

POISON

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

TITAN

MCPA

500 Selective Herbicide

ACTIVE CONSTITUENT:

500g/L MCPA present as the DIMETHYLAMINE SALT

GROUP **I** HERBICIDE

For the selective control of broad leaf weeds in cereals, linseed, pastures, sugar cane and turf as per directions for use table.

IMPORTANT: READ THOROUGHLY BEFORE OPENING OR
USING THIS PRODUCT.

APVMA Approval No.: 56718/0507

Pack Size: 20L, 110L, 120L, 220L, 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

Restrictions: DO NOT spray if rain seems likely within 6 hours or if strong winds prevail.

DO NOT apply if crop or weeds are stressed due to dry or excessively moist conditions.

Table 1: FIELD CROPS

SITUATION AND CROP	WEEDS	STATE	RATE/ha	CRITICAL COMMENTS
Barley Oats Triticale Wheat	Refer to Weed Table	SA, TAS only	700mL-2.1L/ha	Apply through the tillering stage after the crop plants have 5 leaves and before they commence jointing.
		QLD only		Apply from early tillering (4-5 fully emerged main stem leaves plus one or more tillers) until before the boot stage (visible swelling of the head at the top of the main stem).
		NSW, ACT only		Apply 700mL/ha rate after crop has reached 5 leaf stage and weeds marked with an asterisk (*) in Weed Table have 3-6 leaves. Higher rates after the first node can be felt at the base of a tiller and before swelling of the head can be felt in a tiller.
		VIC only	700mL-1.5L/ha	Apply 700mL/ha rate after crop has reached 2-3 leaf stage and weeds marked with an asterisk (*) in Weed Table have 2-4 leaves. Higher rates after the crop plants have 5 leaves to fully tillered.
		WA only	900mL-2L/ha	Apply to crop from 5 leaf to flag leaf emergence (Zadoks 15-37).
	Soldier Thistle	SA only	700mL/ha plus 200mL/ha clopyralid (300 g/L)	Apply to crop at tillering stage after the crop has 5 leaves and before the crop commences jointing.
	Skeleton Weed		1L/ha plus 500mL/ha clopyralid (300 g/L)	Apply to rosettes from 5-15cm diameter when the crop is between the 5 leaf and late tillering growth stages. It is essential that all the Skeleton Weed is emerged and minimum of 5cm diameter which is usually not before August. This rate will provide control of Skeleton Weed until harvest and will substantially reduce seed numbers the following season.
Barley Cereal Rye Triticale Wheat	Capeweed, Doublegee, Erodium, Mustard, Rapistrum, Wild Radish, Wild Turnip	WA only	400mL/ha plus 350mL/ha Diuron (500 g/L suspension concentrate)	CROP: 3-4 leaf stage (Zadoks 13-14).
			500mL/ha plus 400mL/ha Diuron (500 g/L suspension concentrate)	CROP: 4-5 leaf stage (Zadoks 14-15). Apply by aircraft or boom with 20-100L/ha water, when most weeds have germinated and are in 2-5 leaf stage. Crop and weeds should be dry at time of application. Some temporary yellowing of crop may occur after application. Undersown sub-clovers may be slightly retarded. DO NOT apply to undersown medic.
Barley Cereal Rye Triticale Wheat	Amsinckia (Yellow Burr), Capeweed, Charlock, Deadnettle, Doublegee (Spiny Emex, Three Cornered Jack), Erodium sp., Mustard, Turnip Weed, White Ironweed (Corn Gromwell, Sheepweed), Wild Radish, Wild Turnip	NSW, ACT, VIC only	500mL/ha plus 500mL/ha Diuron (500 g/L suspension concentrate)	Apply by Boom spray or aircraft when the crop is at the 3-5 leaf stage (NSW and SA only) and 5 leaf stage (VIC only). Weeds must be in the 2-5 leaf stage. DO NOT apply to under-sown medic or lucerne. DO NOT use on Kamilaroi, Kite, Olympic or Shortim Wheat. DO NOT use on very light sandy soils.
		SA only	350mL/ha plus 500mL/ha Diuron (500 g/L suspension concentrate)	

