

WARNINGS

- Allow 7 days between last application and harvesting or grazing.
- Handle with care.
- Poisonous by contact, swallowing and inhalation.
- Store away from food, feedstuffs, seed, fertilizer and other agricultural remedies.
- Keep out of reach of children, uninformed persons and animals.
- Do not apply to land adjacent to susceptible crops as well as grain varieties at 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. Avoid drift to adjacent areas and water contamination.

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 included in the label and the occurrence of resistant weeds, 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 accidental skin contact.
- Remove contaminated clothing immediately and wash before reuse.
- Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment.
- Clean applicator with 1% Ammonia solution before using for other remedies and dispose of wash water where it will not contaminate food, grazing, rivers or dams/ Use applicator only for herbicide applications.
- Prevent contamination of food, foodstuffs, drinking water and eating utensils.
- Do not smoke, eat or drink while using or before washing and changing clothing.

TRIPLE RINSE AND DISPOSAL

Rinse empty container **THREE** times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsings to the contents of the spray tank. Destroy empty container by perforation and flattening. Dispose of in a safe way and never use for any other purpose.

SYMPTOMS OF HUMAN POISONING:

No incidence of human poisoning is known. Human poisoning is highly improbable due to low oral and dermal toxicity.

FIRST AID TREATMENT:

Ingestion: Dilute swallowed material by giving large quantities of water. Induce vomiting by gagging victim with finger or blunt object

Skin contact: Wash affected areas with plenty of water for at least 10 minutes. Seek medical attention if irritation occurs.

Eye contact: Flush with clean, running water for at least 10 minutes. Seek medical attention if irritation occurs.

NOTE TO PHYSICIAN:

Product present a relatively non-toxic agricultural herbicide. No antidotes are known. Treat symptomatically and give supportive therapy.

RESISTANCE WARNING:

For resistance management MAKHRO MCPA is a group code O herbicide. Any weed population may contain individuals naturally resistant to MAKHRO 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 might not be controlled by MAKHRO MCPA or other group code O herbicides. To delay the development of herbicide resistance the following should be done:

- Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with products from different herbicide codes.
- Integrate control methods (chemical, cultural and biological) into weed control programs.

For specific information contact the local distributor agent or the registration holder.

DIRECTIONS FOR USE

USE ONLY AS DIRECTED

Mixing and application

Dilute with clean water and apply evenly to target weeds.

Ground application:

Avoid fine droplet size. Use low-pressure flat fan nozzles of 80° or equivalent anti drift type and do not exceed a spray pressure of 200 kPa. Apply in 150-225 l water/ha. Do not exceed a spray height of 50 cm above the target and ground speed of 10 km/h. Do not apply if the wind exceeds 15 km/h as measured by a handheld wind recorder approved by the Registrar Act 36 of 1947, or the difference between the wet and dry bulb temperatures is greater than 8°C.

Aerial application:

Aerial application of MAKHRO MCPA may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SANS 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 volume of at least 30 lt spray mixture per ha 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 effect if this product is applied aurally at a lower volume rate than recommended above:
- Droplet coverage: 30 – 45 droplets per cm² must be recovered on the target area.
- Droplet size: a droplet spectrum with a VMD of 300-350 micron is recommended. Limit the production of fine droplets less than 150 mm to a minimum (high drift and evaporation potential)
- Flying height: Maintain the height of the spray boom at 3 – 4 meters above the target. Do not spray when aircraft dives, is in a climb or when banking
- Use suitable atomiser equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of the product. The spraying system must produce a droplet spectrum with the lowest Relative Span.
- Position all the atomizers within the inner 60 – 75 % of the wingspan to prevent droplets from entering the wingtip vortices
- The difference between the wet and dry bulb thermometers of whirling hygrometer, should not exceed 8°C
- Stop spraying if the wind 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:

- (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 mentioned requirements will be met and that the relevant data will be compiled in a logbook and kept for future reference

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. Aerial application in Kwazulu-Natal is prohibited.

