

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Herbicide



DISRUPT 200 SL

Reg. No. L 9180 Act/Wet No. 36 of/van 1947

1:26/3/2013-Sept2017

A water-soluble herbicide for the control of annual broadleaf weeds and grasses in crops as listed. Inactivated on contact with soil.

'n Wateroplosbare onkruidodder vir die beheer van eenjarige breëblaaronkruid en grasse in gewasse soos aangedui. Onaktief na aanraking met grond.

ACTIVE INGREDIENTS / AKTIEWE BESTANDEDELE

diquat ion (bipyridyl)	200 g/ℓ	dikwat-ioon (bipiridiel)
(as dibromide salt)	373.5 g/ℓ	(as dibromiedsout)

HRAC HERBICIDE GROUP CODE **D** HRAC ONKRUIDDODER GROEPKODE



villa

Registration holder / Registrasiehouer:

Villa Crop Protection (Pty) Ltd.

Co. Reg. No. / Mpy. Reg. Nr. 1992/002474/07

PO Box / Posbus 10413, Aston Manor, 1630

Tel: 011 396 2233

Website / Webblad: www.villacrop.co.za

UN Number: 1760



Willow Set & Print 011 394-4486



**HARMFUL
SKADELIK**



GERUUKSAANWYINGS INGESLUIT

VERWYS NA BESONDERHEDE
GEDRUK OP HOUER/SAK

Date formulated:
Formuleringsdatum:

REFER TO DETAILS PRINTED
ON CONTAINER/BAG

Batch number:
Lotnommer:

DIRECTIONS FOR USE ENCLOSED

DISRUPT 200 SL

Reg. No. L 9180 Act/Wet No. 36 of/van 1947

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Registration holder / Registrasiehouer:

VILLA CROP PROTECTION (PTY) LTD.

Co. Reg. No. 1992/002474/07 Mpy. Reg. Nr.

PO Box / Posbus 10413,

ASTON MANOR, 1630, Tel. (011) 396 2233

**HARMFUL****SKADELIK****WARNINGS**

- Handle with extreme care.
- Poisonous by skin contact, swallowing and inhaling.
- The product is an eye and skin irritant.
- Corrosive - reacts with aluminium.
- Toxic to fish, bees and wildlife.
- Store under lock and key in a cool place, away from food, feeds, seed, fertilizers and other agricultural remedies.
- Keep out of reach of children, uninformed persons and animals.
- **Re-entry:** Do not enter treated area within 2 days after treatment unless wearing protective clothing.
- **Keep livestock out of treated areas for 3 weeks.**
- **DISRUPT 200 SL** can be fatal if swallowed or inhaled - **never** repack from this container.
- **In case of poisoning call a doctor and make this label available to him/her.**

Although this remedy 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 affected 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 weeds to the remedy concerned, as well as by the method, time and accuracy of application. The registration holder further 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 the spray mist or fumes.
- Wear protective clothing: an overall, rubber boots, gloves, a face shield and respirator, when handling, preparing and applying the spray mixture.
- Wash with soap and water after use or after accidental skin contact.
- Wash contaminated clothing daily after use.
- Do not eat, drink or smoke whilst mixing or applying the product, or before washing hands and face and change of clothing.
- Prevent drift onto other crops, grazing, rivers, dams and areas not under treatment or to nearby water sources.
- Thoroughly clean the applicator directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- **TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of a third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy the empty container by perforation and flattening and dispose of it in a safe way.

- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING

Immediate effects depend on the dose absorbed into the blood and effects may be delayed. Ingestion of small quantities may cause harm and larger quantities may lead to death. Damaged skin will lead to increased absorption rates.

Early signs of poisoning are vomiting and painful mucous membranes in mouth and throat. In severe cases diarrhoea follows and kidney and liver damage may develop 1 to 3 days after exposure. Lung damage can be observed after about 3 days and may lead to death. The concentrate can lead to serious eye damage, sometimes delayed up to 24 hours. Exposure to spray mist may cause nose bleeding and soreness of mouth and throat.

