



SHARDA DIQUAT 200 SL

Reg. No. L8359, Act No. 36 of 1947 | Reg. Nr. L8359, Wet Nr. 36 van 1947

A liquid contact herbicide for the control of aquatic weeds.

HERBICIDE GROUP 'D'

ACTIVE INGREDIENT:

Diquat ion (bipyridylum) 200g/ℓ
(dibromide salt 373.5 g/ℓ)

Registration Holder | Registrasiehouer:

Sharda International Africa (PTY) LTD

Reg. No./Reg. Nr. 2010/002268/07

P. O. Box/Posbus 82021, Southdale, 2135

Tel: 031-764 3011

Tel: 087-822 2397

'n Vloeibare kontak onkruidoder vir die beheer van wateronkruid.

ONKRUIDODER GROEP 'D'

AKTIEWE BESTANDDEEL:

Dikwat-ioon (bipiridielium) 200g/ℓ
(dibromied sout 373.5 g/ℓ)

BATCH NO.
LOT NR.

EXPIRY DATE
VERVAL DATUM

NET VOLUME /
NETTO VOLUME

5 ℓ

UN No./VN Nr. 3016

© Sharda International Africa cc



HARMFUL
SKADELIK



WARNINGS

- Withholding period: After treating any water body allow the following time to elapse before using the water: Domestic use - 24 hours; Sprinkler irrigation - 7 days; Flood irrigation - no restriction.
- Keep livestock out of the treated area for 24 hours after treatment.
- Handle with care.
- Harmful if swallowed.
- Irritating to eyes and skin.
- Keep out of reach of children, uninformed persons and animals.
- Store in the original container under lock and key, in a cool place, away from seed, fertilisers, food and feedstuffs.
- Can be toxic to honey bees.
- Prevent spray drift to non-target areas as green plant foliage and stems can be damaged.
- **Re-entry Period:** Do not enter the treated area within 1 day after application unless wearing protective clothing.
- **Aerial application:** Notify all the inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings.

Although this herbicide has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be effected by factors such as abnormal soil, climatic and storage conditions; quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the weed against the herbicide concerned as well as by the method, time and accuracy of the application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions, which could not have been foreseen in terms of the registration. Consult the supplier in event of any uncertainty.

PRECAUTIONS

- Do not inhale fumes or spray mist. Prevent eye and skin contact with the spray mist.
- Wear protective clothing when handling the concentrate (eye protection, rubber boots, gloves).
- In the case of accidental eye contact, wash with clean water for at least 15 minutes. (See below).
- After use and in the case of accidental skin contact, wash thoroughly with soap and water.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke whilst mixing or applying or before washing hands and face and change of clothing.
- Prevent contamination of food, feedstuff, eating utensils and drinking water.
- Do not apply with mistblower equipment.
- Do not mix and/or use with muddy water.
- When using knapsack or handheld sprayers, mix 1 part of Sharda Diquat 200 SL in at least 40 parts of water.
- Prevent drift of spray mist onto other crops, grazing, rivers, dams or areas not under treatment.
- Rinse the empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner. Destroy empty container by perforation and flattening and never use for any other purpose.
- After use rinse spray equipment with a solution of 30ml crop oil in 50l water.

FIRST AID TREATMENT

Symptoms of human poisoning: Vomiting, nausea, diarrhoea.

First aid treatment: Remove the patient from the source of poisoning. Keep him/her quiet and reassured. Remove contaminated clothing and rinse contaminated skin thoroughly with plenty of soap and cold water. Do not rub skin.

Eyes: Flush out contamination with clean water for at least 15 minutes. Get medical treatment immediately.

Skin: Wash contaminated skin thoroughly with soap and cold water. If irritation and inflammation persists, get medical attention.

Ingestion: Transfer to hospital and get medical attention immediately. Induce vomiting by tickling the back of the throat. Repeat until vomit fluid is clear and free from the smell of poison. Administer bentonite, activated charcoal or Fuller's earth if available. Administer artificial respiration or closed chest cardiac massage if necessary. Do not apply direct mouth-to-mouth respiration. Never give anything by mouth to an unconscious person.

