

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Herbicide



MSMA 720 SL

Reg. No. L 3754 Act/Wet No. 36 of/van 1947
N-AR 1984

1: 24/10/2014 – May 2019

A water-soluble concentrate selective systemic post-emergence herbicide for the control of Rottboellia exaltata, annual grasses, Nutsedges and certain broad-leaved weeds in cotton, lawns and turf, in sugarcane as well as for industrial use and the control of certain Opuntia spp., Queen of the night, Harrisia cactus and sisal.

'n Wateroplosbare konsentraat selektiewe, sistemiese na-opkoms onkruidoder vir die beheer van Rottboellia exaltata, eenjarige grasse, Uintjies en sommige breëblaaronkruid in katoen, grasperke en grasbane, in suikerriet asook vir industriële gebruik en vir die beheer van seker Opuntia spesies, Nagblom, Harrisia kaktus en sisal.

ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL

MSMA (organic arsenical) 720 g/l MSMA (organiese arseen)

HRAC HERBICIDE GROUP CODE **Z** 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: 2994

Willow Set & Print 011 394-4486



HARMFUL
SKADELIK



GERUUKSAANWYSYNGS 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:

MSMA 720 SL

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MSMA (organic arsenical / organiese arseen).....720 g/l

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

**WARNINGS**

MSMA 720 SL CAN BE HIGHLY TOXIC TO GRAZING STOCK AND WILDLIFE. IT MUST ONLY BE USED WITH THE UTMOST CAUTION AND UNDER SUPERVISION. THE USER IS WARNED THAT STOCK OR WILDLIFE MUST NOT BE ALLOWED TO GRAZE TREATED AREAS UNTIL AT LEAST ONE MONTH HAS PASSED AFTER TREATMENT OF JOINTED AND OTHER CACTI AND TWO MONTHS AFTER TREATMENT OF PRICKLY PEAR. DO NOT TREAT PRICKLY PEAR DURING DRY PERIODS WHEN NO OTHER SOURCE OF FRESH FOOD IS AVAILABLE (USUALLY JUNE TO SEPTEMBER). PREVENT POLLUTION OF WATER SOURCES THAT ARE UTILIZED FOR DRINKING.

- Toxic to fish, bees and wildlife.
- Poisonous if swallowed.
- Store in a cool, dry, well-ventilated place in the original container, tightly closed and secured.
- Store under lock and key, 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 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 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 event of any uncertainty.

PRECAUTIONS

- Do not inhale fumes or spray mist.
- Wear a face shield, rubber gloves and boots when handling the concentrate and preparing the spray mixture.
- Wash with soap and water after use and after accidental skin contact.
- Wash contaminated clothing after use.
- In case of accidental contact with skin or eyes, flush with plenty cold water and get medical attention if necessary.
- 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 or 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, feed, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING

Symptoms of **MSMA** intoxication can include inflammation of the mouth, pharynx, esophagus, burning abdominal pain, thirst, vomiting, diarrhea, headache, dizziness, stupor, muscle weakness and spasms, hypothermia, lethargy, delirium, coma, convulsions and general paralysis. Garlic odour of breath or skin often apparent.

FIRST AID TREATMENT

- **If poisoning is suspected:** Remove the patient from the source of poisoning to a well-ventilated area and keep him/her calm and at rest. Immediately call a physician.
- **Skin contact:** Remove contaminated clothing and wash the contaminated areas with plenty of soap and cold water. Do not rub the skin.
- **Eye contact:** Immediately flush contaminated eyes for 20 minutes with clean lukewarm water, while occasionally lifting upper and lower lids. Obtain medical advice if irritation persists.
- **Inhalation:** Administer artificial respiration and oxygen, if necessary. Do not apply direct mouth-to-mouth respiration.
- **Ingestion:** Have patient rinse mouth thoroughly with clean water. **Do not induce vomiting. Obtain medical advice immediately.** Never give anything by mouth to an unconscious person. Qualified medical personnel must perform administration of oxygen and lavage.
- **Take the patient to the nearest physician immediately.**

NOTE TO PHYSICIAN

Dimercaprol (BAL) is recommended as an **antidote** for arsenic poisoning. (Side effects with BAL: nausea, headache, burning and tingling sensations, sweating, tremor, restlessness, tachycardia, hypertension and fever). An aqueous suspension of activated charcoal can be administered to absorb remaining toxicant. It is not appropriate to administer a cathartic, because arsenic poisoning always results in profuse diarrhea. Treat symptomatically and supportively.

RESISTANCE WARNING

MSMA 720 SL is a group code Z herbicide. Any weed population may contain individuals naturally resistant to **MSMA 720 SL** and other group code Z herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **MSMA 720 SL** or any other group code Z 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.

Compatibility:

- **MSMA 720 SL** is compatible with **PH-Logic** and **Ametryn 500 SC**. The efficacy of the **MSMA 720 SL** may be reduced by very hard water (>1000 ppm solutes) and water with a high pH value. When **MSMA 720 SL** is used, the optimal efficacy thereof will be obtained in water pH 4.5 to 5.5. Water of a higher or lower pH than 4.5 to 5.5 should be buffered to pH 4.5 to 5.5 by using **PH-Logic**. Where **PH-Logic** is used to adjust the pH of water, the **PH-Logic** must be mixed with the total volume of water for that particular tank mixture, before adding the **MSMA 720 SL**. Use the spray mixture without delay and do not allow to stand for prolonged periods.
- The compatibility of **MSMA 720 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. In the case of uncertainty, contact the supplier or the registration holder.
- When **MSMA 720 SL** is used in conjunction with any other agricultural remedy, all **WARNINGS, PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label, must be adhered to.

- **MSMA 720 SL** contains a surfactant (wetting agent) in proper ratio for best results. It is not necessary to add additional surfactants to the spray tank.
- **MSMA 720 SL** should be applied by means of a tractor mounted boom sprayer or knapsack sprayer equipped with Teejet-type flat fan nozzles or spraying systems TK5 type floodjets, which should deliver 300 to 500 litres spray solution per hectare (3 to 5 litres per 100 m²). Efficient agitation of the spray mixture is essential.
- Ensure that application equipment is correctly calibrated and that only clean water is used. A uniform and even distribution of the spray material and thorough wetting of the weed foliage is essential.
- Apply during warm, sunny weather when weeds are in an active stage of growth. (Best results are obtained at air temperatures above 21 °C).
- Do not apply if the weeds are wet or if rain is expected within 24 hours after application as the effect may be diminished.

Sugarcane:

When used in combinations, **MSMA 720 SL** and the respective additional herbicide must be thoroughly mixed with water in separate containers. Half fill the spray tank with the required amount of water and with the pump and agitator operating, add the recommended amount of premixed **Diuron** or **Ametryn 500 SC**. Refer to the respective labels for the correct mixing procedures of **Diuron** or **Ametryn 500 SC**.

MSMA 720 SL should be premixed in 15 to 25 litres of water in a clean open headed bucket. This premix should be added to the spray tank after the **Diuron** or **Ametryn 500 SC**. Do not store spray solution in the tank overnight.

Cotton:

Avoid spraying cotton foliage by using a flood jet nozzle at low pressure mounted on a drop arm or skid. The use of shields running on either side of the crop row is recommended. Foliage of cotton plants, which comes in contact with the spray, may turn red, but should develop normally. Avoid spray contact with the growing points of the cotton plants.

Lawns:

Do not use on kikuyu or Swazi grass as severe scorching may occur.

Do not treat new lawns until they have been mowed three times. Under hot and dry conditions grass may be temporarily yellowed. These symptoms will disappear with mowing. Apply to young actively growing weeds.

APPLICATION RATES

<i>Crop / Use</i>	<i>Dosage Rate</i>	<i>Remarks</i>
<u>Sugarcane</u>	<p>6 l / ha</p> <p>OR</p> <p>4 l / ha PLUS 3 l / ha Diuron 800 SC</p> <p>OR</p> <p>4 l / ha PLUS 3 to 4 l / ha Ametryn 500 SC</p>	<p>Apply as a directed late post-emergent inter-row spray over the weeds. The treatment can cause cane scorch and the danger of this occurring will be minimized if the sprays are directed so as to avoid, as far as possible, wetting the cane leaves.</p> <p>Use higher rates and mixing for severe weed infestation or less susceptible weed stages.</p>
<u>Cotton</u>	<p>3 l / ha</p>	<p>Use 300 litres of water per hectare as a directed spray when cotton is 8 cm high up to first bloom. Should re-growth occur, a second application might be necessary at the same rate 1 to 3 weeks after the first application.</p> <p>Do not apply MSMA 720 SL more than twice a season.</p>

Crop / Use	Dosage Rate	Remarks
<u>Jointed Cactus</u> (<i>Opuntia aurantiaca</i>)	1 ℓ / 22 ℓ water	Mix one part of MSMA 720 SL with 22 parts of water. Apply by means of a knapsack sprayer and wet the plants to the point of run-off.
<u>Sweet Prickly Pear</u> (<i>Opuntia ficusndica</i>)	1 ℓ / 2 ℓ water	Inject plants in the stem. Two (2) ml of the solution should be injected in each pre-made holes using sheep dose applicators. (4 to 12 pre-made holes for plants with 20 to 50 cladodes).
<u>Sour Prickly Pear</u> (<i>Opuntia stricta</i>)	1 ℓ / 1 ℓ water	Inject plants in the stem. Two (2) ml of the solution must be injected into pre-made holes in the base of the main stem using sheep dose applicators. The number of injections depends on the size of the plant and varies between one and eight injections. Small plants and loose cladodes should be spot sprayed in a follow-up operation after the large plants have died (1 litre MSMA 720 SL per 30 litres water).
<u>Imbricate cactus</u> (<i>Opuntia imbricate</i>) <u>Rosea cactus</u> (<i>Opuntia rosea</i>)	1 ℓ / 22 ℓ water	Slash or cut plants down to within 10 to 15 cm of the sold surface and apply spray to the cut stump. Apply by means of a knapsack sprayer and wet plants to the point of run-off.
<u>Lawns, Turf, Bowling greens, Golf courses, etc.</u> <i>Cynodon dactylon</i> only)	70 ml / 10 ℓ water	Lawns should not be mowed for four (4) days prior to treatment. Apply 1 litre of spray mixture per 10 m ² lawn. Repeat if necessary at 21-day intervals.
<u>Queen of the night</u> (<i>Cereus jamacuru</i>)	1 ℓ / 2 ℓ water	<u>Injection treatment:</u> (large plants). Make holes into the soft tissue of the main and side stems with a sharp instrument. Inject the mixture into the holes. Where plants consist of more than one stem, each stem must be treated. Apply 1 injection per stem shorter than 2.5 m and 2 injections per stem taller than 2.5 m (2 ml per hole).
	1 ℓ / 20 ℓ water	<u>Spray application:</u> (small plants). Spray the plants until thoroughly wet.
<u>Harrisia Cactus</u> (<i>Harrisia [eriocereus] martini</i>)	1 ℓ / 20 ℓ water	<u>Spray application:</u> Large clumps and patches of <i>Harrisia</i> cactus should first receive a cover spray with mixture of 1 part MSMA 720 SL with 22 parts of water. Apply by means of a knapsack sprayer and wet the plants to the point of run-off. A follow-up treatment using the stem injection method may be necessary.
	1 ℓ / 2 ℓ water	<u>Injection treatment:</u> Accessible and single standing plants can be injected into the crown of the plants, preferably with a sheep dose applicator. Inject 1 to 3 times depending on the size of the plant.
<u>Sisal</u> (<i>Agave sisalana</i>)	2 ml concentrate per plant	Inject concentrated MSMA 720 SL deeply into the sisal hole using a sheep dose applicator. Burn after plants have dried out.

Crop / Use	Dosage Rate	Remarks
Industrial	6 ℓ / ha (60 mℓ / 100 m ²)	Apply as an overall spray to control annual grasses and certain broadleaf weeds as well as Yellow and Purple nutsedges, along roadsides, railway lines and other industrial sites. Apply in sufficient water to thoroughly wet all foliage.

SOME WEEDS NORMALLY CONTROLLED BY MSMA 720 SL

Young broad-leaved weeds:

<i>Acanthospermum hispidum</i>	Upright starbur
<i>Amaranthus hybridus</i>	Common pigweed
<i>Bidens bipinnata</i>	Spanish blackjack
<i>Bidens pilosa</i>	Common blackjack
<i>Commelina benghalensis</i>	Wandering Jew
<i>Portulaca oleracea</i>	Common purslane

Nutsedges:

<i>Cyperus esculentus</i>	Yellow nutsedge
<i>Cyperus rotundus</i>	Purple nutsedge (in lawns and turf only)

Invaders:

<i>Opuntia aurantiaca</i>	Jointed cactus
<i>Opuntia ficus-indica</i>	Sweet prickly pear
<i>Opuntia stricta</i>	Sour prickly pear
<i>Opuntia imbricata</i>	Imbricate cactus
<i>Opuntia rosea</i>	Rosea cactus
<i>Cereus jamacaru</i>	Queen cactus
<i>Harrisia martinii</i>	Herrisia cactus
<i>Agave sisalana</i>	Sisal

Grasses:

<i>Cenchrus brownii</i>	Bur grass
<i>Chloris virgata</i>	Feathertop chloris
<i>Digitaria sanguinalis</i>	Crab fingergrass
<i>Digitaria swazilandensis</i>	Swaziland fingergrass
<i>Eleusine indica</i>	Goose grass
<i>Panicum schinzii</i>	Sweet buffalo grass
<i>Panicum maximum</i>	Common buffalo grass
<i>Panicum dilatatum</i>	Common paspalum
<i>Paspalum paspaloides</i>	Couch paspalum
<i>Rottboellia exaltata</i>	Guinea fowl grass
<i>Sorghum verticilliflorum</i>	Common wild Sorghum
<i>Sorghum halepense</i>	Johnson grass
<i>Stenotaphrum secundatum</i>	St. Augustine grass
<i>Urochloa panicoides</i>	Herringbone grass

NOTE

- For maximum effect weeds should be sprayed at the specified growth stages:

<i>Rottboellia exaltata</i> :	10 to 50 cm;
<i>Panicum</i> spp., <i>Digitaria</i> spp. and <i>Sorghum verticilliflorum</i> :	10 to 30 cm;
<i>Eleusine</i> spp. and <i>Urochloa panicoides</i> :	less than 3 cm;
<i>Cyperus</i> spp.:	pre-flowering to flowering.
- A repeat application may be necessary when chlorotic Nutsedge plants show signs of greening up after the first application.
- This product controls some grasses, broadleaf weeds and invader plants. Other weeds that were not present during the development trials with the product, might possibly also be controlled to a certain degree. The registration holder does not accept any responsibility for unlisted weeds.

The following products mentioned in this label are equivalent to the products listed below:

- **AMETRYN 500 SC** (L 7742) = **AMETRYN 500SC** (L 7743) and
- **PH-LOGIC** (L 9028) = **WENBUFF** (L9066).

AMETRYN 500SC is a registered product of / is 'n geregistreerde produk van
UNIVERSAL CROP PROTECTION (PTY) LTD.

AMETRYN 500 SC, PH-LOGIC and/en **WENBUFF** are registered products of / is geregistreerde produkte
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