

# BROMOTRIL®







Reg. no. L4657 Act/Wet 36 of/van 1947  
W130709

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

<b>GROUP</b>	<b>6/24</b>	<b>HERBICIDE</b>
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A selective emulsifiable concentrate herbicide for the post emergent control of certain broadleaf weeds in the crops as indicated.	'n Selektiewe emulgeerbare konsentraat onkruidodder vir die na-opkom beheer van sekere breëblaaronkruid in gewasse soos aangedui.
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    <p><b>DANGER</b></p>	<p><b>Hazard statements</b>            Flammable liquid and vapour.            Harmful if swallowed.            May be fatal if swallowed and enters airways (aspiration hazard).            May cause allergic skin reaction.            Causes serious eye irritation.            Harmful if inhaled.            May cause drowsiness or dizziness.            Suspected of damaging the unborn child.            Very toxic to aquatic life with long lasting effects.</p> <p><b>Precautionary statements</b>            Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.            Wear protective gloves, eye, and face protection.</p>
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### ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

Bromoxynil (nitrile)..... 225 g/L ..... Bromoksiniel (nitriël)  
(as the octanoate) (as die oktanoaat)

### NET VOLUME/NETTO VOLUME

..... L

### REGISTRATION HOLDER/REGISTRASIEHOUER

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UN no.: 1268

### EMERGENCY NUMBERS:

Griffon Poison Information Centre: +27 82 446 8946  
 Tygerberg Poison Information Centre: +27 861 555 777

Batch number .....  
 Date of Manufacture .....  
 Expiry date .....

Lotnommer .....  
 Datum van Vervaardiging .....  
 Vervaldatum .....

## WARNINGS

- Flammable liquid and vapour.
- Harmful if swallowed.
- May be fatal if swallowed and enters airways (aspiration hazard).
- May cause allergic skin reaction.
- Causes serious eye irritation.
- Harmful if inhaled.
- May cause drowsiness or dizziness.
- Suspected of damaging the unborn child.
- Very toxic to aquatic life with long lasting effects

**Withholding period:** Allow a minimum of 40 days between application and grazing or feeding.

- Handle with care
- Store away from food and feeds.
- Toxic to bees and wildlife.
- Aerial application: Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.
- Re-entry: Do not enter treated area within 2 days after treatment unless wearing protective clothing.

**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 climatic and storage conditions; quality of dilution water; compatibility with other substances not indicated on the label and the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damages to crops, vegetation, the environment or harm to humans or animals 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

- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.
- Obtain, read and follow all safety instructions before reuse.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. no smoking.
- Ground or bond container and receiving equipment and take action to prevent static

discharge.

- Use explosion-proof electrical/ventilation/ lighting/other equipment and non-sparking tools.
- Take action to prevent static discharge.
- Avoid breathing mist/vapours/spray.
- Wash hands and face thoroughly after handling.
- Do not eat, drink, or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment – if this is not the intended use.
- Wear protective gloves, eye, and face protection.
- If exposed or concerned, get medical advice.
- In case of fire, use the equipment included in section 5 of the SDS to extinguish.
- IF SWALLOWED: Rinse mouth. get emergency medical help immediately. Do NOT induce vomiting.
- IF ON SKIN (OR HAIR): Take off immediately all contaminated clothing. Rinse affected areas with plenty of water.
- If skin irritation or rash occurs: Get medical help.
- Take off contaminated clothing and wash it before re-use.
- 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.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help.
- Store locked up, in a well-ventilated place. Keep cool and keep container tightly closed.
- Dispose of contents/container to a licensed waste facility and in accordance with local and national regulatory requirements.

- Wash with soap and water after use or accidental skin contact.
- Avoid spray drift onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator before using it with other remedies.
- Dispose of wash water where it will not contaminate crops, grazing, rivers, dams, etc.
- Prevent contamination of feeds, drinking water and eating utensils.
- **IMPORTANT:** Invert the empty container over the spray or mixing tank and allow to drain 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 10% of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner. Destroy empty container by perforation and flattening and never use for any other purpose.

