DIRECTIONS FOR USE ENCLOSED
Batch number: **REFER TO DETAILS PRINTED**
Lotnommer: **ON CONTAINER/BAG**

GEBRUIKSAANWYSINGS INGESLUIT
Date formulated: **VERWYS NA BESONDERHEDE**
Formuleringsdatum: **GEDRUK OP HOUER/SAK**

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Herbicide

MCPA 400 SL

Reg. No. L 5793 Act/Wet No. 36 of/van 1947
N-AR 1092

4: 8/10/2012–Feb2019

A selective soluble concentrate hormone type herbicide for the post-emergence control of annual weeds, as indicated, in grain sorghum, small grains, lawns, grass pastures, maize, potatoes, sugarcane, as well as Plantago lanceolata and Ipomoea coscinosperma in apples, pears, peaches and vines.

'n Selektiewe oplosbare konsentraat hormoontipe onkruiddoder vir die na-opkomsbeheer van eenjarige onkruide, soos aangetoon, in aartappels, graansorghum, grasperke, grasweidings, kleingraan, mielies, suikerriet, asook Plantago lanceolata en Ipomoea coscinosperma in appels, pere, perskes en wingerde.

ACTIVE INGREDIENTS / AKTIEWE BESTANDDELE

(4-chloro-2-methylphenoxy) acetic acid **400 g/ℓ** (4-chloor-2-metielfenoksie) asynsuur
(as the phenoxy acetic salt) (potassium salt) **470 g/ℓ** *(as die fenoksie-asynsout) (kaliumsout)*

HRAC HERBICIDE GROUP CODE **O** HRAC ONKRUIDDODER GROEPKODE

ℓ

villa

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
Website / Webblad: www.villacrop.co.za

24 HR EMERGENCY NUMBER:
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UN Number: 2902

Willow Set & Print 011 394-4486

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(as the phenoxy acetic salt (potassium salt)/as die fenoksie-asynsout (kaliumsout).....470 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

CAUTION / VERSIGTIG

WARNINGS
- **Allow 7 days between last application and harvest or grazing of treated areas.**
- Handle **MCPA 400 SL** with care.
- Harmful when swallowed.
- Store in a cool place, away from food, feeds, seed, fertilizers and other agricultural chemicals.
- Keep out of reach of children, uniformed persons and animals.
- Avoid spray drift onto susceptible crops, e.g. all broadleaf crops, as well as all grain varieties in a susceptible stage of growth.
- Re-entry: Do not enter treated area within 1 day after treatment unless wearing protective clothing.
- **In case of poisoning, take the patient to a physician immediately 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 drift to contaminate water or adjacent areas.
- **NOTE**
  MCPA 400 SL is a highly active herbicide that, in small quantities, when used incorrectly, can cause serious damage to crop seedlings, deciduous fruit trees and grape vines during budding and early season growth stages. Under the following conditions it can cause serious damage as far as 3 to 5 km from the nearest spray path of the aircraft: Cloudy weather with relative humidity above 80 % and low air movement of less than 5 km per hour. When such conditions prevail, aerial application should **NOT** be carried out where crop seedlings, deciduous fruit trees and grape vines are in budding or early development stages are present within 5 km of the nearest spray path of the aircraft.

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 to 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
- Avoid inhalation of spray mist and fumes.
- Wear protective clothing: rubber gloves, boots and face shield when handling the concentrate and rubber gloves and boots during application.
- Wash contaminated clothing daily.
- Wash with soap and water after use and after accidental skin contact.
- Do not eat, drink or smoke whilst mixing and applying, or before washing hands and face and change of clothing.
- Avoid spray drift onto other crops, grazing, rivers, dams or areas not under treatment or to nearby water sources.

- Clean applicator with a household ammonia solution (1 %) before using with other pesticides. 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, 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 the volume of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy empty container by perforation and flattening.
- **Never** use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING

Harmful. Over-exposure to or swallowing of product may cause nausea, vomiting, excessive sweating, headaches, muscle soreness, abdominal pain and loss of coordination. May cause burns of mouth, throat and oesophagus.

