

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Herbicide



HEXSAN 240 SL

Reg. No. L 5501 Act/Wet No. 36 of/van 1947

2:7/6/2012 – May 2017

A water-soluble liquid herbicide for the selective control of grasses and broadleaf weeds, as listed in ratoon sugarcane and for non-selective use in sugarcane verges and breaks.

'n Wateroplosbare vloeistofonkruiddoder vir die selektiewe beheer van grasse en breëblaaronkruid, soos aangedui, in ratoonsuikerriet en vir nie-selektiewe gebruik langs suikerrietlande.

ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL

hexazinone (triazinone) 240 g/l heksasinoon (triasinoon)

HRAC HERBICIDE GROUP CODE **C1** HRAC ONKRUIDDODER GROEPKODE



villa

Registration holder / Registrasiehouer:

Villa Crop Protection (Pty) Ltd.

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

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UN Number: 2997



Willow Set & Print 011 394-4486



HARMFUL
SKADELIK



GEBRUIKSAANWYSYNGS INGESLUIT

VERWYS NA BESONDERHEDE
GEDRUK OP HOUER/SAK

Date formulated:

Formuleringsdatum:

DIRECTIONS FOR USE ENCLOSED

REFER TO DETAILS PRINTED
ON CONTAINER/BAG

Batch number:

Lotnommer:

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Registration holder / Registrasiehouer:

VILLA CROP PROTECTION (PTY) LTD.

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

P.O. Box / Posbus 10413, ASTON MANOR, 1630,

Tel. (011) 396 2233

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

- Poisonous if swallowed.
- May irritate eyes, nose, throat and skin.
- **Flammable - keep away from heat, sparks and open flames.**
- Store under lock and key in a cool, dry, well-ventilated place in tightly sealed original container.
- Store 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 1 day after treatment unless wearing protective clothing.
- **In case of poisoning call a physician and make this label available to him/her.**

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 the 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. 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, the occurrence of resistance of 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 skin and eyes.
- Wear protective rubber gloves, boots and a face shield when handling the concentrate.
- Wash with soap and water after use and accidental skin contact.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing and applying or before washing hands and face and change of clothing.
- Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment or to nearby water sources.
- Do not use close to desirable plants, e.g. windbreaks or ornamental trees or shrubs on road edges.
- Do not apply where product can reach the roots of such plants or leach or wash into contact with the roots.
- Do not apply if other crops at risk are to be grown in the area in the near future.
- Any application not in accordance with the directions on the label, including using higher dosage rates as recommended, may cause stunting or other undesirable effects.
- Clean the applicator thoroughly after use and before using with other products 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 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 empty container three times with a volume of clean water equal to a minimum of a third 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

The acute toxicity to technical **Triazinones** for humans is thought to be low and no adverse health effects from exposure to these herbicides have been reported. In view of the toxicity induced in experimental animals, the product may cause skin irritation or rash, damage to the eyes and effects on the liver (if large amounts are ingested).

FIRST AID TREATMENT

- **Inhalation:** Remove source of contamination, or move the person to fresh air. Keep the person calm and at rest. Treat symptomatically and supportively.
- **Skin contact:** Remove contaminated clothing, shoes and leather goods (e.g. watch bands and belts). Gently wipe off excess chemical. Wash affected skin areas gently and thoroughly with water and non-abrasive soap. Do not rub the skin. **If irritation persists, seek medical advice.** Persons who become sensitized may require specialized medical attention with anti-inflammatory agents or cortisone-containing emulsions.
- **Eye contact:** Direct contact with the product may cause irreversible eye damage. Immediately flush the contaminated eye(s) with gently flowing lukewarm water for 15 to 20 minutes, occasionally lifting the upper and lower lid(s). Remove contact lenses if present after the first 5 minutes. **If irritation persists, seek medical advice.**
- **Ingestion:** Have the patient rinse his/her mouth thoroughly with clean water. Do not induce vomiting. If the patient is alert and conscious, give a glass of water to drink. **Do not give anything by mouth to an unconscious person. In serious cases, seek medical advice immediately.**

NOTE TO PHYSICIAN

No symptoms of **Triazinone** poisoning are known or expected in humans. Treat symptomatically when required. When large amounts have been ingested, the administration of activated charcoal with water may be indicated. Probable mucosal damage may, however, contraindicate the use of gastric lavage.

RESISTANCE WARNING

HEXSAN 240 SL is a group code C1 herbicide. Any weed population may contain individuals naturally resistant to **HEXSAN 240 SL** and other group code C1 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **HEXSAN 240 SL** or any other group code C1 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

Sugarcane only:

- **Do not use on plant cane crops.** Do not apply directly over the ratoon foliage but direct the sprays across the inter row, to avoid as far as possible, wetting the foliage.

DIRECTIONS FOR USE: Use only as directed.

- **HEXSAN 240 SL** is a leaf and root-absorbed herbicide with long residual action. It should be applied prior to or during the period of active growth of weeds.
- Rainfall within a few weeks after application will enhance the herbicidal action of the chemical.
- Effects of **HEXSAN 240 SL** on existing weeds are slow to appear and several weeks may be required for maximum effect to become visible.
- The degree of control and duration of effect will depend on the dosage rate, rainfall and soil type.

- Do not exceed recommendations and do not repeat an application during the same season.
- Do not add additional surfactants or adjuvants.
- Do not plant crops other than sugarcane and pineapples within 12 months of a **HEXSAN 240 SL** application.
- Before replanting any other crop, ensure that the soil is thoroughly ploughed and harrowed.
- **HEXSAN 240 SL** should be diluted with water, 200 to 400 litres per hectare for sugarcane and 800 litres for pineapples, depending on the density of weeds and applied to the weeds and soil as an overall or directed spray.

Tank Mixes:

- When used as a tank mix with **DIURON 800 SC** or **AMETRYN 500 SC**, first add **HEXSAN 240 SL** to the spray tank. Thereafter add the recommended amount of **Diuron 800 SC** or **Ametryn 500 SC** after it has been pre-mixed with water to a thin slurry.
- Always keep the spray mixture agitated, to ensure adequate and uniform mixing.
- Spray the weeds or soil surface by means of a tractor-mounted boom sprayer or knapsack sprayer. Use an application volume of 200 to 400 litres water per hectare.
- Ensure that the application equipment is correctly calibrated and that a uniform and even distribution of the spray is obtained. Agitate the spray mixture continuously, to ensure adequate mixing.
- Best results are obtained when **HEXSAN 240 SL** or **HEXSAN 240 SL** plus **Diuron 800 SC** or **HEXSAN 240 SL** plus **Ametryn 500 SC** mixtures are applied to moist soil, when the climate is warm and favourable for active weed growth.
- Thoroughly clean all traces of weed killer from the application equipment immediately after use. Flush tank, pumps, hoses and the boom with clean water after removing nozzle tips and screens. (Clean these parts separately).

Aerial application:

Aerial application of **HEXSAN 240 SL** may only be performed 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:

- Volume: **Pre-emergence** – 30 litres per hectare. **Post-emergence** – 30 to 35 litres per hectare. 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: The following number of droplets per cm² must be recovered at the target area: **Pre-emergence** - 20 to 30. **Post-emergence** - 35 to 45.
- Droplet size: The following droplet spectra are recommended: **Pre-emergence** - VMD of 350 to 400 micron. **Post-emergence** - VMD of 300 to 350 micron. 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 the 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

A. RATOON SUGARCANE

- For residual weed control apply **HEXSAN 240 SL** on its own or in tank mixes with **Diuron 800 SC** or **Ametryn 500 SC** in 200 to 400 litres water per hectare according to the season and soil type.
- Apply as a uniform overall spray at a pre- or very early post-emergence stage of growth of weeds.
- After the post-harvest operations have been completed, **HEXSAN 240 SL** may be applied before the weeds emerge or when the weeds have just emerged. **HEXSAN 240 SL** plus **Diuron 800 SC** or **HEXSAN 240 SL** plus **Ametryn 500 SC** may be applied post-emergence of the weeds.
- In emerged cane, treatment can cause damage if the spray is not directed and hot humid conditions prevail. The danger of this occurring will be minimised if the sprays are directed so as to avoid, as far as possible, wetting the cane leaves.
- Broadleaf weeds should not be taller than 8 to 10 cm. If grasses are present, the application should be performed prior to tillering and prior to the grass developing a strong root system.
- **HEXSAN 240 SL** should normally control weeds for a period of 8 to 12 weeks.

Application Time	Soil type	Clay %	Pre-emergence HEXSAN 240 SL	Post-emergence PLUS Diuron 800 SC OR Ametryn 500 SC
Early Season	Light to loamy sands	5 to 15 %	1.75 to 2.25 ℓ	1 ℓ OR 3 ℓ
	Loamy sands to sandy clay loams	16 to 35 %	2.25 to 2.75 ℓ	1 to 1.5 ℓ OR 3 to 4 ℓ
	Sandy clay to clay or soils with high organic matter	> 35 %	2.5 to 3.0 ℓ (Refer NOTES below)	1.5 to 2 ℓ OR 4 ℓ (Refer NOTES below)
Mid Season	Light to loamy sands	5 to 15 %	1.75 to 2 ℓ	1 ℓ OR 3 ℓ
	Loamy sands to sandy clay loams	16 to 35 %	2.0 to 2.25 ℓ	1 to 1.5 ℓ OR 3 to 4 ℓ
	Sandy clay to clay or soils with high organic matter	>35 %	2 to 2.5 ℓ (Refer NOTES below)	1.5 to 2 ℓ OR 4 ℓ (Refer NOTES below)
Late Season	Light to loamy sands	5 to 15 %	1 to 1.15 ℓ	1 ℓ OR 3 ℓ
	Loamy sands to sandy clay loams	16 to 35 %	2.0 ℓ	1 to 1.5 ℓ OR 3 to 4 ℓ
	Sandy clay to clay or soils with high organic matter	>35 %	2.25 ℓ (Refer NOTES below)	2 ℓ OR 4 ℓ (Refer NOTES below)

NOTES

- If *Panicum maximum* has emerged by the time of application, the addition of **Diuron 800 SC** or **Ametryn 500 SC** at the indicated rates is recommended.
- **Ametryn 800 SC** is the preferred tank mix additive for use under the cooler and drier conditions of spring.
- **Diuron 800 SC** is the preferred tank mix additive for use under warm, wet, active growing conditions.
- Always use the lower application rates for light less absorptive soils having a low cation exchange capacity.
- For extremely heavy soils (usually a high cation exchange capacity) confirm the actual rate with the Technical Advisor of the Distributor.

B. SUGARCANE VERGES AND BREAKS

- Apply the product in 200 to 400 litres water per hectare, as a uniform overall spray at the post-emergent stage of weed growth. It should be applied before, or during the period of active growth of the weeds, and at the early stages of grass development.
- The treatment is not designed to destroy all weeds and leave bare ground; some weeds may only be severely stunted, while the weeds listed will be controlled for a longer period.

Soil type	Dosage per ha	Spot treatment (per 10 m²)	Remarks
Sandy and sandy loam (up to 20 % clay)	7.5 ℓ	7.5 mℓ	Apply as a directed spray to avoid wetting the leaves of sugarcane.
Sandy clay loam (21 to 35 %)	11.3 ℓ	11.3 mℓ	
Sandy clay to clay (more than 35 % clay)	15.0 ℓ	15.0 mℓ	

BROADLEAF WEEDS CONTROLLED BY HEXSAN 240 SL:	
<i>Ageratum conyzoides</i>	Blue weed
<i>Argemone mexicana</i>	Mexican prickly poppy
<i>Bidens formosa</i>	Cosmos
<i>Bidens pilosa</i>	Blackjack
<i>Chenopodium murale</i>	Nettle-leaved goosefoot
<i>Datura stramonium</i>	Thorn apple
<i>Emex australis</i>	Spiny emex
<i>Galinsoga parviflora</i>	Gallant soldier
<i>Hibiscus trionum</i>	Bladderweed
<i>Nicandra physaloides</i>	Apple-of-Peru
<i>Portulaca oleraceae</i>	Common purslane
<i>Solanum nigrum</i>	Nightshade
<i>Siegesbeckia orientalis</i>	St. Paul's wort
GRASSES:	
<i>Brachiaria eruciformis</i>	Sweet signal grass
<i>Digitaria sanguinalis</i>	Crab fingergrass
<i>Digitaria</i> spp.	Finger grass
<i>Eleusine indica</i>	Goose grass
<i>Panicum schinzii</i>	Sweet buffalo grass
<i>Panicum sulbabadum</i>	Elbow buffalo grass
<i>Panicum maximum</i>	Common buffalo grass
<i>Setaria verticillata</i>	Burr bristle grass
<i>Setaria pallide-fusca</i>	Red bristle grass
SEDGES:	
<i>Cyperus esculentus</i>	Yellow nutsedge (only post-emergence)
<i>Cyperus distans</i>	Piedmont flatsedge
<i>Fimbristylis dichotoma</i>	Forked fimbry
<i>Fimbristylis hispidula</i>	Slender biesie

Weeds NOT normally controlled:

- *Cyperus rotundus* - (Purple nutsedge).
- *Cynodon dactylon* - (Common couch).
- *Sorghum verticilliflorum* and established (tillering) as well as post tillering *Panicum maximum* are not well controlled.