# **CAUTION**

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

TITAN

# HEXAZINONE SL HERBICIDE

**ACTIVE CONSTITUENT: 250g/L HEXAZINONE** 



For the control of certain broadleaf weeds, perennial and annual grasses, woody weeds in *Pinus radiata* plantations, pasture situations and commercial and industrial areas and rights-of-ways as specified in the Directions for Use table.

(NOTICE – NSW ONLY): WITH THE EXCEPTION OF REGROWTH LESS THAN 5 YEARS OLD AND UNDER THREE METRES TALL, THE CLEARING OF MORE THAN FIVE HECTARES OF TREES BY AERIAL, GROUND OR SPOTGUN APPLICATION IN NSW IS PROHIBITED, UNLESS SPECIFICALLY AUTHORISED BY PERMIT. THIS RESTRICTION DOES NOT APPLY TO WOODY WEEDS AND STEM INJECTION OF TREES.

**APVMA Approval No.: 67605/56448** 

Pack Size: 5L; 10L; 20L



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







UN1993
FLAMMABLE LIQUID, N.O.S.
(ETHANOL (ETHYL ALCOHOL)),
ENVIRONMENTALLY
HAZARDOUS
HAZCHEM CODE: •3Y
PACKAGING GROUP: III

#### **DIRECTIONS FOR USE**

APPLICATION TECHNIQUE: BY GROUND AND AERIAL EQUIPMENT					
	1	CTATE	DATE/ha	ODITICAL COMMENTS	
SITUATION/CROP	WEEDS CONTROLLED	STATE	RATE/ha	CRITICAL COMMENTS	
Pre-planting SITE PREPARATION	Annuals: Clovers ( <i>Trifolium</i> spp.), Flatweeds ( <i>Hypochoeris</i> spp.), Ryegrass ( <i>Lolium rigidum</i> )	QLD, NSW, ACT,	7L	ALL PRE-PLANTING situations  Apply from March – July.  Plant pines when yellowing of sprayed areas become visible plant pines when yellowing of sprayed areas become visible plant pines when yellowing of sprayed areas become visible plant pines when yellowing of sprayed areas become visible plant pines when yellowing of sprayed areas become visible plant pines.	
Pasture Sites AND Native woodland, heath and second rotation sites	Perennials: Dandelion ( <i>Hypochaeris</i> spp.), Kangaroo Grass ( <i>Themeda australis</i> ), Serrated Tussock ( <i>Nassella trichotoma</i> ), Wallaby Grass ( <i>Danthonia</i> spp.)	VIC, TAS, WA only	11-15L	Avoid machine planting to ensure good residual activity of the product.	
- long term control	Woody Weeds and Difficult-to-Kill Weeds: Bracken (Pteridium esculentum), Cassinia (common) (Cassinia aculeta), Hop Goodenia (Goodenia ovata), Silver Wattle (Acacia dealbata), Sunshine Acacia (Acacia botrycephaia), Varnish Acacia (Acacia verniciflua)		15L		
Pinus radiata  Post-planting  TREE RELEASE	Annuals and Perrenial Weeds: As listed above in the SITE PREPARATION Section of this Directions for Use table.	QLD, NSW, ACT,	11-15L	<ul> <li>ALL POST-PLANTING situations</li> <li>Apply from July – September.</li> <li>Wait approximately ONE month after transplanting young pines</li> </ul>	
