

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY. KEEP OUT OF REACH OF CHILDREN AND ANIMALS.



Herbicide

MSMA 720 SL

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

3. 10/1/2023 – March 2023

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.

ACTIVE INGREDIENT

MSMA (organic arsenical)

720 g/l

GROUP

0

HERBICIDE



WARNING

Hazard Statements:

Harmful if swallowed.
Causes mild skin irritation.
Causes serious eye damage.
Harmful if inhaled.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Avoid breathing dust, fume, gas, mists, vapours or spray.
Avoid release into the environment.



villa

UN Number: 3082

Registration holder: VILLA CROP PROTECTION (PTY) LTD.
Co. Reg. No. 1992/002474/07
P.O. Box 10413, Aston Manor, 1630
Tel. (011) 396 2233
Website: www.villacrop.co.za

24 HR EMERGENCY NUMBERS:

Griffon Poison Centre: +27 82 446 8946

24 HR Transport / Spill Emergency no: (Hazcall24) +27 86 044 4411

(Client: Villa Crop Protection)

REFER TO DETAILS AS PRINTED ON CONTAINER / BAG

DIRECTIONS FOR USE ENCLOSED

Batch Number:

Date of Manufacture:

MSMA 720 SL

Reg. No. L 3754 Act No. 36 of 1947

N-AR 1984

HRAC HERBICIDE GROUP CODE: 0

ACTIVE INGREDIENT:

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

Registration holder:

VILLA CROP PROTECTION (PTY) LTD.

Co. Reg. No.: 1992/002474/07

PO Box 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.

Hazard statements:

Harmful if swallowed.
Causes mild skin irritation.
Causes serious eye damage.
Harmful if inhaled.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

- Toxic to Bees and wildlife.
- 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 one (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**Precautionary statements:**

Avoid breathing dust, fume, gas, mists, vapours or spray.
Wash hands thoroughly after handling. Do not touch eyes.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release into the environment.
Wear impervious rubber gloves and boots, protective clothing, and chemical safety goggles.
IF SWALLOWED: Get medical help.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Get medical help.
Rinse mouth.
If skin irritation occurs get medical help.
Collect spillage.
Dispose of content/container to suitable landfill in accordance with local regulations.

- Wash contaminated clothing after use.
- 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 THE EMPTY CONTAINER AS FOLLOWS:** Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler www.croplife.co.za. Do not bury, burn, or donate the container to any other parties that may use it as a container for food or beverages.
- Prevent contamination of food, feed, drinking water and eating utensils.

Relevant hazardous components	
MSMA	47.65 %
Geronol ARX/260 SA	< 10 %

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 0 herbicide. Any weed population may contain individuals naturally resistant to **MSMA 720 SL** and other group code 0 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 0 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.

MODE OF ACTION

MSMA is a selective, contact herbicide with some systemic properties that act on enzyme systems to inhibit growth.

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

- **MSMA 720 SL** is compatible with **PH-Logic**. 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 Tee jet-type flat fan nozzles or spraying systems TK5 type flood jets, 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**. Refer to the respective labels for the correct mixing procedures of **Diuron** or **Ametryn**.

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**. 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

Crop / Use	Dosage Rate	Remarks
<u>Sugarcane</u>	6 ℓ / ha OR 4 ℓ / ha PLUS 3 ℓ / ha Diuron 800 SC OR 4 ℓ / ha PLUS 3 to 4 ℓ / ha Ametryn 500 SC	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 to avoid, as far as possible, wetting the cane leaves. Use higher rates and mixing for severe weed infestation or less susceptible weed stages.
<u>Cotton</u>	3 ℓ / ha	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. Do not apply MSMA 720 SL more than twice a season.
<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	<u>Inject plants in the stem.</u> 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	<u>Inject plants in the stem.</u> 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.

Crop / Use	Dosage Rate	Remarks
Queen of the night (<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.
Harrisia Cactus [[<i>Harrisia eriocereus</i> <i>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.
Sisal (<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.
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 aurantica</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>Herrisia martinii</i>	Herrisia cactus
<i>Agave sisalana</i>	Sisal

SOME WEEDS NORMALLY CONTROLLED BY MSMA 720 SL

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>	Herringborn grass

NOTE

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

<i>Rottboellia exalta</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, may possibly also be controlled to a certain degree. The registration holder does not accept any responsibility for unlisted weeds.

The following product mentioned in this label is equivalent to the product listed below:

- PH-LOGIC** (L 9028) = **WENBUFF** (L 9066).

AMETRYN 500 SC (L 7742), **PH-LOGIC** and **WENBUFF** are registered products of
VILLA CROP PROTECTION (PTY) LTD.