Company Name:	TITAN AG PTY LTD
Product Name:	TITAN CLETHODIM 240 HERBICIDE

. . APVMA Approval No: 62806/100722

-



Label Name:	TITAN CLETHODIM 240 HERBICIDE
Signal Headings:	CAUTION
	KEEP OUT OF REACH OF CHILDREN
	READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Constituent	240 g/L CLETHODIM
Statements:	630 g/L HYDROCARBON LIQUID

Mode of Action:		
	GROUP /	A HERBICIDE

Statement of Claims:	For the control of certain grass weeds in beetroot, cabbage, canola, celery, cotton, forestry, lettuce, non-bearing fruit trees, onions, ornamentals, peanuts, pulses (including adzuki beans, broad beans, chickpeas, faba beans, field peas, lentils, lupins and mung beans), potatoes, soybeans and pasture legume (lucerne, clover and medic) seed crops (and pastures) according to the Directions for Use table.
-------------------------	--

Net Contents:	5L-20L 60L-110L; 1000L

Restraints:	RESTRAINTS: DO NOT apply without the addition of an oil (see GENERAL INSTRUCTIONS). DO NOT apply to plants that are stressed by moisture or temperature extremes. DO NOT apply if rain is expected within one hour of application. DO NOT apply more than once to any one crop.
-------------	---

Directions for Use:	This section contains file attachment.	
		62806 - 100722 Titan Clethodim 240 Herbicide directions for use.docx 16936 bytes

|--|

Withholidng Periods:	WITHHOLDING PERIODS HARVEST PASTURE LEGUME (LUCERNE, CLOVER AND MEDIC) SEED CROPS AND PASTURES: NOT REQUIRED WHEN USED AS DIRECTED.
	CANOLA, COTTON, PEANUTS, PULSES (ADZUKI BEANS, BROAD BEANS, CHICKPEAS, FABA BEANS, FIELD PEAS, LENTILS, LUPINS, AND MUNG BEANS) AND SOYBEANS: NOT REQUIRED WHEN USED AS DIRECTED.
	FORESTRY: NOT REQUIRED WHEN USED AS DIRECTED. BEETROOT,
	CABBAGE: DO NOT APPLY LATER THAN 7 DAYS BEFORE HARVEST.
	ONIONS: DO NOT APPLY LATER THAN 14 DAYS BEFORE HARVEST.
	LETTUCE, POTATOES: DO NOT APPLY LATER THAN 4 WEEKS BEFORE HARVEST. CELERY: DO NOT APPLY LATER THAN 9 WEEKS BEFORE HARVEST.
	GRAZING PASTURE LEGUME (LUCERNE, CLOVER AND MEDIC) SEED CROPS AND PASTURES: DO NOT GRAZE OR CUT FOR STOCK FEED FOR 14 DAYS AFTER APPLICATION.
	CANOLA, PEANUTS, PULSES (ADZUKI BEANS, BROAD BEANS, CHICKPEAS, FABA BEANS, FIELD PEAS, LENTILS, LUPINS, AND MUNG BEANS) AND SOYBEANS: DO NOT GRAZE OR CUT FOR STOCK FEED FOR 21 DAYS AFTER APPLICATION. COTTON: DO NOT GRAZE OR CUT
	COTTON FORAGE OR STUBBLE FOR STOCK FEED.

# Trade Advice:

General	This section contains file attachment.	
Instructions:		GENERAL INSTRUCTIONS.docx 15892 bytes

Resistance Warning:	RESISTANT WEEDS WARNING TITAN Clethodim 240 Herbicide is a member of the cyclohexanedione group of herbicides. TITAN Clethodim 240 Herbicide has the inhibition of acetyl coA carboxylase mode of action. For weed resistance management, TITAN Clethodim 240 Herbicide is a Group A Herbicide. Some naturally-occurring weed biotypes resistant to TITAN Clethodim 240 Herbicide and other Group A 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 Clethodim 240 Herbicide or other Group A Herbicides. Since the 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 Clethodim 240 Herbicide to control resistant weeds
------------------------	---

Precautions:	CAUTION
	Ornamentals and Trees – While TITAN Clethodim 240 Herbicide is generally selective to
	broadleaved plants (i.e. it is active against grasses), tests should always be made on a small number of plants not previously tested.
	official number of plante her provideory tooled.

