

POISON

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

TITAN

DIQUAT 200

NON-RESIDUAL HERBICIDE

ACTIVE CONSTITUENT: 200g/L DIQUAT present as DIQUAT DIBROMIDE MONOHYDRATE

GROUP **22** HERBICIDE

For the control of broadleaf weeds as per the Directions For Use.

APVMA Approval No.: 64177/RV2026

Pack Size: 5L-200L



TITAN AG Pty Ltd | ABN 57 122 081 574
15/16 Princes Street, Newport NSW 2106
Tel (02) 9999 6655 | titanag.com.au

SL	Formulation Type Soluble Liquid Concentrate
IN A TRANSPORT EMERGENCY • DIAL 000 • POLICE OR FIRE BRIGADE	
 CORROSIVE 8	 UN1760 CORROSIVE LIQUID, N.O.S. (Diquat dibromide) PG III HAZCHEM 2X

DIRECTIONS FOR USE

Restraints:

DO NOT remove contents except for immediate use.
 DO NOT apply by spraying equipment carried on the back of the users.
 DO NOT use open mixing/loading equipment. Closed mixing and loading MUST be used.
 DO NOT continue to use if eye irritation or bleeding from the nose occurs.
 DO NOT spray when weeds are under drought stress or when covered with dust or soil.
 DO NOT apply if heavy rains or storms are forecast within 3 days.
 DO NOT irrigate to the point of field runoff for at least 3 days after application.

For small scale applications up to 6ha per day:

DO NOT apply using open cab equipment unless using a PF10 respirator

For applications greater than 6ha per day:

DO NOT apply using open cab equipment. Enclosed cab application MUST be used.

For hand spray applications:

DO NOT use hand wand sprays by spraying out of the window of a vehicle.

SPRAY DRIFT RESTRAINTS

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

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

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The advisory buffer zones in the relevant Buffer Zone tables below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

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

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

DO NOT apply by a boom sprayer unless the following requirements are met:

- Spray droplets not smaller than a MEDIUM spray droplet size category.
- Minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section of the following table titled 'Buffer Zones for Boom Sprayers') are observed.

Buffer Zones for Boom Sprayers						
Application rate	Boom height above the target canopy	Mandatory downwind buffer zones (metres)				
		Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Up to 10L/ha*	0.5m or lower	110	275	0	35	0
Up to 5L/ha*	0.5m or lower	50	110		20	
	1.0m or lower	160	350		60	
Up to 4L/ha	0.5m or lower	40	85		20	
	1.0m or lower	130	250		55	
Up to 3L/ha	0.5m or lower	35	65		10	
	1.0m or lower	100	180		45	
Up to 1.5L/ha	0.5m or lower	20	40		5	
	1.0m or lower	60	110		25	
Up to 700mL/ha	0.5m or lower	5	20		0	
	1.0m or lower	35	60		15	
Up to 400mL/ha	0.5m or lower	0	10		0	
	1.0m or lower	20	10		10	

*Aquatic use only

DO NOT apply by a vertical sprayer.

DO NOT apply by aircraft unless the following requirements are met:

- Spray droplets not smaller than a MEDIUM spray droplet size category.
- For maximum release heights above the target canopy of 3m or 25% of wingspan or 25% of rotor diameter whichever is the greatest, minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section of the following table titled 'Buffer Zones for Aircraft') are observed.
- The application rate does not exceed 1.4L/ha.

Buffer Zones for Aircraft					
Type of aircraft	Mandatory downwind buffer zones (metres)				
	Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Fixed-wing up to 1.4L/ha	275	525	0	100	0
Helicopter up to 1.4L/ha	180	300		80	
Fixed-wing up to 750mL/ha	170	275		65	
Helicopter up to 750 mL/ha	120	190		50	

