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# ADAMA MCPA

Reg. no L11056 Act/Wet 36 of/van 1947
N-AR 2167

**READ ATTACHED PACKAGED LEAFLET BEFORE USE**
**KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

| GROUP | O | HERBICIDE |
|---|---|---|

| | |
|---|---|
| A selective, soluble liquid herbicide for the control of mainly broadleaf weeds in crops as indicated. | 'n Selektiewe, oplosbare vloeistof onkruiddoder vir die beheer van hoofsaaklik breëblaaronkruide in gewasse soos aangedui. |

**WARNING**

**Hazard statements**
Harmful if swallowed.
Harmful in contact with skin.
Harmful if inhaled.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

**Precautionary statements**
Do not eat, drink or smoke when using this product.
Avoid release to the environment.

**ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL**

MCPA (Potassium salt)…… 400 g/L ……..MCPA (Kaliumsout)
(phenoxy compound) (fenoksieverbinding)

**NET VOLUME/NETTO VOLUME**

…… L

**REGISTRATION HOLDER/REGISTRASIEHOUER**
ADAMA South Africa (Pty) Ltd;
Reg. no. 1992/001741/07
Ground Floor, Simeka House
The Vineyard Office Estate, 99 Jip de Jager Drive
Bellville, 7530
T: +27 21 982 1460
infocpt@adama.com

**IN CASE OF POISONING, CALL THE FOLLOWING NUMBERS**:
Griffon Poison Information Centre:
+27 82 446 8946 or
Tygerberg Poison Information Centre:
+27 861 555 777
**EMERGENCY NUMBER:**
SPILL TECH: +27 86 100 6366 or +27 83 253 6618

UN no.:3082

| | | |
|---|---|---|
| Batch number | ..... | Lotnommer |
| Date of manufacture | ..... | Datum van vervaardiging |
| Expiry date | ……. | Vervaldatum |

***GHS information***

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**WARNINGS**

- Harmful if swallowed.
- Harmful in contact with skin.
- Harmful if inhaled.
- Very toxic to aquatic life.
- Very toxic to aquatic life with long lasting effects.

- Allow 7 days between last application and harvesting or grazing of treated areas.
- Handle product with care.
- Harmful if swallowed.
- Severe irritant to eyes with corneal damage.
- May cause skin irritation.
- Store in a cool, dry, well-ventilated place in the original container, tightly closed and secured.
- Store away from food, feeds, seed, fertilizer 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.
- **AERIAL APPLICATION:** Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue 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 effective under all conditions. The activity and effect thereof may be affected by factors such as abnormal climatic and storage conditions, quality of dilution water, incompatibility with other substances not indicated on the label and the occurrence of resistance of the weed against the remedy, 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 by 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.**

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**PRECAUTIONS**

- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.
- Read label before use.
- Wash hands, forearms and face thoroughly after handling.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective gloves, protective clothing, eye protection, face protection.
- IF SWALLOWED: Get medical help. Rinse mouth.
- IF ON SKIN: Wash with soap and water. Get medical help. Specific treatment (see ... on this label).
- Take off contaminated clothing and wash it before reuse.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical help.
- Collect spillage.
- Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

- Do not inhale spray mist.
- Avoid skin and eye contact by wearing protective clothing when mixing the product.
- In case of accidental eye contact, flush with plenty of water and get medical attention if necessary.
- Wash with soap and water after use and accidental skin contact as well as contaminated clothing.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- 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 crops, food, grazing, rivers or dams.

- 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.

- **Never** re-use the empty container for any other purpose.

- Prevent contamination of food, feeds, drinking water and eating utensils.

## RELEVANT SUBSTANCES

| Chemical name | w/w % | CAS no. |
|---|---|---|
| Potassium salt of MCPA | 25–50% | 5221-16-9 |

## FIRST AID TREATMENT

Remove patient from source of poisoning and keep him quiet and reassured.

**Eyes:** Flush eyes with clean gentle flowing water for at least 20 minutes, occasionally lifting upper and lower lids, until no evidence of chemicals remains. If irritation occurs and persists, obtain medical attention.

