

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

SHAKE THE BOTTLE WELL BEFORE USE.

Herbicide



# LOCATE 538 SC

Reg. No. L 9361 Act/Wet No. 36 of/van 1947

1:10/9/2013–June2017

*A pre-emergence suspension concentrate herbicide for the control of most annual grasses and certain broad-leaved weeds in sugarcane.*

*'n Suspensie konsentraat vooropkomsonkruidodder vir die beheer van meeste eenjarige grasse en sekere breëblaaronkruid in suikerriet.*

### ACTIVE INGREDIENTS / AKTIEWE BESTANDELE

mesotrione (callistemone)	37.5 g/kg	mesotrioon (callistemoon)
s-metolachlor (chloroacetanilide)	375 g/kg	s-metolachloor (chloroasetanialied)
terbutylazine (triazine)	125 g/kg	terbutielasien (triasien)

HRAC HERBICIDE GROUP CODE	<b>C1</b>	HRAC ONKRUIDDODER GROEPKODE
HRAC HERBICIDE GROUP CODE	<b>F2</b>	HRAC ONKRUIDDODER GROEPKODE
HRAC HERBICIDE GROUP CODE	<b>K3</b>	HRAC ONKRUIDDODER GROEPKODE



**villa**

Registration holder / Registrasiehouer:  
Universal Crop Protection (Pty) Ltd.  
Co. Reg. No. / Mpy. Reg. Nr. 1983/008184/07  
PO Box / Posbus 801, Kempton Park, 1620  
Tel: 011 396 2233  
Website / Webblad: [www.villacrop.co.za](http://www.villacrop.co.za)

UN Number: 3082

Willow Set & Print 011 394-4486



HARMFUL  
SKADELIK



GEBRUIKSAANWYSYNGS INGESLUIT

VERWYS NA BESONDERHEDE  
GEDRUK OP HOUER/SAK

Date formulated:  
Formuleringsdatum:

REFER TO DETAILS PRINTED  
ON CONTAINER/BAG

DIRECTIONS FOR USE ENCLOSED

Batch number:  
Lotnommer:

**LOCATE 538 SC**

Reg. No. L 9361 Act/Wet No. 36 of/van 1947

HRAC HERBICIDE GROUP CODE / HRAC ONKRUIDDODER GROEPKODE: C1, F2 &amp; K3

**ACTIVE INGREDIENTS / AKTIEWE BESTANDELE:**

mesotrione (callistemone) / mesotrioon (callistemoon).....	37.5 g/l
s-metolachlor (chloroacetanilide) / s-metolachloor (chloorasetanilied).....	375 g/l
terbutylazine (triazine) / terbutielasien (triasien).....	125 g/l

Registration holder / Registrasiehouer:

**UNIVERSAL CROP PROTECTION (PTY) LTD.**

Co. Reg. No. 1983/008184/07 Mpy. Reg. Nr.

P.O. Box / Posbus 801, KEMPTON PARK, 1620

Tel. (011) 396 2233

**HARMFUL SKADELIK****WARNINGS****Withholding periods:**

Minimum number of days between the last application and harvest or feeding:	
Sugarcane	180 days

- Handle with care.
- Harmful if swallowed.
- May cause eye and skin irritation. May cause skin sensitization.
- Toxic to fish and aquatic organisms.
- Keep under lock and key in a cool, dry, well-ventilated place.
- Keep away from food, feeds, seed, fertilizers and other agricultural chemicals.
- Keep out of reach of children, uninformed persons and animals.
- **In case of poisoning call a doctor and make this label available to him/her.**
- Re-entry: Do not enter treated field within 1 day after application unless wearing protective clothing.

