



ARBOREX

Reg. No./Nr. L 8777, Act No. 36 of 1947 / Wet Nr. 36 van 1947
N-AR 1786

GROUP 2 HERBICIDE

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

A water-soluble concentrate non-selective herbicide for the control of listed invader plants forestry, grazing and conservation as indicated.

'n Wateroplosbare konsentraat nie-selektiewe onkruidodder vir die beheer van gelyste indringer plante bosbou, weiding en Natuurbewaringsgebiede soos aangedui.



WARNING

Hazard Statements

Causes mild skin irritation
Causes serious eye irritation

Precautionary Statements

Wear protective gloves/protective clothing/eye protection/face protection.
If skin irritation occurs - Get medical help
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical help.

Active ingredient/Aktiewe bestanddeel

100 g/l Imazapyr (imidazolinone) / 100 g/l Imasapir (imidasolinoon)

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 (2 years).....

..... Lot Nr.

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



UN No. Not regulated

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

Causes skin irritation
Causes serious eye irritation

- Store in a cool place.
- Store away from food, feed, fertilizer, and other agricultural products.
- Keep out of reach of children, uninformed persons, and animals.
- **Re-entry:** Do not enter a treated field until spray deposit has dried without wearing protective clothing.

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.
Wash hands thoroughly after handling. Do not touch eyes
Wear protective gloves/protective clothing/eye protection/face protection.
If skin irritation occurs – Get medical help.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical help.

- Do not inhale fumes or spray mist.
- Avoid skin and contact with eyes by wearing face shield and rubber gloves when mixing the product.
- Wash with soap and water after use and accidental skin contact as well as contaminated clothing.
- Wash contaminated clothing after use.
- 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 after use. Dispose of 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. Store appropriately until it can be taken to a waste treatment facility authorised to destroy waste in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and the relevant waste management regulations for disposal. Empty containers and products should not be burnt.

RELEVANT SUBSTANCES

Chemical name	Concentration of hazardous ingredient in composition	CAS	Classification according to Globally Harmonised System, EU (GHS) and according to regulation EC No 1272/2008 [CLP]
Imazapyr as monoisopropanolamine salt	>9.9%	81334-34-1	Eye Irrit. Cat. 2 Aquatic Chronic. Cat. 3 Skin Irrit. Cat. 2
Monoethylene glycol	≤5.5%	107-21-1	Acute Tox. Inhalation Cat. 4
Isotridecanol, ethoxylated	≤3%	78330-21-9	Eye dam. Cat. 1

FIRST AID

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

General Information: Remove patient from exposed area. Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

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

Skin contact: Immediately remove contaminated clothing and flush body and clothes with large amounts of soap and water. Rinse skin immediately with plenty of water for 15-20 minutes. Wash contaminated clothing before re-use. **Seek medical assistance immediately.**

Eye contact: Flush eyes with plenty of water for at least 15 minutes holding eyelids open. Remove contact lenses if present, after first 5 minutes, and then continue rinsing. **Seek medical assistance immediately.**

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth immediately and drink plenty of water. For advice, contact the National Poisons Centre. **Seek medical assistance immediately.** Do not induce vomiting unless told to by a poison control centre or doctor.

Treat symptomatically.

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 WARNING STATEMENT

For resistance management, **ARBOREX** is a group code 2 herbicide. Any weed population may contain individuals naturally resistant to **ARBOREX** and other Group Code 2 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **ARBOREX** or any other Group Code 2 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.

The presence of resistant weeds is difficult to detect prior to use and, therefore, neither the Registration Holder nor the Distributor can accept responsibility for any losses as a result of **ARBOREX** not controlling resistant weeds. Do not apply **ARBOREX** alone in situations where weed resistance has been confirmed. Sub-standard application of **ARBOREX** will lead to inferior weed control and may assist in development of herbicide resistance. It is of the utmost importance to inspect treated areas at regular intervals in order to identify the occurrence of herbicide-resistant weeds timeously.

