

CAUTION

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

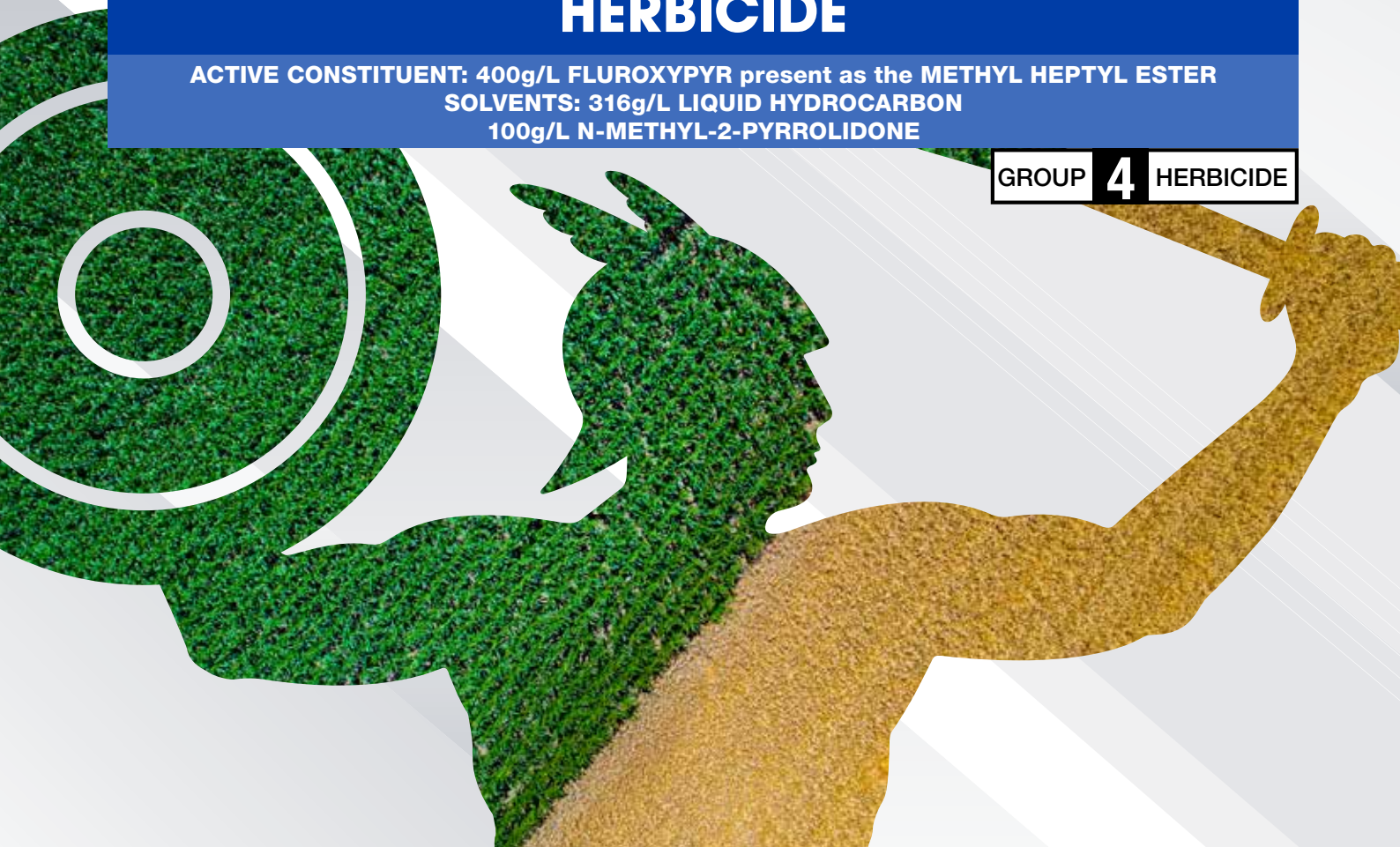
TITAN

FLUROXYPYR 400

HERBICIDE

ACTIVE CONSTITUENT: 400g/L FLUROXYPYR present as the METHYL HEPTYL ESTER
SOLVENTS: 316g/L LIQUID HYDROCARBON
100g/L N-METHYL-2-PYRROLIDONE

GROUP **4** HERBICIDE



For the control of a wide range of broadleaf weeds in Fallow, Lucerne, Maize, Millets, Pastures, Poppies, Sorghum, Sugarcane, Sweet Corn, Winter Cereals.
Also for the control of woody weeds in Agricultural Non-crop areas, Commercial and Industrial Areas, Forests, Pastures and Rights-of-way as specified in the Directions for Use.
APVMA Approval No.: 68005/131563
Pack Size: 1L-1000L



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IN A TRANSPORT EMERGENCY
DIAL 000
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

Table 1: Woody Weeds in Agricultural Non-crop Areas and Rights-of-way, Commercial and Industrial Areas, Forests and Pastures

Table 2: Established Grass Pastures (Ground and Aerial)

Table 3: Sorghum, Maize, Millets and Sweet Corn

Table 4: Winter Cereals (Wheat, Barley, Oats and Triticale)

Table 5: Summer Fallow

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Table 7: Sugarcane

Table 8: Lucerne (established only)

Table 9: Poppies

Restraints: DO NOT apply to plants which may be stressed (not actively growing) due to prolonged periods of extreme cold, moisture stress (water-logged or drought affected) poor nutrition, presence of disease, or previous herbicide treatment as reduced levels of control may result.
Thorough coverage of both foliage and stems, to the point of run-off, is essential for high volume applications (see **GENERAL INSTRUCTIONS**; application methods WOODY WEED SITUATIONS section).
DO NOT spray if rain is likely to occur within one hour.

