

RESTRICTED USE AGRICULTURAL REMEDY: THIS REMEDY IS RESTRICTED DUE TO ACUTE TOXICITY. THIS REMEDY MAY ONLY BE SOLD TO AND USED BY A REGISTERED PEST CONTROL OPERATOR, OR BY SOMEONE UNDER THE SUPERVISION OF A REGISTERED PEST CONTROL OPERATOR, AND ONLY FOR THOSE USES COVERED BY THE PEST CONTROL OPERATOR'S SCOPE OF REGISTRATION, AND ONLY AS DIRECTED ON THIS LABEL.


BROMOTRIL® TERBU

Reg. no. L6653 Act/Wet 36 of/van 1947
N-AR 0870

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

GROUP	6/24 & 5	HERBICIDE
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A selective suspension concentrate contact herbicide for the post-emergence control of certain broadleaf weeds in maize, sweetcorn, grain sorghum, sugarcane and fodder sorghum.	'n Selektiewe suspensiekonsentraat kontak-onkruiddoder vir die naopkomsbeheer van breëblaaronkruid in mielies, suikermielies, graansorghum, suikerriet en voersorghum.
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 DANGER	<p>Hazard statements Harmful if swallowed. May cause an allergic skin reaction. Fatal if inhaled. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.</p> <p>Precautionary statements Avoid release to the environment. Avoid breathing dust dust/fume/gas/mist/vapours/spray.</p>
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ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

bromoxynil (nitrile)	150 g/L bromoksiniel (nitriël)
terbuthylazine (triazine)	333 g/L terbutilasien (triasien)

NET VOLUME/NETTO VOLUME

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REGISTRATION HOLDER/REGISTRASIEHOUER

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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

Batch number	Lotnommer
Date of Manufacture	Datum van Vervaardiging
Expiry date	Vervaldaum
	UN no.: 3082	



GHS information

WARNINGS

- Harmful if swallowed.
- May cause an allergic skin reaction.
- Fatal if inhaled.
- Suspected of damaging fertility or the unborn child.
- May cause damage to organs through prolonged or repeated exposure.
- Very toxic to aquatic life with long lasting effects.

A minimum of 14 days should be allowed between application and grazing or feeding.

- Handle with care.
- May be irritating to eyes.
- Toxic to bees and wildlife.
- Store in a cool, dry place away from food and feedstuffs.
- **Aerial application:** Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over adjacent areas, dams or rivers or allow spray drift to contaminate these areas.

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 the factors such as abnormal climatic and storage conditions, the quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of weeds against the remedy concerned as well as by the method time and accuracy of application. The registration holder further more does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or lack of performance of the remedy concerned due to failure of the user to follow 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.
- Read label before use.
- Obtain, read and follow all safety instructions before use.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Wash hands and face thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Wear protective gloves and eye/face protection.



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- In case of inadequate ventilation wear respiratory protection.
- Contaminated work clothing should not be allowed out of the workplace.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- If exposed or concerned get medical advice.
- Get medical help if you feel unwell.
- IF SWALLOWED: Get medical help. Rinse mouth.
- IF ON SKIN: Wash with plenty of soap and water. Specific treatment (see supplemental first aid instructions on this label).
- Take off contaminated clothing and wash it before reuse.
- If skin irritation or rash occurs, get medical help.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately. Specific treatment is urgent (see supplemental first aid instructions on this label).
- Collect spillage.
- Store locked up in a well-ventilated place. Keep container tightly closed.
- Dispose of contents/ container to an approved waste disposal plant.

- Wash with soap and water after application.
- In case of eye contact wash out eyes with clean running water for at least 15 minutes.
- Avoid contamination of food, eating utensils, feed and drinking water.
- Avoid drift of spray mist to other crops, grazing, rivers, dams or any other area that is not under treatment.
- Do not mix and load within 15 m from boreholes, rivers, streams or dams.
- Do not apply within 15 m from boreholes, rivers and streams.
- Do not apply within 60 m from dams.
- Clean applicator thoroughly after use. Dispose of wash water where it will not contaminate the environment.
- Thoroughly wash protective equipment and clothing after use.
- 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.

RELEVANT SUBSTANCES

Chemical name	w/w %	CAS no.
Terbutylazine	10 – 30%	5915-41-3
Bromoxynil	10 – 30%	1689-84-5
Poly(oxy-1,2-ethanediyl), .alpha.-[tris(1-phenylethyl)phenyl]-.omega.-hydroxy-	<10%	99734-09-5

FIRST AID

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). First aider: Pay attention to self-protection.