DO NOT use on Gymnosperms (pines, conifers, etc) unless a prior test has been conducted to check safety on the relevant species
---

Protections:	PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS DO NOT apply TITAN Clethodim 240 Herbicide if wind is likely to cause drift onto susceptible crops/plants, cropping lands or pastures. TITAN Clethodim 240 Herbicide should not be applied through misting equipment or any other method likely to cause excessive drift. Care should be taken to avoid damage to adjoining native grasses or grass crops.
	PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT DO NOT contaminate streams, rivers or waterways with the product or used containers.

Storage and Disposal:	Store in the closed, original container in a dry, cool well-ventilated area out of direct sunlight. Protect from frost. 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 authority is not available, bury the empty packaging 500mm 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. For Refillable containers: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.
	point of supply for refin or storage.

Safety Directions:	Harmful if swallowed. Will irritate the eyes and skin. When preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist, washable hat, elbow-length PVC gloves and face shield or goggles. If product in eyes, wash it out immediately with water. 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 Instructions:	If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26; New Zealand 0800 764 766. If swallowed, do NOT induce vomiting. Give a glass of water.
----------------------------	---

First Aid Warnings:
---------------------

CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	RATE (mL/ha)	STAGE OF WEED GROWTH	STATE	CRITICAL COMMENTS
Canola	DO NOT apply after flower buds become visible (green buds)	Annual Ryegrass (Lolium rigidum), Annual Phalaris (Phalaris minor Barley Grass (Hordeum leporinum), Brome Grass (Bromus diandrus), Wild Oats (Avena spp.) Volunteer Wheat (Triticum aestivum), Volunteer Oats (Avena sativa)	150 to 500 175 to 500 200 to 500 (175 to 500 in WA only	2-leaf to fully tillered	QLD, NSW, ACT, VIC, TAS, SA, WA only	Always apply with a crop oil. See Adjuvants and Spray Additives for specific instructions. The lower doses will provide effective control if applied under ideal conditions to weeds that are smaller, actively growing and free from temperature or water stress. See COMPATIBILITY AND CAUTIONS in GENERAL INSTRUCTIONS for mixture recommendations with insecticides, fungicides and other herbicides.
		Silver Grass (Vulpia bromoides) suppression only Paradoxa Grass (Phalaris paradoxa	250 to 500 250 to 375 375 - 500	2- to 5-leaf stage 5-leaf to fully tillered	NSW, ACT, VIC, TAS only QLD, NSW, ACT on	
		-		5-leaf to fully		

Pulse crops	Adzuki beans:	Annual Ryegrass	150 to	2-leaf to	QLD, NSW,	Always apply with a crop oil. See Adjuvants and Spray Additives
(including	DO NOT	(Lolium	500	fully	ACT, VIC,	for specific instructions.
adzuki beans,	APPLY after	rigidum),	500	tillered	TAS, SA, WA	The lower doses will provide effective control if applied under
broad beans,	first flower	Annual Phalaris		linered	only	ideal conditions to weeds that are smaller, actively growing and
chickpeas,	buds are	(Phalaris minor)			only	free from temperature or water stress.
faba beans,	visible.	Barley Grass	175 to	-		See COMPATIBILITY AND CAUTIONS in GENERAL INSTRUCTIONS
field peas,		(Hordeum	500			for mixture recommendations with insecticides, fungicides and
lentils <sup>^</sup> and	Chickpeas,	leporinum),	300			other herbicides.
lupins#).	faba beans,	Brome Grass				<ul> <li>Application up to 7-node/early branching crop growth stage</li> </ul>
, ,	broad beans,	(Bromus				only. # NOT QLD
	field peas: DO	diandrus), Wild				1 See use of TITAN Clethodim 240 Herbicide in pastures under
Pasture	, NOT APPLY	Oats (Avena spp				General Instructions.
legume	beyond full	Volunteer	200 to	-		
(lucerne,	flowering.	Wheat (Triticum	500 (175			
clover and	_	aestivum),	to 500 in			
medic) seed	Lentils: Apply	Volunteer Oats	WA only)			
crops and	up to the 7	(Avena sativa				
pastures1	node/ early	Volunteer	500			
(including	branching	Barley				
pastures	stage of crop	(Hordeum				
containing	growth.	vulgare)				
chicory and		Silver Grass	250 to	-	NSW, ACT,	
plantain).	Lupins: DO	(Vulpia	500		VIC, TAS only	
	NOT APPLY	bromoides)				
	after 80% of	suppression				
	flowers have	only				
	opened.	Paradoxa Grass	250 to	2- to 5-leaf	QLD, NSW,	
		(Phalaris	375	stage	ACT only	
		paradoxa)	375 - 500			
				5-leaf to		
				fully		
				tillered		