Table 1: Woody Weeds in Agricultural Non-crop Areas and Rights-of-way, Commercial and Industrial Areas, Forests and Pastures

• Legumes present at the time of spraying will be severely damaged.

HIGH VOLUME APPLICATION: Dilute product with water See General Instructions – Application method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE/100L water	CRITICAL COMMENTS
Bathurst Burr, Noogoora Burr	Seedlings and young plants up to 40cm high	QLD, NSW, WA, NT only	38mL	Add TITAN Paraffinic Spraying Oil (see General Instructions ; oils and surfactants).
Black Bindweed (Climbing Buckwheat)	Seedlings and young plants before flowering	QLD, NSW only	150mL	
<i>Mimosa pigra</i>	Apply from mid to late summer	WA, NT only		
Common Sensitive Plant	Seedlings and young plants up to flowering	QLD, WA only	250mL	Boom spray: TITAN Fluroxypyr 400 Herbicide at 0.3L/ha + 0.4L/ha of 2,4-D amine (625g/L).
Bellyache Bush		QLD, NSW, WA only		
Blackberry Nightshade, Bokhara Clover		QLD, NSW only		
Caltrop (Yellow Vine) (<i>Tribulus terrestris</i>) (<i>T. micrococcus</i>)	Seedlings and young plants up to 30cm diameter	QLD, NSW only		
Cobblers Pegs	Up to 15cm high			
Cockspur Thorn	Up to 3m high			
Creeping Lantana	At flowering			
Crofton Weed, Mistflower	Seedlings and young plants up to flowering			
Docks (<i>Rumex</i> spp.)	Seedlings and rosettes up to 30cm high			
Hexham Scent	Seedlings and young plants up to flowering			
Honey Locust	Seedlings and young plants up to 2m high			
Small Flowered Mallow (Marshmallow) (<i>Malva parviflora</i>)	Seedlings and young plants up to flowering			
Yellowflower, Devil's Claw	Seedlings and young plants up to flowering			
Lantana	Seedlings and regrowth 0.5 to 1.2m high	QLD, NSW only	250mL	Apply to actively growing plants from October to April. Some regrowth may occur particularly when treating old woody plants with sparse canopies.
	Plants and regrowth 1.2 to 2m high		500mL	
Blue Heliotrope	Flowering			
Limebush	Infestations up to 1.5m high only			
Madeira Vine	Apply at time of active growth		250mL	
Milkweed (<i>Euphorbia heterophylla</i>)	3 leaf to flowering	QLD only	500mL	Repeat applications will be necessary to control subsequent germinations.
Common Sowthistle	Seedlings and young plants up to bolting	QLD, NSW only	250mL	Add a surfactant (see GENERAL INSTRUCTIONS ; oils and surfactants).
Mother-of-millions (<i>Kalanchoe</i> spp.)	Seedling and young plants before flowering		300mL	
Prickly Acacia	Seedling and young plants up to 2m high	QLD only	375mL	Add TITAN Paraffinic Spraying Oil (see GENERAL INSTRUCTIONS ; oils and surfactants). Consult Tropical Weeds Research Centre, Charters Towers, for specific advice on application.

Table 1: Woody Weeds in Agricultural Non-crop Areas and Rights-of-way, Commercial and Industrial Areas, Forests and Pastures – continued

• Legumes present at the time of spraying will be severely damaged.

HIGH VOLUME APPLICATION: Dilute product with water See General Instructions – Application method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE/100L water	CRITICAL COMMENTS
<i>Sida</i> spp.	Seedling and young plants up to flowering	QLD, NSW, WA, NT only	500mL	
Broadleaf Pepper Tree (<i>Schinus terebinthifolius</i>)	Mature leaves, fruiting	QLD only	250mL	Winter application only. Contact Alan Fletcher Research Station for more information.
Flannel Weed (<i>Sida cordifolia</i>)	Mature leaves, fruiting		250mL	
Snakeweed (Dark and Light Blue)	Seedling and young plants before flowering		375mL	Add TITAN Paraffinic Spraying Oil (see GENERAL INSTRUCTIONS ; oils and surfactants).
Stinking Passion Flower	Established plants and regrowth	QLD, WA, NT only	225mL	Use 70mL/15L for a knapsack.
Wandering Jew (<i>Tradescantia albiflora</i>)	Young plants up to and including flowering	ALL STATES	750mL	Some regrowth will usually occur and will require retreatment.
Wattles (including <i>Acacia aulacocarpa</i> <i>A. decora</i> <i>A. harpophylla</i> <i>A. leiocalyx</i> <i>A. salicina</i>)	Seedling plants or regrowth 0.5 to 1.2m high	QLD, NSW only	250mL	Apply to actively growing plants when soil moisture is plentiful. Some regrowth may occur particularly when treating old woody plants with sparse canopies and under dry conditions.
	Plants or regrowth 1.2 to 2.0m high only		500mL	
BASAL BARK AND CUT STUMP APPLICATION: Dilute product with diesel See General Instructions – Application method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE/100L diesel	CRITICAL COMMENTS
<i>Celtis</i> (<i>Celtis sinensis</i>)	Basal Bark only: Young plants up to 2m high and 20cm basal diameter	QLD only	1.8L	Treat stems from ground level to where multi-stemmed trunks branch.
Chinee Apple	Up to 15cm basal diameter		1.5L	With Basal Bark, treat circumference of stem to a height of 45cm from the ground. Contact the Land Protection Branch, Department of Lands, QLD for further information on Chinee Apple.
Cockspur Thorn	Basal Bark only: Up to 5cm basal diameter		1L	
Mimosa Bush (<i>Acacia farnesiana</i>)	Up to 5cm basal diameter	QLD, WA only	1.5L	With Basal Bark, treat circumference of stem to a height of 45cm from the ground. For cut stump application use a rate of 5L/100L diesel for all plant sizes. Contact the Land Protection Branch, Department of Lands, QLD for further information on Honey Locust.
Prickly Acacia	Up to 10cm basal diameter	QLD only	750mL	
Honey Locust	Plants up to 10cm basal diameter	QLD, NSW only	750mL	
	Plants 10 to 20cm basal diameter		1.5L	
	Plants >20cm basal diameter		2.5L	
Sisal Hemp (<i>Agave</i> spp.)	All growth stages	QLD only	1.5L	Treat as an overall spray. Contact The Land Protection Branch, Department of Lands, QLD for advice to control large infestations.
			5mL undiluted product per plant	Lever out centre of plant with crowbar and immediately treat the exposed cut area.
BROADCAST AND AERIAL APPLICATION: Dilute product with water See General Instructions – Application method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE/100L water	CRITICAL COMMENTS
<i>Mimosa pigra</i>	Actively growing plants	WA, NT only	1.5L	Aerial application: Add TITAN Paraffinic Spraying Oil at the rate of 1L/100L spray mix. Apply to actively growing plants from mid to late summer. Contact the Department of Primary Industries and Fisheries, NT for further information.
LOW VOLUME, HIGH CONCENTRATE APPLICATION: Use a drench gun or gas-powered gun See General Instructions – Application method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE/100L water	CRITICAL COMMENTS
Limebush	Isolated bushes up to 1.2m high only	QLD, NSW only	500mL	Apply a 50mL dose per 5m ² of bush surface area.
Tree Violet (<i>Hymenanchera dentata</i>)	Apply from late flowering to green fruit up to 1.2m high	NSW only		Apply a 50mL dose per cubic metre of bush.