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

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

Inhalation: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Ingestion: If conscious, rinse mouth thoroughly with water. Drink plenty of water. Never give anything by mouth to an unconscious or convulsing person. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomit, rinse mouth and administer more water. Get medical attention immediately if symptoms occur.

TOXICOLOGICAL INFORMATION

Antidotes

No specific antidote. Treat symptomatically.

Symptoms of human poisoning

None known.

NOTICE TO THE USER: This agricultural remedy is to be used only in 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® TERBU** is a group code 6/24 and 5 herbicide. Any weed population may contain individuals naturally resistant to **BROMOTRIL® TERBU** and other group code 6/24 and 5 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® TERBU** 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.

5: Inhibition of photosynthesis at PSII – serine 264 binders.

RESTRICTED USES

Use only as indicated.

To prevent damage to follow on crops, the following waiting periods after the application of **BROMOTRIL® TERBU** should be adhered to:

None	Maize and sugarcane
4 months	All other crops
12 months	EXCEPTION: All other crops, where the clay content of the soil is less than 20%, the organic material content is less than 1.0% and the soil pH is more than 7.

Compatibility

BROMOTRIL® TERBU is compatible with atrazine SC formulations and the mixture can be used if a longer residual action is needed on susceptible broadleaf weeds.

Mixing instructions

SHAKE THE BROMOTRIL® TERBU CONTAINER THOROUGHLY BEFORE USE. REPLACE AND TIGHTEN THE CAP AFTER USE.

Half fill the spray tank with clean water. Mix the required volume of **BROMOTRIL® TERBU** separately in water and add to the spray tank while agitating the spray mixture. Fill the spray tank with water while agitation is maintained. If **BROMOTRIL® TERBU** is used in a tank mixture with atrazine SC formulations the **BROMOTRIL® TERBU** should be added first into the half-filled spray tank and the atrazine SC thereafter. Fill the tank with water while agitation is maintained. The spray mixture must be agitated continuously before and during application. The spray mixture should never be allowed to stand overnight.

APPLICATION

To achieve effective weed control, thorough wetting of the target weeds is essential.

Ground application

A tractor mounted sprayer filled with a conventional boom and flat nozzles can be used for the application of **BROMOTRIL® TERBU**. The pressure during spraying should not exceed 300 kPa. To ensure thorough wetting of the target weeds at least 250-300 L water per ha should be used. If the crop is higher than 400 mm and the foliage is very dense, drop arms can be used to ensure thorough wetting of the target weeds.

Aerial application

Aerial application of **BROMOTRIL® TERBU** 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:

- Volume: A spray mixture volume of 30 (at least) to 35 (recommended) litres 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: 35 to 45 droplets per cm² 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: 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:
 - 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.



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APPLICATION RATES

CROP AND TARGET	DOSAGE RATE/HA	REMARKS
Maize and grain sorghum	Ground application: 1.25 L Aerial application: 1.5 L	Apply post-emergence when most of the weeds have germinated but before they have developed beyond the 4-leaf stage except if stated otherwise on the lists below.
	Ground application: 1.5 L Aerial application: 1.8 L	Apply post-emergence when most of the weeds have germinated but before they have developed beyond the 6-leaf stage except if stated otherwise on the lists below.
	Ground application: 1.25 L BROMOTRIL®TERBU + 1.0–2.0 L atrazine SC Aerial application: 1.5 L BROMOTRIL®TERBU + 1.0–2.0 L atrazine SC	Apply post-emergence when most of the weeds have germinated but before they have developed beyond the 4-leaf stage, except if stated otherwise on the lists below.
	Ground application: 1.5 L BROMOTRIL®TERBU + 1.0–2.0 L atrazine SC Aerial application: 1.8 L BROMOTRIL®TERBU + 1.0–2.0 L atrazine SC	Apply post-emergence when most of the weeds have germinated but before they have developed beyond the 6-leaf stage, except if stated otherwise on the lists below.
Sweetcorn and fodder sorghum	Ground application: 1.25 L	Apply post-emergence when most of the weeds have germinated, but before they have developed beyond the 4-leaf stage, except if stated otherwise on the lists below.
	Ground application: 1.5 L	Apply post-emergence when most of the weeds have germinated, but before they have developed beyond the 6-leaf stage, except if stated otherwise on the lists below.
Sugarcane (Plant and ratoon cane)	Ground application: 2.0 L	Apply post-emergence when most of the weeds have germinated but before they have developed beyond the 6-leaf stage, except if stated otherwise on the lists below.