PRE-HARVEST CROP DESICCATION					
CROP	STATES	RATE Δ	CRITICAL COMMENTS		
Poppies	TAS only	3-4L/ha ^Δ	Spray after the Poppies have reached the stripy capsule stage. Helps overcome slow and uneven ripening and weed problems at harvest.		
GENERAL WEED CONTROL					
CROP	WEEDS	STATES	RATE Δ	CRITICAL COMMENTS	
Aquatic areas: Farm dams and artificial water bodies	Duck Weeds, Red Azolla, Water Hyacinth, Salvinia, Marsilea, Water Lilies, Water Lettuce	ALL STATES	DO NOT apply to water bodies from which the product may contaminate natural aquatic areas. DO NOT use treated water for human consumption, livestock watering or irrigation purposes for 10 days after application.		
			5 to 10L/ha	Apply as an overall spray wetting foliage thoroughly. Clear water is necessary for best results as suspended soil particles interfere with herbicidal action. Use the higher rate for heavy infestations or for deep or dirty water. A repeat application 7 to 14 days later may be necessary for control of dense infestations. Oxygen depletion of decaying weeds may occur, therefore not more than ¼ of the area should be treated at once to ensure adequate oxygen supply for fish.	
			400mL/ha plus 150mL Agral*/100L water	Small areas: Spray to wet weeds thoroughly. About 1mL of product should be sufficient to treat about 1m ² .	
	Cattail, Pond Weeds		5L/ megalitre water	Apply by injection below the surface or as a surface spray.	
Asparagus	Broadleaf weeds	ALL STATES	1.4L/ha plus 800mL Agral in 400L water	Apply to control seedling weeds before spears have emerged. Post-emergent: Apply as a shielded spray between crop rows. DO NOT allow spray to contact any part of the crop.	
Hops	Annual broadleaf and grass weeds	VIC, TAS only	700mL to 1.4L/ha ^Δ may be mixed with 1.1kg TITAN Simazine 900 WG Herbicide	Apply as a directed inter-row spray prior to crop emerging from winter dormancy, using a minimum of 250L/ha spray volume to ensure good and even coverage of weeds. Add Agral or TITAN Wetter 1000 Wetting Agent at the rate of 200mL/100L water.	
Infested Areas	Cotton Thistle (<i>Onopordum acanthium</i>)	TAS only	300mL/ha plus 150mL Agral in 100L water	Spot spray at the rosette stage before the centre shoot is 15cm tall. The spray should be applied to give complete wetting of the leaf surface. DO NOT use a lower rate or treat at a later growth stage.	
	Saffron Thistle	ALL STATES	2.8/ha plus 1L Agral in 200L water	Apply as an overall treatment to prevent seeding. Alternatively spot spray on the same basis.	
Lucerne	Capeweed, <i>Erodium</i> spp.	ALL STATES	350mL/ha ^Δ in 200L water	Early autumn application.	Heavy grazing is necessary to reduce Lucerne to 2cm in height before spraying.
			700 mL/ha ^Δ in 200L water	Late winter application.	
Oil Seed Poppies	Weed control	TAS only	300mL to 1.4L/ha	Use in accordance with recommendations made by Department of Primary Industries or the poppy contracting company. DO NOT add Agral or any other wetting agent to the spray solution.	
Pasture Renovation and establishment	Capeweed, <i>Erodium</i> spp. (Storksbill)	ALL STATES	750mL to 940mL/ha plus Agral in a minimum of 100L water	Apply by boom spray as an overall spray on 'run-down' pasture after heavy grazing. Pasture should not be greater than 4cm long when sprayed. Grazing should be carried out during previous spring, summer and early autumn. Where Capeweed is in the very young seedling stage (2 or 3 true leaves only) rates may be reduced to 350mL/ha. Where Capeweed infestation is high, oversowing with new pasture seed by direct drilling is advisable. Direct drill 3 to 7 days after spraying using a pasture mix suitable for the district.	
Berries and other Small Fruit (except Grapes)	Broadleaf weeds	ALL STATES	1.4L/ha ^Δ	Seedling weeds.	Apply as a blanket spray prior to crop emergence. Once crops have emerged, or seedlings have been transplanted, apply as a shielded spray between crop rows. DO NOT allow spray to contact any part of the crop.
Broccoli, Head Cabbages, Cauliflower, Chinese Cabbage (type Pe-tsai)					
Bulb onions					
Fruiting Vegetables: other than Cucurbits					
Cucumbers					
Leafy Vegetables					
Legume Vegetables					
Root and Tuber Vegetables					
Wheat, Oats	Capeweed	QLD, NSW, VIC, TAS, SA only	550mL/ha in 200L of water	Small seedlings.	DO NOT add wetting agent. Spray when the crop is between the 4 (Wheat) or 3 (Oats) leaf and early tillering stage. grazing is necessary to reduce Lucerne to 2cm in height before spraying.
A WETTING AGENT: Add Agral at the rate of 200mL/100L or TITAN Wetter 1000 Wetting Agent at 160mL/100L of prepared spray unless otherwise specified.					