FIRST AID TREATMENT

- **Inhalation**: Remove source of contamination or move person to fresh air as rapidly as possible. Keep affected person warm and at rest. Treat symptomatically and supportively. Only qualified medical personnel should perform administration of oxygen. Get medical attention immediately if condition persists.
- **Skin contact**: If irritation occurs, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts). Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Do not rub the skin. If irritation persists, seek medical advice immediately.
- **Eye contact**: Immediately flush eyes with gently flowing lukewarm water for 15 minutes or until the product is removed, holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. **Seek medical attention immediately**.
- **Ingestion**: Have patient rinse mouth thoroughly with water. Do not induce vomiting. If person is alert and conscious, give 2 to 3 glasses of water to drink. **Seek medical attention immediately**.

NOTE TO PHYSICIAN

This product contains a phenoxy herbicide. There is no antidote available. Treat symptomatically and supportively. Gastric lavage with activated charcoal is advised. Follow up with saline cathartic laxative. Avoid oily laxatives.

RESISTANCE WARNING

MCPA 400 SL is a group code O herbicide. Any weed population may contain individuals naturally resistant to **MCPA 400 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 **MCPA 400 SL** or any other group code O 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

To prevent damage, do not permit drift, vapour or spray mist to come into contact with sensitive broadleaf crops, fruit trees and ornamental plants. Apply the product strictly in accordance with the application directions.

DIRECTIONS FOR USE: Use only as directed.

Ground application:

Avoid fine droplet size - use low-pressure flat fan nozzles of 80 degrees or equivalent anti-drift type and do not exceed a spray pressure of 200 kPa. Spray volume must exceed 150 litres per hectare. Do not exceed spray height of 50 cm above target and ground speed of 10 km per hour. Do not apply if wind velocity exceeds 15 km per hour. 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 KwaZulu-Natal.
Aerial application of **MCPA 400 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:

- **The use of a suitable registered drift retardant adjuvant and/or low drift nozzles (e.g. straight stream nozzles) is recommended. In the case of fixed-wing aircraft flying at a speed faster than 130 mph, the maximum deflection angle of the nozzles or spray stream, as measured from a horizontal straight backwards orientation may not exceed 30 degrees. In the case of slower flying fixed wing aircraft the maximum deflection angle, as described above, may not exceed 55 degrees.**
- Volume: A spray mixture volume of 30 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 micron is recommended. 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 aircraft dives, is in a climb or when banking.
- Use suitable hydraulic 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.

Pre-emergence treatment:
Plant the crop in a weed free, moist soil immediately after preparation of a fine seedbed. For control of annual grasses, as indicated, application should be performed before emergence of the grass seedlings.

Post-emergence treatment:
Apply only when the crop is in the correct stage of development, as indicated. Weeds should only be sprayed in the young stages and when actively growing in moist soil. Rain one day after application will not reduce the effectiveness of the herbicide.

