



MAFIA

Reg. No./Nr. L 9724, Act/Wet No./Nr 36 Of/Van 1947

GROUP O HERBICIDE

READ THE LABEL BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS

A systemic micro-emulsion herbicide for the control of certain listed woody plants for forestry, grass pastures, conservation and industrial areas

'n Sistemiese mikro-emulsie onkruidodder vir die beheer van sekere houtagtige plante, soos aangetoon, in bosbou, grasweidings, bewarings- en nywerheidsgebiede



DANGER

Hazard Statements

Flammable liquid and vapour
Causes skin irritation
Causes serious eye damage
May damage fertility or the unborn child
Very toxic to aquatic life with long lasting effects

Precautionary Statements

IF ON SKIN - Wash with plenty of water and soap.
IF ON SKIN (or hair) - Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES - Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Take off contaminated clothing and wash it before reuse.
In case of fire - Use suitable extinguish media to extinguish

Active ingredients/Aktiewe bestanddele

80 g/l Fluroxypyr (as the methyl heptyl ester) (Pyridine compound) / 80 g/l Fluroksipir (as die metiel-heptielester (Piridienverbinding)

80 g/l Picloram (as the tri-isopropanolamine salt) (Pyridine compound) / 80 g/l Pikloram (as die tri-isopropanolamiensout) (Piridienverbinding)

Net volume 1 l Netto volume

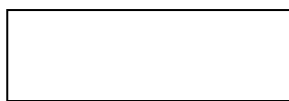
REGISTRATION HOLDER / REGISTRASIEHOUER:

Agritech Bioscience (Pty) Ltd / (Edms) Bpk t/a Carabiner
Reg. No. 2008/004392/07
PO Box / Posbus 1224
Isando
1600
South Africa / Suid-Afrika

Batch No.



Date of Manufacture
Expiry date (years).....



UN No. 3082

Lot Nr.
..... Datum van Vervaardiging
..... (2 jr) Vervaldatum



In case of poisoning, call the following number:

Poison centre (Unitas hospital): Emergency Number: 012 664 1100
TYGERBERG: Emergency Number: 021 931 6129
RED CROSS: Emergency Number: 021 689 5227
RAPID SPILL RESPONSE: Emergency Number: 0800 775 3305
GRIFFON POISON CENTRE: Emergency Number: 082 446 8946

WARNINGS

- GHS Hazard statements

Flammable liquid and vapour Causes skin irritation Causes serious eye damage May damage fertility or the unborn child Very toxic to aquatic life with long lasting effects
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- Handle with care.
- May cause severe irritation to eyes.
- May cause allergic skin reactions.
- Poisonous when swallowed. May cause eye and skin irritation.
- Store under lock and key in a cool place, dry place away from food, feed, and fertilizers.
- Slightly toxic to aquatic invertebrates.
- Very toxic to fish and other aquatic organisms.
- Keep out of reach of children, uninformed persons, and animals.
- In case of poisoning, call a doctor and show him this label.
- **Re-entry** – Do not enter treated area until the spray deposit has dried unless wearing protective clothing.

Grazing Restrictions:

- Animals grazing treated areas within 2 weeks of treatment, must be removed from the treated area at least 3 days prior to slaughter.
- Do not allow lactating dairy animals to graze the treated area within two weeks after treatment.

Grazing poisonous plants: Herbicide application may increase the palatability of certain poisonous plants. Do not graze the treated areas until the poisonous plants are dry and no longer palatable to livestock.

DISCLAIMER

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 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 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 herbicide 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.

PRECAUTIONS

- GHS Precautionary statements

If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read carefully and follow all instruction. Obtain, read and follow all safety instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take action to prevent static discharges. Wash hands thoroughly after handling. Do not touch eyes. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN - Wash with plenty of water and soap.
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IF ON SKIN (or hair) - Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF IN EYES - Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If exposed or concerned, get medical advice.
 Specific treatment (see First Aid on this label).
 If skin irritation occurs - Get medical help.
 Take off contaminated clothing and wash it before reuse.
 In case of fire - Use suitable extinguish media to extinguish.
 Collect spillage.
 Store locked up.
 Store in a well-ventilated place. Keep container tightly closed.
 Store in a well ventilated place. Keep cool.
 Store locked up.
 Dispose of contents/container in accordance with local / regional / national / international regulations.