APPLICATION  Pasture Sites  AND  Native woodland, heath and second rotation sites  — long term control	Woody Weeds and Difficult-to-Kill Weeds: As listed above in the SITE PREPARATION Section of this Directions for Use table.	VIC, TAS, WA only	15L	<ul> <li>before spraying.</li> <li>DO NOT apply surfactant/wetting spray when spraying over Pinus radiata.</li> </ul>	
Pinus radiata  Post-planting TREE RELEASE APPLICATION Loamy Sands & Sandy Soils	Annual Ryegrass ( <i>Lolium rigidum</i> ), Sorrel ( <i>Rumex acetosella</i> ), Yorkshire Fog ( <i>Holcus lanatus</i> )	SA only	10L	<ul> <li>Apply from August-September.</li> <li>Wait approximately TWO months after transplanting young pines before spraying.</li> <li>DO NOT apply surfactant/wetting agent when spraying over <i>Pinus radiata</i>.</li> </ul>	
Post-planting TREE RELEASE	Annuals and Perrenial Weeds: As listed above in the SITE PREPARATION Section of this Directions for Use table.	NSW, ACT, VIC, TAS, SA, WA only	6L + 8L of flowable Atrazine or 5kg of Atrazine Wettable Powder	<ul> <li>To ensure reliable results, avoid applying to <i>Pinus radiata</i> affected by stress, caused by waterlogging, drought, etc.</li> <li>Avoid applying on shale soils and exposed sub-soils.</li> <li>DO NOT apply surfactant /wetting spay when spraying over <i>Pinus radiata</i>.</li> <li>Apply from July-September.</li> <li>Wait approximately TWO months after transplanting young pines before spraying.</li> </ul>	
FORESTRY SPOTGUN					
SITUATION/CROP	WEEDS CONTROLLED	STATE	RATE/ha	CRITICAL COMMENTS	
Post-planting TREE RELEASE APPLICATION Pasture Sites	Annuals: Brome Grass, Capeweed, Chickweed, Clovers, Flatweeds, Rye Grasses	QLD, NSW, ACT, VIC, TAS,	6 to 12mL of spray solution/ pine	Mix 3L TITAN Hexazinone SL Herbicide with 30L water and apply amount shown/pine. Use the higher rates of TITAN Hexazinone SL Herbicide:  • When weed pressure is heavy. • When grasses are the major problem.	
AND Native woodland, heath and second rotation sites	Hard-T0-Kill Perennials: Dandelion, Docks, Paspalum, Ribwort/Plantain, Serrated Tussock, Snow Grass, Sorrel, Wallaby Grass, Yorkshire Fog Grass, Kangaroo Grass (Suppression only)	WA only	10 to 12mL of spray solution/ pine	When grasses are the major problem.     For longer term weed control and greater pine growth responses. Hold Forestry Spotgun (fitted with 120° solid cone nozzle) over the pine (slightly off centre to the central leader) with the nozzle tip 50cm above the ground when making the application. Apply 1 to 4 months after pines have been transplanted into plantation.	

