

**CAUTION**

**KEEP OUT OF REACH OF CHILDREN**

**READ SAFETY DIRECTIONS BEFORE OPENING OR USING**



**RLP  
Approved**

# **GLYCEL 450 HERBICIDE**

**Active Constituent: 450g/L GLYPHOSATE  
PRESENT AS THE ISOPROPYLAMINE SALT**

<b>GROUP</b>	<b>M</b>	<b>HERBICIDE</b>
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For control of annual and perennial weeds prior to sowing winter and summer crops, to control sorghum regrowth, for ratoon control in sugarcane and to assist in pasture renovation and management.

**IMPORTANT: READ THE ATTACHED BOOKLET BEFORE USE**

**CONTENTS: 20L [50L, 100L, 200L 500L & 1,000L]**

**EXCEL CROP CARE (AUSTRALIA) PTY LTD  
LEVEL 2, 333 GEORGE STREET  
SYDNEY  
NSW 2000  
EMERGENCY CONTACT: 02 9262 4112**

# GLYCEL 450 HERBICIDE

## STORAGE AND DISPOSAL:

Store in the closed, original container in a cool, well ventilated area out of direct sunlight. Store in a locked room, away from children, animals, food, feedstuffs, seed and fertilisers. Triple or preferably pressure rinse empty 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

## SAFETY DIRECTIONS:

Product will irritate eyes and skin. Avoid contact with eyes and skin. When preparing product for use wear elbow-length PVC gloves and face shield or goggles. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

## FIRST AID:

If poisoning occurs, contact a Doctor or Poisons Information Centre on 13 11 26

## MATERIAL SAFETY DATA SHEET:

Additional information is listed in the Material Safety Data Sheet which can be obtained from the supplier.

**BATCH No.**

**EXCEL CROP CARE (AUSTRALIA) PTY LTD**

**DOM**

GPO Box 690

**APVMA APPROVAL No.**

45288/61339

Sydney, NSW 2001

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For control of annual and perennial weeds prior to sowing winter and summer crops, to control sorghum regrowth, for ratoon control in sugarcane and to assist in pasture renovation and management.

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**CONTENTS: 20L [50L, 100L, 200L 500L & 1,000L]**

**EXCEL CROP CARE (AUSTRALIA) PTY LTD  
LEVEL 2, 333 GEORGE STREET  
SYDNEY  
NSW 2000**

**EMERGENCY CONTACT: 02 9262 4112**

**DIRECTIONS FOR USE:**

**RESTRAINTS:**

- DO NOT disturb treated weeds by cultivation, sowing or grazing for 1 day after treatment of annual weeds and 7 days for perennial weeds.
- DO NOT treat weeds under poor growing or dormant conditions such as drought, water logging, disease, insect damage or following frost.
- DO NOT treat weeds heavily covered with dust or silt.
- DO NOT apply if rainfall is likely within 6 hours of application.

SITUATION & CROP	WEEDS CONTROLLED	STATE	RATE VOL/HA	CRITICAL COMMENTS
SOUTHERN AUSTRALIA PRIOR TO SOWING A CROPPED INTER CROP OR PERMANENT PASTURE  For weed control or to full disturbance with cultivation or sowing with a tyned implement.	Barley grass, Brome grass, Volunteer cereals, Wild oats.	WA, SA, VIC, NSW only	400-800 ml pre tillering 800ml-1L post tillering	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or water logging. If heavy grazing has occurred, allow regrowth to 6/8cm before spraying and use the higher rate.  <b>RATE SELECTION: Increase to higher rates late in the season or when treating under cold/overcast conditions.</b>  <b>FULL DISTURBANCE</b> with cultivation or sowing with a tyned implement may start 1 day after treatment (7 days if Dock, Phalaris, Skeleton weed, Soursob or Sorrel are present) and should occur within 21 days after treatment.  When treating light infestations of seedling annual grasses (pre-tillering) and annual broadleaf weeds (less than 8cm diam/height) cultivation or sowing may start 6 hours after treatment, and should occur within 21 days.  Where cultivation or sowing does not occur within 21 days, new weed growth may require further treatment.  <b>CROP ESTABLISHMENT:</b> Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. See Crop Establishment section for directions.  <b>ANNUAL RYEGRASS, SILVERGRASS and PERENNIAL GRASSES:</b> When treating dense infestations, use of low volume nozzles and a spray volume of 70L/ha or more is recommended to improve plant spray coverage. Addition of Wetter TX (200ml/100L of spray solution) may improve control.
	Annual phalaris, Annual ryegrass, Silver grass, Winter grass		800 ml – 1L pre-tillering 1 – 1.2L post tillering	
	Calomba daisy, Capeweed, Doublegee (Spiny Emex)		400 – 800 ml less than 8cm diameter 800 ml – 1.2L greater than 8cm diameter	
	Amsinckia, Fumitory, Paterson’s Curse, Saffron thistle, Scotch thistle, Spear thistle, Variegated thistle, Volunteer lupins, Wild turnip		800ml – 1L less than 12cm diameter 800ml – 1.2L greater than 12cm diameter	
	Dock (seedling)		800ml – 1.2L	
	Perennial phalaris, Sorrel, Sub Clover, Soursob,		1.2L	