- Wear protective gloves and face shield or safety glasses when handling the concentrate.
- Do not inhale fumes or spray mist.
- Avoid eye contact.
- In case of accidental eye contact, flush with plenty of clean water for at least 15 minutes and get medical attention if irritation persists.
- Wash with soap and water immediately after use and accidental skin contact.
- Wash contaminated clothing daily.
- Do not eat, drink, or smoke while mixing or applying the product, or before washing hands and face and changing clothes.
- **Avoid spray drift onto other crops, grazing, rivers, dams, and areas not under treatment.**
- Clean the applicator after use with a 1% household ammonia solution before using it with other materials. Let the solution stand for several hours or, more preferably overnight. Rinse at least twice with clean water. The applicator must not be used for applying chemicals other than herbicides. Dispose of the rinsate where it will not contaminate crops, grazing, rivers, dams, and boreholes.
- Prevent contamination of food, feeds, drinking water and eating utensils.
- Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed to a drip. Thereafter rinse the empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsate to the contents of the spray tank.
- Destroy the empty container by perforation and flattening and **DO NOT** use for any other purpose.

RELEVANT SUBSTANCES

Chemical name	Concentration of hazardous ingredient in composition	CAS No.	Classification according to Globally Harmonised System, EU (GHS) and according to regulation EC No 1272/2008 [CLP]
Fluroxypyr (As methyl heptyl ester)	≥10.9%	81406-37-3	Aquatic Acute 1 Aquatic Chronic 1
Picloram as (as TIPA salt)	≥13.6%	1918-02-1	Eye Irrit. 2
Monoethylene glycol	≤ 5%	107-21-1	Acute Tox. 4.
Cyclohexanone	< 9.4%	108-94-1	Flam. Liq. 3 Acute Tox. 4
1-methyl-2-pyrrolidone	< 14%	872-50-4	Repr. 1B STOT SE 3 Skin Irrit. 2 Eye Irrit. 2
2-methylpropan-1-ol	≤ 3.4	78-83-1	Flam. Liq. 3 STOT SE 3 STOT SE 3 Skin Irrit. 2 Eye Dam. 1

FIRST AID

Provide medical personnel with the container label, product name or safety data sheet (SDS) when seeking medical attention.

General Information: No specific antidote known. Treat symptomatically and supportively. Skin contact may aggravate pre-existing dermatitis.

Inhalation: Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. **Seek medical assistance immediately.**

Skin contact: Immediately flush body and clothes with large amounts of water and soap. Remove contaminated clothing and footwear. Wash affected areas with soap and water. Do not rub skin. Persons providing first aid must wear gloves to avoid self-contamination. Seek medical assistance if irritation occurs.

Eye contact: Flush eyes with plenty of clean, room temperature water for at least 15 minutes holding eyelids open. Remove contact lenses. Call a doctor for treatment advice. **Obtain medical attention immediately if irritation persists.** If symptoms (e.g., redness, irritation, pain etc.) persist after 15 minutes of irrigation, refer the patient to an ophthalmologist for an eye examination.

Ingestion: Never give anything by mouth to an unconscious person or to a person having convulsions. Do not induce vomiting. For advice, contact the National Poisons Centre. **Seek medical assistance immediately.** The decision of whether to induce vomiting or not must be made by an attending physician.

No specific antidote known. Treat symptomatically and supportively. Skin contact may aggravate pre-existing dermatitis.

NOTICE TO USER

This agricultural remedy is to be used only in accordance with the instructions on this label. It is an offence under the Act to use this product in a manner contrary with the directions on the label.

RESISTANCE MANAGEMENT WARNING STATEMENT

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

Picloram is a synthetic auxin (acting like indolylacetic acid). It is a selective systemic herbicide, which is absorbed rapidly by the roots and leaves and translocated both acropetally and basipetally, accumulating in new growth.

Fluroxypyr is a synthetic auxin (acting like indolylacetic acid). It is applied as an ester. After predominantly foliar uptake, the ester is hydrolysed to the parent acid (the herbicidally active form) and translocated rapidly to other parts of the plants. It then acts by inducing characteristic auxin-type responses, e.g., leaf curling.

USE RESTRICTIONS

MAFIA is toxic to some plants at very low concentrations, therefore, at least the following precautions must be followed in order to avoid injury to non-target plants:

- **Do not apply MAFIA in any way contrary to this label.**
- **Do not permit the spray mist to drift** or to come into contact with sensitive broadleaf crops including, but not limited to, lucerne, beans, melons, potatoes, soya beans, sunflowers, tobacco, tomatoes, cotton, fruit trees, grape vines, ornamentals, soil containing roots of these plants, soil in which such plants are to be grown, grain varieties in a susceptible stage of growth or grazing or any other area not under treatment.
- **Do not contaminate water which is intended for irrigation or domestic purposes.** In order to avoid injury to crops or other desirable plants, do not treat or allow the spray, or spray drift, or spray run-off, to fall onto the banks or the bottoms of irrigation ditches, canals, streams, dams, rivers, either dry or containing water that may be used for irrigation or domestic purposes or may carry water to an irrigation facility.
- **Do not make any application when the circumstances favour movement from the treatment site.**
- **Do not apply to any areas that may be rotated to any broadleaf crop.**
- **Do not use any manure** from animals grazing treated areas on land used for growing already established, or yet to be established, broadleaf crops, ornamentals, orchards, or other susceptible crops. The manure may contain enough picloram to cause injury to susceptible plants.
- **Do not use grass or sprayed plants** from a treated area for composting or mulching of susceptible broadleaf plants or crops.
- **Do not transfer livestock** from any treated grazing areas (or feeding of treated grass) onto sensitive broadleaf crop areas without first allowing 7 days of grazing of an untreated grass pasture. Otherwise, the urine or faeces may contain enough Picloram to cause injury to sensitive broadleaf plants.
- **Do not use on flood-irrigated lands or fields.**
- **Do not apply if the loss of forage legumes, including clover, cannot be tolerated.** Any new legume seedlings may take years to re-establish.
- **Do not move any treated soil** to areas other than sites for which **MAFIA** is registered for use.
- **Do not apply through a mist-blower.**
- **Do not apply to land nearby to desirable broadleaved plants** or land onto which such plants are to be grown or grain varieties in a susceptible stage of growth. May however be applied in the **VICINITY** of desirable broadleaved plants, or soil or land onto which such plants are to be grown, or grain varieties in a susceptible stage of growth, **PROVIDED THAT ADEQUATE PRECAUTIONS ARE TAKEN IN ORDER TO AVOID SPRAYDRIFT** (See the wind speed table below) **OR CONTAMINATION OF RUN-OFF AREAS.**
- Apply the product strictly according to 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 plants and crops.

WIND SPEED km/h	GROUND APPLICATION
2 - 15	2,0 km downwind 2,0 km crosswind 1,0 km upwind
Above 15	Prohibited

Do not apply this product in combination or tank mixture with any other product or agricultural remedy which is not specifically listed on this label. Agritech Bioscience (Pty) Ltd accepts no responsibility for any negative effects experienced if the instructions on this label are not adhered to, unless an Agritech Bioscience representative was consulted beforehand.

DIRECTIONS FOR USE

Use only as directed.

MIXING INSTRUCTIONS

Foliar applications:

Half-fill the spray tank with clean, suitable water and add the required quantity of **MAFIA**. While filling the spray tank add an adjuvant such as ACTIPRON SUPER according to the instructions for the different plants while maintaining constant agitation.

APPLICATION METHODS

A. FOLIAR APPLICATION

Use only on actively growing plants with full leaf cover.

- Apply as a full cover spray to leaves and stems to the point of run-off.
- Do not apply to foliage that is wet.
- Avoid spray drift onto any non-target plants.
- Avoid the formation of fine droplets. Use a knapsack sprayer with a solid cone nozzle (e.g., spraying systems TG-1, Delavan CE 1 or equivalent) that will ensure an even coverage of the target area. Maintain a constant pressure of between 200 to 250 kPa. Maintain a distance of approximately 50 cm from the target in order to ensure the best coverage.
- Rain 3 hours following application should not have an effect on the efficacy provided that the spray has dried on the target plants.
- Prevent the drift of spray mist onto desirable plants.

Ensure that the equipment is correctly calibrated and is checked regularly during application to ensure even and accurate application. Only clean water should be used

B. CUT STUMP TREATMENT

- Apply immediately after felling but definitely within 3 hours.
- **MAFIA** should not be applied to the stump if the surface is wet.
- Apply **MAFIA** with a knapsack or handsprayer, as a coarse spray using solid cone nozzle tips (e.g., Spraying Systems TG-1, Delavan CE 1, or equivalent type) at 100 kPa, low pressure.
- Do not exceed a spray height of 20 cm above the target. Do not apply if the wind velocity exceeds 15 km/h (as measured by handheld wind recorder). The difference between the wet and dry bulb readings on a whirling hygrometer must not exceed 8 °C.
- Apply **MAFIA** according to directions in the table below.

C. FRILL METHOD

- Using an axe, make horizontal, downward angled cuts through the bark in order to penetrate but not go deeper than into the sapwood. Immediately apply the spray mixture into every cut, taking care that it is not wasted on the bark. The cuts should be connected and made around the entire circumference of the trunk as close to the soil surface as possible. Re-apply as necessary.

Warning:

If top kill is obtained but re-growth occurs from the crown, apply a herbicide which is registered for use against the relevant species as a foliar spray.

- In the case of trees with multiple stems, treat each stem separately.
- Check for adequate sap flow and bleeding.