Cotton (Qld,	Cotton: DO	Barnyard Grass	250 to	2- to 5-leaf	QLD, NSW,	Always apply with a crop oil. See Adjuvants and Spray Additives
NSW and NT	NOT APPLY	(Echinochloa	375	stage	ACT, VIC,	for specific instructions. The lower doses will provide effective
only)	after full	spp.), Blown			WA, NT only	control if applied under ideal conditions to weeds that are
Peanuts,	flowering	Grass (Agrostis				smaller, actively growing and free from temperature or water
Mung beans,	(mid bloom).	aveacea),	375 - 500	5-leaf to		stress.
Soybeans		Crowsfoot Grass		fully		
Pasture	Peanuts: DO	(Eleusine		tillered		See COMPATIBILITY AND CAUTIONS in GENERAL INSTRUCTIONS
legume	NOT APPLY	indica),				for mixture recommendations with insecticides, fungicides and
(lucerne,	after the pod	Feathertop				other herbicides.
clover and	fill stage of	Rhodes Grass				1 See use of TITAN Clethodim 240 Herbicide in pastures
medic) seed	crop	(Chloris virgata),				under General Instructions.
crops and	development.	Liverseed Grass				2 2 Only Johnson Grass seedlings germinating from seed
pastures1		(Urochloa				will be controlled.
(including	Mung beans,	panicoides), Red				
pastures	soybeans:	Sprangletop				Seedlings that appear later as shoots from underground stems
containing	DO NOT	Grass				will not be controlled, and more than one application may be
chicory and	APPLY after	(Leptochloa				required to control emerging shoots. Always apply with a crop
plantain).	first flower	filiformis),				oil. See Adjuvants and Spray Additives for specific instructions.
	buds are	Seedling				
	visible.	Johnson Grass				
		(Sorghum				
		halepense),				
		Summer Grass				
		(Digitaria spp.),				
		Volunteer				
		Sorghum				
		(Sorghum spp.)				

CROP	WEEDS CONTROLLED	RATE (mL/ha)	STAGE OF WEED GROWTH	STATE	CRITICAL COMMENTS
Beetroot, Cabbage, Celery, Lettuce, Potatoes, Onions	Barnyard Grass (Echinochloa spp.), Blown Grass (Agrostis aveacea), Crowsfoot Grass (Eleusine indica), Feathertop Rhodes Grass (Chloris virgata), Liverseed Grass (Urochloa panicoides), Paradoxa Grass (Phalaris paradoxa), Red Sprangletop Grass (Leptochloa filiformis), Seedling Johnson	250 to 375 375 - 500	2- to 5- leaf stage 5-leaf to fully tillered	ALL STATES	The lower doses will provide effective control if applied under ideal conditions to weeds that are smaller, actively growing and free from temperature or water stress. Use a spray volume of 150L/ha when spraying dense grass populations. 1 Only Johnson Grass seedlings germinating from seed will be controlled. Seedlings that appear later as shoots from underground stems will not be controlled, and more than one application may be required to control emerging shoots. Always apply with a crop oil. See Adjuvants and Spray Additives for specific instructions