Table 2: Established Grass Pastures

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE/ha	CRITICAL COMMENTS
Blue Billygoat Weed, Common Sensitive Plant, Giant Sensitive Plant, Spinyhead Sida	Apply before flowering	QLD, WA only	750mL	Add TITAN Paraffinic Spraying Oil at 1L/ha.
St John's Wort	Apply from bud to full bloom (usually late Nov to early Jan)	NSW, ACT, VIC only	1.5L	Some regrowth will occur. Treat regrowth the following season for best results. Use at least 200L water/ha.
Silverleaf Nightshade	From onset of flowering to early berry-set (usually spring to mid-summer)	NSW only	375mL or 190mL + 1.2-1.6L 2,4-D amine (625g/L)	Add TITAN Paraffinic Spraying Oil at 1L/ha. To ensure maximum effect, delay application until the majority of shoots have emerged. Follow-up treatment of regrowth is critical for best control.

Table 3: Sorghum, Maize, Millets and Sweet Corn (QLD & NSW only)

CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE/ha	CRITICAL COMMENTS
Sorghum	Apply when secondary roots are present, from 4 fully expanded leaves (15cm tall) up to boot (see CRITICAL COMMENTS)	Annual Ground Cherry, Wild Gooseberry (<i>Physalis</i> spp.)	2 to 8 leaf, up to 15cm tall	250mL	Sorghum: From 8 leaf to boot stage, use dropper nozzles to prevent herbicide coming in contact with the crop's leaves and the growing point (meristem).
		Apple-of-Peru	15 to 30cm tall	375mL	
		Bathurst Burr, Noogoora Burr	Seedling plants Up to 15cm tall	250mL	
Maize & Sweet Corn	Apply when secondary roots are present, from 3 fully expanded leaves (10cm tall) up to just before tasselling (see CRITICAL COMMENTS)		2 to 8 leaf, up to 20cm tall	250mL	Maize and Sweet Corn: From 6 leaf to just before tasselling, use dropper nozzles to prevent the herbicides coming in contact with the crop's leaves and the growing point (meristem).
		Pigweed (<i>Portulaca oleracea</i>)	20 to 50cm tall	375mL	
			Up to 10cm diameter	250mL	
Millets	Spray when secondary roots have developed, usually early to mid-tillering and not later than before heads start to form at the base of tillers (see CRITICAL COMMENTS)	Sesbania Pea	10 to 30cm diameter	375mL	Millets: DO NOT use mixes with atrazine. (1) This treatment may be slightly damaging to the crop. To minimise crop damage apply using dropper nozzles at all crop stages.
		Silverleaf Nightshade (NSW only) ⁽¹⁾	2 to 6 leaf, up to 10cm tall	750mL	
			Full flower to early berry	375mL + TITAN Paraffinic Spraying Oil at 300mL/100L	
		Starburr (<i>Acanthospermum hispidum</i>) (QLD only)	Up to 12 leaf and before flowering	750mL or 375mL + 1.6L atrazine (600g/L)	
		Thornapples (<i>Datura</i> spp.)	Up to 15cm tall	375mL	
		Volunteer Sunflower	2 to 5 leaf, up to 20cm tall	500mL	

TITAN Fluroxypyr 400 Herbicide in tank-mixes with atrazine: Sorghum, Maize and Sweet Corn

CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE/ha	CRITICAL COMMENTS
Sorghum, Maize & Sweet Corn	Spray when secondary roots have developed, usually early to mid-tillering and not later than before heads start to form at the base of the tillers (see CRITICAL COMMENTS)	<i>Amaranthus</i> spp. Including: Boggabri Weed, Dwarf Amaranth, Green Amaranth, Redshank, Anoda Weed, Bladder Ketmia, Black Pigweed (<i>Trianthema portulacastrum</i>), Caltrop (Yellow Vine) (including <i>Tribulus terrestris</i> , <i>T. microccus</i> and <i>T. maximus</i>), Cowvine (Peach Vine) (<i>Ipomoea lonchophylla</i>), Hairy Wandering Jew (<i>Commelina benghalensis</i>), Mintweed	Seedling plants up to 15cm tall or rosettes up to 15cm diameter	250mL + 1.2L of atrazine flowable (600 or 675g/L) or 375mL + 1.6L of atrazine flowable (600g/L) or 1.1kg of atrazine (900g/kg granules)	Use the low rate (250mL + 1.2L) when weeds are small (5-7cm tall/diameter). Use the high rate (375mL + 1.6L) when the weeds are larger (7-15cm tall/diameter). TITAN Fluroxypyr 400 Herbicide is generally more compatible with liquid atrazine products (see GENERAL INSTRUCTIONS ; compatibility section). Add a surfactant (See GENERAL INSTRUCTIONS ; oils and surfactants). DO NOT add an oil to mixtures of TITAN Fluroxypyr 400 Herbicide and atrazine.

Table 3: Sorghum, Maize, Millets and Sweet Corn (QLD & NSW only) – continued

TITAN Fluroxypyr 400 Herbicide in tank-mixes with atrazine: Sorghum, Maize and Sweet Corn					
CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE/ha	CRITICAL COMMENTS
Sorghum, Maize & Sweet Corn – <i>continued</i>	Spray when secondary roots have developed, usually early to mid-tillering and not later than before heads start to form at the base of the tillers (see CRITICAL COMMENTS)	<i>Euphorbia davidii</i>	Cotyledons to 4 nodes up to 15cm	500mL + 1.6L atrazine flowable (600g/L) or 1.1kg of atrazine (900g/kg granules)	Use the low rate (250mL + 1.2L) when weeds are small (5-7cm tall/diameter). Use the high rate (375mL + 1.6L) when the weeds are larger (7-15cm tall/diameter). TITAN Fluroxypyr 400 Herbicide is generally more compatible with liquid atrazine products (see GENERAL INSTRUCTIONS ; compatibility section). Add a surfactant (See GENERAL INSTRUCTIONS ; oils and surfactants). DO NOT add an oil to mixtures of TITAN Fluroxypyr 400 Herbicide and atrazine.
		Volunteer Peanuts	Up to 15cm diameter	500mL + 3.7L atrazine flowable (600g/L) or 2.5kg of atrazine (900g/kg granules)	
Sweet Corn: Tasmania only					
CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE/ha	CRITICAL COMMENTS
Sweet Corn only	3 to 5 leaf	Blackberry Nightshade, Volunteer Potatoes	3 to 5 leaf	500mL	

Table 4: Winter Cereals (Wheat, Barley, Oats and Triticale)

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE/ha	CRITICAL COMMENTS
Apply from 3 leaf to flag (Zadoks 13 to 39)	Bedstraw (<i>Galium tricornutum</i>)	1 to 3 whorl	VIC, SA, WA only	500mL	(1) Add either TITAN Paraffinic Spraying Oil or a surfactant (see GENERAL INSTRUCTIONS ; oils and surfactants).
	Cleavers (<i>Galium aparine</i>)		NSW, VIC only		
	Black Bindweed (Climbing Buckwheat)	2 to 4 leaf	QLD, NSW only	250mL ⁽¹⁾	Useful suppression only.
		2 to 6 leaf		375mL or 250mL + 5g metsulfuron-methyl ⁽¹⁾	
	Common Sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf		500mL	
	Deadnettle	2 to 6 leaf		750mL or 250mL + 5g metsulfuron-methyl ⁽¹⁾	
	Spiny Emex (Doublegee, Three-cornered Jack)	2 to 4 leaf	QLD, NSW, SA, WA only	500mL	Mixtures: Mixing partners with TITAN Fluroxypyr 400 Herbicide may reduce crop selectivity. Apply at crop growth stages according to the mixing partner's recommendation.
	Prickly Lettuce	2 to 5 leaf	QLD, NSW, VIC, TAS, WA only		
	Volunteer Lupins	2 to 8 leaf	NSW, VIC, WA only	750mL	
	Volunteer Potato	10 to 15cm tall	WA, TAS only		
	Wireweed	2 to 3 leaf	QLD, NSW, VIC, TAS, SA, WA only		250mL + 5g metsulfuron-methyl ⁽¹⁾
			QLD, NSW only		
	Bittercress (<i>Coronopus didymus</i>), Mustards, Shepherd's Purse, Turnip Weed, Wild Radish, Wild Turnip	Up to 8 leaf and up to 15cm diameter	QLD, NSW, VIC, TAS, SA, WA only	250mL to 1.5L + metsulfuron-methyl or Eclipse ⁽¹⁾ or MCPA LVE or MCPA amine	The TITAN Fluroxypyr 400 Herbicide rate depends on what other weeds are present as listed above. See Mixtures comment above. Metsulfuron-methyl (600g/kg) @ 5g/ha (this mix does not control Wild Radish). Eclipse @ 5-7g/ha (use the 5g rate on Turnip Weed only). MCPA LVE (500g/L) @ 700mL/ha. MCPA Amine (500g/L) @ 1.0L/ha.