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

#### GENERAL INSTRUCTIONS FOR PINUS RADIATA FORESTRY SITUATIONS ONLY

**USE OF SURFACTANTS/WETTING AGENTS:** DO NOT add a surfactant/wetting agent when applying by ground or air over *Pinus radiata* trees. Use a surfactant/wetting agent for directed foliar applications to unwanted species. Add wetting agent/surfactant where appropriate at the rate of 250-500mL/100L of non-ionic surfactant containing 100% active constituent. Adjust rates according to the active constituent level in the product.

**SAFETY TO** *PINUS RADIATA* **PLANTATIONS:** Young pines may be killed or injured if post-planting sprays are carried out in situations where:

- 1. The soil is gravel/rocky and sub-soils exposed.
- 2. The young pines are under stress due to some environmental factor, such as drought, moisture stress or waterlogging.
- 3. Soils that are poorly drained.

#### SPRAY TANK PREPARATION - With the agitator engaged:

- 1. Partially fill the tank with water.
- 2. Add correct amount of product for the area to be sprayed.

3. Top up the tank with water.

Strainer and nozzle screens of 50 mesh or coarser should be used and the agitator kept running.

# APPLICATION EQUIPMENT

**Ground Application:** Use 100-400L per sprayed hectare. The denser the target species, the higher the water volume. Ensure spray overlap occurs above target weeds to prevent strips of uncontrolled weeds occurring. **Hand-held Equipment Application:** Use 2000-4000L per sprayed hectare. **Aerial Application:** Use a minimum of 5 litres of water for each litre of product recommended in the Directions for Use table.

#### **SPRAYER CLEAN UP**

After use, clean all spray equipment by thoroughly washing with water in order to avoid corrosion to tanks, lines and nozzles.

Aircraft used in application should be thoroughly washed with particular attention to wheels and landing gear. Ensure drainage of water, used in clean-up operation, is discharged to areas that will not cause damage to desirable species either by direct contact or root uptake via seepage into soil.



