# CAUTION

KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING

### TITAN

# GLUFOSINATE 880SG HERBICIDE

ACTIVE CONSTITUENT: 880g/kg GLUFOSINATE-AMMONIUM



For non-residual control of broadleaf and grass weeds in various situations as specified in the Directions For Use table. APVMA Approval No.: 92275/134983 Pack Size: 1kg-20kg



TITAN AG Pty Ltd | ABN 57 122 081 574 15/16 Princes Street, Newport NSW 2106 Tel (02) 9999 6655 | Fax (02) 9999 0483 titanag.com.au IN A TRANSPORT EMERGENCY
DIAL OOO
POLICE OR FIRE BRIGADE

TRANSPORT AND HANDLING NOT A DANGEROUS GOOD ACCORDING TO THE AUSTRALIAN DANGEROUS GOODS (ADG) CODE FOR TRANSPORT BY ROAD AND RAIL

### **DIRECTIONS FOR USE**

### **Restraints:**

DO NOT apply with aircraft.

DO NOT apply when rain is expected within 6 hours.

DO NOT apply to weeds under stress due to, for example, very dry, very wet, frosty or diseased conditions.

DO NOT apply under hot dry conditions (temperatures above 33°C with a relative humidity below 50%).

Sugarcane: D0 NOT apply in areas where slope exceeds 4%.

### **SPRAY DRIFT RESTRAINTS**

Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

A. ORCHARDS, PLANTATI	A. ORCHARDS, PLANTATIONS, VINEYARDS, SUGARCANE AND OTHER ROW CROPS							
CROP/SITUATION	WEED	STATE	RATE	WHP	CRITICAL COMMENTS			
Tropical and sub-tropical fruits (inedible peel) including, Avocado,	See list of weeds controlled in Table 1	ALL STATES	0.23-1.14kg/ ha	H: Nil G: 8 weeks	Apply as a directed or shielded spray. Refer to the label section Application Equipment for specific information on application methods.			
Banana, Feijoa, Guava, Kiwifruit, Litchi, Mango, Pawpaw, Passionfruit,					<b>Warnings:</b> DO NOT allow spray or spray drift to contact desirable foliage or green (un-calloused) bark. To avoid potential crop damage, refer to the label sections on			
(Dragon fruit), Rambutan plantations					Application Equipment and PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS.			
Citrus orchards	-				Controlled Droplet Application equipment must not be used for			
Olive plantations					TITAN Glufosinate 880SG Herbicide may be used around trees/			
Pome and Stone fruit				H: 21 days	vines less than two years old provided they are effectively			
orchards				G: 8 weeks	shielded from spray and spray drift.			
Tree nut plantations	1			H: Nil	criteria:			
Vineyards	]			G: 8 weeks	WEED SPECIES			
					WEED STAGE OF GROWTH			
					CLIMATIC CONDITIONS			
					WEED SPECIES			
					Apply the appropriate rate to control the least susceptible weed present according to the lists of weeds controlled in the accompanying tables			
					WEED STAGE OF GROWTH			
					Use the lower rate when weeds are young and succulent (grasses: pre-tillering; broadleaves: cotyledons to 4-leaf) or the			
					population is very sparse. A median rate should be used for medium sized plants			
					(grasses: tillering; broadleaves: 4-leaf to advanced vegetative) and the high rate should be used when weeds are mature (grasses: noding to flowering; broadleaves: budding to flowering).			
					WEED DENSITY			
					Use the higher rates when the weed population is dense. Thorough coverage of weeds is essential for good control.			
					CLIMATIC CONDITIONS Best results are achieved when applied under warm humid			
					<b>conditions (temperatures below 33°C with a relative humidity above 50%).</b> Control will be reduced and/or slower under cold conditions.			
					however poor results may occur under host other conditions, however poor results may occur under hot, dry conditions. Weeds that have been hardened or stunted in growth due to			
					SUESSEU CONDITIONS SHOULD DE TREATED AT THE MAXIMUM PATE.			
					Coverage Coverage of weeds is essential for good control. Poor coverage may result in re-growth.			
					<b>PERENNIAL WEEDS</b> Apply when weeds are actively growing. Follow-up treatments will be necessary to control re-growth of perennial weeds in most cases.			