RECOMMENDATIONS

CROP	APPLICATION RATE (ℓ/ha)	COMMENT (The dosage rate depends on the growth stage of the weeds)
Maize (post emergence)	2,5	Spray only if the crop has reached a height of 45 cm and apply by means of drop arms to 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)	2,5	Apply when crop has reached a height of 15 - 25 cm (about 3 weeks after germination). If application is to be made at a later stage, drop arms are to be used to prevent spray deposit being deposited in to the funnel.
Barley and rye (post emergence)	2,0 - 4,0	Apply when the crop has reached the 5 leaf stage (5 leaves on the main haulm with the 6 th leaf visible).
Wheat (post emergence)	2,0 - 4,0	Apply between growth stages 7 and 13 according to the list of growth stages of the Small Grain centre, Bethlehem.
Established grass Pasture	4,0 - 5,25	An application of nitrogenous fertilizer 2-3 weeks before application is recommended.
Established lawns	4,0 - 5,25	Fertilize with a nitrogenous fertilizer prior to treatment as for pastures
Sugarcane (pre-emergence to weeds for plant and ratoon cane)	6,25 - 8,75	Apply as an overall spray in 300-400 ℓ water/ha shortly after planting or harvesting and before weeds and cane leaves emerge.
Sugarcane (post-emergence to weeds for plant and ratoon cane)	6,25 – 8,75	Apply as a directed inter row spray in 300-400 ℓ water/ha, while weeds are still young. If the cane exceeds a height of 40 cm or has unfurled more than 5 leaves per shoot, directed spraying with drop arms must be carried out to avoid temporary growth retardation.

CROP	APPLICATION RATE (ℓ/ha)	COMMENT (The dosage rate depends on the growth stage of the weeds)
Potatoes (pre-emergence only) CLAY % 0 - 20 21 - 35 above 35	3,25 4,00 5,25	If the crop has been dry planted harrow immediately after the first rain and apply.
Apples, pears, peaches and vines: To control <i>Plantago lanceolata</i> and <i>Ipomoea coscinosperma</i> in the Western Cape	5,0 or as a directed spot treatment 170 ml in 15 ℓ water	Apply as directed spray in 400-500 ℓ water/ha. Fine droplets, which could cause drift, should be avoided. Apply either as a single one spray to weeds after blossom of the crop when fruitlets are still very small or two sprays with the first at budburst before the crop blossoms, and the second when fruitlets are still very small. The second application is only for apples and pears
Apples and pears: To control annual weeds and certain perennial broadleaf weeds in winter.	Early winter: 3,0 ℓ plus 1,5 ℓ CLEAROUT/ha Late winter: 4,0 ℓ plus 2,0 ℓ CLEAROUT/ha	Early winter: Apply as a direct spray to young, actively growing weeds. Late winter: Apply as a directed spray to mature weeds.

NOTE:

DO NOT SPRAY ON THE FRUIT TREES AND VINES. The spray must be directed away from the trees. Spray only on a calm day. Do not apply in orchards, which are interplanted with any other crops. Rain or irrigation shortly before or after application can reduce efficacy.

LIST OF SOME WEEDS CONTROLLED

<i>Ageratum conyzoides</i>	Billygoat weed
<i>Amaranthus thunbergii</i>	Red pigweed
<i>Amaranthus spinosus</i>	Thorny pigweed
<i>Arctotis venusta</i>	Free State Daisy
<i>Bidens bipinnata</i>	Spanish Blackjack
<i>Bidens formosa</i>	Cosmos
<i>Bidens pilosa</i>	Common black jack
<i>Chenopodium album</i>	White goose foot
<i>Commelina benghalensis</i>	Wandering jew
<i>Convolvulus arvensis</i>	Field bindweed.
<i>Datura ferox</i>	Large thorn apple
<i>Galinsoga parviflora</i>	Small flowered quick weed
<i>Portulaca oleracea</i>	Common purslane
<i>Raphanus raphanistrum</i>	Wild radish
<i>Richardia brasiliensis</i>	Tropical Richardia
<i>Schkuhria pinnata</i>	Dwarf marigold

<i>Tagetes minuta</i>	Tall khaki weed
<i>Tribulus terrestris</i>	Common dubbeltjie
<i>Vicia sativa</i>	Common vetch
<i>Xanthium strumarium</i>	Large cockle bur

* CLEAROUT (Reg.no. L4734, Act 36 of 1947)

Registered by: GAP Chemicals

WAARSKUWINGS

- Laat een week tussen laaste toediening en oes of beweiding toe.
- Hanteer versigtig.
- Giftig deur kontak, insluk en inaseming.
- Bêre weg van voer, voedsel, saad, kunsmis en ander landbou middels.
- Hou buite bereik van kinders, oningeligte persone en diere.
- Moet nie in die nabyheid van gevoelige gewasse of graan gewasse op 'n gevoelige groeistadium gebruik word nie.
- Lugbespuiting: Verwittig alle inwoners in die onmiddelijke omgewing wat gespuit gaan word en reik die nodige waarskuwings uit. Vermy die oorwaai na aangrensende gebiede en waterbesoedeling.