Note to physician: In case of ingestion, induce vomiting and let patient drink as much water as possible. Take patient to hospital for observation and treatment. Immediately administer up to 1l of 15% aqueous suspension of Fuller's Earth or 7% bentonite or activated charcoal plus a suitable purgative e.g. Mannitol (20% aqueous solution), or magnesium sulphate (200ml). Continue with the purgative until the stools contain absorbent. Haemodialysis or haemoperfusion may be necessary but do not use anti-coagulants. Maintain fluid/electrolyte balance.

Resistance Warning

For resistance management Sharda Diquat 200 SL is a group code D herbicide. Any weed population may contain individuals naturally resistant to Sharda Diquat 200 SL and other group code D herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. Sharda Diquat 200 SL or any other group code D herbicide may not control these resistant weeds.

To delay herbicide resistance: Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with products from different herbicide group codes. Integrate other control methods (chemical, cultural, biological) into weed control programmes. For specific information on resistance management contact the registration holder of this product.

DIRECTIONS FOR USE

Use only as directed

Use only clean calibrated spray equipment. Mix the correct quantity of Sharda Diquat 200 SL with clean water in the spray tank. Where indicated, add a wetter/sticker oil according to label recommendations.

Where a dosage rate range is recommended, use the lower rate on small plants and the higher rate on large mature plants.

Ensure complete droplet coverage of the target weeds. Avoid spray mist drift.

Sharda Diquat 200 SL destroys green tissue of plants but will not have any influence on mature tree bark.

Aerial application:

Aerial application of Sharda Diquat 200 SL may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SABS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- **Volume:** A spray mixture volume of 30 to 40l per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- **Droplet coverage:** 35 to 45 droplets per cm² must be recovered on the target area.
- **Droplet size:** A droplet spectrum with a VMD of 350 to 400 microns is recommended. Limit the production of fine droplets of less than 150 microns (high drift and evaporation potential) to a minimum.
- **Flying height:** Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking
- Use suitable **atomising equipment** that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible relative span.
- Position all the atomisers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the **wingtip vortices**.
- The difference in **temperature** between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C.
- Stop spraying if the **wind** speed exceeds 15 km/h.
- Stop spraying under **turbulent**, unstable and dry conditions during the heat of the day.
- Spraying under **temperature inversion conditions** (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
 - reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the Aerial Spray Operator knows exactly which fields to spray.
- Obtain an assurance from the Aerial Spray Operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

Aquatic weed control: Sharda Diquat 200 SL can be used in dams containing fish for the control of water weeds at the rates as indicated. Before using Sharda Diquat 200 SL in water containing fish, contact your distributor.

Warning: Do not apply Sharda Diquat 200 SL if environmental conditions are favourable for algae. Dying off of the algae can cause a reduction in oxygen in the water which can result in the death of fish. The following factors can increase the population of the algae - high water nutrition levels, artificial feeding, low water levels, high temperatures, unnatural high population of fish (e.g. fish in cages).

Important: Only apply Sharda Diquat 200 SL to dams with clean water. Do not apply to dams with suspended clay particles in the water or where the plants are covered with dust, clay or soil particles.

CROP	DOSAGE RATE (l/ha)	REMARKS
FLOATING AQUATIC WEEDS Salvinia (<i>Salvinia molesta</i>) Water Hyacinth (<i>Eichhornia crassipes</i>)	7,5-10,0l Sharda Diquat 200 SL + 1,0-2,0l wetter oil	Repeat after 3-5 weeks if necessary. Aerial spraying: Apply 30 - 40l water/ha. Ground spraying: Apply in 200l water/ha.
UNDERWATER WEEDS Pond weed (<i>Potamogeton</i> spp.) Oxygen weed (<i>Lagarosiphon</i> spp.)	50,0l Sharda Diquat 200 SL /ha dam surface. (Depth of dam 1m)	Dilute Sharda Diquat 200 SL with an equal volume of clean water. Apply to the inflowing water by using a intravenous medical drip at one drop per second. Repeat if necessary.
	Spot treatment: 0,5l Sharda Diquat 200 SL	Apply with a knapsack in 20l water/100m ² of the water surface. Do not apply to more than 25% of the dam surface in any 14 day period. Repeat when necessary.