## RELEVANT SUBSTANCES

Chemical name	w/w %	CAS no.
Bromoxynil	10–30%	1689-99-2
Calcium docecylbenzenesulphonate	<10%	26264-06-2
Light Aromatic Petroleum Solvent	>60%	64742-95-6

## FIRST AID

In case of accident or unwellness, seek medical advice immediately. Provide this label and SDS to medical personnel for treatment. Emergency personnel should wear protective clothing appropriate to the type and degree of contamination.

Immediately remove contaminated clothing and remove the affected person from the contamination area. Keep the person warm, calm and covered up. First Aid personnel should pay attention to their own safety.

Take the container label or product name with you when seeking medical attention.

**Eye contact:** Immediately rinse/flush the eyes gently with water from the eye wash fountain for several minutes (at least 15 minutes), while holding the eyelids apart. Check for and remove contact lenses if easy to do so. Continue rinsing. Do not rub the eyes. Obtain medical attention if irritation occurs and persists.

**Skin contact:** Immediately remove all contaminated clothing and shoes. Rinse the skin with plenty of water for 15 to 20 minutes under the safety shower. Contact a poison control centre or medical practitioner if irritation occurs or persists. Wash contaminated clothing before re-use.

**Inhalation:** Remove the affected victim from exposure to an area with fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the product; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Obtain medical attention.

**Ingestion:** Obtain medical attention/advice - call a poison control centre or medical practitioner for treatment advice. If conscious, rinse mouth thoroughly with water. Never give anything by mouth to an unconscious or convulsing person. DO NOT induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits. Rinse mouth.

## TOXICOLOGICAL INFORMATION

### Antidotes

No specific antidote. Treat symptomatically and supportively.

### Symptoms of human poisoning

Serious eye irritation. Harmful if swallowed or inhaled.

The formulation contains liquid hydrocarbons that can cause severe pneumonitis or fatal pulmonary oedema if aspirated.



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.

## RESISTANCE WARNING

For resistance management **BROMOTRIL**<sup>®</sup> is a group code 6/24 herbicide. Any weed population may contain individuals naturally resistant to **BROMOTRIL**<sup>®</sup> and other group code 6/24 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **BROMOTRIL**<sup>®</sup> or any other group code 6/24 herbicides.

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 codes.
- Integrate control methods (chemical, cultural and biological) into weed control programs.

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

## MODE OF ACTION

6/24: Inhibition of photosynthesis at PSII – histidine 215 binder/uncouplers.

## DIRECTIONS FOR USE

**Use only as directed.**

- Do not spray when weeds have been subjected to moisture or any other stress.
- Apply only during moist conditions which enhance active weed growth.
- Since **BROMOTRIL**<sup>®</sup> is a contact herbicide, thorough wetting of the foliage of the weeds is essential.
- Only weeds present at the time of spraying will be controlled and those which may germinate later will not.
- The weeds should not have passed the 6-leaf stage at the time of spraying.
- Yellowing of lucerne leaves or leaf scorching of grain crops may occur after application, but yields will not be affected.
- Do not apply a wetting agent when spraying maize, sorghum or lucerne.
- For aerial application, the higher recommended rate should always be used.

## METHOD OF APPLICATION

### Aerial application

Aerial application of **BROMOTRIL**<sup>®</sup> may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SABS 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:

- Spray before the crop becomes too dense and covers the weeds, protecting them from the spray.
- **Volume:** A spray mixture volume of 40 (at least) to 50 (recommended) L/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 effects if this product is applied aerially at a lower volume rate than recommended above.
- **Droplet coverage:** 40 to 60 droplets per cm<sup>2</sup> must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 350 microns is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- **Flying height:** Do not spray when aircraft dives, is in a climb or when banking

WIND SPEED	FLYING HEIGHT
0 to 8 km/h	3 m
9 to 15 km h	2 m
More as 15 km/h	Do not spray

- 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:
  - 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.

### Tractor mounted sprayer

Use a conventional spray boom with flat fan nozzles. Use a low pressure of 100–300 kPa, so that a coarse droplet spray is formed. Ensure that even coverage is obtained. At least 300–600 L water/ha will be necessary.