**Aerial application:**

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

**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 against the remedy concerned, as well as 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 humans, animals 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 the spray mist.
- Wear protective clothing: rubber gloves, rubber boots and a suitable face shield when handling the concentrate, preparing the spray mixture and during application.
- Wash contaminated clothing after use.
- Wash with soap and water after use and after accidental skin contact.
- 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 spraying equipment 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**

Irritation effects on skin and mucous membranes are the most common reactions. May cause irritation to the eyes. Allergic skin reaction may occur. May cause skin sensitization. Ingestion of large amounts can cause nausea, vomiting, abdominal distress and diarrhoea.

### **FIRST AID TREATMENT**

- **Skin contact:** Remove contaminated clothing, shoes and leather goods immediately (e.g. watch bands and belts). Wash skin gently and thoroughly with non-abrasive soap and large amounts of water. Seek medical attention if necessary.
- **Eye contact:** Flush eyes immediately with large amounts of gently flowing cold water or normal saline solution, for approximately 15 to 20 minutes, while holding the eyelid(s) open. If irritation persists, get medical attention.
- **Inhalation:** Immediately remove source of contamination or move the person to fresh air. Perform artificial respiration if necessary. Only qualified medical personnel should administer oxygen. Keep person calm and re-assured. **Seek medical attention immediately.**
- **Ingestion:** Have patient rinse mouth thoroughly with clean water. **Do not induce vomiting, due to the aromatic solvent. Obtain medical advice immediately.** Never give anything by mouth to an unconscious person. Treat respiratory difficulty with artificial respiration and oxygen. Only qualified medical personnel should administer oxygen or gastric lavage.

### **NOTE TO PHYSICIAN**

No specific antidote. Treat symptomatically and supportively. Keep patient under observation. Perform gastric lavage if the patient is not unconscious. Prevent aspiration of gastric material. Administer activated charcoal.

### **RESISTANCE WARNING**

**LOCATE 538 SC** is a group codes C1, F2 and K3 herbicide. Any weed population may contain individuals naturally resistant to **LOCATE 538 SC** and other group codes C1, F2 and K3 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **LOCATE 538 SC** or any other group codes C1, F2 and K3 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**

- **LOCATE 538 SC** must not be used with other HPPD inhibitors (e.g. **Isoxaflutole**) or **Mesotrione** and **Sulcotrione** containing products within the same growing season.
- Do not apply **LOCATE 538 SC** post-emergence in tank-mix with an organophosphate e.g. **Chlorpyrifos**.
- Where a carbamate insecticide (e.g. **Carbofuran**) is used at planting, wait 3 weeks before application of **LOCATE 538 SC**.
- **Rain or overhead irrigation exceeding 20 mm within 1 to 2 weeks after application of LOCATE 538 SC is required to obtain optimal weed control. If this does not happen, reduced efficacy can be expected.**
- In plant cane **SKOFFEL® 200 SUPER** (L 6328 / W 130059 / N-AR 1097) must not be applied after the spike stage of the crop. (Refer to the **Skoffel® 200 Super** label). The registration holder does not accept any liability for damages or poor performance when **Paraquat** other than **Skoffel® 200 Super** is used in combination with **LOCATE 538 SC**.
- Drip irrigation is not sufficient to activate and distribute **LOCATE 538 SC** in the absence of rainfall.

- **LOCATE 538 SC** should not be applied through drip irrigation systems.
- Flood irrigation will reduce the residual activity of **LOCATE 538 SC**.
- Do not apply **LOCATE 538 SC** in high organic matter soils (>3 %) or onto soils with excessive trash or burnt sugarcane rubble, as reduced residual action can be expected.