Table 5: Summer Fallow

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE/ha	CRITICAL COMMENTS
Annual Ground Cherry, Wild Gooseberry (<i>Physalis</i> spp.)	2 to 8 leaf, up to 15cm tall	QLD, NSW only	375mL ⁽²⁾	<p>(1) Add TITAN Paraffinic Spraying Oil (see GENERAL INSTRUCTIONS; oils and surfactants).</p> <p>When mixing with Glyphosate 450 to control both grass and broadleaf weeds, refer to the Glyphosate 450 label for use rates and adjuvants recommended for the grasses (see GENERAL INSTRUCTIONS; compatibility section).</p> <p>(2) Delay treatment until the maximum number of shoots have emerged, but before the onset of fruiting (late summer).</p> <p>DO NOT treat plants showing symptoms from previous treatment. Use the high rate when longer term weed control (6-10 months) is required and delay planting crops during this period.</p> <p>The low rate will require follow-up treatments.</p>
Bathurst Burr, Noogoora Burr	2 to 8 leaf, up to 20cm tall	QLD, NSW, VIC, WA only		
Bellvine	Pre-flowering	QLD, NSW only	250mL + 1.2L Glyphosate 450	
Bladder Ketmia	4 to 8 leaf, up to 10cm tall			
Cowvine (Peach Vine) (<i>Ipomoea lonchophylla</i>)	2 to 10 leaf, up to 10cm diameter			
Caltrop (Yellow Vine) (including <i>Tribulus terrestris</i> , <i>T. maximus</i> and <i>T. microccus</i>)	Up to 15cm diameter		250mL + 1.0L Glyphosate 450	
Pigweed (<i>Portulaca oleracea</i>)	Up to 10cm diameter		375mL ⁽¹⁾	
	Up to 60cm diameter		375mL + 1.0L Glyphosate 450	
<i>Polymeria pusilla</i>	2 to 10 leaf, up to 20cm diameter		500mL ⁽¹⁾ or 250mL + 1.2L Glyphosate 450	
Rhynchosia	Seedlings to early flowering		500mL ⁽¹⁾ or 190mL + 800mL Glyphosate 450	
Smallflower Mallow or Marshmallow (<i>Malva parviflora</i>)	Up to 8 leaf, up to 20cm diameter		500mL ⁽¹⁾	
Thornapples (<i>Datura</i> spp.)	2 to 8 leaf, up to 15cm diameter	QLD, NSW, WA only	375mL ⁽¹⁾ or 250mL + 1.2L Glyphosate 450	
Sesbania Pea	2 to 6 leaf, up to 10cm tall	QLD, NSW only	750mL ⁽¹⁾ or 250mL + 1.2L Glyphosate 450	
Perennial Ground Cherry (<i>Physalis virginiana</i>) ⁽²⁾	Bud to early flowering up to 20cm tall		750mL or 1.5L ⁽¹⁾	
Silverleaf Nightshade	Full flower to early berry- set (usually Dec – Feb)	NSW only	375mL or 190mL + 1.2-1.6L 2,4-D amine (625g/L)	<p>Add TITAN Paraffinic Spraying Oil at the rate of 1L/100L spray mixture.</p> <p>To ensure maximum effect, delay application until the majority of shoots have emerged. Follow-up treatment will be required to control regrowth and is critical for optimum control. If wanting to prevent seed set repeat applications may be needed in the same season, although this does not lead to better long term control.</p>
Volunteer Peanuts	Up to 15cm diameter	QLD only	500mL + 3.7L atrazine flowable (600g/L)	<p>Add a surfactant (see GENERAL INSTRUCTIONS; oils and surfactants).</p> <p>Important: See GENERAL INSTRUCTIONS; compatibility section).</p>
Volunteer Sunflowers	2 to 5 leaf, up to 20cm	QLD, NSW only	500mL	<p>Add TITAN Paraffinic Spraying Oil (see GENERAL INSTRUCTIONS; oils and surfactants section).</p>

Table 6: Winter Fallow

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE/ha	CRITICAL COMMENTS
Bedstraw (<i>Galium tricornutum</i>)	Up to 5 whorl	VIC, SA, WA only	500mL ⁽¹⁾	(1) Add TITAN Paraffinic Spraying Oil (see GENERAL INSTRUCTIONS ; oils and surfactants section).
Cleavers (<i>Galium aparine</i>)		NSW, VIC only		
Black Bindweed (Climbing Buckwheat)	2 to 8 leaf up, to 10cm diameter	QLD, NSW only	375mL ⁽¹⁾	(2) Add TITAN Paraffinic Spraying Oil or a surfactant (see GENERAL INSTRUCTIONS ; oils and surfactants section). When mixing with Glyphosate 450 to control both grass and broadleaf weeds, refer to the Glyphosate 450 label for use rates and adjuvants recommended for the grasses (see GENERAL INSTRUCTIONS ; compatibility section).
Common Sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf up, to 10cm diameter		500mL ⁽¹⁾ or 250mL + 600mL Glyphosate 450	
Prickly Lettuce			750mL ⁽¹⁾ or 250mL ⁽²⁾ + 5g metsulfuron-methyl (600g/kg)	
Spiny Emex (Doublegee, Three-cornered Jack)	2 to 8 leaf		750mL ⁽¹⁾ or 250mL ⁽²⁾ + 5g metsulfuron-methyl (600g/kg) or 500mL + 600mL Glyphosate 450	
Wireweed	2 to 3 leaf up, to 10cm tall			

Table 7: Sugarcane (QLD, NSW, WA and NT only)