# **DIRECTIONS FOR USE**

	CATIONS – SPOTGUN TO INDIVIDUAL BUS		D //	ADITION CONTINUES
SITUATION/CROP	WEEDS CONTROLLED	STATE	RATE/ha	CRITICAL COMMENTS
Commercial & industrial areas, rights-of-ways, around agricultural buildings & pasture situations	Acacia spp. such as Brigalow (A. harpophylla) Silver Wattle (A. dealbata) Currawong/Hickory (Whitewood) (A. doratoxylon)	QLD, NSW, ACT only ALL STATES QLD, NSW, ACT, VIC, WA only	2mL/spot – 1 spot for each metre in height	Seedlings/bushes/trees up to 5m tall. For suckers use the rate as if seedlings/bushes/trees 5m tall ie. 5 x 2mL spots. Blackwood ( <i>A. melanoxylon</i> ) and Prickly Mimosa ( <i>A. verticillata</i> ) are not controlled at the recommended use rate.
	Prickly Acacia ( <i>Acacia nilotica</i> )	QLD, NSW, ACT only	4mL/spot – 1 spot for each metre in height	Seedlings/bushes/trees up to 5m tall. Apply between October and March for best results.
	Eucalyptus spp. such as: Poplar Box/Bimble Box ( <i>E. populnea</i> )	QLD, NSW, ACT only	2mL/spot – 1 spot for each bush/tree	Bushes/trees up to 1m tall.**
	Cresswick Apple Box (Scent Bark) (E. aromaphloia), Grey Box/Gum-topped Box (E. moluccana), Longleaf Box (E. goniocalyx), White Box (E. albens)	NSW, ACT, VIC only	4mL/spot – 1 spot for each bush/tree	Bushes/trees 1 to 3m tall.**
	Coolibah ( <i>E. microtheca</i> )  Dawson Gum ( <i>E. cambageana</i> )	QLD, NSW, ACT, SA, WA only QLD only		
		NSW, ACT,	Aml (anot 2) anot for each	Puebec/trace 2 to 7m tall qualvare **
	Mountain Grey Gum/Monkey Gum ( <i>E. cypellocarpa</i> )	VIC, SA only	bush/tree	Bushes/trees up to 3m tall.**  Bushes/trees up to 3m tall.**
	Blakely's Red Gum ( <i>E. blakelyi</i> )	NSW, ACT, VIC only		
	Ironbark (Red)/Mugga ( <i>E. sideroxylon</i> )	QLD, NSW, ACT, VIC only		
	Congo Mallee ( <i>E. dumosa</i> ), Yorrell (White Mallee) ( <i>E. glacilis</i> ), Pointed Mallee (Red Mallee) ( <i>E. socialis</i> )	NSW, ACT, VIC, SA only		
	Broadleaf Peppermint ( <i>E. dives</i> ), Narrowleaf Peppermint ( <i>E. radiata</i> )	NSW, ACT, VIC only		
	Brown Stringybark (E. baxteri)	VIC, SA only		
	Messmate Stringybark ( <i>E. obliqua</i> ), Red Stringybark ( <i>E. macrorhyncha</i> )	NSW, ACT, VIC, SA only		
	White Stringybark ( <i>E. globoidea</i> )	NSW, ACT, VIC only		
	Bitterbark/Quinnie Tree (Alstonia constricta)	QLD, NSW, ACT only	2mL/spot – 1 spot for each metre in height	
	White Cypress Pine (Callitris columellaris)	ALL STATES		
	Monterey Cypress ( <i>Cupressus macrocarpa</i> )	VIC only		
	Dogwood/Common Cassinia/Dollybush ( <i>Cassinia aculeata</i> )	NSW, ACT, VIC, SA, TAS only		
	False Sandalwood/Budda ( <i>Eremophila mitchellii</i> )	QLD, NSW, ACT only		
	Whitewood (Atalaya hemiglauca)	QLD, NSW, ACT, SA, WA only		
	Broadleaf Teatree ( <i>Melaleuca virdiflora</i> )	NSW, ACT, QLD only		
	African Boxthorn (Lycium ferocissimum)	ALL STATES		
	Yellow-wood (Terminalia oblongata)	QLD only	metre in height	
	Tree-of-Heaven (Ailanthus altissima)	NSW, ACT, VIC, WA only		
	Sweet Briar ( <i>Rosa rubiginosa</i> )	NSW, ACT, VIC, TAS only	4mL/spot – 1 spot for each metre in height	Bushes/trees up to 3m tall.** Deep rooted bushes may require re-treatment if at two years they are still partially green. Place spot near base of plant.**