SITUATION & CROP	WEEDS CONTROLLED	STATE	RATE VOL/HA	CRITICAL COMMENTS
	Skeleton weed – fully emerged rosettes (NSW only)			<p><b>TANK MIXTURES:</b> (Glean<sup>1</sup>, Ally<sup>1</sup>, Goal CT, Dicamba, Simazine, 2,4-D Ester and Insecticides). For improved control of clover add Dicamba. Read and follow all label directions, restraints, plant back periods and safety directions for the tank mix products. See Tank Mixtures.</p> <p><b>PERENNIAL WEEDS:</b> For Soursob, Perennial phalaris, Skeleton weed and Sorrel, this product will provide knockdown, seasonal suppression and reduction in treated plant numbers.</p>
	All weeds listed above	TAS only	1.2 – 2.4L	<p><b>TASMANIA:</b> Use 1.2L/ha on annual weeds. Increase to 2.4L/ha where perennial weeds are being treated. Added surfactant is recommended at all spray volumes. To control white clover and improve control of Sorrell and Dock, add 1L/ha Banvel<sup>2</sup>, (dicamba). Observe Banvel<sup>2</sup> label directions and plant back periods.</p>
SOUTHERN AUSTRALIA  Prior to establishing a crop or pasture with an implement that gives minimal or no soil disturbance.	Barley grass, Wild Oats, Volunteer cereals	NSW, SA, VIC, WA only.	800ml – 1.2L	<p>Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or water logging. If heavy grazing has occurred, allow regrowth to 6-8cm before spraying and use the higher rate.</p> <p><b>RATE SELECTION:</b> Use the lower rate on young weeds, increase to higher rate where grasses reach full tillering or where broadleaf weeds reach stem elongation/budding. Increase to higher rates in Spring or when treating under cold/overcast conditions.</p> <p><b>AERIAL APPLICATION:</b> Use the higher rates. See Aerial Equipment.</p> <p><b>ANNUAL RYEGRASS, SILVERGRASS AND PERENNIAL GRASSES:</b> Addition of Wetter TX (200ml/100L of spray solution) may improve control. When treating dense infestations of Silvergrass, use of low volume nozzles and a spray volume of 70L/ha or more is recommended to improve spray coverage.</p> <p><b>TANK MIXTURES:</b> (Glean<sup>1</sup>, Ally<sup>1</sup>, Goal CT, Dicamba, Simazine, 2,4-D Ester, Ammonium Sulphate and Insecticides). For improved control of dock, sorrel and sub.clover add Banvel (Dicamba). Read and follow all label directions,</p>
	Broome grass, Canary Grass (Annual phalaris), Capeweed, Variegated thistle, Winter grass.		1 – 1.6L	
	Annual rye grass, Paterson's curse, Saffron thistle, Scotch thistle, Spear thistle, Silver grass, Wild mustard, wild radish, Wild turnip.		1.2 – 1.6L	
	Erodium Plantain, Perennial phalaris, Sorrel, Sub.clover, Yorkshire Fog.		1.5 – 2L	