### **General information**

#### 1. Follow-up crops:

The planting of follow-up crops may be limited by the previous use of **LOCATE 538 SC** and or other herbicides in previous or even the same sugar ratoons. Adhere to the following waiting periods:

- Maize and sugarcane = 0 months
- Barley, Dry beans, Grain sorghum, Groundnuts, Potatoes, Soybeans, Sunflowers, Wheat = 9 months
- Other crops (cotton included) = 24 months

#### 2. Pre-emergence and very Early post-emergence application (also refer to “USE RESTRICTIONS” above):

- The dosage rate of **LOCATE 538 SC** is not affected by soil clay content.
- Apply **LOCATE 538 SC** either pre-emergence or very early post-emergence of the weeds.
- Weeds must not be larger than 1 to 2 leaf stage at time of application.
- Apply **LOCATE 538 SC** applications late spring and during the summer due to higher probability of rainfall.
- Under favourable conditions a residual action of at least 10 to 12 weeks can be expected.
- When **LOCATE 538 SC** is applied early post-emergence, **Skoffel® 200 Super** can be added at 500 ml per hectare for the control of grasses.
- **LOCATE 538 SC** plus **Skoffel® 200 Super** can be applied broadcast in ratoon cane up to a height of 30 cm.
- In plant cane, apply **Skoffel® 200 Super** before the spike stage of the crop.
- **LOCATE 538 SC** can be applied where drip irrigation cropping systems are used however drip irrigation is not sufficient to activate and distribute **LOCATE 538 SC** in the absence of rainfall. To activate **LOCATE 538 SC**, overhead irrigation or rain of at least 20 mm is required. **LOCATE 538 SC** should not be applied **through** drip irrigation system.
- **LOCATE 538 SC** should not be used in flood irrigation systems other than achieving post-emergence knockdown.

### **DIRECTIONS FOR USE: Use only as directed.**

#### **Compatibility:**

- **LOCATE 538 SC** is compatible with **Lambda 50EC**, **Skoffel® 200 Super** and **Summit Super**.
- A **Villa approved buffer** can be added, however, do not allow the pH to go below 6.5.
- If tank mixtures are used with other products, small quantities of the products in the correct ratio should be mixed with the appropriate quantity of water to confirm compatibility.
- Water quality and formulation of other products may influence compatibility.
- The compatibility of **LOCATE 538 SC** may be influenced by several factors. As these factors may vary, a physical compatibility test must always be performed before such a tank mixture is sprayed.
- When **LOCATE 538 SC** is used in conjunction with any other agricultural remedy, all **WARNINGS**, **PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label, must be adhered to.

#### **Mixing Instructions:**

- Fill the spray tank with clean water and start agitation. Re-suspend the spray mixture if agitation was suspended for longer than 5 min.
- Add **LOCATE 538 SC** slowly when the spray tank is half full with water, until completely dispersed. **Skoffel® 200 Super** can be added now whilst agitating continuously.
- Continue to fill the tank with water to the final required volume whilst agitating.

#### **Application Recommendations:**

- Use accurately calibrated equipment with properly arranged, suitable nozzles and an efficient agitation mechanism.
- Prepare a fine, even and firm seedbed free of weeds, trash and clods.

- Apply **LOCATE 538 SC** or its tank mixtures preferably at planting or immediately after planting, but not later than 3 days after planting. Use 200 litres spray mixture per hectare for overall ground application, and 30 to 40 litres per hectare for aerial application.
- **LOCATE 538 SC** can also be shallowly incorporated early in the season to improve reliability of weed control.
- 10 to 20 mm rain within 7 to 10 days after application is necessary for good results.
- Under dry conditions, weed seedlings may emerge. These are usually stunted and can be controlled with a shallow cultivation, which also mixes the herbicide with the top 10 to 20 mm of soil.
- If soil crusting becomes a problem, rotary harrow in the same direction that the rows are planted, to assist crop germination.
- Harrowing after application may reduce weed control if untreated soil is thrown into deep planter furrows.
- **LOCATE 538 SC** has no post-emergence activity and can be applied post-emergence to the crop after a cultivation, when no weeds are present.
- Ensure that sufficient fertilizer is placed near the planted cane stems at planting or ratoon stalks, to promote vigorous seedling growth.

