

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Herbicide



DEVELOP 800 WDG

Reg. No. L 9109 Act/Wet No. 36 of/van 1947

1: 15/2/2013 – May 2017

A water dispersible granule herbicide for the control of weeds in crops as indicated.

'n Waterdispergeerbare korrel onkruidodder vir die beheer van onkruid in gewasse soos aangedui.

ACTIVE INGREDIENT / AKTIEWE BESTANDEEL

diuron (substituted urea) **800 g/kg** diuron (gesubstitueerde ureum)

HRAC HERBICIDE GROUP CODE **C2** HRAC ONKRUIDDODER GROEPPKODE

kg

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

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UN Number: 3077

Willow Set & Print 011 394-4486



CAUTION
VERSIGTIG



GEBRUIKSAANWYSLINGS INGESLUIT

VERWYS NA BESONDERHEDE
GEDRUK OP HOUER/SAK

Date formulated:

Formuleringsdatum:

DIRECTIONS FOR USE ENCLOSED

REFER TO DETAILS PRINTED
ON CONTAINER/BAG

Batch number:

Lotnummer:

DEVELOP 800 WDG

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diuron (substitued urea) / diuron (gesubstitueerde ureum)800 g/kg

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

CAUTION / VERSIGTIG**WARNINGS**

- Handle with care.
- Harmful if swallowed.
- Irritating to eyes and skin.
- Store away from food, feeds, seeds, fertilizers and other agricultural chemicals.
- Keep out of the reach of children, animals and uninformed persons.
- Re-entry: Do not enter treated area within one hour after treatment unless wearing protective clothing.

Aerial application:

Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.

Although this product 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 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 against the remedy concerned, as well as by the method, time and accuracy of 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 the event of any uncertainty.

PRECAUTIONS

- Avoid inhalation of the spray mist or fumes.
- Avoid contact with eyes and skin.
- Wear protective rubber gloves and a face shield when handling the product and during application.
- Wash with soap and water after use and accidental skin contact.
- Wash contaminated clothing after use.
- In case of eye contamination, rinse the eyes thoroughly with plenty of clean water for at least 20 minutes, holding the eyelid(s) open. Obtain medical assistance immediately.
- Do not eat, drink or smoke while mixing, applying or before washing hands and face or change of clothing.
- Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment and to nearby water sources.
- Clean the applicator before using with other products - dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- Destroy the empty container/bag by perforation and flattening and dispose of it in a safe way.
- **Never** re-use the empty container/bag for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

RESISTANCE WARNING

DEVELOP 800 WDG is a group code C2 herbicide. Any weed population may contain individuals naturally resistant to **DEVELOP 800 WDG** and other group code C2 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **DEVELOP 800 WDG** or any other group code C2 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.

DIRECTIONS FOR USE: Use only as directed.

General information:

- **DEVELOP 800 WDG** applied pre-emergence on its own is absorbed by the roots of germinating weeds and application must therefore be performed before emergence of weeds onto clean, cultivated soil. Application should preferably be performed onto moist soil and rain or irrigation is required within one week after application to obtain best results.
- **DEVELOP 800 WDG** may also be applied post-emergence of weeds in tank mixtures with other registered herbicides. Weeds must be actively growing and at the correct growth stage for best results.

Compatibility:

DEVELOP 800 WDG is compatible with **BROMACIL 800 WP** (L 4346), **HEXSAN 240 SL** (L 5501), **MCPA 400 SL**, **MSMA 720 SL** (L 4594), **SKOFFEL® 200 SUPER** (L 6328 / W 130059 / N-AR 1097), **METRIBUZIN 480 SC** (L 4374), **Villex 750 WDG**, **Micra 750 WDG**, **Summit Super** and Villa approved surfactants.

Consult the labels for **WARNINGS**, **PRECAUTIONS** and **DIRECTIONS FOR USE**.

Mixing instructions:

- Half fill the spray tank with clean water and ensure agitation.
- Mix the required quantity of **DEVELOP 800 WDG** in a small quantity of water to make a smooth cream.
- Add this to the spray tank and fill with water to the required final volume.
- Maintain continuous suspension in the spray tank by means of proper agitation.
- For tank mixtures follow the same procedure, adding the other diluted herbicide when the spray tank is nearly full.
- Prepared spray mixtures must not be left in the spray tank for any length of time, e.g. overnight.

Application:

- Apply in 200 to 400 litres water per hectare.
- Apply by means of a calibrated tractor-mounted boom sprayer or knapsack sprayer, in good working order, equipped with flat fan nozzles, which delivers 200 to 400 litres spray mixture per hectare.
- Controlled Droplet Application Equipment (battery-operated devices using the spinning disc principle of droplet generation) in sugarcane only:
 - Do not apply in less than 50 litres per hectare water volume through these devices.
 - It is generally recommended that CDA equipment only be used for pre-emergence or very early post-emergence application.
 - Do not use CDA application equipment where weeds are in the late post-emergence stage of development.
 - Ensure that batteries and CDA spray equipment are in good working order.