SITUATION & CROP	WEEDS CONTROLLED	STATE	RATE VOL/HA	CRITICAL COMMENTS
	Dock, Flatweed.		2L	<p>restraints, plant back periods, withholding periods and safety directions for the tank mix products.</p> <p>Addition of ammonium sulphate may improve control when treating under adverse environmental conditions. See Tank Mixtures for directions.</p> <p><b>PASTURE OR CROP ESTABLISHMENT:</b> DO NOT sow into excessive trash. Trash may be removed by grazing. Grazing may commence one day after treatment of annual weeds (small) and 7 days for perennial weeds. Delay grazing for 3 days where annual weeds are large.</p> <p>Sowing may proceed when excessive trash is removed but not sooner than one day after treatment of annual weeds and 7 days for perennial weeds. See also Crop Establishment.</p> <p><b>AERIAL (OR SURFACE) SEEDING:</b> Delay seeding until trash is completely removed by grazing and/or plant decay. When establishing pasture, ensure application of fertiliser and insecticides and follow up management is undertaken as required.</p>
	All weeds listed above.	TAS Only.	1.2 – 2.4L	<p><b>TASMANIA:</b> Use 1.2L/ha on annual weeds. Increase to 2.4L/ha where perennial weeds are being treated. Added surfactant is recommended at all spray volumes. To control white clover and improve control of Sorrel and Dock, add 1L/ha Banvel<sup>2</sup> (dicamba). Observe Banvel<sup>2</sup> label directions and plant back periods.</p>
SOUTHERN AUSTRALIA	Barley grass, Volunteer cereals, Wild oats	NSW, VIC, SA, WA only	800ml – 1.2L	<p>Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or water logging. If heavy grazing has occurred allow regrowth to 6-8cm before spraying.</p> <p><b>RATE SELECTION:</b> Use lower rates on young weeds or where cultivation is to follow within 21 days increasing to the higher rate where grasses reach full tillering or where broadleaf weeds reach stem elongation/budding.</p> <p><b>ANNUAL RYEGRASS, SILVER GRASS AND PERENNIAL GRASSES:</b> Addition of Wetter TX (200ml/100L of spray solution) may improve control. When treating</p>
start a fallow	Annual ryegrass, Brome grass, Capeweed, Paterson's Curse (rosette), Saffron thistle, Scotch thistle, Silver		1.2 – 1.6L	

SITUATION & CROP	WEEDS CONTROLLED	STATE	RATE VOL/HA	CRITICAL COMMENTS
	grass, Spear thistle, Wild Mustard, Wild Radish, Wild Turnip			dense infestations of Silvergrass, use of low volume nozzles and a spray volume of 70L/ha or more is recommended to improve spray coverage.
	Hoary Cress, Soursob		1.2L	<b>HOARY CRESS:</b> Treat from late rosette to early flowering. <b>SOURSOB:</b> Treat at tuber exhaustion. <b>TANK MIXTURES:</b> (Glean <sup>1</sup> , Ally <sup>1</sup> , Goal CT, 2,4-D Ester and Insecticides). Read and follow all label directions, restraints, plant back periods, withholding periods & safety directions for the tank mix products. See Tank Mixtures.
NORTHERN AUSTRALIA	Annual phalaris, Barley grass, Volunteer cereals, Wild Oats	QLD, NSW only	400 – 800ml	<p>Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or water logging. If heavy grazing has occurred, allow regrowth to 6-8cm before spraying. <b>Note:</b> Barnyard grass &amp; Liverseed grass (<i>Urochloa</i>) are particularly prone to moisture stress. <b>Note:</b> Under summer (hot) conditions, dense infestations of Barnyard grass and Liverseed grass may require follow-up treatment for complete control.</p> <p><b>RATE SELECTION:</b> Use lower rates on young weeds, increase to the higher rate where grasses reach full tillering or where broadleaf weeds reach stem elongation/budding. At advanced stages of growth certain broadleaf weeds require a higher rate range or the addition of 2,4-D Ester.</p> <p><b>CROP ESTABLISHMENT:</b> Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. <b>See CROP ESTABLISHMENT.</b></p> <p>*NOTE: Large plants (greater than 3cm diam/height) of Noogoora Burr, Variegated Thistle and Volunteer Sunflower may require up to 1.6L for control.</p> <p><b>TANK MIXTURES:</b> (Glean<sup>1</sup>, Ally<sup>1</sup>, Goal CT, Dicamba, Simazine, 2,4-D Ester, and Insecticides). Read and follow all label directions, restraints, plant back periods, withholding periods &amp; safety directions for the tank mix products. See Tank Mixtures.</p> <p><b>AERIAL APPLICATION:</b> For instructions on aerial application under summer conditions see Aerial Equipment section. <b>DO NOT</b> apply by aircraft when temperature is above 35°C.</p>
For weed control in fallows or prior to sowing winter or summer crops	Barnyard grass, Columbus grass (seedling), Liverseed grass, Stinkgrass (Lovegrass), Sweet summer grass, Volunteer sorghum		800ml – 1.6L	
	Australian Bluebell (QLD only), Cudweed, Fumitory, Mexican poppy, Mintweed, New Zealand spinach, Noogoora burr*, Saffron thistle, Spear thistle, Spurge, Stinking Goosefoot, Variegated thistle*, Volunteer Sunflower*, Yellowvine (Caltrop)		800ml – 1.2L	
	Suppression of wireweed		800ml – 1.2L	
	Boggabri weed, Caltrop (Yellowvine), Indian hedge		400ml – 800ml up to 5 true leaves or 3cm	