CROP/SITUATION	WEED	STATE	RATE	WHP	CRITICAL COMMENTS	
Blackberry, Boysenberry, Loganberry, Raspberry	Primocane and sucker control	NSW, ACT, VIC, TAS only	114g/100L water	H: Nil G: 8 weeks	Apply as a directed spray to suckers and primocanes. Contact with flowers, developing fruit or desirable foliage will cause damage. Ensure complete coverage of primocanes/suckers by spraying to the point of run-off, preferably when they are less than 15cm high. Wetting agent (100% non-ionic) may be added at a rate of 25mL/100L or equivalent.	
Blackcurrant	See lists of weeds controlled in Table 1	ALL STATES	0.23-1.14kg/ ha		The spray should not contact foliage, flowers, fruits or young stems.	
	-				D0 N0T make more than 2 applications per season.	
Blueberries					DO NOT apply to young, green or un-calloused and damaged blueberry plants. DO NOT apply to weeds under stress. DO NOT apply in unfavourable weather conditions.	
Date Palms				H: 1 day	DO NOT allow spray, including drift, to contact any part of the	
Green Tea ( <i>Camellia sinensis</i> ) Native Foods				G: 8 weeks	recommended to use shielded sprayer or hooded spray nozzles when spraying between crop rows or near the emerged crops to avoid crop damage from direct spray and drift. Apply as necessary to actively growing weeds, free from environmental	
					stresses, up to a maximum 3 applications per season.	
					Rotate herbicide mode of action groups within and across growing seasons. Use suitable ground application equipment, including boom sprayer, back-pack sprayer, hand-lance sprayer, knapsack or CDA. Ensure equipment is correctly calibrated. Use higher rates	
					for perennial grass weeds. Increase the application rate for glufosinate-ammonium as the size, age and/or density of the weeds increase and become more established. Avoid spraying when crops are in flower or fruiting. DO NOT harvest leaves for food uses from native pepper or wattles that are close to the ground.	
Note: Native Foods include Mullumbimby Plum ( <i>Davids</i> <i>pomifera</i> ), Desert Quandon <i>fibrosum</i> ), Lilly Pilly ( <i>Syzyg</i> )	: Wattles ( <i>Acacia</i> spp.), Le sonia jerseyana), Davidson g ( <i>Santalum acuminatum</i> ) ium lehumannil), Kakadu I	mon Myrtle i's Plum ( <i>D</i> , Desert Ra Plum ( <i>Term</i>	e (Backhousia citi avidsonia johnsoi iisin (Solanum ce iinalia ferdinandia	<i>riodora</i> ), Finger <i>nii</i> ), Queensland <i>ntrale</i> ), Anise N ana) and Native	Lime ( <i>Citrus australasica</i> ), Desert Lime ( <i>Citrus glauca</i> ), d Davidson's Plum ( <i>Davidsonia pruriens</i> ), Muntrie Berry ( <i>Kunzea</i> Myrtle ( <i>Syzygium anisatum</i> ), Small Red Apple ( <i>Syzygium</i> Pepper ( <i>Tasmanian lanceolata</i> ).	
Dubosia	See lists of weeds controlled in Table 1	ALL STATES	0.23-1.14kg/ ha	G: 8 weeks	Spray should be directed to the base of the plants avoiding contact with the foliage. Best results are achieved when applied under warm humid conditions. Complete coverage of weeds is essential for good control.	
Green Bean (French Bean) (Field use only)				H: 4 weeks G: 4 weeks	Use inter-row shielded sprayer with a fan nozzle delivering coarse droplets. Use lower rates when weeds are young, or the population is sparse, and higher rates when weeds are mature or weed population is dense. Apply to actively growing weeds.	
Pyrethrum	Spear Thistle, Cleavers, Hawkbit, Cats Ear, Dandelion plus any weeds listed in Table 1	ALL STATES	6.8-17g/15L water	G: 8 weeks	Apply directly to weeds by knapsack only. Avoid direct contact with pyrethrum.	
Oil Tea Tree	See lists of weeds		Boom spray:		Apply spray treatment along the sides of crops and between	
Nursery stock [(non-food) – seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non- bearing)], cut flowers including wildflowers and foliage. Wildflower crops	controlled in Table 1		0.23-1.14kg/ ha <b>Handgun:</b> 68-113g/100L		rows of crops. Avoid overspray or incidental spray drift onto crop, as damage or death of plants may occur. Apply as necessary to actively growing weeds up to a maximum 3 applications per season. Use suitable ground application equipment. Ensure equipment is correctly calibrated. Use higher rates for perennial grass weeds. Increase the application rate as the size of target weeds increases. Only apply spray to actively growing grass weeds free from	
[see Note below]					environmental stresses. Avoid spraying when crops are in flower or fruiting.	
Note: Wildflower crops incl	lude: Banksia species ( <i>Bai</i>	nksia spp.)	- cultivars and h	ybrids, Berzelia	a or Button Brush ( <i>Berzelia</i> spp.), Black Kangaroo Paw	

(*Macropidia* spp.) – cultivars and hybrids, Christmas Bells (*Blandfordia grandiflora*), Christmas Bush (*Ceratopetalum gummiferum*), Geraldton Wax and Waxflower species (*Chamelaucium* spp.) – cultivars and hybrids, Kangaroo Paw (*Anigozanthos* spp.) – cultivars and hybrids, Leucadendron species – cultivars and hybrids, Leucospermum species (*Leucospermum* spp.) – cultivars and hybrids (pincushions), Protea (*Protea* spp.) – cultivars and hybrids, Riceflower (*Ozothamnus diosmifolius*), Waratah species (*Telopea speciosissima*) – cultivars and hybrids.