Aerial application:

Aerial application of **DEVELOP 800 WDG** 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 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: 30 to 40 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 350 to 450 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

<i>Crop</i>	<i>Dosage rate kg / ha</i>	<i>Remarks</i>
<u>Avocados, Bananas, Citrus, Mangoes</u>	4.0	Apply in established orchards only. Spray onto clean cultivated, moist soil during the growing season. Repeat treatment 2 to 3 months later if necessary. Where grass weeds are a problem in citrus, apply in combination with Bromacil 800 WP . Refer to the Bromacil 800 WP label detail.
<u>Coffee, Macadamia and Pecan Nuts</u>	2.0	Apply to established trees only. Apply onto clean cultivated soil during spring. Follow with another treatment 2 to 3 months later.
<u>Sugarcane</u> (Plant and Ratoon Crops) Pre-emergence	3.0 to 4.0	Apply DEVELOP 800 WDG alone. Apply as a pre-emergence treatment in 200 to 400 litres water per hectare. Use higher rate where severe weed infestation is expected or where longer residual action is required for heavier soils. For control of <i>Panicum maximum</i> and <i>Cyperus esculentus</i> , it is recommended to apply DEVELOP 800 WDG in tank mixtures with Metribuzin 480 SC and Hexsan 240 SL as indicated below. Also refer “ NOTES ” below.

Crop	Dosage rate kg / ha	Remarks
<p>Sugarcane (continue) (Ratoon crops only)</p> <p>Pre- and Early post-emergence in tank mixtures with other herbicides</p>	<p>1.0 to 2.5 PLUS 1.5 to 3.0 ℓ / ha Hexsan 240 SL OR</p> <hr/> <p>Tank mixtures with pack options</p> <p>1.0 PLUS 1.0 kg Villex 750 WDG (OPTION 1/PACK 1)</p> <p>OR 1.6 PLUS 0.8 kg Villex 750 WDG (OPTION 2/PACK 2)</p> <p>OR 2.0 PLUS 1.0 kg Villex 750 WDG (OPTION 3/PACK 3) OR</p>	<p><u>Pre- or Early post-emergence:</u> For post-emergence applications, add Summit Super at 0.15 % (150 ml per 100 litres) to the spray mixture.</p> <p>IMPORTANT Refer to “NOTES” below.</p> <hr/> <p>Total contents of each pack treat 1 hectare.</p> <p><u>Pre- or Early post-emergence:</u> For post-emergence applications, add Summit Super at 0.15 % (150 ml per 100 litres) to the spray mixture.</p> <ul style="list-style-type: none"> • Weed size and weed growth: <ul style="list-style-type: none"> - Broadleaf weeds must not be taller than 8 to 10 cm at the time of application. - If grasses are present the application should be made prior to tillering or prior to the development of a strong root system. • Crop growth stage: <ul style="list-style-type: none"> - Pre-emergence of new ratoon leaves: overall application can be made. - Post-emergence of new ratoon leaves: direct application across the inter-row and away from the growing points. <p>Contact with the foliage during hot, humid conditions can cause yellowing and temporary stunting to the crop during actively growing situations.</p> <p>IMPORTANT Refer to “NOTES” below.</p>
<p>(Plant and Ratoon Crops)</p> <p>Pre- and post-emergence in tank mixtures with other herbicides</p>	<p>2.0 PLUS 3.0 ℓ / ha Metribuzin 480 SC OR</p> <hr/> <p>2.0 PLUS 2.5 ℓ / ha Skoffel® 200 Super OR</p> <hr/> <p>2.5 PLUS 3.5 to 6.0 ℓ / ha MCPA 400 SL PLUS a Villa approved surfactant OR</p> <hr/> <p>3.0 PLUS 3.0 ℓ / ha MSMA 720 SL</p>	<p><u>Pre- or Early post-emergence:</u> For post-emergence applications, add Summit Super at 0.15 % (150 ml per 100 litres) to the spray mixture.</p> <p>IMPORTANT Refer to “NOTES” below.</p> <hr/> <p><u>Early to Late post-emergence:</u></p> <hr/> <p><u>Early post-emergence:</u> <i>C. rotundus</i> (Purple nutsedge) will NOT be controlled.</p>

Crop	Dosage rate kg / ha	Remarks
Sugarcane (continue) (Plant and Ratoon Crops)	2.0 PLUS 100 to 250 g / ha Micra 750 WDG	<u>Pre- or Early post-emergence:</u> before 4-leaf stage of the sugarcane. Use the higher dosage rate on heavier soils in the clay percentage range, and/or where greater weed pressure is anticipated.
Pre- and post-emergence in tank mixtures with other herbicides	2.5 PLUS 1.5 ℓ / ha Hexsan 240 SL OR	Apply <u>Post emergence</u> of weeds. Plant cane: Apply in the spikelet to 3-leaf stage.
	2.0 PLUS 3.0 ℓ / ha Metribuzin 480 SC	<u>Ratoon cane:</u> Apply as a directed spray between rows.