SITUATION & CROP	WEEDS CONTROLLED	STATE	RATE VOL/HA	CRITICAL COMMENTS
	mustard, Mintweed, Summer grass		diameter/height 800ml – 1.2L greater than 5 true leaves or 3cm diameter/height	
	African turnip, Native Millet, Sweet summer grass, Variegated thistle, Volunteer sunflower		600ml – 800ml up to 5 true leaves or 3cm diameter/height 800ml – 1.6L greater than 3cm diameter/height	
	Sowthistle		600-800ml rosettes up to 3cm diameter 800ml – 1.6L greater than 3cm diameter	
	Annual ground cherry (Gooseberry), Canal melon, Bladder Ketmia, Sowthistle (Milk thistle), Turnip weed, Wild lettuce, Wild turnip		800ml-1.2L prior to stem elongation/budding. After that use 400ml – 1.2L plus 500 – 700ml 2,4-D Ester (800g/L) <b>OR</b> 1.2 – 1.6L of this product alone	
BLOWN/PREPLANT LOCKDOWN WEED CONTROL prior to sowing the following winter	All weeds listed above plus those controlled by Ally <sup>1</sup> .	All States	As indicated for the weeds listed above plus 5g <b>OR</b> 7g per ha of Ally <sup>1</sup> for all states except WA.	<b>WHEAT: DO NOT</b> Apply less than 10 days prior to sowing as crop injury may occur, particularly under dry, cold conditions. Apply when weeds are actively growing and in accordance with the recommendations provided on the respective product labels. Use the appropriate rate of each product for the target weed spectrum.



SITUATION & CROP	WEEDS CONTROLLED	STATE	RATE VOL/HA	CRITICAL COMMENTS
cereals: Wheat			For WA use only 5g/ha of Ally <sup>1</sup> .	
Barley, Cereal Rye or Triticale				<b>BARLEY, CEREAL RYE OR TRITICALE:</b> DO NOT apply less than 6 weeks prior to sowing as crop injury may occur, particularly under dry, cold conditions. Apply when weeds are actively growing and in accordance with the recommendations provided on the respective product labels. Use the appropriate rate of each product for the target weed spectrum.
POA TUSSOCK INFESTED PASTURE For reduction of ground cover allowing pasture renovation	Most annual weeds and suppression of Poa Tussock ( <i>Poa labillardieri</i> )	NSW, TAS, VIC, QLD only	2.5 – 3.2L	<b>TIMING:</b> Graze heavily, then remove stock at least 14 days before spraying to allow fresh regrowth. Apply to actively growing plants after the autumn break but before heavy frosts (March-May). <b>APPLICATION:</b> Increasing to the higher rate may give more effective reductions. If aerial spraying, see Aerial Equipment. <b>FOLLOW-UP MANAGEMENT:</b> Sowing may start from 14 days after spraying. It is essential that correct follow-up pasture establishment and management occurs after treatment. Spot treatment will limit re-infestation.
BENT GRASS INFESTED PASTURE For control / suppression prior to establishing crops or improved pasture species	Most annual weeds and Bent Grass ( <i>Agrostis capillaries</i> )	VIC, TAS only	2L	<b>TIMING:</b> Apply to actively growing plants in late spring and when they have some seed head development, but before summer moisture stress. Remove stock to ensure there is full leaf growth. <b>FOLLOW-UP MANAGEMENT:</b> Full disturbance with a tined implement should follow 10-21 days after spraying. Then follow with a summer crop, and/or re-seeded pasture or crop the following Autumn.
PASTURE TOPPING For annual grass and Capeweed seed-set reduction	Barley grass, Brome grass, Silver grass, Capeweed Annual ryegrass	WA, SA, VIC, NSW, TAS only	240 – 360ml 360ml	Remove stock prior to treatment to allow even regrowth. Apply to Capeweed and Annual ryegrass at FLOWERING. For other grasses, apply from HEAD to MILKY DOUGH stage. Use the higher rate for dense infestations or where Annual ryegrass is present. Apply before signs of plants 'haying off'. Reduction in pasture legume population may occur as a result of treatment. DO NOT apply to clover or medic crops intended for seed or hay. If using Spraymate