CROP/SITUATION	WEED	STATE	RATE	WHP	CRITICAL COMMENTS		
Strawberries, Cane berry fruits (inter-row) Tomatoes (inter-row)	See lists of weeds controlled in Table 1	ALL STATES	0.23-1.14kg/ ha	H: Nil G: 8 weeks	Apply as a directed or shielded spray to the inter-row area. Take care not to allow spray or spray drift to contact the crop, including strawberry runners. Refer to GENERAL INSTRUCTIONS for warnings concerning plastic mulch and fumigated/sterilised soil. Determine the recommended rate of use by considering the criteria WEED SPECIES, WEED STAGE OF GROWTH, WEED DENSITY and CLIMATIC CONDITIONS, as described above.		
Sugarcane	See list of weeds controlled in Table 1	QLD, NSW, WA, NT only	0.23-0.68kg/ ha (directed application) 0.23 to 1.14kg/ha (shielded/ hooded application)	H: 16 weeks G: 16 weeks	Determine the recommended rate of use by considering the criteria WEED SPECIES, WEED STAGE OF GROWTH, WEED DENSITY and CLIMATIC CONDITIONS, as described above. Apply as a directed or shielded spray. Directed application: Refer to recommendations for weed control in Table 1 to check that a label rate in the range 0.23-0.68kg/ha for directed application is suitable for control of the target weed at its current stage of growth. <b>Plant cane:</b> DO NOT apply earlier than just prior to out-of-hand stage. Apply spray mixture across the inter-row area between cane rows. Avoid all contact with cane shoot growing points and minimise spray contact with green cane foliage. Excessive contact with sugarcane plants may result in damage. <b>Ratoon cane:</b> Apply spray mixture across the inter-row area between cane rows. DO NOT apply until cane reaches 100cm		
					overall cane height (top of plants) or 20cm to dewlap (growing point). Avoid all contact with ratoon shoot growing points and minimise spray contact with green cane foliage. Excessive contact with sugarcane plants may result in damage. Use nozzles that deliver coarse to very coarse droplets and minimise drift, whilst ensuring complete coverage of weeds. The Irvin spray boom has been found to be suitable for the application of TITAN Glufosinate 880SG Herbicide in sugarcane. Use of a bar at the front of the boom to knock down taller weeds may help ensure good coverage and increase performance. <b>Shielded or hooded application:</b> Refer to recommendations for weed control in Table 1 to check that a label rate in the range 0.23 to 1.14kg/ha for shielded or hooded applications is suitable for control of the target weed at its current stage of growth. Can be applied at all sugarcane stages provided that the shield is set up so as to completely avoid spray contact with sugarcane plants. Use nozzles that deliver coarse to very coarse droplets and minimise drift, whilst ensuring complete coverage of weeds. Take care to prevent spray contact with green cane foliage and avoid contact with growing point. Excessive contact with sugarcane plants may result in damage. <b>Directed, shielded or hooded application:</b> To avoid potential crop damage refer to the label sections on: 1. Application; 2. PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET		
	IATIONS				PLANTS.		
CROP/SITUATION	WEEDS	WEED	RATE	WHP	CRITICAL COMMENTS		
		STAGE					
Maintenance of summer fallow prior to planting: <b>Cereal Grains</b> (including Wheat, Barley, Oats, Maize and Sorghum) <b>Pulses</b> (including Chickpeas, Faba Beans, Field Peas, Lentils, Lupins and Mungbeans) <b>Oilseeds</b> (including Canola, Cotton, Soybeans and Sunflowers) DO NOT sow crops until 14 days or more have elapsed after the final	<b>Control of:</b> Annual Polymeria, Bellvine, Bladder Ketmia, Caltrop, Dwarf Amaranth, Field Bindweed (European Bindweed), Flax-leaf Fleabane, Paddy Melon, Peach Vine, Red Pigweed, Rhyncho (Rhyncosia), Sesbania Pea, Sowthistle (Milk Thistle), Volunteer Cotton (other than Liberty Link Cotton), Yellow Vine	2-6 leaf	850g/ha in a minimum of 100L water	8 weeks (G)	Apply to actively growing weeds. Good coverage is essential. Refer ' <b>Application</b> ' section for details. DO NOT apply more than 3 applications per season. TITAN Glufosinate 880SG Herbicide will have an effect on weeds that are larger than the recommended leaf stage, but speed of activity and level of control may be reduced. <b>CLIMATIC CONDITIONS Best results are achieved when</b> <b>TITAN Glufosinate 880SG Herbicide is applied under warm</b> <b>humid conditions</b> (temperatures below 33°C with a relative humidity above 50%). Under any other conditions efficacy and speed of action may be reduced. DO NOT apply onto weeds when dew, fog or mist is present.		
	Suppression of: Chinese Lantern (Wild Gooseberry), Noogoora Burr complex						