MODE OF ACTION

Imazapyr is a Systemic herbicide, absorbed by the foliage and roots, translocated acropetally and basipetally in the phloem and xylem to meristematic regions, where it accumulates. It acts by inhibiting acetolactate synthase, blocking the biosynthesis of the amino acids: valine, leucine, and isoleucine, thereby stopping cell division and plant growth.

USE RESTRICTIONS

- Care should be taken when treating the stumps of woody species to avoid unnecessary run-off. Although **ARBOREX** movement in- or on soil is limited, residues in soil may adversely affect sensitive seedlings and established non-target vegetation.
- To avoid potential damage to follow-up crops, the waiting periods indicated below must be adhered to following application of **ARBOREX**. A test planting is recommended in all cases.
- The planting of follow-up crops should always be preceded by a deep ploughing.
- Do not apply **ARBOREX** to any situation not mentioned in this instruction leaflet.
- Only apply **ARBOREX** using an accurate and safe application technique.
- If **ARBOREX** is used in a tank mix with other recommended herbicides, consideration should be given to the restrictions of those respective products.
- 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 (Pty) Ltd. representative was consulted beforehand.
- By buying this product, the buyer undertakes that the user is fully aware of and suitably trained on the hazards associated with the preparation and use of this product. By selecting this product voluntarily, the user assumes responsibility for his or her own personal protection whilst storing, mixing, and applying the product in the approved manner according to the instructions for use. The user also confirms to have consulted the SDS of this product and he/she is aware of the potential health hazards which could arise out of use and misuse of this product. Users are encouraged to keep records of all procedures followed and which personal protection equipment was used at all times. All personal protection equipment used must be kept clean and in good working order.

according to the manufacturer's specifications. The registration holder does not accept any responsibility for any adverse effects whatsoever resulting from improper use of this product or the use of unsuitable personal protection equipment. The user has selected to use this product at his/her own free will and risk.

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DIRECTIONS FOR USE - Use only as directed.

Waiting periods

Forestry

• Waiting periods for replant after clear fell *Eucalyptus* cut stump treatments:

1. *Eucalyptus* spp.

On all soils other than light sandy soils, Bluegums may be planted into treated compartments four months after treatments.

On light sandy soils (e.g., Northern Kwa-Zulu Natal), a waiting period of 12 months is required.

2. Pines

If the pine seedlings are to be planted in the same row as the old stumps, at least 1 month must lapse between stump treatment and planting to avoid possible run-off residues from the treated stumps. Should the pine saplings be planted between the treated stump rows, no waiting period is required.

3. Wattle

No waiting period is required when planting wattles into compartments with stumps treated with **ARBOREX**.

The above-mentioned waiting periods are only valid if the correct dosage rate of **ARBOREX** was applied, and normal or above normal rainfall occurred between **ARBOREX** application and planting of new seedlings. With in-compartment weed control operations, no more than 3 L/ha should be used. Do not use foliar application of **ARBOREX** in newly established pine and wattle compartments where there is a risk of contact with foliage of young trees. Never use foliar application or stump applications for weed control within *Eucalyptus* spp. compartments.

- **ARBOREX** is a non-selective, systemic herbicide for the control of invader plants as listed in forestry grazing and conservation areas and *Eucalyptus* spp. eradication in clear fell forestry operations.
- The product is readily absorbed through foliage, roots and freshly cut sapwood regions and is rapidly translocated to the meristematic regions.
- Plant growth is arrested shortly after application, but the time taken to kill the plant is relative to the sensitivity of the species being treated and the climatic conditions affecting plant vigour.
- Severely malformed re-growth may occur, but further action is not necessary unless healthy shoots develop.
- In multi-stem treatments care should be taken to treat all cut surfaces as individual stumps. Old cut surfaces should be re-cut and treated. Alternatively, the sapwood region can be exposed by a complete frill close to the ground and treated.
- Cut stump treatments are regarded as being more effective than foliar treatments as the herbicide can be placed directly, and accurately, onto the target plant.
- Rain two hours after application will not reduce efficacy.
- Stumps must be cut as close to the soil surface as possible prior to treatment.