FIRST AID TREATMENT

- Remove the patient from the source of poisoning and keep him/her calm and at rest.
- **Inhalation:** Remove the patient from exposure area to fresh air immediately. Keep affected person calm and reassured. Get medical attention immediately. **Do NOT administer supplementary oxygen.**
- **Skin contact:** Immediately remove contaminated clothing, shoes and leather goods (e.g. watch bands and belts). Wash the contaminated skin gently and thoroughly with non-abrasive soap and water. Do not rub the skin. Damaged skin will lead to increased absorption rates. Emergency personnel should wear gloves and avoid contamination. **If irritation persists, get medical attention immediately.**
- **Eye contact:** Immediately flush eyes with lukewarm, gently flowing water for at least 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. If irritation, redness or burning sensations develop, **get medical attention immediately.**
- **Ingestion:** Induce vomiting if person has not done so yet. Wash mouth with water and give water to drink. **Seek medical advice immediately.**

NOTE TO PHYSICIAN

Rapid treatment is essential. Wash out the stomach. Give up to 1 litre of a 15 % aqueous suspension of Fuller's Earth, orally or via gastric tube, together with suitable purgative (200 ml of an aqueous solution of mannitol). Repeat the administration of the absorbent plus purgative until absorbent is seen in stools. This should normally take between 4 to 6 hours after start of treatment. Treat symptomatically.

RESISTANCE WARNING

DISRUPT 200 SL is a group code D herbicide. Any weed population may contain individuals naturally resistant to **DISRUPT 200 SL** and other group code D herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **DISRUPT 200 SL** or any other group code D herbicide.

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.

USE RESTRICTIONS

- Do not use application equipment or spray pressures which result in the formation of a fine spray mist such as mistblowers, ULV applicators and other similar equipment.
- Do not use muddy water.
- Avoid drift onto adjacent crops as green plant tissue will be damaged by the spray. **Do not spray buds or green parts of any crop.**
- Inconsistent and variable control of weeds, even at high rates, may be experienced due various reasons such as:
 - Stress conditions such as drought, cold or heat stress.
 - Plants with foliage with pronounced waxy layers (e.g. *Portulaca oleracea*, *Chenopodium album*, *Gisekia pharnacoides*).
 - Plants with natural resistance to **Paraquat** based products (e.g. *Commelina benghalensis*, *Ipomoea* spp., *Malva parviflora* and *Conyza bonariensis*).
 - Acquired resistance due to the repeated use of bipyridiliums and/or **Glyphosate** e.g. *Lolium* spp. and *Conyza bonariensis* (confirmed resistance in the RSA).

- Poor coverage and penetration of exposed leaves (e.g. *Argemone subfusiformis*).
- Regrowth by plants with bulbs and tubers e.g. *Cyperus* spp.
- Growth tips protected by leaf sheets covering growth points or surface growth points.
- Periods of growth during the winter.
- Poor water quality.
- Follow-up treatments may be required to obtain suppression of deep rooted and perennial weeds like Field bindweed (*Convolvulus arvensis*), Small mallow (*Malva parviflora*), Narrow-leaved ribwort (*Plantago lanceolata*), Sheep sorrel (*Rumex, angiocarpus*).

DIRECTIONS FOR USE: Use only as directed.

General information:

- **DISRUPT 200 SL** controls most annual grasses and emerged broadleaf weeds.
- **DISRUPT 200 SL** has no residual action as it is inactivated rapidly on contact with soil.
- **DISRUPT 200 SL** scorches and controls the green plant parts above soil of most annual weeds. Regrowth often happens due to regrowth of sub-soil plant structures (e.g. stolons or bulbs).

Compatibility:

- **DISRUPT 200 SL** is compatible with **Summit Super** and **Villa 51**.
- The compatibility of **DISRUPT 200 SL** may be influenced by several factors. As factors influencing compatibility may vary, a physical compatibility test must always be performed before such tank mixture is sprayed.
- If **DISRUPT 200 SL** needs to be used in tank mixture combinations with other herbicides, first mix small quantities of the chemicals in the same ratio in which they will be used, separately with water. Add these mixtures together while agitating and check for any signs of incompatibility e.g. flocculation, etc.
- When **DISRUPT 200 SL** is used in conjunction with any other agricultural remedy, adhere to all **WARNINGS, PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label.