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE/ha	CRITICAL COMMENTS
From early tillering to maturity	Balsam Pear, Blackberry Nightshade, Blue Billygoat Weed, Centro, Cowpea, Giant Sensitive Plant, Lablab Bean, Noogoora Burr, Phasey Bean, Pinkburr, Prickly African Cucumber, Spinyhead Sida, Stinking Passion Flower (seedlings only)	Apply from 2 to 3 leaf until flowering	Ground: 650mL Aerial: 750mL	For optimal weed control, delay application until just before the “close-in” stage. Aerial application: Apply in not less than 60L/ha water and add TITAN Paraffinic Spraying Oil at 1L/100L spray mixture. Ground application: Apply in 100-400L/ha water and add TITAN Paraffinic Spraying Oil at 300mL/100L of spray mixture.
	Bellvine, Morning Glory, Red or Pink Convolvulus, Star-of-Bethlehem		As above + 800mL 2,4-D amine (625g/L)	
	Stinking Passion Flower	Established or ratoon plants with at least 1.0m of regrowth	High volume: 225mL/100L water Knapsack: 35mL/15L water	Thoroughly wet plants to the point of run-off.
	Milkweed (<i>Euphorbia heterophylla</i>)	Seedlings and young plants up to flowering	1.5L or 1.15L + 3.3L atrazine flowable (600g/L)	Better control will be achieved with the atrazine mixture. Delay application until just before the cane reaches the “close-in” stage. This will improve control and minimise the number of seedlings that germinate.

Table 8: Lucerne (NSW only)

CROP STAGE GROWTH	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE/ha	CRITICAL COMMENTS
Established crops at least eighteen months old	Annual Ground Cherry, Bathurst Burr, Noogoora Burr, Wild Gooseberry	2 to 8 leaf, up to 15cm high	250mL	To minimise crop injury and to maximise weed control, cut, slash or heavily graze the Lucerne before application. Wherever possible, irrigate before application to stimulate weed growth. DO NOT treat crops growing on sandy or stony soils. DO NOT treat crops after the summer growing season (after end of March). To broaden the spectrum of weeds controlled, TITAN Fluroxypyr 400 Herbicide can be mixed with 2,4-DB Amine.
	Pigweed	Up to 10cm diameter		

Table 9: Poppies (TAS only)

CROP STAGE GROWTH	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE/ha	CRITICAL COMMENTS
4 to 6 leaf	Cleavers, Fumitory	2 to 6 leaf	500mL	
	Shepherd's Purse, Wireweed		500mL + 5L TITAN Asulam 400 Herbicide	
8 to 10 leaf	Common Sowthistle, Prickly Lettuce	2 to 5 leaf	500mL	DO NOT apply TITAN Fluroxypyr 400 Herbicide to poppies later than the 8 to 10 leaf growth stage as a reduction of alkaloid content could occur.
	Blackberry Nightshade	Cotyledon to 4 leaf	750mL	
	Fumitory	6 to 10 leaf		
		Volunteer Potato	From tuber initiation to flower bud	

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

WITHOLDING PERIODS

CROPS AND PASTURES: DO NOT GRAZE FAILED CROPS AND TREATED PASTURES OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

POPPIES: DO NOT SPRAY POPPIES LATER THAN 10 WEEKS BEFORE HARVEST.

OTHER CROPS: NOT REQUIRED WHEN USED AS DIRECTED.

MINIMUM RECROPPING PERIODS			
PLANT-BACK PERIODS FOR CROPS FOLLOWING THE APPLICATION OF TITAN FLUROXYPYR 400 HERBICIDE FOR RATES UP TO 750mL/ha			
RATE/ha	190mL	375mL	750mL
CROP	DAYS		
Barley	7	7	7
Wheat	7	7	7
Chickpea	7	7	7
Cotton	14	14	28
Soybean	7	7	14
Sunflower	7	7	7
Maize	7	7	7
Sorghum	7	7	7

Note: Before using TITAN Fluroxypyr 400 Herbicide in tank mixes with other herbicides, check the plant-back information on all product labels. The time between spraying and planting will be determined by the most residual product, eg. the product with the longest plant-back period.

GENERAL INSTRUCTIONS

MIXING

TITAN Fluroxypyr 400 Herbicide may be mixed with water or diesel. Mix only sufficient chemical for each day's use and avoid storing.

Mixing in Water: Half fill the spray tank with water and add the required quantity of TITAN Fluroxypyr 400 Herbicide and complete filling. Agitate continuously to ensure thorough mixing before and during application.

Mixing in Diesel: Half fill the tank with diesel and add the required quantity of TITAN Fluroxypyr 400 Herbicide. Add the remainder of the diesel and agitate or shake to mix contents.

Tank mixtures: Wettable powder or dry flowable formulations (eg. water dispersible granules) should be added to the spray tank first, followed by suspension concentrates (flowables), water soluble salts and then emulsifiable concentrate formulations (TITAN Fluroxypyr 400 Herbicide). Add spraying oils and surfactants (wettters) last.

OILS AND SURFACTANTS

Oils: Where specified use only TITAN Paraffinic Spraying Oil at the rate of 500mL/100L of spray mix. When using less than 100L/ha spray volume, ensure a minimum of 250mL/ha of TITAN Paraffinic Spraying Oil is used, unless 1L/100L or 1L/ha is specified.

Surfactants (wettters): Use a 100% concentrate non-ionic surfactant such as BS1000* at 100mL/100L of spray mix where required.

COMPATIBILITY

TITAN Fluroxypyr 400 Herbicide is compatible with the herbicides listed. Follow any regional restrictions and all directions and restrictions on the label, of any chemical mixed with TITAN Fluroxypyr 400 Herbicide.