C. COMMERCIAL, INDUSTRIAL, NON-AGRICULTURAL AREAS, FENCELINES IN AGRICULTURAL AREAS and FORESTRY PLANTATIONS							
<b>CROP/SITUATION</b>	WEEDS	STATE	RATE	WHP	CRITICAL COMMENTS		
Commercial and industrial areas, forest plantations, rights-of-way and other non-agricultural areas	See list of weeds controlled in Table 1	ALL STATES	0.23 to 1.14kg/ha	-	Determine the recommended rate of use by considering the criteria WEED SPECIES, WEED STAGE OF GROWTH, WEED DENSITY and CLIMATIC CONDITIONS as described above in <b>Part A</b> of the Directions for Use table, under Critical Comments.		
Fencelines in agricultural areas				8 weeks (G)	Warnings: DO NOT allow spray or spray drift to contact desirable plants. To avoid potential crop damage, refer to the label sections on Application and PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS.		
Commercial and industrial areas, forest plantations, rights-of-way and other non-agricultural areas	Volunteer or wildling <i>Pinus</i> spp.		Handgun and knapsack application 114g/100L water	_	TITAN Glufosinate 880SG Herbicide is a non-selective herbicide and will affect most weeds. Its forestry use is designed to improve the control of <i>Pinus</i> spp. wildings when pre-plant weed control is carried out. To broaden the weed spectrum, mixing with other herbicides such as glyphosate and metsulfuron- methyl at labelled rates may be necessary.		
Forestry plantations (preplant plantation establishment)	Volunteer or wildling <i>Pinus</i> spp.		1.14kg/ha	-	TITAN Glufosinate 880SG Herbicide is a non-selective herbicide and will affect most weeds. Its forestry use is designed to improve the control of <i>Pinus</i> spp. wildings when pre-plant weed control is carried out. To broaden the weed spectrum, mixing with other herbicides such as glyphosate and metsulfuron- methyl at labelled rates may be necessary. <b>APPLICATION</b> Apply with an adjuvant. The addition of an adjuvant e.g. Nu-Film <sup>®</sup> P or Exit <sup>®</sup> may assist in improving performance. High water volumes or nozzle systems should be used to achieve complete coverage of weeds, which is essential for good control. Handgun and knapsack rates are based on the application of 1000L of spray mixture per sprayed hectare. This is usually adequate to thoroughly wet dense stands of weeds. Less dense stands will require lower water rates. TITAN Glufosinate 880SG Herbicide does not provide residual weed control. Refer also to comments in the General Instructions which relate to application. <b>WEED GROWTH STAGE AND CONDITION</b> Use on <i>Pinus</i> spp. ≤15cm is recommended to maximise efficacy. Apply when weeds are actively growing. Results will		
					be reduced if treated plant is under stress due to very dry, very wet, frosty or diseased conditions. <b>COVERAGE</b> Complete coverage of target is essential for good control. Poor coverage may result in re-growth. <b>CLIMATIC CONDITIONS</b> Best results are achieved when applied under warm, humid conditions (temperatures below 33°C with a relative humidity above 50%). Good results will be achieved under most other conditions, however poor results may occur under hot, dry conditions. Trials have shown better results from autumn and winter applications than from spring and summer applications. <b>SYMPTOMS</b> Visible symptoms will appear within 3 weeks; tree death may take several months depending on initial coverage and size of tree. Follow up treatments may be necessary to control re- growth in some cases.		
Line-marking on sports grounds	Turf grasses and other weeds		57 to 114g/100L water		Refer to General Instructions. TITAN Glufosinate 880SG Herbicide is a non-selective, non- residual herbicide with limited translocation potential. It is therefore ideally suited for line-marking on sports fields where precise weed control is required. Apply at 6-8 week intervals depending on growth of turf. Apply using single boom or hand wand		

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



### WITHHOLDING PERIODS

### Harvest (H)

Avocado, Banana, Blackberry, Boysenberry, Citrus fruit, Dragonfruit, Feijoa, Grapes, Guava, Kiwifruit, Litchi, Loganberry, Mango, Olives, Passionfruit, Pawpaw, Pineapple, Rambutan, Raspberry, Strawberries, Tomatoes, Tree Nuts: NOT REQUIRED WHEN USED AS DIRECTED. Pome and Stone fruit: DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION.