Table 1: FIELD CROPS – continued

SITUATION AND CROP	WEEDS	STATE	WEED STAGE	RATE	CRITICAL COMMENTS
Field Peas	Prickly Lettuce	NSW, VIC, SA, TAS only	4 leaf	125mL plus 125mL Agility*	<p>FIELD PEAS: Apply early post-emergence after the third node stage and before the start of flowering.</p> <p>Warning: Field peas grown on high pH soils in the presence of free lime may be less tolerant to Agility.</p> <p>APPLICATION AND WEED CONTROL: Apply when weeds are actively growing. For optimum results apply 4-6 weeks post-sowing.</p> <p>Application beyond 8 weeks post-sowing may result in reduced levels of weed control. In most situations the rate specified for each weed size will give satisfactory control. Under certain conditions such as:</p> <ul style="list-style-type: none"> • High crop and seed density • Late season germinations • Abnormal weed growth (including early flowering); higher rates of product (up to the maximum rate of application specified for that weed) may be required. <p>Agility will not effectively control:</p> <ul style="list-style-type: none"> • Regrowth of suppressed weeds • Transplanted weeds • Regrowth from rhizomes or roots • Weeds growing under stress from previous herbicide applications
			6 leaf	150mL plus 150mL Agility	
	Charlock (Wild Mustard) (<i>Sinapsis arvensis</i>)		4 leaf	125mL plus 125mL Agility	
			6 leaf	150mL plus 150mL Agility	
SITUATION AND CROP	WEEDS	STATE	RATE/ha	CRITICAL COMMENTS	
Linseed	Refer to Weed Table	QLD only	700mL-2.1L/ha	<p>Apply when crop is 10-15cm tall with at least 170L/ha of water.</p> <p>DO NOT spray after buds appear. Some wilting effect may be seen following application but crop usually recovers quickly.</p> <p>DO NOT apply by aircraft.</p>	
		NSW, ACT, VIC, Tas, SA only	700mL-1.1L/ha		
Sugar Cane	Bell Vine, Bindweed, Blue Top, Chinese Burr, Cupids Flower, Flannel Weed, Gambia Pea, Merremia Vine, Morning Glory, Pink Convolvulus, Streaked Rattle Pod	QLD only	1.4L/ha	<p>POST-EMERGENT: Apply as directed inter-row spray.</p> <p>DO NOT exceed rates with phenoxy sensitive varieties.</p>	
			As above plus Fat Hen, Noogoora Burr		2.1L/ha
			All of the above		10L/ha
Flax	Refer to Weed Table	VIC, TAS only	490mL/ha	Apply to crop when 8-20cm high.	

Table 2: PASTURES, SEED CROPS AND TURF

SITUATION AND CROP	WEEDS	STATE	RATE/ha	CRITICAL COMMENTS	
Grass Pastures	Refer to Weed Table	ALL STATES	700mL-4L/ha	<p>Apply to established grass, based pastures. Damage may occur to Legumes if present. See "Legume Tolerance" below.</p> <p>Note: Capeweed, Paterson's Curse and Variegated Thistle may be poisonous to stock after spraying.</p>	
			SA only		1L/ha plus 400mL/ha Diuron (500g/L suspension concentrate)
		NSW, ACT only	Soldier Thistle	700mL-2.1L/ha	Use low rate on seedlings with no more than 2 true leaves. Use 100L of water for best results. If clover is present do not exceed 600mL.
			Seedling and established Horehound	3L/ha	Apply in Autumn when horehound plants are at the seedling stage. If sub clover or medic plants are present they will be damaged by this application.
Grass Seed Crops	Refer to Weed Table	QLD, VIC, TAS, SA, WA only	700mL-4L/ha	Apply to established grass seed crops.	
Sub-clover Seed Crops		VIC, SA only	700mL-1.5L/ha	DO NOT exceed rate specified. Spray in Autumn and early Winter.	