Atrazine (see below)	TITAN Clopyralid herbicides
Glyphosate 360	TITAN Flumetsulam 800 WG Herbicide
Glyphosate 450	TITAN Clodinafop 240 EC Herbicide (see below)
Metsulfuron-methyl (600g/kg)	TITAN Picloram 75-D Herbicide
MCPA	TITAN Picloram + MCPA 242 Herbicide
Eclipse*	Herbicides containing Fenoxaprop-ethyl
2,4-D	Diclofop-methyl
2,4-DB Amine	Triclopyr (600g/L)
Touchdown*	

ATRAZINE – AVOID USING HARD WATER WHEREVER POSSIBLE

Where hard water cannot be avoided, the addition of CALGON* water conditioning agent to the spray tank, at 100g/100L water, before adding any herbicide may improve compatibility.

AGITATION IS VERY IMPORTANT WHEN MIXING TITAN FLUROXYPYR 400 HERBICIDE AND ATRAZINE.

TITAN Fluroxypyr 400 Herbicide plus atrazine tank mixes must be agitated vigorously and continuously during mixing and application. After mixing, DO NOT allow to stand without agitation. Ensure that the time from mixing to the end of application is not more than 2 hours. If settling out occurs re-suspension is difficult, even with vigorous agitation. Agitation using only the pump's by-pass is usually inadequate, particularly with larger tanks (more than 2000L). Additional mechanical agitation will be necessary in large tanks, computer sprayers and mixing tanks. When additional surfactant is required, add a 100% concentrate non-ionic surfactant at 100mL/100L of spray mix.

DO NOT use a spraying oil when tank mixing TITAN Fluroxypyr 400 Herbicide and atrazine.

TITAN CLODINAFOP 240 EC HERBICIDE

Always use TITAN Paraffinic Spraying Oil with TITAN Fluroxypyr 400 Herbicide + TITAN Clodinafop 240 EC Herbicide tank-mixes at 500mL/100L of spray mix with a minimum of 250mL/ha. DO NOT mix TITAN Fluroxypyr 400 Herbicide with TITAN Clodinafop 240 EC Herbicide if the grass weeds are not actively growing. Always use the maximum label rate of TITAN Clodinafop 240 EC Herbicide for the appropriate grass growth stage. DO NOT use TITAN Fluroxypyr 400 Herbicide at more than 0.75L/ha in tank mixes with TITAN Clodinafop 240 EC Herbicide.

GLYPHOSATE 450

When mixing TITAN Fluroxypyr 400 Herbicide with Glyphosate 450 to control both grass and broadleaf weeds, refer to the Glyphosate 450 label for use rates and adjuvants recommended for the grasses.

DO NOT use Glyphosate 450 at less than 1.2L/ha in tank mixes with TITAN Fluroxypyr 400 Herbicide, when Barnyard Grass, Buttongrass, Crowsfoot Grass, Native Millet and Liverseed Grass are the target species.

APPLICATION METHODS and WATER RATES

BROADCAST APPLICATION IN CROPPING, PASTURE AND FALLOW SITUATIONS

A. Ground application (Boom): Apply TITAN Fluroxypyr 400 Herbicide with an accurately calibrated boom sprayer, in at least 50L/ha water (100-400L/ha for Sugarcane). Flat nozzles are recommended using pressures in the range 200 to 300kPa. Set the boom at a height to ensure a double overlap of the nozzle patterns.

B. Ground directed application (Dropper nozzles): To minimise crop effects, dropper nozzles should be used in Sorghum when the crop is beyond the 8 leaf growth stage and in Maize and Sweet Corn when the crop is beyond the 6 leaf growth stage. Adjust the nozzles to direct the spray into the base of the crop and away from the leaves and the growing point. See manufacturers directions for setting up and calibration of dropper nozzles

C. Aerial application: Apply in a minimum volume of at least 35L/ha water (60L/ha in sugarcane). Use equipment calibrated to produce droplets within an average MEDIUM-COARSE to COARSE droplet size category. DO NOT apply when the temperature is above 30°C, when there is no wind or when the wind is blowing toward susceptible crops. DO NOT use human flaggers unless they are protected by engineering controls such as enclosed cabs.

WOODY WEED SITUATIONS

Weeds must be actively growing to attain optimal effect. Delay the treatment of regrowth following bulldozing, slashing, burning, ploughing or a previous chemical treatment until it has at least 1 metre of new, vigorous growth.

A. High Volume Application

Hand Gun: Apply the recommended mix to obtain full coverage of leaves and stems using a number 6-8 tip at 700 to 1500kPa. To obtain good coverage, a spray volume of 1500 to 4000L/ha (15 to 40L/100m²) is required per infested hectare. Ensure thorough coverage to the point of run-off.

Knapsack: Knapsack sprayers may be used on smaller infestations where penetration and coverage of the canopy is easier to achieve. Use the same use rate and spray techniques as for handgun application.

B. Low Volume, High Concentrate Application Drench Gun or Gas-Powered Gun:

Apply the recommended mixture uniformly across the foliage by applying 50mL shots to cover 4 to 5m² of surface area of plant. This is approximately equivalent to 20 droplets per cm² of the leaf surface. Use a marking agent as recommended by the equipment manufacturer to check spray coverage.

C. Basal Bark and Cut Stump Application

Basal Bark: DO NOT apply to wet stems as this can repel the diesel mixture. Spray or paint the recommended mixture around the base of each stem from ground level to a height of at least 30cm from the ground, wetting the bark to the point of run-off. Apply with a paint brush or a pressure sprayer with an appropriate lance and solid cone nozzle. If using spray equipment use low pressures (<200kPa) sufficient to form a cone of spray. Old rough bark will require more spray than smooth or young thin bark.