Sugarcane: DO NOT HARVEST FOR 16 WEEKS AFTER APPLICATION.

Green Bean (French Bean): DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.

Date Palms, Green Tea, Native foods: DO NOT HARVEST FOR 4 WEEKS AFTER AFFEIGATION.

DO NOT harvest leaves for food uses from Native Pepper or Wattles that are close to the ground.

Grazing (G)

DO NOT GRÁZE OR CUT TREATED AREAS FOR STOCK FOOD FOR 8 WEEKS AFTER APPLICATION. Summer fallow: DO NOT GRAZE OR CUT FOR STOCK FOOD A CROP SOWN FOLLOWING A FALLOW SPRAY FOR 6 WEEKS AFTER SOWING. Sugarcane: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 16 WEEKS AFTER APPLICATION.

**Export of Treated Produce:** Growers should note that suitable MRLs or import tolerances may not be established in all markets for produce treated with TITAN Glufosinate 880SG Herbicide. If you are growing produce for export, please check with TITAN AG Pty Ltd for the latest information on MRLs and import tolerances BEFORE using TITAN Glufosinate 880SG Herbicide.

Table 1: List of weeds controlled with recommended application rate.

ANNUAL WEEDS		APPLICATION RATE			
		Refer to maxir	s for Use table		
Common Name	Scientific Name	Boom or directed sprayer kg/ha	Handgun g/100L	Knapsack g/15L	
Amaranthus spp.	Amaranthus spp.	0.45-1.14	110	17	
Apple of Peru	Nicandra physalodes	0.34-0.68	70	10	
Argentine Peppercress	Lepidium bonariense	0.45-0.68	70	10	
Awnless Barnyard Grass	Echinochloa colona	0.57-0.80	80	12	
Barley Grass	Hordeum leporinum	0.45-0.68	70	10	
Barnyard Grass	Echinochloa crus-galli	0.45-1.14	110	17	
Bell Vine	Ipomoea plebia	0.45-1.14	110	17	
Billy Goat Weed	Ageratum conyzoides	0.45-1.14	110	17	
Bitter Cress	Cardamine hirsuta	0.45-1.14	110	17	
Black Bindweed (Buckwheat) (refer Note 2)	Fallopia convolvulus	0.41-1.14	110	17	
Bladder Ketmia	Hibiscus trionum	0.68-1.14	110	17	
Bordered Panic	Entolasia marginata	0.45-0.91	90	14	
Brome grasses (refer Note 1)	Bromus spp.	0.45-0.68	70	10	
Calopo	Calopogonium mucunoides	0.45-1.14	110	17	
Caltrop Burr (refer also Table 2)	Tribulus terrestris	0.68-1.14	110	17	
Cape Weed	Arctotheca calendula	0.34-1.14	110	17	
Clover (Subterranean)	Trifolium subterraneum	0.41-0.68	70	10	
Cobbler's Peg	Bidens pilosa	0.45-1.14	110	17	
Common Morning Glory	Ipomoea purpurea	0.45-1.14	110	17	
Common Storksbill	Erodium cicutarium	0.34-0.91	90	14	
Crowsfoot Grass	Eleusine indica	0.68-1.14	110	17	
Dead Nettle	Lamium amplexicaule	0.45-1.14	110	17	
Dwarf Crumbweed	Chenopodium pumilo	0.68-1.14	110	17	
Fat Hen	Chenopodium album	0.68-1.14	110	17	
Flax-leaf Fleabane	Conyza bonariensis	0.68-1.14	110	17	
Fumitory	Fumaria officinalis	0.41-1.14	110	17	
Green Crumbweed	Chenopodium carinatum	0.45-1.14	110	17	
Lesser Canary Grass (refer also Table 2)	Phalaris minor	0.68-1.14	110	17	
Liverseed Grass (refer also Table 2)	Urochloa panicoides	0.34-1.14	110	17	
Medics (annual)	Medicago spp.	0.23-1.14	110	17	
Milk Thistle	Sonchus oleraceus	0.45-1.14	110	17	
Mint Weed	Salvia reflexa	0.68-1.14	110	17	
New Zealand Spinach	Tetragonia tetragoniodes	0.45-1.14	110	17	
Patterson's Curse	Echium plantagineum	0.23-0.68	70	10	
Peanuts	Arachis hypogaea	0.34-0.68	70	10	
Pigweed	Portulaca oleracea	0.68-1.14	110	17	
Pinkburr	Urena lobata	0.45-1.14	110	17	
Potato Weed	Galinsoga parviflora	0.45-1.14	110	17	
Prairie Grass (refer Note 1)	Bromus unioloides	0.91-1.14	110	17	
PricklyLettuce	Lactuca serriola	0.68-1.14	110	17	