## APPLICATION RATES

CROP AND TARGET	DOSAGE/HA	REMARKS
Wheat, Barley and Oats	1.50–2.0 L  1.5 L plus 0.5–1.0 L <b>MCPA® SL</b>	<p>The cereal seedlings should be between the 3-leaf and the end of the stooling stage. Do not spray before the 3-leaf stage and from the beginning of the tillering stage onwards. The younger the weeds are and the more actively they are growing, the lower the dosage. When the weeds are reaching the 6-leaf stage and when growth is slowed down by drought, the higher rate should be used. Also use the higher dosage for aerial application.</p> <p>Apply as ground or aerial spray. Use the higher rate of <b>MCPA® SL</b> in the Eastern Free State when <i>Polygonum aviculare</i> is a problem. When <b>MCPA® SL</b> is added, application to wheat must be between growth stages 7 and 13 according to the list of growth stages issued by the ARC – Small Grain Institute, Bethlehem. Apply to barley when the plants are in the 5 to 7-leaf stage and to oats in the 5-leaf stage. In the Winter Rainfall Area when <b>MCPA® SL</b> is added at 0.5 l/ha, the mixture may be applied in small grains from the 3-leaf stages of the crop. Apply tank mixtures between emergence and the 6-leaf stage of the weeds.</p>
Cereal Under sown with lucerne	1.50–2.00 L	Use as above for wheat, barley and oats. Do not apply on younger than the second trifoliolate leaf stages, or where clovers have been under sown. Do not apply in mixture with <b>MCPA® SL</b> .
Established lucerne	2.00–3.00 L	<p>Apply after the lucerne has been cut. Use the higher rate when the weed stand is dense and/or under dry conditions.</p> <p><b>WARNINGS:</b> Yellowing of lucerne leaves may occur after application, but this is of a temporary nature and will disappear after a few days without affecting the crop.</p>
Maize	1.50–2.00 L  1 L plus 1–2 L <b>ATRAZINE® SC</b>	<p>Apply as ground or aerial spray when the weeds are fully emerged, but not older than the 6-leaf stage (3-leaf stage for problem weeds listed in a separate panel). Do not apply to maize younger than the 4-leaf stage.</p> <p>Apply as ground or aerial spray when the weeds are fully emerged, but not older than the 6-leaf stage (3-leaf stage for problem</p>

CROP AND TARGET	DOSAGE/HA	REMARKS
	1.5 L plus 1 L <b>MCPA® SL</b>	weeds listed in a separate panel). The Atrazine rate should be in accordance with the degree of persistence desired. Do not apply to maize younger than the 4-leaf stage.  Apply as ground or aerial spray when the weeds are fully merged, but not older than the 6-leaf stage. Can be applied at any stage of development of maize from emergence to flowering. If crops are taller than 40 cm, directed spraying is recommended so that better wetting of weeds is obtained. Do not apply under cold, wet conditions as this may result in damage to the crop.
<b>Grain sorghum</b>	1 L plus 1-2 L <b>ATRAZINE® SC</b>  1.5 L plus 1 L <b>MCPA® SL</b>	Follow the instructions for application in maize, but do not apply by air.  Follow the instructions for application in maize, but do not apply by air.

### IMPORTANT NOTES

1. Do not apply **BOMOTRIL®** when weeds are older than specified, as this will result in poor control.
2. The use of **BROMOTRIL®** in combination with wetting agents is not advisable as this may lead to crop damage.
3. Avoid application when the weeds are covered with heavy dew, or when the wind is blowing strongly.
4. Ensure thorough coverage of weeds.
5. Weeds which have not germinated at the time of application will not be controlled.
6. Poor weed control may result if **BROMOTRIL®** is applied when the weeds are under moisture or stress. Apply only during favorable climatic conditions when the weeds are actively growing.
7. Under certain climatic conditions **BROMOTRIL®** may cause some leaf scorch to grain crops. However, yields will not be effected.
8. When **BROMOTRIL®** is mixed with any other product, the information on the label of that product must be carefully consulted and the instructions followed. Consult your representative before mixing **BROMOTRIL®** with other chemicals.
9. **WAITING PERIOD:** When **BROMOTRIL®** is mixed with **ATRAZINE® SC**, the following waiting period must be adhered to before Atrazine sensitive crops can be planted.
  - a) Six months when 1 L **ATRAZINE®**/ha is used.
  - b) Nine months when 2 L **ATRAZINE®**/ha is used.