Δ WETTING AGENT: Add Agral at the rate of 200mL/100L or TITAN Wetter 1000 Wetting Agent at 160mL/100L of prepared spray unless otherwise specified.

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



WITHHOLDING PERIODS:

GRAZING

DO NOT GRAZE OR CUT SPRAYED VEGETATION FOR STOCK FOOD FOR AT LEAST 1 DAY AFTER APPLICATION.

HARVEST

Berries and other Small Fruits, Hops, Broccoli, Cauliflower, Head Cabbage, Chinese Cabbage, Bulb Onions, Fruiting Vegetables (Other than Cucurbits), Cucumbers, Leafy Vegetables, Legume Vegetables, Root and Tuber Vegetables, Wheat and Oats: NOT REQUIRED WHEN USED AS DIRECTED.

Poppies: DO NOT HARVEST FOR 2 DAYS AFTER APPLICATION.

EXPORT OF TREATED PRODUCE

Growers should note that MRLs or import tolerances do not exist in all markets for edible produce treated with TITAN Diquat 200 Non-Residual Herbicide. If you are growing edible produce for export, please check with TITAN AG Pty Ltd for the latest information on MRLs and import tolerances BEFORE using TITAN Diquat 200 Non-Residual Herbicide.

GENERAL INSTRUCTIONS

TITAN Diquat 200 Non-Residual Herbicide is an aqueous solution of Diquat, a non-volatile herbicide with unique properties. It very quickly kills green growth with which it comes into contact and is particularly effective against broad-leaved weeds. It is rapidly absorbed and is not affected by rain falling shortly after application. It is inactivated on contact with the soil and crop roots and seeds below the soil remain unharmed. It can be safely applied around bushes and trees, which have no green bark. It is non-volatile, easily mixed with water and active at low concentrations.

MIXING

Add the required quantity of product to water in the spray tank and stir to give even mixing. Mix again if left standing. Use clean water only, as suspended soil particles in dirty water will interfere with herbicidal action.

METHOD OF APPLICATION

For best results an even and complete coverage and good penetration of the spray into the target foliage is necessary. Best results will be obtained when application is made in dull weather or at the end of the day.

APPLICATION RATES

TITAN Paraquat 250 Herbicide is preferred where grasses are dominant and TITAN Diquat 200 Non-Residual Herbicide where there are mainly broadleaf weeds.

Boom Spraying: A boom sprayer fitted with flat fan nozzles is preferred to ensure even coverage and to minimise drift. The boom should be set at sufficient height above the crop to provide a complete double overlap of the flat spray pattern. Spray drop arms on booms are useful for dense crops. A minimum spray volume of 100L/ha is recommended. Aim for spray droplets not smaller than a MEDIUM spray droplet size.

High Volume Spot Spraying: Hand held equipment use 250mL of product per 100L of water and spray to visible wetness (about 700 to 1000L/ha).

Aerial Application: Flying height, pressure, nozzle size and positioning on the aircraft should be such as to minimise spray drift. Apply 30 to 60L of spray per hectare. Avoid spraying in high winds or under temperature inversion conditions. Wash any spillage during filling of the aircraft and make sure there are no leaks in the spraying system. Inspect the aircraft regularly for signs of corrosion and ensure the paintwork is in good condition.

Caution – Use By Aircraft

Although this product is no different in drift behaviour from other chemicals, it has a rapid spotting effect on green foliage and, as with all herbicides, special care must be taken to avoid drift on to adjacent crops. Aircraft operators must not apply during periods of thermal (temperature) instability, and should avoid wind conditions and flying heights conducive to drift.