SITUATION & CROP	WEEDS CONTROLLED	STATE	RATE VOL/HA	CRITICAL COMMENTS
				Activator surfactant, add at the rate 150ml/100L spray solution. If water volumes exceed 50L/ha, use 250ml/100L of spray solution.
PASTURE MANIPULATION: For suppression or control of pasture species prior to mowing forage species or soybeans	Carpet grass, Kikuyu, Paspalum	NSW, VIC, WA only	1.1 – 4.8L	<b>RATE SELECTION:</b> For suppression apply the lower rate. Where complete control is required, apply up to the higher rate.
	Carpet grass, Paspalum	QLD only	500ml – 4.8L	
	Kikuyu			
SORGHUM CONTROL Pre-harvest	Sorghum (grain sorghum) Sorghum bicolour DO NOT Apply to varieties intended for seed production or varieties prone to lodging	QLD, NSW only	1.2L OR 1.6L	<b>DO NOT</b> apply if crop is under stress from low moisture, frost, cold or water logging. <b>RATE SELECTION:</b> Use the lower rate for control of crop and late tillers and suppression of ratoon regrowth. Use the higher rate for improved suppression of ratoon growth. <b>TIMING:</b> Apply when grain moisture is less than 25%. Application can be made when moderate browning has occurred. <b>CAUTION:</b> Treatment may increase potential for CROP LODGING, particularly if prior moisture stress has occurred. Harvest as soon as sufficient dry down has occurred to avoid possible lodging. <b>CAUTION:</b> Sorghum may be naturally toxic to stock.
SORGHUM CONTROL Post-harvest	Sorghum stubble (grain sorghum) Sorghum bicolour	QLD, NSW only	800ml – 1.2L for fresh regrowth from slashed stubble 1.2 – 1.6L for standing stubble if sufficient green 800ml – 1.2L fresh spring regrowth	<b>APPLY UNDER GOOD GROWING CONDITIONS ONLY. DO NOT</b> apply if plants are under stress of low moisture, frost, cold or water logging. <b>SLASHED STUBBLE AND SPRING REGROWTH:</b> Apply when fresh regrowth is at least 20cm high. <b>STANDING STUBBLE:</b> Apply only if sufficient green leaf is present. If grazing has occurred allow regrowth to 20cm before treatment. <b>RATE SELECTION:</b> Use the lower rate for knockdown and regrowth suppression where cultivation is to follow. Increase to the higher rate for improved

SITUATION & CROP	WEEDS CONTROLLED	STATE	RATE VOL/HA	CRITICAL COMMENTS
				regrowth control. <b>NOTE:</b> Variable results occur where the crop has been subject to stress or growing conditions are marginal. Some varieties, particularly, Goldrush 2, Ruby, Trump, Prize and Nugget 2, give variable results if they have not grown under ideal conditions. <b>CAUTION:</b> Sorghum may be naturally toxic to stock.
SUGAR CANE Ratoon control	Sugar cane varieties: Q63, Q87, Q90, Q102, Pindar, Triton, Q117, Q120, Q129, Q130, H56-752	QLD, NSW only	2.4 – 3.2L	<b>APPLY UNDER GOOD GROWING CONDITIONS ONLY</b> to actively growing ratoons 60-100cm tall. DO NOT apply if plants are under stress of low moisture or water logging. <b>RATE SELECTION:</b> Use the lower rate for suppression or where cultivation is to follow. Use the higher rate for control. <b>APPLICATION:</b> Apply with a properly calibrated boom spray, ensuring that the boom is raised high enough to allow correct overlap of the spray pattern at the top of the crop canopy.
	Q86, Q96, Q113		3.2 – 4L	
	CASSIUS, Q115, Q122, Q94		4 – 4.8L	
	NCo 310, Q107		4.8 – 7.2L	
DIRECT DRILLING FOR RICE	Annual phalaris (Canary grass), Annual ryegrass, Barley grass, Burr medic, sub clover, Winter grass	NSW only	800ml – 1L	<b>ANNUAL RYEGRASS:</b> Add Wetter TX at 200ml/100L of spray solution and, where dominant, use the higher glyphosate rate. In grazed situations, if heavy grazing has occurred allow regrowth to 6-8cm before spraying. This product is less effective on drought stressed plants. In drought conditions a pre-watering prior to spraying is recommended. Drilling may take place 1-14 days after spraying. This product does not provide residual weed control. Permanent water and approved selective herbicides should be used to provide continuing control of weeds.