Common Name	Scientific Name	Boom or directed sprayer kg/ha	Handgun g/100L	Knapsack g/15L
Red Natal Grass	Rhynchelytrum repens	0.45-1.14	110	17
Ryegrass (annual)	Lolium rigidum	0.45-1.14	110	17
Saffron Thistle	Carthamus lanatus	0.34-1.14	110	17
St. Barnaby's Thistle	Centaurea solstitialis	0.34-1.14	110	17
Sago Weed	Plantago cunninghamii	0.45-0.68	70	10
Scarlet Pimpernel	Anagallis arvensis	0.45-1.14	110	17
Setaria	Setaria italica	0.45-1.14	110	17
Sheep Thistle	Carduus tenuiflorus	0.57-1.14	110	17
Silver Grass	Vulpia myuros	0.45-1.14	110	17
Sorghum/sudax	Sorghum bicolor	0.45-1.14	110	17
Square Weed	Spermacoce latifolia	0.45-1.14	110	17
Stagger Weed	Stachys arvensis	0.45-1.14	110	17
Star of Bethlehem	Ipomoea quamoclit	0.45-1.14	110	17
Summer Grass	Digitaria ciliaris	0.45-1.14	110	17
Thickhead	Crassocephalum crepidioides	0.68-1.14	110	17
Three-cornered Jack	Emex australis	0.45-1.14	110	17
Tomato	Lycopersicon esculentum	0.45-1.14	110	17
Townsville Stylo	Stylosanthes humilis	0.23-0.68	70	10
Turnip Weed	Rapistrum rugosum	0.68-1.14	110	17
Variegated Thistle (refer also Table 2)	Silybum marianum	0.57-1.14	110	17
Wheat	Triticum aestivum	0.91-1.14	110	17
Wild Carrot	Daucus glochidiatus	0.45-1.14	110	17
Wild Gooseberry	Physalis minima	0.45-1.14	110	17
Wild Mustard	Sysimbrium orientale	0.45-1.14	110	17
Wild Oats (refer also Table 2)	Avena spp.	0.68-1.14	110	17
Wild Radish	Raphanus raphanistrum	1.14	110	17
Wireweed (refer also Table 2)	Polygonum aviculare	0.34-1.14	110	17
PERENNIAL WEEDS	L			
Blady Grass	Imperata cylindrica	0.68-0.91	90	14
Cape Tulip	Homeria spp.	0.45-0.68	70	10
Centro	Centrosema pubescens	0.23-1.14	110	17
Clover Glycine	Glycine latrobeana	0.23-0.68	70	10
Couch Grass	Cynodon dactylon	0.57-1.14	110	17
Cow Pea	Vigna unguiculata	0.23-0.68	70	10
Giant Sensitive Plant	Mimosa invisa	0.45-1.14	110	17
Greenleaf Desmodium	Desmodium intortum	0.23-0.68	70	10
Johnson Grass	Sorghum halepense	0.68-1.14	110	17
Panicum spp.	Panicum spp.	0.45-1.14	110	17
Paspalum spp.	Paspalum spp.	0.68-1.14	110	17
Perennial Bindweed	Convolvulus arvensis	0.45-0.68	70	10
Shamrock	Oxalis corymbosa	0.68	70	10
Sida Weed (refer also Table 2)	Sida retusa	0.68-1.14	110	17
Silver Leaf Desmodium	Desmodium uncinatum	0.91-1.14	110	17
Siratro	Macroptilium atrop urpureum	0.23-0.68	70	10
Stink Grass	Eragrostis cilianensis	0.68-1.14	110	17
White Clover	Trifolium repens	0.68-1.14	110	17
White Eye	Richardia brasiliensis	0.68-1.14	110	17
Willow Herb	Epilobium spp.	0.91-1.14	110	17

Notes:

1. Well-established clumps of Prairie Grass and Brome Grasses may only be suppressed at these rates. Follow-up treatments may be necessary to control regrowth. 2. Good control will be achieved on small and medium sized plants only in non-crop situation.