WAARSKUWINGS

- Onthoudingsperiode: Na behandeling van enige waterbron laat die volgende tydskeduur toe voordat die water gebruik word: Huishoudelike gebruik - 24 uur; Sprinkbesproeiing - 7 dae; Vloedbesproeiing - geen beperking.
- Hou lewendehawe buite die behandelde area vir ten minste 24 uur na behandeling.
- Hanteer uiters versigtig.
- Skadelik indien ingesluk word.
- Irriterend vir oë en vel.
- Hou buite die bereik van kinders, ongeligte persone en diere.
- Stoor in die oorspronklike houer agter slot en grendel, in 'n koel plek, weg van saad, kunsmis, voedsel en voer.
- Kan giftig vir heuningbye wees.
- Verhoed die wegdrywing van spuitdruppels na nie-teiken gebiede aangesien dit skadelik vir groen plantblare en stamme kan wees.
- Herbetreding: Moet nie die behandelde area betree binne 1 dag na behandeling nie tensy beskermende klerasie gedra word.
- Lugtoediening: Stel alle inwoners in die onmiddellike omgewing van die gebied wat bespuit gaan word in kennis en reik die nodige waarskuwings uit.

Alhoewel hierdie onkruidodder omvattend onder 'n groot verskeidenheid toestande getoets is waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie aangesien die werking en effek daarvan beïnvloed kan word deur faktore soos abnormale grond-, klimaats-, en bergingtoestande; kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie, en die voorkoms van weerstand van die onkruid teen die betrokke onkruidodder, sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige effekte op mens of dier, of vir 'n gebrek aan prestasie as gevolg van die versuim van die gebruiker om etiketaanwysings na te kom of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kan word nie. Raadpleeg die verskaffer in geval van enige onsekerheid.

VOORSORGMATREËLS

- Vermyn inaseming van plaagdoderdampe en spuitmis. Voorkom spuitmis kontak met oë en vel.
- Dra beskermende klere (rubberstewels, handskoene en oogbeskerming) wanneer die konsentraat hanteer word.
- In die geval van toevallige kontak met oë, was met skoon water vir ten minste 15 minute. (Sien hieronder).
- Na gebruik en in die geval van toevallige velkontak was deeglik met seep en water.
- Was besoedelde klere na gebruik.
- Moenie eet, drink of rook tydens vermenging of toediening of voordat hande en gesig gewas en ander klere na gebruik aangetrek is nie.
- Voorkom besoedeling van voedsel, voer, eetgerei en drinkwater.
- Moenie met 'n newelblaser toedien nie.
- Moenie meng en/of met modderige water gebruik nie.
- Wanneer met rugsak of hand spuite gebruik word, meng 1 deel Sharda Diquat 200 SL in ten minste 40 dele water.
- Voorkom die oorwaai van spuitmis na ander gewasse, weiding, riviere, damme of gebiede wat nie onder behandeling is nie.
- Spoel die leë houer driekeer uit met 'n volume water gelykstaande aan 'n minimum van 10% van die houer. Gooi die spoelwater by die inhoud van die spuitenk voordat die houer op die voorgeskrewe wyse vernietig word. Vernietig leë houer deur gate daarin te maak en plat te slaan en moet vir geen ander doel gebruik nie.
- Na gebruik spoel die spuit toerusting met 'n mengsel van 30ml plantolie in 50l water uit.

NOODHULPBEHANDELING

Simptome van menslike vergiftiging: Braking, duiseligheid, diarree.

Noodhulpbehandeling: Verwyder die pasiënt van die oorsaak van vergiftiging. Stel die pasiënt gerus en hou hom of haar stil. Verwyder besoedelde klere en spoel die besmette liggaamsdele met baie seep en koue water af. Moenie die vel vryf nie.

Oë: Spoel besmette oë met skoon water vir ten minste 15 minute uit. Verkry mediese behandeling onmiddellik.