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

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### **GENERAL INSTRUCTIONS:**

This product may be used prior to sowing any crop (edible or non-edible).

Weeds should be actively growing at time of treatment. Rainfall occurring up to 6 hours after application may reduce effectiveness. Heavy rainfall within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required. Always add a non-ionic surfactant. See Surfactant Addition.

Independent of spray volume, adding extra surfactant may improve brownout on some broadleaf weeds under less than ideal conditions.

Avoid contact with foliage, green stems or fruit of crops, desirable plants and trees, since severe injury or destruction may result. This product is absorbed by plant foliage and green stems. It moves through the plant from the point of contact to and into the root system. Visible effects on annual weeds take 3-7 days, but on perennial weeds may not be obvious for 2-3 weeks or even longer and may be delayed by cool or cloudy weather at and following treatment. Visible effects are a gradual yellowing and wilting of the plant which advances to complete browning of above ground growth and deterioration of underground plant parts. This product is inactivated immediately in the soil and does not provide residual weed control.

### **RESISTANT WEEDS WARNING**

GLYCEL 450 Herbicide is a member of the Glycines group of herbicides. GLYCEL 450 Herbicide is a herbicide with the inhibitors of EPSP synthase mode of action. For weed resistance management, GLYCEL 450 Herbicide is a group M herbicide. Some naturally occurring weed biotypes resistant to GLYCEL 450 Herbicide and other inhibitors of EPSP synthase 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 GLYCEL 450 Herbicide or any other inhibitors of EPSP synthase herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Excel Crop Care (Australia) Pty Ltd accepts no liability for any losses that may result from the failure of GLYCEL 450 Herbicide to control resistant weeds.

**Crop Establishment:** This product is recommended for control of emerged weeds prior to crop establishment. Suitable cultivation and/or sowing operations are required to provide seedbed conditions satisfactory for crop germination and development. Spraying early to control young weeds will favour preparation of suitable seedbeds. On friable soils and where there is only light cover of young weeds, sowing may proceed satisfactorily from one day after spraying. In situations of heavy weed growth, sowing should be delayed until weed decay and soil conditions allow formation of a satisfactory seedbed. Incorporation of green or decaying vegetation and roots into the seedbed by cultivation or sowing may cause retarded crop emergence, particularly in cold and/or wet conditions. Vegetation may be reduced by grazing and weed decay may be assisted by cultivation to leave trash on the surface. In marginal seedbed conditions, take care to achieve correct seeding depth, and avoid use of pre-emergence herbicides where label directions advise risk of retarded crop emergence.

**MIXING INSTRUCTIONS:**      **This product mixes readily with water.**  
**For mixing instructions for tank mixes, see Tank Mixes.**

**NOTE:** Reduced results may occur if water containing soil is used, eg. water from ponds and unlined ditches; or if hard water containing calcium salts is used.

Ensure the spray tank is free of any residue of previous spray materials. Fill the spray tank with one half the required amount of clean water and add the proper amount of this product. Mix well before adding the remaining portion of water. Placing the filling hose below the surface of the spray solution will prevent excessive siphoning into water source. Do not use mechanical agitators as these may cause excessive foaming.

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminium, brass, copper, fibreglass, plastic or plastic-lined containers. Do not mix, store, or apply this product or spray solutions of this product in galvanised steel or unlined steel (except stainless steel) containers or spray tanks. This product, or spray solutions of this product, react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture that can flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source. Do not mix with other surfactants, agricultural chemicals, herbicide oils, or any other material except as directed on the label.