RECOMMENDATIONS

A. FOLIAR TREATMENT

Note:

For foliar applications, an adjuvant such as Actipron Super should be added at a rate of 500 ml / 100 l spray mix (0.5% mixture)

Plant species	Rate/100 l Water	Remarks
<i>Acacia mearnsii</i> (Black wattle)	125 ml (0.125% mixture)	See DIRECTIONS FOR USE above.
<i>Acacia longifolia</i> (Long leaf wattle)	500 ml (0.50% mixture)	Apply to actively growing plants until the point of run-off.
<i>Acacia melanoxylon</i> (Blackwood)	500 ml (0.50% mixture)	
<i>Acacia saligna</i> (Port Jackson)	500 ml (0.50% mixture)	Plants that are too high for a good cover spray should be slashed and the re-growth sprayed when it is not less than 0.5 m in height.
<i>Anredera baselloides</i> (Madeira vine)	500 ml (0.50% mixture)	
<i>Campuloclinium macrocephalum</i> (Pom pom weed)	375 ml (0.375% mixture)	In the event of any re-growth following application, a follow-up spray should be carried out.
<i>Chromolaena odorata</i> (Triffid weed)	750 ml (0.75% mixture)	
<i>Cirsium vulgare</i> (Scotch thistle)	750 ml (0.75% mixture)	
<i>Eucalyptus grandis</i> (Saligna gum)	500 ml (0.50% mixture)	
<i>Lantana camara</i> (Lantana)	1500 ml (1.50% mixture)	
<i>Peuraria lobata</i> (Kudzu vine)	500 ml (0.50% mixture)	
<i>Psidium guajava</i> (Guava)	1500 ml (1.50% mixture)	
<i>Robinia pseudoacacia</i> (Black locust)	1500 ml (1.50% mixture)	
<i>Rubus cuneifolius</i> (American bramble)	750 ml (0.75% mixture)	
<i>Solanum mauritianum</i> (Bugweed)	250 ml (0.25% mixture)	

B. CUT STUMP

Note:

For cut stump applications, an adjuvant such as Actipron super should be added at a rate of 500 ml / 100 l spray mix (0.5% mixture).

Plant species	Rate/100 l Water	Remarks
<i>Acacia mearnsii</i> (Black wattle)	2.0 l (2.0 % mixture)	<p>See DIRECTIONS FOR USE above.</p> <p>Add 500 ml ACTIPRON SUPER/100 litre spray mix.</p> <p>Apply Spray mix to low cut stumps (10 – 20 cm high) preferably with a single cut surface.</p> <p>Apply to the completely cut surface and root crown of stumps with a diameter of less than 10 cm.</p> <p>Where multiple stumps are present, all cut surfaces must be treated.</p> <p>For larger stumps apply to the cambial region (sapwood) of the cut surface and root crown. In all cases, apply to the point of run-off.</p> <p>A follow-up spray as a coppice application may be needed.</p>
<i>Acacia melanoxylon</i> (Blackwood)	2.0 l (2.0 % mixture)	
<i>Acacia saligna</i> (Port Jackson)	2.0 l (2.0 % mixture)	
<i>Chromolaena odorata</i> (Triffid weed)	0.75 l (0.75 % mixture)	
<i>Eucalyptus grandis</i> (Saligna gum)	3.0 l (3.0 % mixture)	
<i>Lantana camara</i> (Lantana)	1.5 l (1.5 % mixture)	
<i>Melia azedarach</i> (Syringa)	1.5 l (1.5 % mixture)	
<i>Ricinus communis</i> (Castor oil plant)	1.0 l (1.0 % mixture)	
<i>Solanum mauritianum</i> (Bugweed)	0.75 l (0.75 % mixture)	

C. FRILL APPLICATION

Note:

For frill applications, an adjuvant such as Actipron super should be added at a rate of 50 ml / 10 l spray mix.

Plant species	Rate/ 10 l Water	Remarks
<i>Melia azedarach</i> (Syringa)	200 ml MAFIA (2.0% mixture)	See DIRECTIONS FOR USE above. Apply enough spray mixture to fill the frill without any unnecessary wastage down the bark.

MAFIA controls trees and shrubs. Other trees and shrubs that were not present during the development trials of this product may also be controlled to a certain degree. The registration holder does not accept responsibility for unlisted trees and shrubs.

NOTE

- In situations where more than one species of target plant occurs, contact your local technical representative.
- For assistance in the calibration for spot treatments, please contact your local technical representative.

ACKNOWLEDGEMENT OF TRADEMARKS

Actipron Super (L 5506) H & R GSP (Pty) Ltd