For more information consult the **ATRAZINE® SC** label.



**NOTE:** This product controls some annual broadleaf weeds. Other broadleaf weeds that were not present during the development trials with the product, may possibly also be controlled to a certain degree. The Registration holder does not accept any responsibility for unlisted weeds.

**WEEDS CONTROLLED BY BROMOTRIL®**

<b>Botanical name</b>	<b>Common name</b>
<i>Acanthospermum hispidum</i>	upright starbur
<i>Amaranthus deflexus</i> *	perennial pigweed
<i>Amaranthus hybridus</i>	Cape pigweed
<i>Amaranthus spinosus</i>	thorny pigweed
<i>Amaranthus thunbergii</i>	red pigweed
<i>Amsinckia menziesii</i>	fiddleneck
<i>Anthemis cotula</i>	dog fennel
<i>Arctotheca calendula</i>	Cape marigold
<i>Argemone subfusiformis</i>	white flowered Mexican poppy
<i>Bidens formosa</i>	cosmos
<i>Bidens pilosa</i>	blackjack
<i>Bilderdykia convolvulus</i>	climbing knotweed
<i>Capsella bursa-pastoris</i>	shepherd's purse
<i>Chenopodium album</i>	white goosefoot
<i>Chenopodium ambrosioides</i>	wormseed goosefoot
<i>Chenopodium carinatum</i>	green goosefoot
<i>Chenopodium multifidum</i>	stinking goosefoot
<i>Chenopodium murale</i>	nettle-leaved goosefoot
<i>Chenopodium schraderianum</i>	Schrader's spinach
<i>Citrullus lanatus</i>	white watermelon
<i>Cleome gynandra</i>	spider wisp
<i>Cleome monophylla</i> *	spindlepod



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<b>Botanical name</b>	<b>Common name</b>
<i>Cucumis myriocarpus</i>	striped wild cucumber
<i>Datura ferox</i>	large thorn apple
<i>Datura stramonium</i>	common thornapple
<i>Emex australis</i> *	spiny emex
<i>Flaveria bidentis</i>	Smelter's bush
<i>Galinsoga parviflora</i>	gallant soldier
<i>Gisekia pharnaceoides</i>	Gesekia
<i>Helianthus annuus</i>	sunflower
<i>Hibiscus trionum</i>	bladderweed
<i>Ipomoea coscinosperma</i>	pink morning glory
<i>Ipomoea purpurea</i>	common morning glory
<i>Lepidium bonariense</i>	pepper weed
<i>Melilotus indica</i>	yellow sweet clover
<i>Nicandra physalodes</i>	apple of Peru
<i>Pentzia grandiflora</i>	stinkweed
<i>Physalis angulate</i>	wild gooseberry
<i>Polygonum aviculare</i> *	prostrate knotweed
<i>Polygonum convolvulus</i>	wild buckweed
<i>Raphanus raphanistrum</i> *	wild radish
<i>Richardia brasiliensis</i>	tropical-Richardia
<i>Ricinus communis</i>	castor oil
<i>Schkuhria pinnata</i>	dwarf marigold
<i>Senecio burchellii</i>	Moltano disease plant
<i>Sesamum triphyllum</i>	wild sesame
<i>Sida cordifolia</i>	heartleaf Sida
<i>Sisymbrium thellungii</i> *	common wild mustard



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<b>Botanical name</b>	<b>Common name</b>
<b><i>Solanum nigrum</i></b>	black nightshade
<b><i>Sonchus oleraceus</i></b>	sowthistle
<b><i>Tagetes minuta</i></b>	khakiweed
<b><i>Tribulus terrestris</i> *</b>	common dubbeltjie
<b><i>Vicia hirsuta</i></b>	tiny purple vetch
<b><i>Vicia sativa</i></b>	broad-leaf purple vetch
<b><i>Xanthium spinosum</i></b>	spiny cocklebur
<b><i>Xanthium strumarium</i></b>	cocklebur

(\*) Cotyledon to 3-leaf stage only

Sray *Tribulus terrestris* before the diameter of the seedling exceeds 25 mm