Weed Control In Berries and Other Small Fruit (Except Grapes), Broccoli, Head Cabbages, Cauliflower And Chinese Cabbage (Type Pe-Tsai), Bulb Onions, Fruiting Vegetables: Other Than Cucurbits, Cucumbers, Leafy Vegetables, Legume Vegetables, Root And Tuber Vegetables

Pre-planting and pre-crop emergence

To control weeds in seedbeds before sowing, or post-sowing pre-crop emergence, blanket spray with this product using boom spray equipment or hand-held sprayers.

Pre-emergence inter-row weed control

Use shielded nozzles for rapid control of weeds in inter-row spaces of row crops, after crop seedlings have emerged, or when transplanted crops are established. Direct the spray so that it does not touch the crop.

RESISTANT WEEDS WARNING

TITAN Diquat 200 Non-Residual Herbicide is a member of the bipyridyl group of herbicides. The product has the inhibitors of photosynthesis at photosystem I mode of action. For weed resistance management, the product is a Group 22 Herbicide. Some naturally occurring weed biotypes resistant to the product and other Group 22 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 this product or other Group 22 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.

RE-ENTRY PERIOD

DO NOT allow entry to treated areas until the spray has dried unless using an enclosed cab or wearing cotton overalls and gloves. Workers performing scouting and irrigation activities must comply with the re-entry periods specified below.

Re-entry Period (Days)		
Rate	Scouting	Irrigation
Up to 700mL/ha	0	0
Up to 1.4L/ha	0	0
Up to 2.8L/ha	1	7
Up to 4L/ha	4	9

PROTECTION OF LIVESTOCK

Domestic pets and poultry – keep away from treated areas.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers. Toxic to birds. However, the use of this product as directed is not expected to have adverse effects on birds. Toxic to beneficial foliar arthropods. Not compatible with integrated pest management (IPM) programs utilising beneficial foliar arthropods. Minimise spray drift to reduce harmful effects on beneficial foliar arthropods in non-crop areas.

STORAGE AND DISPOSAL

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

Non-returnable Containers: Triple-rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management 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.

For Refillable Containers: Storage must be secure so that containers cannot be tampered with. All locks and/or seals must be in order. If locks or seals are broken prior to initial use then the integrity of this product cannot be assured. If this occurs TITAN AG Pty Ltd should be advised immediately. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

SAFETY DIRECTIONS

Very dangerous, particularly the concentrate. DO NOT swallow. The product, particularly the concentrate, can kill if swallowed, absorbed through the eyes or absorbed by skin contact. The liquid can cause burns particularly to the eyes. Will irritate the nose, throat and skin. When handling, do not touch or rub eyes, nose or mouth with hand. Avoid contact with eyes and skin, open wounds and clothing. Protect eyes while using.

If clothing becomes contaminated with product or with wet spray remove clothing immediately. DO NOT inhale spray mist. DO NOT allow children to play with containers or any equipment that is used.

When connecting, disconnecting and cleaning equipment wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat, impervious footwear, elbow-length chemical resistant gloves and a full face respirator with canister specified for paraquat/diquat OR half face-piece respirator with canister specified for paraquat/diquat and face shield or goggles. When applying by hand wear cotton overalls, over normal clothing, buttoned to the neck and wrist and a washable hat, impervious footwear, elbow-length chemical resistant gloves and a full face piece respirator with a canister specified for paraquat/diquat.

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, respirator (and if rubber wash with detergent and warm water), clothing and footwear.

FIRST AID

If poisoning occurs, get to a doctor or hospital quickly. If sprayed on skin, wash thoroughly. If sprayed in mouth, rinse mouth with water. 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 Diquat 200 Non-Residual 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.

* Other trademarks

Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: Toxic if inhaled. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects. Precautionary Statements: Do not breathe dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves / eye protection / face protection. IF ON SKIN: Wash with plenty of water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see on this label). Get medical advice/attention if you feel unwell. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Collect spillage. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