	Grass1		
	(Sorghum		
	halepense),		
	Summer		
	Grass		
	(Digitaria		
	spp.),		
	Volunteer		
	Sorghum		
	(Sorghum		
	spp.)		
	Annual	150 to 500	2-leaf to
	Ryegrass	175 to 500	fully
	(Lolium	175 10 500	tillered
			tillereu
	rigidum),		
	Annual		
	Phalaris		
	(Phalaris		
	minor),		
	Barley Grass		
	(Hordeum		
	leporinum),		
	Brome Grass		
	(Bromus		
	diandrus),		
	Wild Oats		
	(Avena spp.)		
	Volunteer	200 to 500 (175	]
	Wheat	to 500 in WA	
	(Triticum	only	
1			
	aestivum),		

	Oats (Avena sativa			
	Volunteer Barley	500		
	(Hordeum vulgare)			
	Silver Grass (Vulpia bromoides) – suppression only (not Qld, WA	250 to 500		
	Winter Grass (Poa annua)	500		
Forestry, non- bearing fruit trees and ornamentals	Annual Ryegrass (Lolium rigidum), Annual Phalaris (Phalaris (Phalaris minor), Barley Grass (Hordeum leporinum), Barnyard Grass (Echinochloa spp.), Blown Grass (Agrostis aveacea), Brome Grass	500	ALL STATES	Apply after plants have recovered from transplant shock and are showing signs of active growth. Always apply with a crop oil. See Adjuvants and Spray Additives for specific instructions. Use a spray volume of 150L/ha when spraying dense grass populations. DO NOT use on Gymnosperms (pines, conifers, etc) unless a prior test has been conducted to check safety on the relevant species. See COMPATIBILITY AND CAUTIONS in GENERAL INSTRUCTIONS for particular species. 1 Only Johnson Grass seedlings germinating from seed will be controlled. Seedlings that appear later as shoots from underground stems will not be controlled, and more than one application may be required to control emerging shoots.

(Bromus
diandrus),
Crowsfoot
Grass
(Eleusine
indica),
Feathertop
Rhodes Grass
(Chloris
virgata),
Liverseed
Grass
(Urochloa
panicoides),
Paradoxa
Grass
(Phalaris
paradoxa),
Red
Sprangletop
Grass
(Leptochloa
filiformis),
Seedling
Johnson
Grass1
(Sorghum
halepense),
Silver Grass
(Vulpia
bromoides)
- suppression
only (not

QLD, WA),		
Summer		
Grass		
(Digitaria		
spp.),		
Volunteer		
Sorghum		
(Sorghum		
spp.),		
Volunteer		
Wheat		
(Triticum		
aestivum),		
Volunteer		
Oats (Avena		
sativa),		
Volunteer		
Barley		
(Hordeum		
vulgare),		
Winter Grass		
(Poa annua)		

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

#### CLEANING SPRAY EQUIPMENT

Before using TITAN Clethodim 240 Herbicide: Ensure that the recommended cleanout procedure for the previous product (particularly sulfonylurea herbicides) sprayed with the equipment was done properly.

After using TITAN Clethodim 240 Herbicide: Empty the tank and drain the whole system. Thoroughly wash inside the tank using a pressure hose, drain the tank and clean all filters in the tank, pump line and nozzles. Use of a household detergent will aid in cleaning the equipment. Add detergent to the part-filled spray tank and thoroughly circulate through pumps, hoses and nozzles. Drain the system and thoroughly rinse twice with clean water. Rinse water should be discharged onto a designated disposal area, or if this is unavailable, onto unused land away from desirable plants and water sources.

MIXING To ensure even mixing, half-fill the spray tank with clean water and add the required amount of product. Add spray additive and agitate thoroughly, then add the remainder of the water. Agitate again before spraying commences.

ADJUVANTS AND SPRAY ADDITIVES Always apply TITAN Clethodim 240 Herbicide with a crop oil. TITAN Clethodim 240 Herbicide may be applied with Hasten\*, Kwickin\*, Activoil\*, D-C-Trate Advance or Rocket\* at 1L/100L water or with Uptake\* or Enhance\* at 0.5-1L/100L water. (Use the higher rate of oil when weeds are large or if spraying conditions are less than optimal.) TITAN Clethodim 240 Herbicide may also be applied with D-C-Trate\* at 2L/100L water. TITAN Clethodim 240 Herbicide is compatible with ammonium sulphate products such as Spraymate\* Liase. When mixing TITAN Clethodim 240 Herbicide with atrazine use Uptake or Enhance at 1L/100L as the adjuvant. The addition of ammonium sulphate is recommended to improve performance of this tank mix. TITAN Clethodim 240 Herbicide is not compatible with Hot-Up\* Spray Adjuvant or Freeway\* Gold Penetrant.