APPLICATION RATES

Crop / Soil Type	*Dosage Rate per ha*	*Remarks*
Maize Pre-emergence: 0 to 10 % clay	3.25 ℓ / ha	Mainly to control annual broad-leaved weeds. Apply 5 to 6 days after planting when soil is sufficiently moist and in good tilth.
11 to 20 % clay	4.0 ℓ / ha	
21 to 35 % clay	5.25 ℓ / ha	
> 35 % clay	6.5 ℓ / ha	
Post-emergence:	2.5 ℓ / ha	Apply **MCPA 400 SL** as an interrow directed spray only if the crop has reached a height of 45 cm. Avoid spray solution being deposited in the funnels of maize plants. Grass weeds already emerged at this stage will not be controlled.
Grain sorghum (Post-emergence only)	2.5 ℓ / ha	Apply when the plants are 15 to 25 cm high (about 3 weeks after emergence of the crop). Application may be performed later provided directional spraying is practiced by using drop-arms.
Barley & Rye (Post-emergence only)	2.0 to 4.0 ℓ / ha	Spray when the crop is in the 5- to 6-leaf stage. Dosage rate depends on the growth stage of the weeds.
Wheat (Post-emergence only)	2.0 to 4.0 ℓ / ha	Apply between growth stages 7 (centre double ridges enlarged) and 13 (awn of the top spikelets elongated) according to the list of growth stages for wheat drawn up by the ARC-Small Grain Institute, Bethlehem. Dosage depends on the growth stage of the weed.
Grass pastures & Lawns (Established)	4.0 to 5.25 ℓ / ha	For lawns repeat applications may be necessary. Applications of nitrogenous fertilizer 2 to 3 weeks before spraying **MCPA 400 SL** are recommended. The dosage depends on the weed species present and the growth stage of the weeds.
Oats (Post-emergence only)	2.0 ℓ / ha	Apply **MCPA 400 SL** when the crop is in the 5- to 6-leaf stages.
Sugarcane	6.25 to 8.75 ℓ / ha	a) **Pre-emergence to plant and ratoon cane:** Apply before the weeds emerge. b) **Post-emergence:** The weeds should still be young. The treatment can cause cane damage and the danger of this occurring will be minimized if the applications are directed so as to avoid as far as possible the wetting of the cane leaves. If the cane exceeds a height of 40 cm or has unfurled more than 5 leaves per shoot, directed spraying must be carried out or else the growth may be retarded.
NOTE For controlling a wider spectrum of broad-leaved weeds and young grasses, as well as sedges (*Cyperus* spp.) in sugarcane, a combination spray of **MCPA 400 SL** with **Diuron** or **Ametryn** is recommended. For directions to use consult the **Diuron** or **Ametryn** labels.		
Potatoes (Pre-emergence only) < 20 % clay	3.25 ℓ / ha	Apply **MCPA 400 SL** to a damp seedbed free of emerged weeds, immediately after the crop has been planted. For the control of germinating grasses, **MCPA 400 SL** must be applied before the grass seedlings emerge. A period of 3 to 6 weeks of weed control is normally obtained. If the crop was dry-planted, harrow immediately after first rain and apply.
21 to 35 % clay	4.0 ℓ / ha	
> 35 % clay	5.25 ℓ / ha	

Crop / Soil Type	*Dosage Rate per ha*	*Remarks*
Apples, Pears, Peaches & Grapevines	5.0 ℓ / ha	**Winter rainfall region only**: Apply to annual broad-leaved weeds post-emergence by knapsack sprayer only and avoid spray drift and fine droplets.

CAUTION

- **Do not spray the trees. Direct the spray away from the trees. Spray only on calm days with no wind. Do not spray MCPA 400 SL if the orchards are interplanted with any row crops.**
- **Spray equipment must not be used afterwards for insecticide or fungicide sprays.**
- For optimal results in orchards consider the following:
  * Do not spray immediately before or after irrigation.
  * Do not spray when rain is expected.
  * Rain shortly after application could have a negative effect on the results.

SOME WEED SPECIES NORMALLY CONTROLLED BY MCPA 400 SL:	
Pre- and Post-emergence:	
Ageratum conyzoides	Blue weed
Amaranthus spp.	Pigweeds
Arctotis leiocarpa	Karoo daisy (early rosette stage)
Arctotis venusta	Free State daisy
Bidens bipinnata	Spanish blackjack
Bidens formosa	Cosmos
Bidens pilosa	Common blackjack
Chenopodium album	White goosefoot
Commelina benghalensis	Benghal wandering Jew
Galinsoga parviflora	Small-flowered quick weed
Plantago lanceolata	Narrow-leaved ribwort
Portulaca oleracea	Purslane
Raphanus raphanistrum	Wild radish
Tagetes minuta	Tall khaki weed
Vicia hirsuta	Tiny purple vetch
Vicia sativa	Vetch
Pre-emergence only:	
Brachiaria eruciformis	Sweet signal grass
Eleusine indica	Goose grass
Panicum schinzii	Vlei Panicum (early germinating)
Setaria verticillata	Bur bristle grass
Sorghum verticilliflorum	Common wild Sorghum
Post-emergence only:	
*Datura ferox**	Large thorn apple
*Datura stramonium**	Thorn apple
Polygonum aviculare	Prostrate knotweed
Striga asiatica	Witchweed
Tribulus terrestris	Common dubbeltjie
Xanthium spinosum	Spiny cocklebur
Xanthium strumarium	Cocklebur

* - In the 2- to 3-leaf stage.