NOTES**Control of grasses and Nutsedges:**

- *Panicum maximum* (Common buffalo grass) can normally be controlled if one of the above combinations is applied when the grass is growing actively and before reaching a height of 4 cm and before tillering.
- *Cyperus esculentus* (Yellow nutsedge) will be controlled if sprayed just before flowering. Variable results are obtained if sprayed earlier or during cold or dry weather conditions.
- **The control of *Sorghum verticilliflorum* is usually inadequate.**
- ***Rottboellia exaltata*, *Cynodon dactylon* and *Paspalum* spp. will NOT be controlled.**
- Post-emergence weeds: foliar uptake will be improved by the addition of an adjuvant.
- For light, less adsorptive soils (low cation exchange capacity): always use the lower rate.
- For heavy soils (usually with a high cation exchange capacity): confirm actual dose rate with technical advisor.

Tank mixtures with “PACK” options:

Any area intended for spraying with the “Villex 750 WDG PACK options” or tank mixtures with Hexsan 240 SL should be classified as follows:

- Highly Vulnerable sites – (less than 0.5 % organic matter, greater than 60 % sand, water table less than 2 metres below surface and annual rainfall greater than 1000 mm): do not apply more than 2.0 kg **Hexazinone** active ingredient per hectare per year. Use banded applications and alternate with other herbicides to achieve desired weed control.
- Moderately Vulnerable Sites – (at least two of the factors, shown above characterizing a vulnerable site is not present): do not apply more than 6.0 kg **Hexazinone** active ingredient per hectare per year. Use of banded applications is recommended.
- Low Vulnerability Sites – (at least three of the factors shown above characterizing a vulnerable site are not present): Do not apply more than 10.0 kg **Hexazinone** active ingredient per hectare per year.

Environmental restrictions:

- Do not apply directly over water or allow spray mist to drift over water or wetlands.
- Do not apply where water will be contaminated by runoff from the treated area.
- Do not apply within 10 meters of permanent water.
- Do not mix or load within 20 meters of any water source, including a well, unless on an impermeable place to prevent contamination of groundwater.
- When filling spray tank, use an anti-siphoning device or an air break between water hose and contents of spray tank, to avoid back-siphoning and contamination of a well.
- Prevent unnecessary overlaps of spray swaths, as well as double spraying.

Follow-on crops:

- Crops, other than sugarcane, should not be planted within 12 months of a **Unizone 750 WDG** application.
- Thoroughly plough and harrow soil before planting any other crop.

WEED SPECIES NORMALLY CONTROLLED (PRE-EMERGENCE APPLICATION AT A MINIMUM DOSAGE RATE OF 2.0 kg DEVELOP 800 WDG PER HECTARE)	
<i>Ageratum conyzoides</i>	Invading Ageratum
<i>Amaranthus hybridus</i>	Cape pigweed
<i>Amaranthus spinosus</i>	Thorny pigweed
<i>Amaranthus thunbergii</i>	Red pigweed
<i>Bidens bipinnata</i>	Spanish blackjack
<i>Bidens pilosa</i>	Blackjack
<i>Chenopodium album</i>	White goosefoot
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Cosmos bipinnatus</i>	Cosmos
<i>Digitaria sanguinalis</i>	Crab fingergrass
<i>Eleusine indica</i>	Goose grass
<i>Galinsoga parviflora</i>	Gallant soldier
<i>Hibiscus trionum</i>	Bladderweed
<i>Portulaca oleracea</i>	Purslane
<i>Schkuhria pinnata</i>	Dwarf marigold
<i>Setaria verticillata</i>	Sticky bristle grass
<i>Tagetes minuta</i>	Khaki weed

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

- **MCPA 400 SL** (L 5793 / N-AR 1092) = **MCPA 400 SL** (L 5795 / W 130452),
- **VILLEX 750 WDG** (L 8364) = **UNIZONE 750 WDG** (L 8363) (**Hexazinone**),
- **MICRA 750 WDG** (L 9107) = **MANTER 750 WDG** (L 9106) (**Isoxaflutole**) and
- **SUMMIT SUPER** (L 8539) = **BENEFIT PLUS** (L 8538).

BROMACIL 800 WP, MCPA 400 SL, MSMA 720 SL, UNIZONE 750 WDG and/en **MANTER 750 WDG** are registered products of / is geregistreerde produkte van **UNIVERSAL CROP PROTECTION (PTY) LTD.**

SKOFFEL® 200 SUPER is a registered trademark of / is 'n geregistreerde handelsmerk van **UNIVERSAL CROP PROTECTION (PTY) LTD.**

HEXSAN 240 SL, METRIBUZIN 480 SC, VILLEX 750 WDG, MICRA 750 WDG, SUMMIT SUPER, BENEFIT PLUS and/en **MCPA 400 SL** are registered products of / is geregistreerde produkte van **VILLA CROP PROTECTION (PTY) LTD.**