<i>Dianthus</i>
Carnation	<i>Dianthus</i>
Celosia (Cockscomb, Prince of Wales feather)	<i>Celosia</i>
Germander	<i>Teucrium</i>
Geum	<i>Geum</i>
Mesembryanthemum	<i>Mesembryanthemum</i>
Pansy	<i>Viola</i>
Phlox	<i>Phlox</i>
Ranunculus	<i>Ranunculus</i>
Sweet William	<i>Dianthus</i>
Telanthera	<i>Telanthera</i> or <i>Alternanthera</i>