SITUATION/CROP  Commercial & industrial areas, rights-of-ways, around agricultural buildings & pasture situations — continued  *** See General Instructions NON-FORESTRY APPLICA SITUATION/CROP	ATIONS – SPOTGUN TO INDIVIDUAL BUS WEEDS CONTROLLED Parkinsonia ( <i>Parkinsonia aculeata</i> ) Rubber Vine ( <i>Cryptostegia grandiflora</i> ) Blackberry ( <i>Rubus</i> spp.) Limebush ( <i>Eremocitrus glauca</i> ) s page – for on-surface nozzle or spear a	QLD, NSW, ACT, WA only QLD only ALL STATES	RATE/ha  4mL/spot – 1 spot for each metre in height (tree)  2mL/spot – 3 spots for each bush (tree)  4mL/spot for each bush	CRITICAL COMMENTS  Bushes/trees up to 5m tall.**  Bushes/trees up to 2m tall.  Deep rooted bushes may require re-treatment if at two years they are still partially green. Place spot near base of plant.**  Single crowned bushes up to 1m tall.
Commercial & industrial areas, rights-of-ways, around agricultural buildings & pasture situations — continued  *** See General Instructions NON-FORESTRY APPLICA SITUATION/CROP	Rubber Vine ( <i>Cryptostegia grandiflora</i> )  Blackberry ( <i>Rubus</i> spp.)  Limebush ( <i>Eremocitrus glauca</i> )	ACT, WA only  QLD only  ALL STATES	metre in height (tree)  2mL/spot – 3 spots for each bush (tree)	Bushes/trees up to 5m tall.**  Bushes/trees up to 2m tall.  Deep rooted bushes may require re-treatment if at two years they are still partially green. Place spot near base of plant.**  Single crowned bushes up to 1m tall.
agricultural buildings & pasture situations  – continued  ** See General Instructions  NON-FORESTRY APPLICA  SITUATION/CROP	Blackberry ( <i>Rubus</i> spp.) Limebush ( <i>Eremocitrus glauca</i> )	QLD only  ALL STATES	each bush (tree)	Deep rooted bushes may require re-treatment if at two years they are still partially green. Place spot near base of plant.**  Single crowned bushes up to 1m tall.
** See General Instructions NON-FORESTRY APPLICA SITUATION/CROP	Limebush ( <i>Eremocitrus glauca</i> )		4mL/spot for each bush	
** See General Instructions NON-FORESTRY APPLICA SITUATION/CROP	· · · · · · · · · · · · · · · · · · ·	QI D only		Apply near base of crown. ** <b>TAS only:</b> DO NOT apply to bushes which bear mature or near mature fruit.
NON-FORESTRY APPLICA SITUATION/CROP	s page – for on-surface nozzle or spear a	_	2mL/spot – 2 spots for each bush	Bushes up to 3m high.
SITUATION/CROP V		ttachment rec	ommendations.	
			I = -==	
	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
buildings & pasture (situations (	Eucalyptus spp. such as Red Bloodwood (E. dichromophloia) Creswick Apple Box (Scent Bark)	QLD only  QLD, NSW,	1mL/cut or	15cm centre to centre cut.
<u> </u>	( <i>E. aromaphloia</i> ), Grey Box/Gum Topped Box ( <i>E. moluccana</i> ), White Box ( <i>E. albens</i> )	ACT, VIC only	2mL/cut	30cm centre to centre cut. Apply cuts to waist height.
	Coolibah ( <i>E. microtheca</i> )	QLD, NSW, ACT, WA, SA only		Regardless of bush/tree size apply a minimum of 2mL for each bush/tree. For Grey Box/Gum Topped Box use the narrow
	Blakely's Red Gum ( <i>E. blakelyi</i> )	NSW, ACT, VIC only		spacing ie. 15cm.
	Red Ironbark/Mugga ( <i>E. sideroxylon</i> )	QLD, NSW, ACT, VIC only		
F	Red Stringybark ( <i>E. macrorhyncha</i> )	NSW, ACT, VIC, SA only		
	Morton Bay Ash ( <i>E. tessellaris</i> )	QLD, NSW, ACT only		
	Brown Box ( <i>E. microcarpa</i> ), Silverleaf Ironbark ( <i>E. melanoploia</i> ), Tumbledown Gum ( <i>E. dealbata</i> ), Poplar Box/Bimble Box ( <i>E. populnea</i> )	QLD, NSW, ACT only	0.5mL/cut or	15cm centre to centre cut. 30cm centre to centre cut.
	, , ,		1.0mL/cut	Regardless of bush/tree size apply a minimum of 1mL for each bush/tree.
** See General Instructions	s page – for on-surface nozzle or spear a	ttachment rec	ommendations.	
	ATIONS – SPOTGUN ON GRID PATTERN			
	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
buildings & pasture E	Acacia spp. such as Brigalow (A. harpophylla) Silver Wattle (A. dealbata)	QLD, ACT, NSW only ALL STATES	1mL/spot	Seedlings or single stemmed trees up to 1m tall. **
	Currawong/Hickory (Whitewood) (A. doratoxylon)	QLD, NSW, ACT, VIC,	4mL/spot	Bushes/trees 1 to 4m tall or suckers.**  Blackwood ( <i>A. melanoxylon</i> ) and Prickly
		WA only		Mimosa (A. verticillata) are not controlled at the recommended use rates.
E	Eucalyptus spp. such as Poplar Box/ Bimble Box (E. populnea)	QLD, ACT, NSW only	1mL/spot	Bushes/trees up to 1m tall.**
( E (	Cresswick Apple Box (Scent Bark) ( <i>E. aromaphloia</i> ), Grey Box/Gum-topped Box ( <i>E. moluccana</i> ), Longleaf Box ( <i>E. goniocalyx</i> ), White Box ( <i>E. albens</i> )	NSW, ACT, VIC only	4mL/spot	Bushes/trees 1 to 7m tall or suckers.**
	Coolibah ( <i>E. microtheca</i> )	QLD, NSW, ACT, SA, WA only		
	Dawson Gum ( <i>E. cambageana</i> )	QLD only		
N	Mountain Grey Gum/Monkey Gum ( <i>E. cypellocarpa</i> )	NSW, ACT, VIC, SA only		