**Skin:** Remove contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and cold water, until no evidence of chemical remains. Do not rub skin. Get medical attention if irritation occurs and persists.

**Inhalation:** Move the patient to fresh air. If breathing difficulty or irritation occurs and persists, obtain medical attention.

**Ingestion:** Do not induce vomiting. If the patient is alert, have the mouth thoroughly rinsed with water. Give plenty of water to drink (1 to 2 glasses). Seek medical advice immediately, showing container and label.

## SYMPTOMS OF HUMAN POISONING

May cause mild skin irritation to some individuals. Slightly toxic when absorbed through the skin. May cause severe eye irritation with corneal injury. Harmful if swallowed. Very high acute exposure may cause slurred speech, twitching, jerking and spasms, low blood pressure and unconsciousness.

NOTICE TO THE USER: This agricultural remedy is to be used only according to the directions of this label. It is an offense under the Act to use this product inconsistent with the directions on the label.

**NOTE TO PHYSICIAN**

There is no specific antidote. Treat symptomatically and supportively as and when required. In case of ingestion, gastric lavage could be considered. Give oxygen if respiration is depressed.

**RESISTANCE WARNING**

For resistance management **ADAMA MCPA** is a group code **O** herbicide. Any weed population may contain individuals naturally resistant to **ADAMA MCPA** 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 **ADAMA MCPA** 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.

**MODE OF ACTION**

O: Auxin mimics.

**USE RESTRICTIONS**

- To prevent damage, do not permit drift, vapour or spray mist to come into contact with sensitive broadleaf crops, fruit or ornamentals.
- Apply the product strictly in accordance with the application directions.
- The wind speed and direction at the time of application will determine the distance which must separate the closest edge of the area to be sprayed from susceptible crops (refer to table below).

| WINDSPEED KM/H | AERIAL APPLICATION | GROUND APPLICATION |
|---|---|---|
| 1.5 to 5 km | 800 m downwind<br>800 m crosswind<br>15 m upwind | 200 m downwind<br>200 m crosswind<br>6 m upwind |
| 5 to 10 km | 1600 m downwind<br>800 m crosswind<br>15 m upwind | 400 m downwind<br>200 m crosswind<br>1.5 m upwind |
| 10 to 15 km | 3.2 km downwind<br>800 m crosswind<br>15 m upwind | 800 m downwind<br>400 m crosswind<br>1.5 m upwind |
| Above 15 km | Prohibited | Prohibited |

**DIRECTIONS FOR USE**

**Use only as directed.**

**Pre-emergence application**

- Apply to damp seedbed free of emerged weeds, immediately after the crop has been planted.
- For the satisfactory control of germinating grasses, the weed killer must be applied before the grass seedling emerges.
- A period of 3 to 6 weeks control is generally obtained.

**Post-emergence application**

- Spraying should only be carried out when the crop is in a suitable stage of development as indicated.
- Weeds vary in their susceptibility.
- For best results, weeds should be sprayed in the very young stages and when the soil is moist.
- Under the above conditions, rainfall a day after application will not reduce the effectiveness of the herbicide.

## Compatibility

- **ADAMA MCPA** is normally compatible with many products, provided the mixing instructions are strictly adhered to.
- The quality of the water and formulation differences can affect the compatibility. Since it is not possible for ADAMA South Africa (Pty) Ltd to test all possible combinations, the onus lies with the user to carry out a compatibility test, if tank mixtures are considered.
- The warnings, precautions, restrictions, recommendations, instructions and directions for use on the labels of the products that are mixed should be strictly adhered to.

## Mixing instructions

- Half fill the spray tank with clean water.
- Measure out the required quantity of **ADAMA MCPA** and add to the spray tank.
- Fill the spray tank with water to the required volume, while maintaining agitation to ensure thorough mixing.
- If any other product is to be added to the tank mixture, the required volume of that product must be premixed with a small amount of water.
- Add the pre-mix to the spray tank after the **ADAMA MCPA** mixture is thoroughly mixed, while maintaining agitation.
- Maintain agitation during spraying.
- Use the prepared mixture immediately.
- Do not allow to stand overnight.