Table 2: PASTURES, SEED CROPS AND TURF – continued

SITUATION AND CROP	WEEDS	STATE	RATE/ha	CRITICAL COMMENTS
Pastures – Spray/Graze Technique	Caltrop, Capeweed, Charlock, Mustards, Paterson's Curse, Shepherd's Purse, Saffron, Slender, Spear or Variegated Thistle, Turnip Weed, Wild Radish, Wild Turnip	NSW, ACT, VIC only	350mL-1.4L/ha	<p>Spray actively growing 6-8 week old weeds. Introduce stock, preferably sheep (cattle are less effective), 7-10 days after spraying. Stocking rate should be at least 5 times heavier than normal until weeds have been reduced, but before survival of desirable pasture species is threatened. Lucerne and medics may be damaged and should be grazed short before spraying. Refer 'Lucerne Tolerance'.</p> <p>PRECAUTION: An increased quantity of poisonous plants may be eaten by stock using Spray/Graze eg. Caltrop, Capeweed, Paterson's Curse and Variegated Thistle. Deaths may result from causes such as nitrate poisoning. With Paterson's Curse, preferably graze stock soon destined for slaughter and avoid extended periods of grazing. Avoid grazing with young or breeding stock. DO NOT graze horses or pigs on Paterson's Curse. Observe Withholding Period of at least 7days after spraying.</p>
		TAS only	700mL/ha	
	Refer to Weed Table	WA only	925mL-1.85L/ha	
	Annual Thistles, Capeweed, Dandelion, Erodium, Geranium, Mustard, Seedling Dock Three Cornered Jack, Turnip Weed, Wild Radish, Wild Turnip	SA only	500mL/ha	
	Soldier Thistle		600mL/ha	
Turf	Refer to Weed Table	ALL STATES	500mL/ha or 5mL per 100 sq. metres	Newly laid: Delay until well established or at least two months old. Apply in high volume to actively growing weeds. See 'Legume Tolerance'. Buffalo Grass is more easily damaged than other grasses.
			1.4-2.8L/ha or 14-28mL per 100 sq metres	Established: Apply in high volume to actively growing weeds. DO NOT mow for 2 days before application. Some transitory damage may occur to fine turf grasses and strawberry clover. See 'Legume Tolerance'. Buffalo Grass is more easily damaged than other grasses.

Table 3: SPOT SPRAYING

SITUATION AND CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS
High volume spraying	Refer to Weed Table	ALL STATES	Refer to Weed Table	Add 1/10th of rate on Weed Table to 150L of water. Each 150L of mix will cover 1000m ² (1/10th ha), eg. if rate in Weed Table is 1.4L use 140mL/150L water.
Knapsack application				Add 1/100th of rate on Weed Table to 10L of water. Each 10L of mix will cover 100m ² (1/100th ha), eg. if rate in Weed Table is 1.4L use 14mL/10L water.

Table 4: NON CROP AREAS, FALLOW LAND, INDUSTRIAL AND COMMERCIAL AREAS, RIGHTS OF WAY

SITUATION AND CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS
Non Crop Areas, Fallow Land, Industrial and Commercial Areas, Rights of Way	Refer to Weed Table	ALL STATES	Refer to Weed Table	Apply at rates shown in Weed Table when weeds only are present and no crop or pasture is involved.

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

WITHHOLDING PERIODS:

CEREALS, PASTURE:

HARVEST:

DO NOT GRAZE OR CUT FOR STOCK FEED FOR 7 DAYS AFTER APPLICATION:

NOT REQUIRED WHEN USED AS DIRECTED.

WEED TABLE

Where weeds are to be sprayed in a crop or pasture use only the rates given for the particular crop or situation indicated under the Directions for Use Table. In most cases this will give control, however some hard to kill weeds or those in advanced stages of growth may only be suppressed. The rates listed in the Weed Table below are for use where weeds only are present and no crop or pasture is involved. Use at these rates in a crop or pasture other than for spot spraying may cause damage. This product should only be used in those states where a rate or range of rates is indicated for the particular weeds listed.