Mixing instructions

- Mix the required amount of **DISRUPT 200 SL** with **clean water** in the spray tank.
- For optimal performance add an adjuvant such as **Summit Super** or **Villa 51** at the registered rate.

Application instructions:

Ground application:

- **DISRUPT 200 SL** can be applied with conventional tractor spray equipment or by means of a knapsack sprayer. It is important that the sprayer will be in good working order and calibrated prior to application, to ensure the correct delivery rate per hectare and that even distribution of the spray mixture is obtained over the target area.
- Use a spray boom fitted with flat-fan nozzles.
- Apply in at least 200 litres water per hectare. Use high volume and high dose rate for treatment of dense weed growth situations.

Aerial application:

Aerial application of **DISRUPT 200 SL** may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS 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:

- **The use of a suitable drift retardant adjuvant and/or low drift nozzles (e.g. straight stream nozzles) is recommended. In the case of fixed-wing aircraft flying at a speed faster than 130 mph, the maximum deflection angle of the nozzles or spray stream, as measured from a horizontal straight backwards orientation, may not exceed 30 degrees. In the case of slower flying fixed wing aircraft the maximum deflection angle, as described above, may not exceed 55 degrees.**
- **Volume:** A spray mixture volume of 35 to 45 litres 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 aurally at a lower volume rate than recommended above.
- **Droplet coverage:** 35 to 40 droplets per cm² must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 350 to 400 micron is recommended. Limit the production of fine droplets less than 150 micron (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 per hour.
- 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:
 - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
 - b) 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.

APPLICATION RATES

Crop	Dosage per ha	Remarks
<u>Vineyards,</u> <u>Deciduous fruit</u>	1.5 to 5.0 ℓ in 200 to 750 litres water / ha	Control of annual broadleaf weeds, including <i>Arctotheca calendula</i> (Cape marigold). Vineyards – apply as an overall application before bud burst and thereafter as a directed spray. Dosage rate depends on weed density, growth stage and vigour. Apply at higher volumes and dosage rates in dense weed situations. Add Summit Super at 0.3 % (300 ml in 100 ℓ spray mixture) or Villa 51 at 0.05 % (50 ml in 100 ℓ spray mixture) of the spray solution
<u>Sunflowers</u> Desiccation	1.5 litres / ha	Aerial application: Refer to Aerial application instructions above. Add Summit Super at 0.3 % (300 ml in 100 ℓ spray mixture) or Villa 51 at 0.05 % (50 ml in 100 ℓ spray mixture) to the spray solution. Ensure good even coverage on the foliage.
<u>Potatoes</u> Haulm destruction	2.0 to 5.0 litres / ha	Use 200 to 500 litres water per hectare. Do not apply if haulms show signs of wilting, as tuber damage may occur. Spray ONLY if at least 5 hours sunshine is expected. Ensure good even coverage on the foliage. Add Summit Super at 0.3 % (300 ml in 100 ℓ spray mixture) or Villa 51 at 0.05 % (50 ml in 100 ℓ spray mixture) of the spray solution

WEEDS CONTROLLED

(Also refer to “**USE RESTRICTIONS**” above).

- **DISRUPT 200 SL** controls most annual emerged broadleaf weeds including Cape Marigold (*Arctotheca calendula*) and Mush heron’s bill (*Erodium moschatum*).
- The following weeds are only controlled **partially (re-growth will occur)**:

- Perennial grasses and broadleaf weeds.
- *Chenopodium album* control can be variable.

Consult the **SUMMIT SUPER** and **VILLA 51** label for **WARNINGS, PRECAUTIONS, USE RESTRICTIONS** and **DIRECTIONS FOR USE**.

The following products mentioned in this label may be replaced with equivalent products:

- **SUMMIT SUPER** (L 8539) = **BENEFIT PLUS** (L 8538) and
- **VILLA 51** (L 8050 / W 130454 / N-AR 1090) = **WEN 51** (L 8315).

VILLA 51, WEN 51, BENEFIT PLUS and/en **SUMMIT SUPER** are registered products of / is geregistreerde produkte van
VILLA CROP PROTECTION (PTY) LTD.