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie, aangesien die werking en effek daarvan beïnvloed kan word deur faktore soos abnormale grond-, klimaat-, en bergingstoestande, kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van die onkruid teen die betrokke middel, sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikeit vir skade aan gewasse, plantegroei, omgewing of vir nadelige effek op mens of dier as gevolg van die versuim van die gebruiker om etiket aanwysings na te kom of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.

VOORSORGMAATREËLS

- Vermy inaseming van dampe en sproeinewel.
- Was met seep en water na toevallige velkontak.
- Verwyder besmette klere onmiddelik en was voor hergebruik.
- Vermy oorwaai na ander gewasse, weidings, riviere, damme of areas nie onder behandeling nie.
- Maak spuittoerusting met 1% Ammonia oplossing skoon voordat dit vir ander middels gebruik word en raak ontslae van die spoelwater waar dit nie voedsel, weiding, riviere en damme sal besoedel nie. Gebruik die spuittoerusting net vir onkruidodertoeediening.
- Moet nie rook, eet of drink terwyl gebruik word of voor gewas is en ander klere aangetrek is nie.
- Voorkom besoedeling van kos, voer, drinkwater en eetgerei.

WEGDOENING

Spoel leë houers **DRIEKEER** uit met 'n volume water gelystaande aan 'n minimum van 10% van die houer. Gooi die spoelwater by die inhoud van die spuittenk voordat die houer vernietig word. Vernietig die lee houer deur gate daarin te maak en dit plat te slaan. Verseker dat die leë houer in 'n veilige plek weggegooi word en moet dit nooit vir enige ander doel gebruik nie.

SIMPTOME VAN MENSLIKE VERGIFTIGING

Geen incident van menslike vergiftiging is bekend nie. Menslike vergiftiging is hoogs onwaarskynlik weens lae orale en dermale giftigheid.

NOODHULPBEHANDELING

- Inname per mond:** Verdun die materiaal wat ingeneem is deur groot hoeveelhede water in te gee. Veroorsaak braking deur die agterkant van die keel met die vinger of 'n stomp voorwerp te prikkel
- Velkontak:** Was besoedelde dele met baie water vir ten minste 10 minute af. Kry mediese hulp indien irritasie voorkom.
- Oogkontak:** Spoel met skoon lopende water vir ten minste 10 minute uit. Kry mediese hulp indien irritasie voorkom

NOTA AAN GENEESHEER

Die produk is 'n relatiewe nie-toksiese onkruidodert. Geen teenmiddel is bekend. Behandel simptome en gee ondersteunende terapie.

WEERSTANDSWAARSKUWING

Vir die bestuur van weerstand word **MAKHRO MCPA** as 'n groepkode O onkruidodder geklassifiseer. Enige onkruidpopulasie mag individue hê wat natuurlike weerstand teen Makhro MCPA en ander groepkode O onkruidodders besit. Die weerstandbiedende individue kan uiteindelik hierdie populasie domineer as hierdie onkruidodders herhaaldelik gebruik word. Om onkruidweerstand te vertraag kan die volgende gedoen word:

- Vermyn die herhaaldelike eksklusiewe gebruik van onkruidodders met dieselfde onkruidoddergroepkodes. Wissel af of gebruik tenkengsels met produkte van ander onkruidgroepkodes.
- Integreer beheermetodes (chemiese, verbouing en biologies) in onkruidbeheerprogramme.

Vir spesifieke inligting skakel met die lokale verspreider se agent of die registrasiehouer.

GEBRUIKSAANWYSINGS

GEBRUIK SLEGS SOOS AANGEDUI.

Vermenging en toediening

Verdun met skoon water en dien egalig toe oor teikenonkruid.

Grondtoediening:

Vermyn fyn druppelgroottes. Gebruik laedruk plat waaierspuitpunte van 80° of ekwivalente antiwegdrywing tipe en moet nie 'n spuitdruk van 200 kPa oorskry nie. Dien toe in 150-225 ℓ water/ha. Moet nie 'n spuithoogte van 50 cm bokant die teiken en 'n grondspoed hoër as 10 km/h oorskry nie. Indien die windspoed hoër is as 15 km/h (soos bepaal deur handwindmeter goedgekeur deur die Registrateur: Wet 36 van 1947) of die verskil tussen die nat- en droëbollesing, soos met 'n swaaihgrometer bepaal, meer as 8°C is moet die produk nie toegedien word nie.