Cut Stump: Apply the recommended mixture liberally to the freshly cut stump immediately after cutting. Apply by spraying or painting the cut surface and sides of the stump. Best results are obtained when the stems are cut less than 15cm above the ground.

CLEANING SPRAY EQUIPMENT

Rinse water should be discharged onto a designated disposal area or, if this is unavailable, onto wasteland away from desirable plants and water courses. Cleaning equipment after using water-based sprays:

Rinsing: After using TITAN Fluroxypyr 400 Herbicide, empty the tank completely and drain the whole system. Thoroughly wash inside the spray unit using a pressure hose. Drain and clean any filters in the tank, pump, lines, hoses and nozzles. After cleaning the tank as above, quarter fill the clean water and circulate through the pump, lines and nozzles. Drain and repeat the rinsing procedure twice.

Decontamination (before spraying cotton and other sensitive crops; see PROTECTION OF CROPS): Wash the tank and rinse the system as above. Then quarter fill the tank and add an alkali detergent (eg. liquid SURF, OMO, DRIVE) at 500mL/100L of water or the powder equivalent at 500g/100L and circulate throughout the system for at least fifteen minutes. Drain the whole system. Remove filters and nozzles and clean them separately. Finally flush the system with clean water and allow to drain.

Cleaning equipment after using diesel – based sprays: On completion of spraying, use a degreaser such as Caltex Kwik-D-Grease to remove traces of diesel from the sprayer. Rinse tank and spray through nozzles with water to remove degreaser. Then quarter fill the tank and add an alkali detergent (e.g. liquid SURF, OMO, DRIVE) at 50mL/10L of water or the powder equivalent at 50g/10L. Shake sprayer to circulate the washing solution throughout the sprayer, then spray the solution through the nozzles. Rinse well with clean water to remove the detergent. To clean brushes and containers, spray liberally with degreaser. Hose off with clean water and repeat using detergents as above. DO NOT use this equipment for any other purpose.



RESISTANT WEEDS WARNING

TITAN Fluroxypyr 400 Herbicide is a member of the pyridine group of herbicides. The product has the disrupters of plant cell growth mode of action. For weed resistance management, the product is a Group 4 Herbicide. Some naturally-occurring weed biotypes resistant to the product and other Group 4 herbicides may exist through normal genetic variability in any weed population. The resistant individual can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by this product or other Group 4 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 this product to control resistant weeds. Strategies to minimize the risk of herbicide resistance are available. Contact your farm chemical supplier, consultant, local Department of Agriculture or TITAN AG representative.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

Susceptible crops include but are not limited to clovers, cotton, fruit, hops, lupins, ornamentals, peas, pine tree, potatoes, navy beans, safflower, shade trees, soybeans, sunflower, tobacco, tomatoes, vegetables and vines. TITAN Fluroxypyr 400 Herbicide can be damaging to susceptible crops during both growing and dormant periods. Grasses are normally unaffected by TITAN Fluroxypyr 400 Herbicide and establish quickly after treatment. Transitory damage can occur on some species particularly those that spread by stolons such as Couch Grass (*Cynodon dactylon*), Kikuyu Grass and Carpet Grass (*Axonopus* spp.)

DO NOT allow spray to drift onto susceptible crops, shade trees and *Pinus* spp. DO NOT use under weather conditions or from spraying equipment which could cause spray to drift onto nearby susceptible plants.

PROTECTION OF LIVESTOCK

DO NOT graze stock or cut treated crops or plants for food except as specified under withholding periods. Poisonous plants may become more palatable after spraying therefore stock should be kept out of the area until the plants have died down. DO NOT allow stock to re-enter paddocks containing treated poisonous plants, until the plants have died down.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used containers. Alongside waterways, treat only noxious weeds and poisonous plants.

STORAGE AND DISPOSAL

Storage for all containers: Store in closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight.

Disposal

Recycled containers: This container can be recycled if it is clean, dry, free of visible residues and has the *drumMUSTER* logo visible. Triple rinse container before disposal. Dispose of rinsate by adding to the spray tank. DO NOT dispose of undiluted chemicals on-site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at a *drumMUSTER* collection or similar container management site. The cap should not be replaced but may be taken separately.

Non-recycled containers: Triple-rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. Break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 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.

Refillable containers: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

SMALL SPILL MANAGEMENT

Wear protective equipment (See SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. Sweep up material for disposal when absorption is completed and contain in a refuse vessel for disposal (see STORAGE AND DISPOSAL section). If necessary wash the spill area with an alkali detergent and water and absorb the wash liquid for disposal.

SAFETY DIRECTIONS

Avoid contact with eyes and skin. When opening the container, preparing the spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves, a face shield or goggles. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

GROUP **4** HERBICIDE

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766. If swallowed, do NOT induce vomiting. If in eyes wash out immediately with water.

SAFETY DATA SHEET

Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Fluroxypyr 400 Herbicide is available from TITAN AG Pty Ltd on request. Call Customer Service on (02) 9999 6655 or visit www.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.

*Other trademarks

Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: Combustible liquid. Causes skin irritation. Causes serious eye irritation. May damage fertility or the unborn child. May cause respiratory irritation. May be fatal if swallowed and enters airways. Very toxic to aquatic life with long lasting effects. Precautionary Statements: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from flames and hot surfaces. No smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: Immediately call a POISON CENTER/ doctor. IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use to extinguish: CO₂, powder or water spray. Collect spillage. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container in accordance with local/regional/national regulations.