	CATIONS – SPOTGUN ON GRID PATTERN	CTATE	DATE	CDITICAL COMMENTS
SITUATION/CROP	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
Around agricultural buildings & pasture situations	Blakely's Red Gum ( <i>E. blakelyi</i> )	NSW, ACT, VIC only	1mL/spot	Bushes/trees up to 1m tall.**  Bushes/trees 1 to 7m tall or suckers.**
	Red Ironbark/Mugga ( <i>E. sideroxylon</i> )	QLD, NSW, ACT, VIC only	4mL/spot	
	Congo Mallee ( <i>E. dumosa</i> ), Yorrell (White Mallee) ( <i>E. glacilis</i> ), Pointed Mallee (Red Mallee) ( <i>E. socialis</i> )	NSW, ACT, VIC, SA only		
	Broadleaf Peppermint ( <i>E. dives</i> ), Narrowleaf Peppermint ( <i>E. radiata</i> )	NSW, ACT, VIC only		
	Brown Stringybark (E. baxteri)	VIC, SA only		
	Messmate Stringybark ( <i>E. obliqua</i> ), Red Stringybark ( <i>E. macrorhyncha</i> )	NSW, ACT, VIC, SA only		
	White Stringybark ( <i>E. globoidea</i> )	NSW, ACT, VIC only		
	Bitterbark/Quinnie Tree ( <i>Alstonia constricta</i> )	QLD, NSW, ACT only	1mL/spot	Bushes/trees up to 1m tall.**
	White Cypress Pine (Callitris columellaris)	ALL STATES		
	Monterey Cypress (Cupressus macrocarpa)	VIC only	4mL/spot	Bushes/trees 1 to 3m tall.**
	Dogwood/Common Cassinia/Dollybush ( <i>Cassinia aculeata</i> )	NSW, ACT, VIC, SA, TAS only		
	False Sandalwood/Budda	QLD, NSW,		
	(Eremophila mitchellii) Whitewood (Atalaya hemiglauca)	QLD, NSW, ACT, SA,		
		WA only		
	African Boxthorn (Lycium ferocissimum)	ALL STATES		
	Yellow-wood (Terminalia oblongata)	QLD only		
	Rubber Vine ( <i>Cryptostegia grandiflora</i> )	QLD only	1mL/spot 4mL/spot	Bushes/trees up to 1m tall.** Bushes/trees 1 to 2m tall.** Deep rooted bushes may require re-treatment if at two years they are still partially green.
	Tree-of-Heaven (Ailanthus altissima)	NSW, ACT, VIC, WA only	2mL/spot	Bushes/trees up to 3m tall.** Apply spots on a 1x1m grid pattern.**
	Parkinsonia ( <i>Parkinsonia aculeata</i> )	QLD, NSW, ACT, WA only	1mL/spot 4mL/spot	Bushes/trees up to 1m tall.** Bushes/ trees 1 to 5m tall.**
	Broadleaf Teatree ( <i>Melaleuca virdiflora</i> )	QLD only	2mL/spot	Bushes/trees up 1 to 3m tall.** Apply spots on a 2x2m grid pattern.
	ons page – for on-surface nozzle or spear a	ttachment rec	ommendations.	
	CATIONS – GROUND APPLICATION			
SITUATION/CROP	WEEDS CONTROLLED	STATE	RATE/ha	CRITICAL COMMENTS
Commercial & industrial areas, rights-of-ways, around agricultural buildings & pasture situations	ANNUAL WEEDS Summer Grass, Barnyard Grass, Love Grass, Green Amaranth, Asthma Plant, Common Sida, Common Sowthistle, Wild Oats, Soft Brome, Great Brome, Medics, Fleabanes, Paterson's Curse (Salvation Jane), Blackberry Nightshade	ALL STATES	13 to 18L	Use the higher rates on heavy soils and soils high in organic matter or carbon; on light soils where rainfall is heavy or on dense established stands of hard to kill species such as Paspalum, Couch Grass ( <i>Cynodon dactylon</i> ), Nut Grass and Kikuyu.
	PERENNIAL WEEDS Docks, Creeping Buttercup, Ribwort (Plantain), Couch Grass ( <i>Cynodon</i>	QLD, NSW, ACT, WA only	18 to 54L	
	dactylon), Paspalum, Nutgrass, Kikuyu, Artichoke Thistle, Rhodes Grass, Chicory, Flatweeds	VIC, TAS, SA only	22 to 43L	
	Parthenium hysterosphorus Large Areas Small Areas	QLD, NSW only	Large 3.5L Small 7mL/10L/20m <sup>2</sup>	
	Spiny Rush ( <i>Juncus acutus</i> )	VIC only	360 to 540mL/100L	Gives complete eradication of mature plants only Seedling plants should be controlled for up to 6 months.