Surfactant Addition: Always add a non-ionic surfactant. The following surfactant products may be used (other products have not been tested):

<b>SURFACTANT PRODUCT</b>	<b>RATE Vol/100L SPRAY</b>	<b>SURFACTANT PRODUCT</b>	<b>RATE Vol/100L SPRAY</b>
Chemwet 1000	200 ml	Turbo Plus	200 ml
Spraymate Activator	125 – 150 ml	Plus 50	400 ml
LI-700	250 ml	Wetter TX	200 ml
Agral	300 ml	X-77	550 ml
BS1000	200ml		

**TANK MIXTURES:** This product may be tank mixed with the following herbicides, insecticides and additives, where recommended in the Directions For Use tables. Read and follow all label directions, restraints, plant back periods, withholding periods and safety directions for the tank mix products.

#### MIXING INSTRUCTIONS FOR ALL TANK MIXTURES

1. Fill the spray tank  $\frac{1}{3}$  to  $\frac{1}{2}$  full with clean water and start agitation.
2. Where ammonium sulphate is recommended, add liquid Spraymate Liase according to the Directions for Use on its label.
3. Add the recommended herbicide/insecticide/additive to the spray tank. Mix thoroughly.
4. Add this product and the remaining water. Mix thoroughly.
5. Add surfactant, if required, near the end of the filling process to minimise foaming.
6. Always maintain adequate agitation during application and use the tank mix promptly.

## TANK MIXTURES – INSECTICIDES

This product is compatible with the following insecticides: Dimethoate, Imidan<sup>4</sup>, Le Mat, Perfekthion and Rogor. Other insecticides have not been tested.

## TANK MIXTURES – HERBICIDES

### **2,4-D Ester**

This product and 2,4-D Ester (Estercide) can be tank mixed for improved control of certain broadleaf weeds.

Observe any regional use restrictions. In Tasmania, the use of 2,4-D Ester is restricted to the period 15 April-15 September.

### **Dicamba**

This product and Dicamba may be tank mixed for improved control of Sorrel, Sub.Clover, medics and white clover. Observe any regional use restrictions.

### **Glean<sup>1</sup>**

This product and Glean tank mix will provide knockdown and residual weed control in fallow or in crop. Observe plant back periods for Glean.

### **Ally<sup>1</sup>**

This product may be tank mixed with Ally to provide knockdown weed control in fallows and prior to planting certain winter cereals. Observe Crop Safety, Spray Preparation & Crop Rotation Recommendations on Ally label.

### **Goal CT**

The addition of Goal CT, 75 ml/ha, to recommended rates of GLYCEL 450 prior to planting wheat or barley will improve knockdown and increase the speed at which treated weeds develop visible symptoms or phytotoxicity.

Add Flowright Compatibility Agent to improve the compatibility in cold water (less than 5°C). Flowright must be pre-mixed with Goal CT before adding to the spray tank. Refer to the Flowright label for directions.

### **Simazine Flowable plus liquid ammonium sulphate**

This product may be tank mixed with Simazine (flowable formulations only) for knockdown and residual, annual weed control, prior to sowing lupins. Addition of ammonium sulphate is required to overcome antagonism. See Ammonium Sulphate section.

## TANK MIXTURES – ADDITIVES

### **Ammonium Sulphate (AMS) Rate 2L/100L spray solution**

The addition of liquid or crystalline ammonium sulphate to this product when used to control ANNUAL weeds, MAY improve performance under adverse environmental conditions such as cool, cloudy weather, and assist in minimising the antagonism in tank mixes of this product and flowable triazine herbicides.

Spraymate Liase Liquid Herbicide Adjuvant should be added to the half filled spray tank while agitating at the rate of 2L/100L water. Then add the required amount of flowable product and mix thoroughly before adding the quantity of GLYCEL 450 and remaining water. Continue mixing and add surfactant if required to minimise foam. Maintain agitation during application and use tank mix promptly. AMS may be corrosive to metal parts of the sprayer. Thoroughly flush tanks, pumps and nozzles with water after use.

1. Registered trademark – E.I. Dupont de Nemours, USA.
2. Registered trademark – Velsicol Chemical Corp, USA,
3. Registered trademark – Bayer Germany.
4. Stauffer Chemical Co. USA.