WEEDS	APPLICATION RATE (per hectare)						CRITICAL COMMENTS
	VIC	NSW, ACT	SA	TAS	QLD	WA	
Ball Mustard	-	-	1.7L	-	-	-	Apply at rosette stage.
Bathurst Burr	2L	1-2L	2L	2L	2L	2L	Spray young seedlings only.
Black Bindweed	-	1.4-2L	-	-	1.4-2L	-	Apply at young stage prior to flowering.
Californian Burr	-	1-2L	-	2.2L	-	-	Spray young seedlings only.
Cape Tulip	-	-	-	-	-	2L	Apply just prior to flowering. Gives mild suppression only.
Capeweed	-	2.1L	2.1L	2.1L	2.1L	-	Apply at seedling stage.
Carrot Weed	2L	-	-	-	2L	-	Apply at seedling stage.
Charlock	700mL*	1L*	700mL	1-2.2L	700mL	-	Spray up to rosette stage.
Cutleaf Mignonette	-	-	2.1L	-	-	-	Apply at young rosette stage.
Dandelion	2L	2L	2L	2L	2L	2L	Apply at young rosette stage.
Deadnettle	-	2.1L	-	-	2.1L	-	Moderately susceptible. Apply at seedling stage.
Docks	1.5L	-	2.1L	2.1L	-	-	Apply at rosette stage and before flower heads emerge. Only the top growth of old established plants will be affected.
Fat Hen	2L	1-2L	-	2L	2L	-	Spray up to rosette stage.
Fennel	2.7L	2.7L	2.7L	2.7L	2.7L	-	Apply at young stage.
Field Bindweed	2L	-	2L	2L	2L	2L	Apply at bud stage, repeating over several seasons.
Field Cress	-	-	-	2.2L	-	-	Apply at young stage.
Flatweed or Catsear	-	-	-	2.2L	-	1.4L	Apply when weeds are 10-15cm high.
Fumitory - red	1.4L	1.4L	1.4L	-	1.4L	-	Apply at young stage prior to flowering.
Hedge Mustard	1.1L*	-	700mL	700mL	700mL	1.25L	Apply at rosette stage.
Hexham Scent or Melilotus	1.5L	1.2L	1.4L	-	1.4L	-	Apply at young seedling stage.
Hoary Cress	4.5L	-	2.1L	-	4.5L	-	Apply before flowering.
Horehound	-	3L	2.1L	-	-	-	Apply at rosette stage.
Lesser Swinecress	-	-	-	2.2L	-	-	Apply at young stage.
Lincoln Weed	-	-	700mL	-	-	-	Apply at rosette stage.
London Rocket	-	-	-	-	-	1.25L	
Lupins	-	700mL-1.5L	-	-	-	1.25L	Spray up to 10cm high.
Mintweed	2L	2L	-	-	2L	-	Spray young seedlings only.
Mustards	1.1L*	1L*	1.1L	1.1L	-	1.25L	Spray up to rosette stage.
Noogoora Burr	2L	1-2L	2L	-	2L	2L	Spray young seedlings only.
Opium Poppy	-	-	-	2.2L	-	-	Apply at young stage.
Paterson's Curse	-	1-1.5L	-	-	4L	-	Apply at early rosette stage.
Pimpernel	-	-	700mL	-	-	-	Apply at rosette stage.
Plantains	-	2L	-	2L	2L	-	Apply at young stage.
Rapeseed	-	1-1.5L	-	-	-	-	Spray up to rosette stage.
Rough Poppy	-	700mL-1.5L	-	-	-	-	Spray up to rosette stage.
Safflower	-	700mL-1L	-	-	-	-	Spray up to rosette stage.
Shepherds Purse	-	-	-	2.2L	-	-	Apply at rosette stage.
Skeleton Weed	-	1.5-2L	-	-	-	-	Spray rosettes before aerial growth commences.
Sorrel	-	-	2.1L	-	-	-	Apply at rosette stage.
Stinkwort	2L	1-1.5L	2L	-	-	2L	Apply when weeds are 10-15cm high.
Sunflower (seedlings)	-	1-1.5L	-	-	-	-	Spray up to rosette stage.
Thistles- Artichoke	1.6L	-	2.1L	-	2L	700mL	Apply at rosette stage.
- Nodding	-	2.5L	-	-	-	-	Spray early rosettes. Repeat spray required in following Spring or Autumn.
- Saffron	1.5-2.5L	1-2L	1.4-2.5L	1.4-2.5L	1.4-2.5L	1.5-2.5L	Spray up to rosette stage (September WA).
- Scotch or Cotton	2.2L	-	700mL -1.4L	2.2L	-	-	Apply at seedling stage.
- Slender	3L	1-2L	1L	3L	-	3L	Spray young seedlings only.
- Soldier	1.1L	-	1.1L	-	-	-	Spray young seedlings. Use higher rate for larger weeds.
- Spear	-	1.5-2L	-	2.2L	-	-	Apply at rosette stage.
- Star	-	-	1-1.4L	-	-	-	Spray young seedlings. Use higher rate for larger weeds.
- Variegated	1.5L	1-2L	700mL -1.4L	1.5L	1.5L	1.5L	Spray young seedlings only. Use 2L/ha (SA) for well developed weeds.
Turnip Weed	1.1L*	1L*	1L	-	-	-	Spray up to rosette stage.
Wild Artichoke	-	-	2.1L	-	-	-	Apply at rosette stage.
Wild Radish	1.4L	1L*	1.4L	2L	700mL-1.1L	1.2L	Spray up to rosette stage.
Wild Turnip	1.1L*	1L*	700mL	2L	700mL-1.1L	900mL	Spray up to rosette stage.