Table 2. For control of weeds in Commercial and Industrial areas, Rights-of-way and other Non-agricultural areas (when referred from Table 1).									
ANNUAL WEEDS									
Common Name	Scientific Name		Application Rates						
		Boom or Directed Sprayer kg/ha	Handgun g/100L	Knapsack g/15L					
Caltrop Burr	Tribulus terrestris	0.9-1.14	114	17					
Common Name	Scientific Name	Boom or directed sprayer kg/ha	Handgun g/100L	Knapsack g/15L					
Dead Nettle	Lamium amplexicaule	1.36	136	20					
Lesser Canary Grass	Phalaris minor	0.9-1.36	136	20					
Liverseed Grass	Urochloa panicoides	1.5	34	5					
VariegatedTthistle	Silybum marianum	1.36	136	20					
Wild Oats	Avena spp.	1.14-1.36	136	20					
Wire Weed	Polygonum aviculare	0.45-1.14	114	17					
PERENNIAL WEEDS									
Sida Weed	Sida retusa	0.9-1.14	114	17					

### **GENERAL INSTRUCTIONS**

TITAN Glufosinate 880SG Herbicide is a non-volatile herbicide with nonselective activity against many annual and perennial broadleaf weeds and grasses. TITAN Glufosinate 880SG Herbicide is absorbed by plant foliage and green stems. It is not significantly translocated as an active herbicide throughout the plant and therefore will only kill that part of a green plant that is contacted by spray. TITAN Glufosinate 880SG Herbicide does not provide residual weed control.

Visible symptoms of control appear in 3 to 7 days, but complete desiccation may take 20 to 30 days under cool conditions. Best results are achieved when application is made under good growing conditions. Application to weeds under stress (eg. due to continuous severe frosts, dry or waterlogged conditions) should be avoided.

### Soil fumigation/sterilisation

TITAN Glufosinate 880SG Herbicide is metabolised (broken down) by microorganisms in the soil to become inactive. Soil fumigation or sterilisation will reduce the number of microorganisms present, thus slowing the breakdown of TITAN Glufosinate 880SG Herbicide. As damage to transplants or seedlings may occur, it is not advisable to apply TITAN Glufosinate 880SG Herbicide in conjunction with soil fumigation or sterilisation.

### **Plastic mulches**

TITAN Glufosinate 880SG Herbicide will remain active on inert surfaces such as plastic. Special care should be taken when applying TITAN Glufosinate 880SG Herbicide over plastic mulches, as plant contact with the mulch after spraying may result in crop damage.

### COMPATIBILITY

TITAN Glufosinate 880SG Herbicide is compatible with most residual herbicides eg. simazine, diuron, oxyfluorfen (Goal®), norfluazuron and oryzalin (Surflan®), and with glyphosate and metsulfuron-methyl. The addition of a wetting agent or other adjuvant is generally not considered necessary, with the exception of the required addition of an adjuvant to assist in control of *Pinus* spp. (refer to the Directions for Use table). However, benefit has been obtained using a wetting agent or adjuvant on hard-to-wet weeds when using water rates in excess of 500L/ha. The rate is 25mL/100L of a 1000g/L non-ionic wetting agent, or equivalent.

For further information on suitable adjuvants, and compatibility with insecticides and other herbicides contact your local TITAN AG Pty Ltd representative.

### MIXING

TITAN Glufosinate 880SG Herbicide mixes easily with water. Clean water should always be used for mixing with TITAN Glufosinate 880SG Herbicide. Ensure that the spray tank is free of any residues of previous spray materials. Two-thirds fill the spray tank with clean water, and with agitator operating add the required amount of TITAN Glufosinate 880SG Herbicide. Add other relevant compatible products. Top the tank up to the required volume with clean water with agitator running.

### APPLICATION

### Table A. Orchards, plantations, vineyards, sugarcane and other row crops and

## Table C. Commercial, industrial, non-agricultural areas, fencelines in agricultural areas and forestry plantations

Apply by ground spraying equipment only. Aim to apply a thorough and even coverage of spray to the target plant. Dense stands of weeds should be

thoroughly wetted with spray. Incomplete coverage may result in poor control. Equipment set-up should be such that adequate coverage, penetration and volume of spray liquid can be achieved while the potential for off-target movement is minimised.

### Boom, Shielded/Hooded or Directed Sprayer Equipment

TITAN Glufosinate 880SG Herbicide should be applied at label rates (refer to specific column in the list of weeds controlled) in sufficient water to give thorough coverage of weeds. It has been found that 68 to 114 g/ha has given good esults under most weed conditions. Special care must be taken when using sprayer/slasher combination units not to cause dust and turbulence, which can carry spray into non-target areas. For use in sugarcane, shielded or hooded sprayers should be set up in such a way to ensure that no spray intercepts susceptible parts of the crop being sprayed, but provides good coverage of weeds. Directed spraying equipment should be set up in such a way that practically no spray intercepts susceptible parts of the crop being sprayed, but provides good coverage of weeds.