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

#### **GENERAL INSTRUCTIONS**

The product is both foliar and root absorbed and will give residual soil activity. For best foliar and residual control, apply during periods of active plant growth. Application when vegetation is dormant, semi-dormant, under moisture stress or during winter months may not be as effective.

In temperate winter rainfall area where temperatures are generally below 25°C during periods of active growth, overall effect may be slower to appear. For best control of perennials, apply during the months of spring in these areas. In WA and SA apply only during April-August when adequate rainfall is expected. Sufficient moisture is required after treatment to promote root absorption by the weed species.

DO NOT apply TITAN Hexazinone SL Herbicide during periods of intense rainfall or under conditions which will cause drift or movement to non-target areas (ie wind speeds exceeding 30kph for ground application or 20kph for aerial application).

On slopes of 20% to 30% apply TITAN Hexazinone SL Herbicide by strip, spot or stem injection application only. On slopes greater than 30% apply by spot or stem injection application only.

The L/ha rates in the DIRECTIONS FOR USE Tables refer to SPRAYED hectare. Visible symptoms and degree of effectiveness will vary with temperature, soil types, rainfall, soil moisture, stress level of plants.

#### **RESISTANT WEEDS WARNING**

TITAN Hexazinone SL Herbicide is a member of the Triazinone group of herbicides. TITAN Hexazinone



SL Herbicide has the inhibitor of photosynthesis at photosystem II mode of action. For weed resistance management TITAN Hexazinone SL Herbicide is a Group 5 herbicide. Some naturally-occurring weed biotypes resistant to TITAN Hexazinone SL Herbicide and other Group 5 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 Hexazinone SL Herbicide or other Group 5 herbicides.

Since the occurrence of resistant individuals 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 Hexazinone SL Herbicide to control resistant weeds. Strategies to minimise the risk of herbicide resistance are available. Consult your farm chemical supplier, consultants, local Department of Agriculture of Primary Industries, or TITAN AG representative.

#### **SPOTGUN APPLICATIONS**

#### a) To the Soil

For trees greater than 5m tall, consider the stem injection technique as it requires less product. For best results on sucker regrowth use the rate recommended for the tallest bushes (trees) listed in the Directions for Use tables, as suckers grow from the roots of previous trees with large food reserves. Use the spear attachment for the SPOTGUN when treating brush or timber on sloping ground. Apply on the uphill side of the slope to a depth of 2 to 3cm. Avoid application onto ash in recently burnt areas as this may reduce the treatment's effectiveness.

The product can be applied through the SPOTGUN at any time of the year; but results may be slow to appear if application is made to dry soil.

For optimum results the following conditions are required:-

 Moist soil at application, or sufficient rainfall after treatment to promote root absorption by the target bush or trees.

# b) Active plant growth.

Either the on-surface nozzle or spear attachment of the SPOTGUN may be used. When using the on-surface nozzle apply the product onto bare soil. In areas where there is pasture growth or leaf litter covering the soil surface, best results are obtained using the SPOTGUN with its spear attachment. Use the spear attachment for the SPOTGUN when treating brush or timber on sloping ground. Apply on the uphill side of the slope to a depth of 2 to 3cm. Small patches of pasture with its roots extending under the applied spot will also be controlled. Pasture will re-establish itself in affected areas, normally within 12 to 24 months of application.

## Individual Brush/Tree

All spots to be placed between the base and the drip line unless otherwise specified. Where only two spots are applied per plant, place spots on either side of the plant. Where applicable, apply multiple spots each evenly spaced around the plant.

## **Grid Pattern Application**

Unless otherwise indicated;

#### Bushes/trees up to 1m tall

 i) when the target plant density is less than 10,000/ha (ie. Plants more than 1m apart), treat on an individual stem basis. ii) when target plant density is 10,000/ha and greater (ie. Plants 1m or less apart), treat using the 1x1m grid pattern technique.

#### Bushes (trees) 1 to 7m tall or suckers

- i) when target plant density is less than 2,500/ha (ie. plants more than 2m apart), treat on an individual stem basis.
- ii) when target plant density is 2,500/ha and greater (ie. plants 2m or less apart), treat using the 2x2m grid pattern technique.

## b) Stem Injection Application

For multi-stemmed trees, treat each stem as an individual tree. Bushes (trees) up to 5m tall. 1 cut/bush (tree) at waist height. Trees 5 to 18m tall. 30cm centre to centre cut spacing around the circumference at waist height. The Stem Injection technique requires less product than SPOTGUN applications to the soil for Eucalypts greater than 5m tall. The product can be stem injected at any time of the year, but for best results treatment should be at a time of good sap flow. Avoid periods of drought stress.

It is recommended that the injection cuts be made at a comfortable height – ie. waist height.