GENERAL INSTRUCTIONS

Weeds should be sprayed while actively growing and at their most susceptible stage. As a general guide, annuals should be sprayed when young and perennials just prior to appearance of bud stage. The most favourable conditions are moist soil, fine weather and rain unlikely within 6 hours of application. Extremes of cold or drought are unfavourable.

RESISTANT WEEDS WARNING

TITAN MCPA 500 Selective Herbicide is a member of the Phenoxy group of herbicides. TITAN MCPA 500 Selective Herbicide has the disruptors of plant cell growth mode of action. For weed resistance management TITAN MCPA 500 Selective Herbicide is a Group I herbicide. Some naturally occurring weed biotypes resistant to MCPA and other disruptors of plant cell growth 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 MCPA 500 Selective Herbicide or other disruptors of plant cell growth 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 MCPA 500 Selective Herbicide to control resistant weeds.

APPLICATION/MIXING INFORMATION

This product mixes readily with water. Half fill the spray tank with clean water and add the required amount of product. Agitate thoroughly before adding the remaining water.

Boom Spraying: Use 30-120 litres water per hectare. Use minimum of 170 litres water per hectare for LINSEED.

Aerial Spraying: Use 10-90 litres per hectare.

COMPATIBILITY

TITAN MCPA 500 Selective Herbicide is compatible in tank mixtures with the following herbicides:

bromoxynil, clopyralid, dicamba, diuron (suspension concentrate), metsulfuron-methyl, paraquat/diquat, picloram, sethoxydim, terbutryn (suspension concentrate), Tribunex*.

The effectiveness of dimethoate, phosmet, Metasystox* and omethoate is reduced by alkaline hydrolysis in tank mixes with TITAN MCPA 500 Selective Herbicide.

When tank mixing with these products the use of a pH buffer or acidifier is recommended. When tank mixing add the required amount of compatible product (and surfactant if recommended) when the spray tank is nearly full and while continuously agitating. If left overnight, agitate thoroughly before spraying.

INCOMPATIBILITY

TITAN MCPA 500 Selective Herbicide is NOT compatible with the following fertilisers:

copper sulphate, iron sulphate, manganese sulphate, zinc oxysulphate, zinc sulphate.

EQUIPMENT MAINTENANCE AND USAGE

Equipment that has been used for this chemical should not be used for the application of other materials to sensitive plants, unless it has been thoroughly washed out with a 2% solution of cloudy ammonia, followed by several clear water rinses.

PROTECTION OF CROPS NATIVE AND OTHER NON-TARGET PLANTS

DO NOT spray in high winds. DO NOT spray crops or weeds outside the stages indicated under "Critical Comments" in the Directions for Use tables as damage, loss of yield or inadequate weed control may result.

Drift Warning: 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. Avoid spray drift onto susceptible crops such as cotton, tobacco, tomatoes, vines, fruit trees, vegetables, legume crops and pastures, oilseed crops and susceptible trees (eg. Kurrajongs, Belahs and Eucalypts).

Legume Tolerance: The use of MCPA is preferred to 2,4-D Amine or 2,4-D Ester in situations where legumes are undersown in the crop.

Note: The tolerance of pasture legumes to applied product can vary with species, variety, growing conditions, stage of growth and companion crop cover.

DO NOT spray cereal crops undersown with lucerne as damage may result.

PROTECTION OF LIVESTOCK

Low hazard to bees. May be applied at any time as recommended in the Directions for Use tables.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

STORAGE AND DISPOSAL

5L, 20L, 200L: Store in the closed original container in a dry, cool, well-ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. DO NOT store for prolonged periods in direct sunlight. Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the 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 product should not be burnt.

Refillable containers (110L, 120L, 220L): Store in the original sealed drum in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT tamper with the Micro Matic valve or the security seal. DO NOT contaminate the drum with water or any water or any other foreign matter. After each use of the product, please ensure the Micro Matic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the drum have been used, please return the empty drum to the point of purchase. The drums remain the property of TITAN AG Pty Ltd.

1000L: Empty containers fully into application equipment. Close all valves and return to point of supply for refill.

SAFETY DIRECTIONS

Harmful if swallowed. Attacks eyes. Will irritate the skin. When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles. If product on skin, immediately wash area with soap and water. If product or spray 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 days use wash gloves, goggles and contaminated clothing.

FIRST AID

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

MATERIAL SAFETY DATA SHEET

Additional information is listed in the material safety data sheet (MSDS). A material safety data sheet for TITAN MCPA 500 Selective Herbicide is available from TITAN AG Pty Ltd on request. Call Customer Service on (02) 9986 2943 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.

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