Lugtoediening:

Lugtoediening van **MAKHRO MCPA** mag alleenlik gedoen word deur 'n geregistreerde lugbespuitingsoperateur wat 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die aanwysings van SANS 10118 (Lugtoediening van Labouchemiese middels) gebruik. Verseker dat die spuitgemengsel eweredig oor die teikengebied versprei word en dat die verlies daarvan tydens bespuiting tot 'n minimum beperk word. Dit is dus noodsaaklik dat aan die volgende vereistes voldoen word.

- Volume: 'n Spuitmense van ten minste 30 ℓ water / ha word aanbeveel. Omdat hierdie produk nie met verminderde volumes ge-evalueer is nie, kan die registrasiehouer nie effektiwiteit waarborg of verantwoordelikheid aanvaar vir enige nadelige effek as van die spuitvolumes soos hierbo vermeld, afgewyk word nie.
- Druppelbedekking: 30 – 45 druppels per cm² moet op die teikengebied herwin word
- Druppelgrootte: 'n druppelspektrum met 'n VMD van 300 – 350 mikron word aanbeveel. Beperk die produsering van druppels kleiner as 150 μm tot 'n minimum (hoë wegdrywing en verdampingspotensiaal)
 - Vlieghoogte: Handhaaf 'n hoogte van 3 – 4 meter tussen die spuitbak en die teikengebied. Moet nie toedien as die vliegtuig duik, draai of klim nie.
 - Gebruik geskikte atomiseringsapparaat wat die geskikte druppelgrootte en verspreiding sal verseker, maar wat die minimum produkverlies sal verseker. Die spuitsisteen moet 'n druppelspektrum met die kleinste Relatiewe Span produseer
 - Posisioneer die atomiseerders in die binneste 60 – 75 % van die vlerkspan om te verhoed dat die druppeltjies die vortekse op die vlerkpunte binnedring.
 - Die verskil tussen die nat-en droë bol van 'n swaaihgrometer moet nie 8°C oorskry nie
 - Staak bespuiting as die wind 15 km/u oorskry
 - Staak bespuiting onder toestande van turbulente, onstabiele en droë toestande gedurende die hitte van die dag

- Bespuiting onder toestande van temperatuur inversie (toediening in- of bokant inversielaag) en/of hoë humiditeitstoestande (relatiewe humiditeit 80 % en hoër) mag tot die volgende lei:
 - (a) Verminderde effektiwiteit a.g.v die suspendering en verdamping van klein druppeltjies in die lug
(onvoldoende bedekking)
 - (b) Beskadiging van ander sensitiewe gewasse en/of nie-teiken gebiede a.g.v die wegdrywing van die spuitnewel vanaf die teikengebied.
- Verseker dat die spuitoperator presies weet watter lande bspuit moet word.
- Verkry die versekering van die spuitoperator dat aan al bogenoemde voorwaardes voldoen sal word en dat alle data wat op die bespuiting betrekking het in 'n log boek aangeteken sal word vir toekomstige verwysing.

GEBRUIKSBEPERKINGS

Om skade te voorkom moet verhoed word dat dampe of spuitnewel in aanraking kom met of wegdryf na sensitiewe breëblaargewasse, vrugtebome of sierplante. Dien die produk streng volgens die gebruiksaanwysings toe. Lugtoediening in Kwazulu-Natal is verbied.