**APPLICATION INFORMATION:** This product is a non-selective translocated herbicide. Direct spray contact, or even slight drift, may cause severe injury or destruction of any growing crop or other desirable plants including trees. Clean all equipment after use by thoroughly washing with water.

**Boom Equipment:** Application of this product in low spray volumes (25-100L/ha) is recommended. Fan nozzle equipment is recommended, using pressures in the range of 240-280kPa. Boom height must be set to ensure double overlap of nozzle patterns at the top of the weed canopy.

**Aerial Equipment:** Aerial equipment may be used to apply this product only in pasture or fallow situation prior to establishment of field crops, fodder crops, or new pasture, and for pre-harvest application to sorghum crops. DO NOT use in intensive horticultural cropping areas. Use recommended rates of this product specified in this label up to a maximum limit of 3.2L/ha. Depending on product rate and spray volume, added surfactant may be required. See Surfactant Addition. For Microair and boom equipment, apply in a minimum spray volume of at least 15L/ha. Droplets with an average size (or VMD) of 250-350 micron diameter are recommended. Swath width should be 15-17m.

#### AVOID SPRAY DRIFT.

**Application on hilly terrain:** As spraying height may vary, to maximise target contact increase water volume to 30-80 L/ha and increase droplet size to at least 300 micron VMD.

**Application under summer conditions:** High temperature and/or low relative humidity cause excessive evaporation of spray droplets which may reduce results. When temperature reaches 25°C, increase water volume to at least 30L/ha, and increase droplet size to at least 300 micron VMD. DO NOT apply this product by aircraft when temperature is above 35°C.

**Equipment maintenance and Usage:** Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminium, brass, copper, fibreglass or plastic or plastic-lined containers. This product or spray solutions of this product, react with galvanised steel or unlined steel (except stainless steel) containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture can flash or explode if ignited by open flame, spark, welder's torch or other ignition source. Spray tanks, pumps, lines and nozzles should be thoroughly rinsed with clean water following application to prevent extensive corrosion. Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove herbicide residues.

**PROTECTION OF LIVESTOCK:** A Withholding Period for grazing stock is not required. However, it is recommended that grazing of treated plants be delayed for one day after treatment of annual weeds, or 7 days if perennial weeds are present, to ensure absorption of this product. Certain plants (eg. Soursob, Variegated thistle) may be naturally toxic to stock. Where known toxic plants are present, do not allow stock to graze until complete browning of treated plants has occurred.

**PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS:** Avoid contact with foliage, green stems or fruit of crops, desirable plants and trees, since severe injury or destruction may result.

**Drift warning:** DO NOT apply under meteorological conditions or from spraying equipment which could be expected to cause spray drift onto nearby susceptible plants, adjacent crops, crop lands or pastures.

## **PROTECTION OF WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT**

DO NOT contaminate dams, rivers or streams with the product or used container.

DO NOT apply to weeds growing in or over water.

DO NOT spray across open bodies of water.

## **STORAGE AND DISPOSAL:**

Store in the closed, original container in a cool, well-ventilated area, out of direct sunlight. Store in a locked room, away from children, animals, food, feedstuffs, seed and fertilisers. Triple or (preferably) pressure 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 bury empty containers in a local authority landfill. If no landfill is available bury the container below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should NOT be burnt.

## **SAFETY DIRECTIONS:**

Product will irritate eyes and skin. Avoid contact with eyes and skin. When preparing product for use wear elbow-length PVC gloves, face shield or goggles. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing

Additional information is listed in the Material Safety Data Sheet.

## **FIRST AID**

If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

**CONDITIONS OF SALE:** Excel Crop Care (Australia) Pty Ltd will not be liable for any kind of loss/injury/damage whatsoever in anyway arising, either through negligence if any or otherwise, in connection with the application usage, sale or supply of this product. A person dealing with this product does so absolutely at his own risk, on a clear stipulation that the purchaser does not rely on EXCEL Crop Care (Australia) Pty Ltd's skill or judgement in the purchasing or using of this product. Specifically no single representative of EXCEL Crop Care (Australia) Pty Ltd has the right to add or alter any of the above stated conditions.

**For further information, contact Customer Services 02 9262 4112.**

APVMA Approval No.: 45288/61339

Batch No.:

Expiry Date: