



SHARMIN 480 SL

Reg. No. L11162 Act No. 36 of 1947 | Reg. Nr. L11162, Wet Nr. 36 van 1947

A selective hormone type herbicide for the control of broadleaf weeds in crops as indicated.

'n Selektiewe hormoontipe onkruid-
doder vir die beheer van breëblaaronkruid
in gewasse soos aangedui.

HERBICIDE GROUP CODE O

ACTIVE INGREDIENT:

2,4-D (phenoxy compound) 480 g/l s.e.
(as dimethyl amine salt 576 g/l)

Manufactured for and registered by/
Vervaardig vir en geregistreer deur:

Sharda International Africa (PTY) LTD

Reg. No. /Reg. Nr. 2010/002268/07
P. O. Box/Posbus 82021, Southdale, 2135
Tel: 031-266-3264 (Office hours only)

ONKRUIDDODER GROEPKODE O

AKTIEWE BESTANDEEL:

2,4-D (fenoksieverbinding) 480 g/l s.e.
(as dimetielamien sout 576 g/l)

BATCH NO. LOT NR.	
EXPIRY DATE VERVAL DATUM	

NET CONTENTS /
NETTO INHOUD

5 l

UN No./VN Nr. 3082

IN CASE OF POISONING PLEASE PHONE / IN GEVAL VAN VERGIFTIGING SKAKEL ASSEBLIEF
086 155 5777

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HARMFUL
SKADELIK



WARNINGS:

Withholding period:

Allow 7 days between last application and harvesting or grazing of treated areas.

- Handle with care.
- Harmful by swallowing, inhalation and when absorbed through the skin.
- Toxic to fish and bees.
- Store in a cool place.
- Store away from food and feeds and do not keep in the same room with seed, fertilizer, insecticides and fungicides.
- 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.
- Avoid spray drift onto susceptible crops e.g. all broadleaf crops as well as all grain varieties in a susceptible stage of growth.

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 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, incompatibility 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 fumes and spray mist.
- Wash with soap and water after use.
- Do not smoke, eat or drink while using or before washing and changing clothing.
- Avoid spray drift onto other crops, grazing, rivers, dams and areas not under treatment.
- Spraying applicator and equipment must be washed thoroughly after use.
- Clean applicator with a household ammonia solution (1%) before using with other material. Let solution stand for several hours, preferably overnight. Rinse at least twice. This applicator should not be used for applying chemicals other than herbicides. Dispose of wash water where it will not contaminate food, grazing, rivers or dams.
- Triple rinse empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container 3 times with a volume of water equal to a minimum of 10% of that of the container. Add these rinsings to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy empty container and never re-use for any other purpose.
- Prevent contamination of food, feeds and eating utensils.

SYMPTOMS OF HUMAN POISONING:

Harmful. In case of over-exposure to product and excessive amounts are swallowed, may cause nausea, vomiting, sweating, headaches, muscle soreness, abdominal pain and loss of coordination. May cause burns of mouth, throat and respiratory system.

FIRST AID TREATMENT

Inhalation: Remove source of contamination, or leave contaminated area to fresh air as rapidly as possible. Keep the affected person warm and at rest. Treat symptomatically and supportively. Administration of oxygen should be performed by qualified personnel. Get medical attention immediately if effects persist.

Skin contact: Remove contaminated clothing, shoes and leather goods. Wash skin gently and thoroughly with water and non-abrasive soap. Get medical attention immediately if irritation persists.

Eye contact: Immediately flush eyes with gently flowing clean water for at least 15 to 20 minutes, holding the eyelids open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Get medical attention immediately if irritation persists.

Ingestion: Get medical advice immediately and show the container, label, or Data Sheet. DO NOT induce vomiting. If the patient is alert and conscious, have the patient to rinse mouth thoroughly with water.

NOTE TO PHYSICIAN

The product contains a phenoxy herbicide. No specific antidote is available. Treat symptomatically and supportively. If large amounts have been ingested, perform gastric lavage and administer activated charcoal. Follow up with saline cathartic. Avoid oily laxatives.

RESISTANCE WARNING

For resistance management Sharmin 480 SL is a group code O herbicide. Any weed population may contain individuals naturally resistant to Sharmin 480 SL and other group code O herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by Sharmin 480 SL or any other group O herbicides. 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 codes.
- Integrate other control methods (chemical, cultural and biological) into weed control programs.
- For specific information on resistance management contact the registration holder of this product.

USE RESTRICTIONS:

- Dangerous to use in the vicinity of any broadleaf crop.
- May not be used under any circumstances in the vicinity of sensitive crops.
- Aerial and tractor spraying under warm or windy conditions is extremely hazardous.
- Phytotoxicity to sensitive crops some distance away is a distinct possibility.
- Avoid drift from ground and aerial applications so that it will not come into contact with sensitive broadleaf crops.

WIND SPEED:	AERIAL APPLICATION:	GROUND APPLICATION:
1,5 to 5 km/h	800 m downwind	200 m downwind
	800 m crosswind	200 m crosswind
	15 m upwind	6 m upwind
5 to 10 km/h	1 600 m downwind	400 m downwind
	800 m crosswind	200 m crosswind
	15 m upwind	1,5 m upwind
10 to 15 km/h	3,2 km downwind	800 m downwind
	800 m crosswind	400 m crosswind
	15 m upwind	1,5 m upwind
Above 15 km/h	Prohibited	Prohibited

DIRECTIONS FOR USE: Use only as indicated.

Pre-emergence Spraying:

- To ensure a high percentage of weed germination immediately after planting, plant the crop in a well tilled, moist and weed free seedbed.
- Soil clods will affect weed control adversely.
- Do not apply under dry soil conditions nor under cold conditions with or without frost.
- For control of annual grass weeds, apply herbicide before grass seedlings emerge.
- 3 to 6 weeks control is usually obtained.

Post-emergence Spraying:

- Spray when crop is at a suitable stage and soil is moist.
- Do not spray under cold conditions.
- Calibrate spray apparatus accurately to determine the exact quantities of spray being delivered per hectare.

Ground Application:

- Avoid fine droplet size – use low pressure flat fan nozzles of 80° or equivalent ant-drift type, and do not exceed spray pressure of 200 kPa.
- Spray volume must exceed 150 litre per hectare.

- Do not exceed spray height of 50 cm above target and ground speed of 10 km/h.
- Do not apply if wind velocity exceeds 15 km/h (as measured by handheld wind recorder approved by the Registrar: Act 36 of 1947).
- The difference between the wet and dry bulb readings on a whirling hygrometer must not exceed 8°C.

Aerial Application:

DO NOT APPLY THIS PRODUCT BY AIR IN KWA-ZULU NATAL.

Aerial application of Sharmin 480 SL 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:

- Volume: A spray mixture volume of 30 to 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 aerially 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 300 to 350 microns is recommended. Limit the production of fine droplets less than 150 microns (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/h.
- 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:
 - reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
 - 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 RATE:

CROP	DOSAGE	REMARKS
MAIZE (post-emergence) After reaching a height of 45 cm.	2 l/ha	Use drop arms for directional spraying so that the spray does not land in the funnels of the maize plants. <i>Striga asiatica</i> (Common mealie witchweed) should be sprayed when flowers are first seen. Maize may become brittle and malformed after application but this is usually of a temporary nature. Do not apply under cold and/or wet conditions as the crop may possibly be affected detrimentally.
GRAIN SORGHUM (post-emergence only)	2 l/ha	Apply when plants are 15 to 25 cm high, about 3 weeks after emergence of the crop. Spray may be applied later provided directional spraying using drop arms is practiced.
WHEAT (post-emergence only)	1,5 - 2,6 l/ha	Apply between growth stages 7 to 13. Refer to the list of growth stages issued by the ARC Small Grain Institute at Bethlehem. Use higher rate for severe weed infestation or less susceptible weed stage.
BARLEY & RYE (post-emergence only)	1,5 - 2,6 l/ha	Spray when the crop is in the 5 to 7 leaf stage. Use higher rate for severe weed infestation or less susceptible weed stage.
POTATOES (pre-emergence only)		If crop was dry planted, harrow immediately after first rain and apply.
Up to 20 % clay in soil:	2,6 l/ha	
21 to 35 % clay:	3,5 l/ha	
Above 36 % clay:	4,5 l/ha	
ESTABLISHED GRASSES Grass pastures & lawns	3,3 - 4,4 l/ha	For lawns repeat applications may be necessary. Application of nitrogenous fertilizer 2 to 3 weeks before spraying is recommended. Use higher rate for severe weed infestation or less susceptible weed stage.
SUGAR CANE (pre-emergence or post-emergence)	5,25 - 7,25 l/ha (in 300 - 400 l water)	Pre-emergence to plant and ratoon cane: Apply before the weeds emerge. Post-emergence: The weeds should still be young

The treatment can cause cane damage and the danger of this occurrence will be minimized if the sprays are directed so as to avoid as far as possible, wetting the cane leaves. If the cane exceeds a height of 40 cm or has unfurled more than 5 leaves per shoot, directional spraying must be carried out or else the growth may be retarded. Use higher rate for severe weed infestation or less susceptible weed stage.

SOME BROADLEAF WEEDS SPECIES NORMALLY CONTROLLED BY 2,4-D AMINE:

<i>Ageratum conyzoides</i>	Blue weed
<i>Amaranthus spp.</i>	Pigweed
<i>Arctotis leiocarpa</i>	Karoo daisy
<i>Arctotis venusta</i>	Free State daisy
<i>Bidens bipinnata</i>	Spanish blackjack
<i>Bidens formosa</i>	Cosmos
<i>Bidens pilosa</i>	Common Blackjack
<i>Chenopodium album</i>	White goosefoot
<i>Galinsoga parviflora</i>	Gallant Soldier
<i>Portulaca oleracea</i>	Purslane
<i>Raphanus raphanistrum</i>	Wild radish
<i>Striga asiatica</i>	Common mealie witchweed
<i>Tagetes minuta</i>	Khakiweed
<i>Tribulus terrestris</i>	Dubbeltjie
<i>Vicia spp.</i>	Vetch
<i>Xanthium spinosum</i>	Spiny cocklebur
<i>Xanthium strumarium</i>	Cocklebur

NOTE: Sharmin 480 SL controls some annual broadleaf weeds. Other weeds that were not present during the development trials with these products, may possibly also be controlled to a certain degree. The registration holder does not accept any responsibility for unlisted weeds.