## Ground application

- Avoid fine droplet size - use low pressure flat fan nozzles of 80$^{o}$ or equivalent anti-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 $^{o}$C.

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**Aerial application**

Aerial application of **ADAMA MCPA** 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). **Do not apply this product by air in KwaZulu-Natal.** 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 litre 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 $cm^2$ must be recovered at the target area:

- Droplet size: A droplet spectra 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 DOSAGE RATES**

| CROP | DOSAGE RATE | REMARKS |
|---|---|---|
| **Wheat**<br><br>(post-emergence only) | 2–4 L/ha | Apply between growth stages 7 (centre of double ridges enlarge) and 13 (awn of top spikelets elongate) according to the list of growth stages of the ARC-Small Grain Institute, Bethlehem. Use the lower dosage if the weeds have not progressed beyond the 4- leaf stage. |
| **Barley and rye**<br><br>(post-emergence) | 2–4 L/ha | Spray when the crop is in the 5- leaf stage. Use the lower dosage if the weeds have not progressed beyond the 4- leaf stage. |
| **Grain sorghum**<br><br>(post-emergence only) | 2.5 L/ha | Apply when the plants are 150 to 200 mm high, about 3 weeks after emergence of the crop. Spray may be applied later provided directional spraying using drop arms is practiced. |
| **Oats**<br><br>(post-emergence) | 2.0 L/ha | Do not exceed 2.0 litre per hectare. |
| **Potatoes**<br><br>(pre-emergence only)<br><br>Clay content of soil:<br><br>Up to 20%<br><br>21–35%<br><br>>36% | <br><br><br><br>3.25 L/ha<br><br>4.00 L/ha<br><br>5.25 L/ha | If crop was dry planted, harrow immediately after first rain and apply. |
| **Established grasses**<br><br>Grass pastures and Lawns | 4–5.25 L/ha | For lawns repeat applications may be necessary. Application of nitrogenous fertilizer 2 to 3 weeks before spraying is recommended. Use the lower dosage if the weeds have not progressed beyond the 4- leaf stage. |
| **Sugarcane**<br><br>(post- or pre-emergence) | 6.25–8.75 L in 300–400 L water/ha | a) **Pre-emergence to plant and ratoon cane:**<br><br>Apply before the weeds emerge.<br><br>b) **Post-emergence:**<br><br>The weeds should still be young. The treatment can cause cane damage and the danger of this occurring will be minimized if the sprays are directed so as to avoid as far as possible, wetting |

| CROP | DOSAGE RATE | REMARKS |
|---|---|---|
| | | the cane leaves. If the cane exceeds a height of 400 mm or has unfurled more than 5 leaves per shoot, directed spraying must be carried out or else the growth may be retarded.<br><br>Use the lower dosage as a post-emergence treatment if the weeds have not progressed beyond the 4- leaf stage. |

**WEEDS CONTROLLED**

**Pre- and post-emergence**

| Botanical name | Common name |
|---|---|
| *Ageratum conyzoides* | blue weed |
| *Amaranthus hybridus* | Cape pigweed |
| *Arctotis leiocarpa* | Karoo daisy |
| *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* | Gallant soldier |
| *Portulaca oleracea* | purslane |
| *Raphanus raphanistrum* | wild radish |
| *Tagetes minuta* | khakiweed |
| *Vicia hirsuta* | tiny purple vetch |
| *Vicia sativa* | broad-leaved purple vetch |

**Only pre-emergence**

| Botanical name | Common name |
|---|---|
| *Brachiaria eruciformis* | sweet signal-grass |
| *Eleusine indica* subsp. *africana* | goose grass |
| *Panicum schinzii* | sweet buffalo grass |
| *Setaria verticillata* | sticky bristle grass |
| *Sorghum verticilliflorum* | common wild sorghum |

**Only post-emergence**

| Botanical name | Common name |
|---|---|
| * *Datura ferox* | large thorn apple |
| * *Datura stramonium* | thorn apple |
| *Polygonum aviculare* | prostrate knotweed |
| *Tribulus terrestris* | dubbeltjie |
| *Xanthium spinosum* | spiny cocklebur |

* - 2- to 3- leaf stage