MIXING INSTRUCTIONS

Three-quarter fill the spray tank or knapsack with clean water. Shake the **ARBOREX** container well, measure the required volume and add it to the spray tank. Fill the spray tank with water to the required level while maintaining agitation to ensure thorough mixing. The prepared spray mixture must not be left in the spray tank for any length of time. **ARBOREX** is not compatible with diesel and addition of adjuvants is not necessary.

APPLICATION METHODS

Ensure that the equipment is correctly calibrated and is checked regularly during application to ensure even and accurate application. Knapsack sprayers or tractor mounted boom sprayers may be used. A spray volume of 200 – 300 l/ha should be used and can be applied via flat fan-type nozzles, preferably the low drift type to avoid fine droplets. **Constant agitation throughout the spray operation is essential.** Only clean water should be used. Prevent overdosing by avoiding overlapping of swaths and closing the nozzles while starting, slow movement, turning and stopping.

FORESTRY

SPECIES	DOSAGE / 10 ℓ water	REMARKS
<i>Eucalyptus grandis</i>	500 ml /10 ℓ water (5% solution)	As a cut stump treatment: Use only for clear fell operations. Apply the mixture to the sapwood region of freshly cut stump surfaces (i.e., before the surfaces dry) using a low-pressure applicator such as a hand-held sprayer, a calibrated dosing gun or a knapsack sprayer at not less than 10 m ℓ mixture per 100 mm of stump diameter. High pressure applications are not recommended. See also further information under USE RESTRICTIONS and General information above.
<i>Eucalyptus macarthurii</i>	750 ml /10 ℓ water (7,5% solution)	
<i>Eucalyptus maculata</i> <i>Eucalyptus paniculata</i>	1250 ml /10 ℓ water (12,5% solution)	

GENERAL WOODY WEED CONTROL

<i>Eucalyptus grandis</i>	500 ml /10 l water (5% solution)	<p>As a cut stump treatment in grazing and conservation areas as well as in pine and wattle compartments.</p> <p>Apply the mixture to the sapwood region of freshly cut-stump surfaces (i.e., before the surfaces dry) using a low-pressure applicator such as a hand-held sprayer, a calibrated dosing gun or a knapsack sprayer at not less than 10 ml mixture per 100 mm of stump diameter. High pressure applications are not recommended</p> <p>See also USE RESTRICTIONS and General information above.</p>
<i>Eucalyptus macarthurii</i>	750 ml /10 l water (7,5% solution)	
<i>Eucalyptus maculata</i> <i>Eucalyptus paniculata</i>	1250 ml /10 l water (12,5% solution)	
<i>Solanum mauritianum</i> (Bugweed)	500 ml /10 l water (5% solution)	
<i>Psidium guajava</i> (Guava)	500 ml /10 l water (5% solution)	
<i>Lantana camara</i> (Lantana)	200 ml /10 l water (2% solution)	
<i>Populus canescens</i> (Grey poplar)	500 ml /10 l water 5% solution	
<i>Jacaranda mimosifolia</i> (Jacaranda)	1000 ml /10 l water (10% solution)	
<i>Melia azedarach</i> (Syringa)	300 ml /10 l water (3% solution)	
<i>Cestrum laevigatum</i> (Ink berry)	200 ml /10 l water (2% solution)	

INVADER PLANT CONTROL BY FOLIAR APPLICATION

<i>Eucalyptus grandis</i> (Bluegum)	125 ml /10 l water (1,25% solution)	Apply as a full cover spray to point of run-off to coppice, which should be 0,5 m – 1,0 m in height at the time of treatment.
<i>Solanum mauritianum</i> (Bugweed)	63 ml /10 l water (0,63% solution)	Apply as a full cover spray to point of run-off to coppice, which should be 0,5 m – 1,0 m in height at the time of treatment.
<i>Lantana camara</i> (Lantana)	200 ml /10 l water (2% solution)	Apply as a full cover spray to point of run-off to coppice, which should be 0,5 m – 1,0 m in height at the time of treatment.
<i>Phragmites australis</i> (common reed)	63 ml /10 l water (0,63% solution)	Apply as a full cover spray to point of run-off before flowering. Do not apply over water systems which will be used for irrigation.