Use a narrow bladed axe (5 to 7cm wide blade) to make the cuts. A suitable Tree injector should be used to place the product into the cut. It is important that the axe cuts be made to the correct depth – this is down into the sap stream. Ensure the cuts are deep enough to properly penetrate the bark – the thickness of the bark varies from one species to another. Ensure that the product is injected into the cut within 5 seconds of the cut being made. This ensures its proper absorption into the sap stream. Failure to do this may result in unsatisfactory control.

#### **FOLIAR SPRAY APPLICATIONS**

Use sufficient water for thorough uniform coverage. For best foliar and residual control, apply as a post-emergent spray during the period of active plant growth and when the air temperatures are 25°C and above. Applications when vegetation is dormant, semidormant, under moisture stress or during the winter months may not be as effective. In temperate winter rainfall areas where temperatures are generally below 25°C during the period of active plant growth, the foliar effect may be slow to appear. In these areas herbicide activity is more dependent on root absorption.

For residual control, sufficient rainfall is required after treatment to promote root absorption by the weeds. Results obtained may vary with the amount of chemical applied, rainfall, air temperature, soil type and other conditions. All use rates of the product are expressed as overall rates. For band treatment use proportionately less, ie. use one-third the overall rate when treating one-third of the area.

## **EQUIPMENT AND APPLICATION**

## a) Spotgun and Stem Injection

i) Applications to the soil – the product is to be applied using a SPOTGUN.
 ii) Stem Injection – the product is to be applied using a suitable tree injector.

# b) Foliar Spray Applications

TITAN Hexazinone SL Herbicide is a water miscible liquid formulation. The product is mixed with water and applied at recommended rates with ground equipment. Partially fill the spray tank with water and add the correct amount of the product for the area to be sprayed with the agitation system engaged. Top up to correct volume with water, and for best results keep the spray solution agitated whilst spraying. To prevent nozzle blockage, strainer and nozzle screens should be 50 mesh or coarser.

**Ground Application:** Apply in 100 to 400L/ha with a properly calibrated boom or 2000-4000L/ha with hand spray equipment.

# **USE OF A SURFACTANT/WETTING AGENT**

Use a surfactant/wetting agent for foliar spray applications only, by ground equipment. A non-ionic surfactant/wetting agent may be added at the rate of 250-500mL/100L of spray (for a surfactant containing 100% active constituent) for improved wetting.

# PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS a) All Application Methods

THE PRODUCT MAY KILL MANY TREES AND OTHER DESIRABLE PLANTS IF NOT CORRECTLY APPLIED.

See also specific items listed for each use method. DO NOT apply on or near desirable trees or other plants (except as recommended for crop use), or on areas where their roots may extend, as guidance this is two times their height, or more depending on the species and other conditions. DO NOT apply in areas where a surface flow of water could wash the chemical into areas where the roots of desirable trees of plants may extend. DO NOT drain or flush spray equipment, SPOTGUN or Stem Injector near desirable trees or in areas where their roots may extend.



#### b) Foliar Spray Applications

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 use on lawns, walkways, driveways or tennis courts.

#### PROTECTION OF LIVESTOCK

#### a) Spotgun and Stem Injection Applications

Stock do not need to be moved away from Spotgun and Stem Injection treated areas.

#### b) Foliar Spray Applications

Keep stock away from sprayed areas.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

#### STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and products should not be burnt. DO NOT use or store at temperatures of  $0^{\,0}\mathrm{C}$ , or below, as the product will freeze. Flammable, keep away from heat, sparks and naked flame. Keep from contact with fertilisers, insecticides, fungicides and seeds. DO NOT reuse container.

#### SAFETY DIRECTIONS

Will irritate the eyes and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When opening the container and preparing and using the prepared spray wear elbow-length PVC gloves, face shield or goggles. If product on skin immediately wash areas with soap and 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**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

#### **SAFETY DATA SHEET**

Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Hexazinone SL 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: Flammable liquid and vapour. Harmful if swallowed. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects. Precautionary Statements: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ ventilating/lighting] equipment. Use non-sparking tools. Take action to prevent static discharges. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. 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 ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish. Collect spillage. Store in a well-ventilated place. Keep cool. Dispose of contents/container in accordance with local/regional/national regulations.