IMPORTANT INFORMATION

- If the crop is subjected to stress conditions e.g. high temperatures, drought, low temperatures, nutrient deficiencies, insect or nematode damage, etc. during or shortly after the application of **BROMOTRIL® TERBU**, chlorosis or leaf scorch might appear on the crop. Crop plants usually recover completely with no detrimental effect on yield.
- If maize plants are subjected to streak disease serious damage might occur after a **BROMOTRIL®TERBU** application.
- If weeds have developed beyond the growth stage as indicated on the label at application of **BROMOTRIL® TERBU**, poor weed control may result.
- To obtain optimum weed control, weeds should be growing actively at the time of application. Any stress condition will be detrimental to weed control.
- Thorough wetting of weeds with **BROMOTRIL® TERBU** should be ensured to obtain good weed control. Drop arms can be used if the crop is too high or foliage growth is too dense to ensure thorough wetting.
- **BROMOTRIL® TERBU** controls susceptible annual broad leaf weeds only. To control annual grasses a suitable pre-emergence grass herbicide should be used.
- When atrazine SC is used in a tank mix with **BROMOTRIL® TERBU**, the atrazine SC label should be studied carefully and not should also be taken regarding the waiting periods.
- No adjuvants must be used with **BROMOTRIL® TERBU** as they can cause damage to the crop or even be detrimental on the effectivity.
- Do not mix **BROMOTRIL® TERBU** with any other compound, except atrazine SC, before the supplier has been consulted.

WEEDS CONTROLLED

Weeds controlled by **BROMOTRIL® TERBU** when applied at the 4-6 leaf stage of the weeds at the dosage rates as recommended.

BOTANICAL NAME	COMMON NAME
<i>Acanthospermum hispidum</i>	Upright starbur
<i>Alternanthera pungens</i>	Khaki weed
<i>Amaranthus hybridus</i>	Common pigweed
<i>Amaranthus spinosus</i>	Thorny pigweed
<i>Argemone mexicana</i>	Yellow-flowered Mexican poppy
<i>Bidens pilosa</i>	Common Blackjack
<i>Capsella bursa-pastoris</i>	Sheperd's Purse
<i>Chenopodium album</i>	White goosefoot
<i>Chenopodium carinatum</i>	Green goosefoot



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BOTANICAL NAME	COMMON NAME
<i>Citrullus lanatus</i>	Wild watermelon
<i>Cleome gynandra</i>	Spider-wisp
<i>Commelina benghalensis</i>	Benghal wandering Jew
<i>Cosmos bipinnatus</i>	Cosmos
<i>Cucumis myriocarpus</i>	Striped wild cucumber
<i>Fallopia convolvulus</i>	Climbing knotweed
<i>Flaveria bidentis</i>	Smelter's bush
<i>Galinsoga parviflora</i>	Gallant Soldier
<i>Hibiscus trionum</i>	Bladderweed
<i>Ipomoea coscinosperma</i>	-
<i>Ipomoea purpurea</i>	Morning glory
<i>Physalis angulata</i>	Wild gooseberry
<i>Polygonum aviculare</i>	Prostrate knotweed
<i>Raphanus raphanistrum</i>	Wild radish
<i>Sckuhria pinnata</i>	Dwarf marigold
<i>Sesanum triphyllum</i>	Wild sesame
<i>Sida cordifolia</i>	Flannel weed
<i>Solanum nigrum</i>	Nightshade
<i>Sonchus oleraceus</i>	Sowthistle
<i>Tagetes minuta</i>	Tall khaki weed
<i>Xanthium spinosum</i>	Spiny cocklebur
<i>Xanthium strumarium</i>	Cocklebur



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Weeds controlled by BROMOTRIL® TERBU as indicated at the growth stages underneath.

WEED	COMMON NAME	DOSAGE	
		1.25 L/ha (soil) 1.5 L/ha (air)	1.5 L/ha (soil) 1.8 L/ha (air)
<i>Amaranthus thunbergii</i>	Red pigweed	4-leaf	6-leaf
<i>Cleome monophylla</i>	Spindlepod	-	3-leaf
<i>Crotalaria sphaerocarpa</i>	Wild lucerne	-	50 mm high
<i>Datura ferox</i>	Large thorn-apple	6-leaf	8-leaf
<i>Datura stramonium</i>	Common thorn-apple	6-leaf	8-leaf
<i>Portulaca oleracea</i>	Purslane	-	3-leaf
<i>Tribulis terrestris</i>	Common dubbeltjie	50 mm diameter	100 mm diameter