#### **Application through irrigation systems (pre-emergence weed control only):**

- Apply onto well prepared fields with a fine seedbed and without germinating or established weeds.
- **LOCATE 538 SC** can only be applied through a fully functional and well-maintained centre pivot irrigation system for pre-emergence weed control.
- Only use centre pivots equipped with an injector system.
- Apply between 4.5 mm and 7.5 mm of water.
- Determine the injection rate carefully and ensure it is correct.
- Apply within 2 days after planting or before the emergence of any weeds.
- After application of **LOCATE 538 SC**, apply the following water volumes if sufficient rain did not occur:
  - clay content < 20 % = 10 mm water per hectare
  - clay content 20 to 35 % = 15 mm water per hectare
  - clay content > 35 % = 20 mm water per hectare
- Keep soil wet for 1 to 2 weeks after application.
- Do not apply **LOCATE 538 SC** through the irrigation water in excessive wind speeds (maximum wind speed of 20 km per hour).
- **Important notes on application through irrigation systems:**
  - application and distribution quality of **LOCATE 538 SC** will only be as even as the evenness of the irrigation water application.
  - take care where the centre pivot overlap at the end of the cycle area as serious damage may occur due to over dosage, as well as when breakages or stoppages occur.
  - take care not to contaminate boreholes or dams with accidental spillages of chemicals in the irrigation system. Injection of **LOCATE 538 SC** must happen close to or at the centre of the pivot. Both the injector pump and the water pump must be fitted with valves to stop injection as soon as the pivot's forward movement is halted. The main irrigation water supply line must also be fitted with a non-return valve to prevent treated water from going back into the supply source.

#### **Aerial application:**

Aerial application of **LOCATE 538 SC** 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). It is important to 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:

- Flying height: The height of the spray boom should be maintained at 3 to 4 metres above the target. Do not spray when aircraft is in a climb, at the top of, or during a dive, or when banking.
- Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product either through endodrift (within target field) or exodrift (outside target field). The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- All nozzles/atomisers should be positioned 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.
- Aerial application of this product must not be done under turbulent, unstable conditions during the heat of the day when rising thermals and downdraughts occur.
- 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 the movement of the suspended spray cloud away from the target field.
- Ensure that the aerial spray operator knows exactly which fields to spray.

Obtain assurance from the aerial spray operator that the above requirements will be met and that relevant data will be compiled in a spray log and kept for future reference.

#### **Pre-emergence Aerial application:**

- Volume: A spray mixture volume of 30 to 40 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 aerially at a lower volume rate than recommended.
- Droplet coverage: Droplet coverage of 20 to 30 droplets per cm<sup>2</sup> 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 & evaporation potential) to a minimum.

#### **Ground application:**

- Apply with a correctly calibrated tractor-mounted boom sprayer that is in good working order.
- The use of 110° flat fan hydraulic nozzles is recommended to obtain the best coverage.
- Apply 200 to 300 litres spray mixture per hectare.

### **APPLICATION RATES**

#### **SUGARCANE: (Plant- and Ratoon cane)**

##### **Pre-emergence and Early post-emergence application on both sugarcane and weeds.**

All **pre-emergence** applications of **LOCATE 538 SC** will control both the broadleaf weeds and grasses mentioned in the Table below.

For **all early post-emergence** applications of **LOCATE 538 SC** to control sedges and grasses a tank mixture with **Skoffel® 200 Super** is recommended as described above. In all early post-emergence applications of **LOCATE 538 SC** use **Summit Super** or a Villa approved adjuvant as surfactant:

<b>LOCATE 538 SC</b> <b>4 to 5 l / ha</b>	<b>PLUS</b> <b>Summit Super or a Villa approved adjuvant</b> <b>0.3 %</b> <b>(all Early post-emergence applications)</b>
	<b>Weeds controlled</b>
<b>Botanical name</b>	<b>Common name</b>
<i>Acanthospermum hispidum</i>	Upright starbur
<i>Ageratum conyzoides</i>	Invading Ageratum
<i>Amaranthus hybridus</i>	Common pigweed
<i>Amaranthus spinosus</i>	Thorny pigweed
<i>Chenopodium album</i>	White goosefoot
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Cleome monophylla</i>	Spindle pod
<i>Commelina benghalensis</i>	Benghal wandering Jew
<i>Convolvulus arvensis</i>	Field bindweed
<i>Corchorus trilocularis</i>	Wild jute
<i>Crotalaria sphaerocarpa</i>	Mealie crotalaria
<i>Datura ferox</i>	Large thorn apple
<i>Datura stramonium</i>	Thorn apple
<i>Hibiscus cannabinus</i>	Kenaf
<i>Hibiscus trionum</i>	Bladder weed
<i>Ipomoea aristolochiaefolia</i>	Small morning glory
<i>Ipomoea purpurea</i>	Common morning glory
<i>Kyllinga erecta</i>	White sedge
<i>Nicandra physaloides</i>	Apple-of-Peru
<i>Parthenium hysterophorus</i>	Demoina weed
<i>Portulaca oleracea</i>	Purslane
<i>Pseudobrachiaria deflexa</i>	False signal grass
<i>Richardia brasiliensis</i>	Tropical Richardia
<i>Sesbania bispinosa</i>	Spiny Sesbania
<i>Sida cordifolia</i>	Heart-leaf Sida
<i>Sida rhombifolia</i>	Arrow-leaf Sida
<i>Sida spinosa</i>	Spiny Sida
<i>Tagetes minuta</i>	Khaki weed
<i>Tribulus terrestris</i>	Dubbeltjie

The addition of Skoffel® 200 Super in an early post-emergence application will additionally control the following grasses:

LOCATE 538 SC 4 to 5 l / ha	PLUS	
	Skoffel® 200 Super 500 ml / ha	Summit Super or a Villa approved adjuvant 0.3 %
<b>Weeds controlled</b>		
Botanical name	Common name	
<i>Brachiaria deflexa</i>	False signal grass	
<i>Brachiaria nigropedata</i>	Black footed signal grass	
<i>Cyperus esculentus</i>	Yellow nutsedge	
<i>Digitaria sanguinalis</i>	Crab finger grass	
<i>Digitaria ternata</i>	Black seed finger-grass	
<i>Echinochloa colona</i>	Marsh grass	
<i>Eleusine indica</i>	Goose grass	
<i>Panicum deustum</i>	Broadleaved Panicum	
<i>Panicum maximum</i>	Common buffalo grass	
<i>Panicum schinzii</i>	Sweet buffalo grass	
<i>Tragus berteronianus</i>	Small carrot seed grass	
<i>Urochloa mosambicensis</i>	Bushveld herringbone grass	
<i>Urochloa panicoides</i>	Herringbone grass	

Consult the **Lambda 50 EC**, **Skoffel® 200 Super**, **Summit Super** labels for **WARNINGS**, **PRECAUTIONS**, **USE RESTRICTIONS** and **DIRECTIONS FOR USE**.

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

- **LAMBDA 50EC** (L 7787) = **JUDO 50 EC** (L 7785 / N-AR 1104) = **LAMBDA-CYTHRIN 50 EC** (L 8343) and
- **SUMMIT SUPER** (L 8539) = **BENEFIT PLUS** (L 8538).

**LAMBDA 50 EC** and/en **SKOFFEL® 200 SUPER** are registered products of / is geregistreerde produkte van **UNIVERSAL CROP PROTECTION (PTY) LTD.**

**JUDO 50 EC**, **SUMMIT SUPER** and/en **BENEFIT PLUS** are registered products of / is geregistreerde produkte van **VILLA CROP PROTECTION (PTY) LTD.**

**LAMBDA-CYTHRIN 50 EC** is a registered product of / is 'n geregistreerde produk van **CROPASURE (PTY) LTD.**