### APPLICATION

Ground Application: TITAN Clethodim 240 Herbicide should be applied with calibrated spray equipment producing a median droplet range of 200 to 300 microns VMD. Apply in a minimum of 50 litres of water per hectare. Use 150L/ha when spraying dense populations.

Aerial Application: TITAN Clethodim 240 Herbicide can be applied through aircraft fitted with boom or Micronair equipment. A spray volume of 20 to 30L/ha is recommended and equipment should be adjusted to deliver droplets in the range of 200 to 250 microns VMD. Best results will be obtained when aerial applications are made in a light crosswind. Applications should not be made during temperature inversions or in conditions of very low relative humidity. Care should be taken to avoid drift damage to adjoining grass crops.

# USE OF TITAN CLETHODIM 240 ON PASTURE LEGUME (LUCERNE, CLOVER AND MEDIC) SEED CROPS AND PASTURES AND PASTURE HERBS

TITAN Clethodim 240 Herbicide has been demonstrated to be safe when applied to the following cultivars during early establishment.

Pasture legumes

Clover (Trifolium spp.)

Annual: Subterranean Clover (Dalkeith, Dalsa, Goulburn, Koala, Nungarrin, Riverina, Seaton Park and York A), Arrowleaf Clover (Zulu II), Balansa Clover (Enduromax, Frontier, Paradana), Berseem Clover (Elite II), Gland Clover (Prima), Persian Clover (Prolific, Leeton), Rose Clover (Hykon).

Perennial: Strawberry Clover (Palestine), Whiteclover (NuSiral).

Lucerne and Medics (Medicago spp.) Lucerne (Aurora, Field, Genesis, Hunterfield, Multileaf, Salado, Sardi SEVEN, Sceptre and Venus), Barrel Medic (Sephi, Jester Paraggio, Caliph), Burr Medic (Scimitar, Santiago), Snail Medic (Silver).

Serradella (Ornithopus spp.) French or Pink Serradella (Cadiz), Yellow Serradella (Charano, Santorini).

Pasture herbs: Chicory (Puna II) and Plantain (Tonic) Apply TITAN Clethodim 240 Herbicide when plants have reached 2-4 trifoliate leaf stage, or after 40 days from sowing. Some pasture varieties may exhibit an initial reduction in crop vigour or biomass, however, these symptoms are transient and crops recover fully with no effect on yield.

# COMPATIBILITY

TITAN Clethodim 240 Herbicide is compatible with the following grass herbicides: Targa\*, Fusilade\*, Verdict\*, Sertin\* and Correct\*. (Refer to the Correct label for detail on adjuvant recommendations for that product).

Note: In all situations where TITAN Clethodim 240 Herbicide is mixed with another grass herbicide, TITAN Clethodim 240 Herbicide should be used at the full label rate specified for the target weed species.

TITAN Clethodim 240 Herbicide may also be applied in tank mixtures with one of the following products: Fastac\* 100, Le-Mat\*, Lontrel\*, Spin Flo\*, Sumi-Alpha\* Flex\*, Sumisclex\* Broadacre and Dithane\* M45.

TITAN Clethodim 240 Herbicide is compatible with atrazine. Avoid using this tank mix when crops are stressed by environmental factors. When mixing TITAN Clethodim 240 Herbicide with atrazine use Uptake\* or Enhance\* at 1L/100L as the adjuvant. The addition of an ammonium sulphate product such as Spraymate\* Liase is recommended to improve performance of this tank mix.

TITAN Clethodim 240 Herbicide should not be applied in a tank mix with Bravo\* (chlorothalonil), Brodal\* (diflufenican), Basagran\* (bentazone and MCPA) or Blazer\* (aciflurofen). Apply as separate applications. For information on compatibility of products not listed, please refer to TITAN AG Pty Ltd.