AANBEVELINGS

GEWAS	DOSIS (l/ha)	OPMERKINGS (Die dosis hang af van die groeistadium van die onkruide)
Mielies (na-opkom)	2,5	Dien toe as die gewas 'n hoogte van 45 cm bereik het en gebruik valarms sodat die middel nie in die kelk beland nie. Grasse wat al klaar opgekom het, sal nie beheer word nie.
Sorghum (na-opkom)	2,5	Dien toe as die gewas 'n hoogte van 15-25 cm bereik het (omtrek 3 weke na ontkieming). As toediening op 'n later stadium plaasvind moet valarms gebruik word om te verhoed dat die middel in die kelk beland
Gars en rog (na-opkom)	2,0 - 4,0	Dien toe as die gewas die 5 blaar stadium bereik het. (5 blaar op die hoofhalm met die 6de blaar reeds sigbaar.)
Koring (na-opkom)	2,0 - 4,0	Dien toe tussen groeistadium 7 (middelste dubbelriwwe vergroot) en 13 (baard van boonste aartjies verleng) volgens die Kleingraansentrum, Bethiebem se lys van groeistadia van koring.
Gevestigde grasweiding	4,0 - 5,25	Die toediening van 'n stikstofhoudende kunsmis 2 - 3 weke voor toediening word aanbeveel.
Gevestigde grasperke	4,0 - 5,25	Die toediening van 'n stikstofhoudende kunsmis 2 - 3 weke voor toediening word aanbeveel.
Suikerriet (voor-opkom van onkruide vir plant en gesnyde riet)	6,25 - 8,75	Dien as 'n algehele bespuiting toe in 300-400l water/ha kort na planttyd of oes, en voor opkom van onkruide en riet
Suikenniet (na-opkom van onkruide vir plant en gesnyde riet)	6,25 - 8,75	Dien toe as 'n gerigte bespuiting tussen rye in 300-400 l water/ha terwyl onkruide nog jonk is. Vanaf 'n hoogte van 40 cm (5 blaarstadium) moet gerigte bespuiting met valarms toegepas word, anders word groei vertraag.

GEWAS	DOSIS (l/ha)	OPMERKINGS (Die dosis hang af van die groeistadium van die onkruid)
Aartappels (alleenlik voor-opkom) Klei % 0 - 20 21 - 35 > 35	3,25 4,00 5,25	As die gewas in droëland geplant is, eg dadelik na die eerste reëns en dien toe.
Appels, pere, perskes en wingerde: Om <i>Plantago lanceolata</i> en <i>Ipomoea coscinoperma</i> in die Wes Kaap te beheer.	5,0 of as 'n gerigte kolbespuiting 170 ml in 15 l water	Dien as 'n gerigte bespuiting toe in 400-500 l water/ha. Fyn druppels wat wegdrywing kan veroorsaak moet voorkom word. Dien toe as 'n enkele bespuiting net na blomtyd of as twee bespuitings met die eerste tydens bot en voor blomtyd, en die tweede as die vruggies nog klein is. Die laaste bespuiting geld slegs vir appels en pere.
Appels en pere: Vir die beheer van een- en meerjarige onkruid in winter.	Vroeë winter: 3,0 l plus 1,5 l CLEAROUT/ha Laat winter: 4,0 l plus 2,0 l CLEAROUT/ha	Vroeë winter: Dien toe op aktief groeiende onkruid. Laat winter: Dien toe as 'n gerigte bespuiting op volwasse onkruid.

NOTA:

MOET NIE OP DIE VRUGTEBOME OF WINGERDE SPUIT NIE. Dien alleenlik toe as 'n gerigte bespuiting weg van die bome. Spuit net op a kalm dag. Moet nie in boorde wat met 'n tussenrygewas geplant is, toedien nie.

Reën of besproeiing kort voor of na bespuiting kan effektiwiteit verminder.

GIDS VAN ONKRUIDE WAT BEHEER WORD

<i>Ageratum conyzoides</i>	Bokkruid
<i>Amaranthus thunbergii</i>	Rooimismisbredie
<i>Amaranthus spinosus</i>	Doringmismisbredie
<i>Arctotis venusta</i>	Wit gousblom
<i>Bidens bipinnata</i>	Spaanse knapsekêrel
<i>Bidens formosa</i>	Kosmos
<i>Bidens pilosa</i>	Gewone knapsekêrel
<i>Chenopodium album</i>	Withondebossie
<i>Commelina benghalensis</i>	Wandelende jood
<i>Convolvulus arvensis</i>	Akkerwinde
<i>Datura ferox</i>	Groot stinkblaar
<i>Galinsoga parviflora</i>	Knopkruid
<i>Portulaca oleracea</i>	Gewone porslein
<i>Raphanus raphanistrum</i>	Ramenas
<i>Richardia brasiliensis</i>	Meksikaanse richardia
<i>Schkuhria pinnata</i>	Kleinkakiebos
<i>Tagetes minuta</i>	Langkakiebos
<i>Tribulus terrestris</i>	Gewone dubbeltjie
<i>Vicia sativa</i>	Gewone wieke
<i>Xanthium strumarium</i>	Kankerroos

* CLEAROUT (Reg.no. L4734, Wet 36 van 1947) Gerigistreur deur: GAP Chemicals