### **Knapsack and Handgun Equipment**

TITAN Glufosinate 880SG Herbicide should be applied at label rates (refer to specific columns in the list of weeds controlled) in adequate water to thoroughly wet the weeds being sprayed, ie. 114 to 227g/ha. Dense stands will require up to 227g/ha of spray mixture, whereas less dense stands will require less water. High volume application using hollowcone nozzles for hand spraying is recommended.

### **Controlled Droplet Application (CDA) Equipment**

TITAN Glufosinate 880SG Herbicide may be applied through CDA row spraying equipment fitted with a solid (impermeable) shroud or skirt, at rates as recommended for boom or directed sprayers (Refer to specific column in the list of weeds controlled), provided thorough spray coverage of weeds can be achieved. Apply preferably when weeds are less than 15cm in height, with the equipment set up so that the spray dome only just touches the tops of the weeds. A total spray volume of 20 to 30L/ha has been found to give good results. DO NOT mix residual herbicides or any spray adjuvants with TITAN Glufosinate 880SG Herbicide when using CDA equipment.

**Warning:** Because the spray solution is highly concentrated particular care must be taken when using TITAN Glufosinate 880SG Herbicide through CDA equipment to avoid contact of the spray solution with any part of the crop trunk or canopy. DO NOT apply TITAN Glufosinate 880SG Herbicide through equipment fitted with bristle skirts. Particular care should be taken when using CDA equipment around green or uncalloused bark. Please refer to

### PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS Table B. Summer fallow situations

Apply by ground spraying equipment only. Aim to apply a thorough and even coverage of spray to the target weed. Incomplete coverage may result in poor control. Equipment set-up should be such that adequate coverage, penetration and volume of spray liquid can be achieved while the potential for off-target movement is minimised. TITAN Glufosinate 880SG Herbicide should be applied at the recommended rate in sufficient water to give thorough coverage of weeds. Application volumes of at least 100L /ha through nozzles that will deliver a MEDIUM spray droplet.

### Sprayer cleanup

Clean all equipment after use by thoroughly flushing with water.



### **RESISTANT WEEDS WARNING**

TITAN Glufosinate 880SG Herbicide is a member of the phosphinic acid group of herbicides. TITAN



Glufosinate 880SG Herbicide is an inhibitor of glutamine synthetase. For weed resistance management TITAN Glufosinate 880SG Herbicide is a Group 10 herbicide. Some naturally occurring weed biotypes resistant to TITAN Glufosinate 880SG Herbicide and other Group 10 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 TITAN Glufosinate 880SG Herbicide or other Group 10 herbicides. Since occurrence of resistant weeds is difficult to detect prior to use, TITAN AG Pty Ltd accepts no liability for any losses that may result from the failure of TITAN Glufosinate 880SG Herbicide to control resistant weeds.

### PRECAUTIONS

**Re-entry Period:** D0 NOT allow entry into treated areas until the spray has dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

### PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.

### 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.

DO NOT apply on desirable foliage or allow spray to drift onto the foliage of desirable plants, trees or vines, as damage will occur.

DO NOT allow product to contact green or uncalloused bark (such as on desirable young trees and vines) or cut, cracked, damaged or wounded tissue, where the affected surface is not adequately healed.

TITAN Glufosinate 880SG Herbicide may be used around desirable trees/vines less than two years old provided they are effectively shielded from spray and spray drift.

D0 N0T allow desirable plant foliage to contact any inert surface, such as plastic mulches, which have been treated with TITAN Glufosinate 880SG Herbicide.

DO NOT apply TITAN Glufosinate 880SG Herbicide to recently fumigated or sterilised soil.

### STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Single-rinse or shake remainder into spray tank. DO NOT dispose of undiluted chemicals on-site. Puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm 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.

### SAFETY DIRECTIONS

Harmful if swallowed. Will damage eyes. Avoid contact with eyes. 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 and face shield or goggles. If product in eyes wash it out immediately with water. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Wash hands after use.

### FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766.

### SAFETY DATA SHEET

Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Glufosinate 880SG Herbicide is available from TITAN AG Pty Ltd on request. Call Customer Service on (02) 9999 6655 or visit titanag.com. au

**CONDITIONS OF SALE:** TITAN AG Pty Ltd shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on TITAN AG's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of TITAN AG Pty Ltd has any authority to add to or alter these conditions.

Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: Harmful if swallowed. Harmful if inhaled. May damage fertility. May damage the unborn child. May cause damage to organs through prolonged or repeated exposure. <u>Precautionary Statement:</u> Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell. Store locked up. Dispose of contents/container in accordance with local/regional/national regulations.