Vel: Was besmette vel deeglik met seep en koue water. Indien irritasie en inflammasie aanhou, verkry mediese behandeling.

Inname: Verwyder die pasiënt na die hospitaal en verkry onmiddellike mediese behandeling. Veroorsaak braking deur die agterste deel van die keel te prikkel. Herhaal totdat braaksel helder is en nie langer na gif ruik nie. Gee die pasiënt bentonite, geaktiveerde houtskool of Fullerse earth indien beskikbaar. Pas kunsmatige asemhaling of geslote hartmassering toe indien nodig. Moenie direkte mond-tot-mond asemhaling toepas nie. Moet nooit iets per mond aan 'n bewustelose persoon toedien nie.

Nota aan geneesheer: In die geval van inname, stimuleer braking en laat toe dat die pasiënt soveel water as moontlik drink. Dien onmiddellik 1l van 'n 15% water suspensie van Fuller's Earth, plus 'n geskikte purgeermiddel, bv. Mannitol (20% water oplossing), of magnesiumsulfaat (200ml) toe. Hou aan met die purgasie totdat die stoelgang absorbeermiddel bevat. Haemodialysis of haemopurifusie mag nodig wees maar moet nie 'n teenklontmiddel toedien nie. Handhaaf die vloeistof/elektroliet balans.

Weerstandsbeheer

Vir weerstandbeheer Sharda Diquat 200 SL behoort aan groep D. Neem kennis daarvan dat weerstandsbeheer belemmer kan word deur die feit dat enige onkruidpopulasie individue mag bevat wat natuurlike weerstand teen Sharda Diquat 200 SL en ander onkruidodders van dieselfde groepkode D kan bied. Indien hierdie onkruidodders herhaaldelik gebruik word, kan weerstandbiedende individue uiteindelik die onkruidpopulasie oorheers.

Om weerstand teen onkruidodders te vertraag: Vermyn die eksklusiewe en herhaaldelike gebruik van onkruidodders in dieselfde groepkode. Wissel af met, of gebruik tenkmengsels van produkte in verskillende onkruidoddergroepkodes. Integreer ander beheermaatreëls (chemies, verbouing, biologies) in onkruidodderprogramme.

Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

Gebruik slegs skoon gekalibreerde spuittoerusting. Meng die korrekte hoeveelheid Sharda Diquat 200 SL met skoon water in die spuitenk. Waar aangedui, gebruik 'n geregistreerde benatting/kleefmiddel soos op die etiket aanbeveel.

Verseker deeglike druppel bedekking van die teiken onkruid.

Waar 'n reeks dosisse aanbeveel word, gebruik die laer dosis vir klein plante en die hoër dosis vir groter volwasse plante. Vermyn wegdrywing van die spuitmis. Sharda Diquat 200 SL vernietig groen weefsel van plante maar sal nie volgroeie boombas beskuldig nie.

Lugtoediening:

Sharda Diquat 200 SL kan slegs deur 'n geregistreerde Lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SABS Kode 10118 (Aerial Application of Agricultural Pesticides) uit die lug bespuit word. Verseker dat die spuitmengsel eweredig oor die teikenarea versprei word, en die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is daarom belangrik om aan die volgende vereistes te voldoen:

- **Volume:** 'n Spuitmengsel volume van 30 tot 40l per ha word aanbeveel. Hierdie produk is nie teen 'n verlaagde volume getoets nie. Die registrasiehouer kan nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effekte indien hierdie produk teen 'n laer volume, as hierbo aanbeveel, toegedien word nie.
- **Druppel bedekking:** 35 tot 45 druppels per cm² moet op die teikenarea herwin word.
- **Druppelgrootte:** 'n Druppelspektrum met 'n VMD van 350 tot 400 mikrons word aanbeveel. Beperk die produksie van druppels kleiner as 150 mikrons (hoë drying en verdampingspotensiaal) tot 'n minimum.
- **Vlieghoogte:** Handhaaf die hoogte van die spuitbalk bo die teiken op 3 tot 4 meter. Moet nie spuit wanneer die vliegtuig duik, uitklim of draai nie.
- Gebruik geskikte **atomiseringsapparaat** wat die vereiste druppelgrootte en bedekking sal produseer, maar die minste verlies van produk verseker. Die spuitstelsel moet 'n druppelspektrum met die kleinste moontlike relatiewe span produseer.
- Plaas al die atomiseerders in die binneste 60 tot 75 % van die vlerkspan om te verhoed dat druppels binne-in die **vlerkpuntvorteks** beweeg.
- Die verskil in **temperatuur** tussen die nat- en droëboltermometer van 'n swaaihgrometer, moet nie 8°C oorskry nie.
- Stop bespuiting indien die **windspoed** 15 km/uur oorskry.
- Stop bespuiting tydens **turbulente**, onstabiele en droë toestande gedurende die hitte van die dag.
- Bespuiting onder temperatuur **inversie toestande** (deur bo of binne die inversie laag te spuit) en/of **hoë lugvog toestande** (relatiewe humiditeit 80% en meer) mag tot volgende probleme aanleiding gee:
 - verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken).
 - skade aan nie-teiken gewasse of sensitiewe areas as gevolg van wegdrywing van die spuitwolk na nie-teiken area.
- Verseker dat die lugbespuitingsoperateur presies weet watter lande bespuit moet word.
- Dit is noodsaaklik om 'n versekering van die lugbespuitingsoperateur te verkry dat aan al die bogenoemde vereistes voldoen sal word en dat data van belang in 'n logboek saamgevat is vir toekomstige verwysing.

Wateronkruidbeheer: Sharda Diquat 200 SL teen die aanbevole dosis hieronder kan in damme waarin visse voorkom vir die beheer van onderwateronkruid gebruik word. Raadpleeg eers u Sharda Diquat 200 SL verspreider voordat u water behandel waarin visse voorkom.

Waarskuwing: Moet nie Sharda Diquat 200 SL toedien as enige toestande bestaan wat kan bydra tot hoë alg-populasies in die dam nie. Afsterwe van hierdie alge kan aanleiding gee tot verminderde beskikbare suurstof in die water wat moontlik verantwoordelik kan wees vir vismortaliteite. Hoë voedingsvlakke, kunsmatige voeding, lae watervlakke, hoë temperature en onnatuurlike hoë vispopulasies (bv. Visse in hokke) is faktore wat kan bydra tot hoë algpopulasies.

Let Wel: Dien Sharda Diquat 200 SL slegs toe in damme met skoon water. Moet nie Sharda Diquat 200 SL toedien in damme wat gesuspendeerde kleideeltjies bevat of waar plantegroei in die dam bedek is met stof, klei- of grondeeltjies nie.

ONKRUID	DOSIS (l/ha)	OPMERKINGS
DRYWENDE WATERONKRUIDE Salvinia (<i>Salvinia molesta</i>) Waterhiasint (<i>Eichhornia crassipes</i>)	7,5 – 10,0l Sharda Diquat 200 SL + 1,0-2,0l benattingsolie	Herhaal na 3-5 weke indien nodig. Lugbespuiting: Dien toe in 25-30l water/ha. Grondbespuiting: Dien toe in 200l water/ha.
ONDERWATER ONKRUIDE Fonteinkruid (<i>Potamogeton</i> spp.) Barbergras (<i>Lagarosiphon</i> spp.)	50l Sharda Diquat 200 SL/ha damoppervlakte (Diepte van dam 1m)	Verdun Sharda Diquat 200 SL met 'n gelyke hoeveelheid skoon water voor toediening. Dien toe by invloeiwater deur middel van 'n intravenese mediese druptoestel teen een druppel per sekonde. Herhaal toediening wanneer nodig.
	Kolbehandeling: 0,5l Sharda Diquat 200 SL	Dien toe met 'n rugsakspuit in 20l water/100m ² onkruidoppervlakte. Moet nie aan meer as 25% van die dam se totale oppervlakte toedien binne 'n 14 dae periode nie. Herhaal toediening indien nodig.