


RANGER

Reg. no. L11174 Act/Wet 36 of/van 1947

**READ ATTACHED PACKAGED LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

GROUP	15	HERBICIDE
An emulsifiable concentrate herbicide for pre- or post-plant soil application to control herbicide resistant annual Ryegrass in wheat and barley.		'n Emulgeerbare konsentraat onkruidodder vir of naplant grondtoediening vir die beheer van onkruidodder weerstandbiedende eenjarige Raaigras in koring en gars.
 <p>WARNING</p>		<p>Hazard statements Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.</p> <p>Precautionary statements Wash body thoroughly after handling. Avoid release to the environment.</p>

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

Prosulfocarb (thiocarbamate) 800 g/L prosulfokarb (tiokarbamaat)

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

UN no:3082

Batch number
Date of Manufacture
Expiry date

Lotnommer
Datum van Vervaardiging
Vervaldatum



GHS information

WARNINGS

- Harmful if swallowed.
 - Harmful in contact with skin.
 - Harmful if inhaled.
 - Causes skin irritation.
 - Causes serious eye damage.
 - May cause an allergic skin reaction.
 - Very toxic to aquatic life.
 - Toxic to aquatic life with long lasting effects
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- **Withholding period - allow a minimum of 84 days between application and grazing/feeding.**
 - Handle with care.
 - Harmful when swallowed.
 - Causes irritation when in contact with eyes and skin.
 - May cause serious damage to eyes.
 - May cause irritation to respiratory system.
 - Toxic to fish and aquatic life.
 - Do not spray over or allow drift to contaminate water bodies such as dams, ponds, rivers, streams or fish hatcheries.
 - Store under lock and key in a cool, dry, well-ventilated place, away from food, feeds, seed, fertilizers and other agricultural remedies.
 - Keep out of reach of children, uninformed persons and animals.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not guarantee that it will be effective 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 indicated on the label and the occurrence of resistance of the weeds against the remedy concerned, as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, and the environment or harm to humans or animals or for lack of performance of the remedy 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

- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Avoid release to the environment.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves.
- Do not eat, drink or smoke when using this product.
- Wash hands and body thoroughly after handling. Do not touch eyes.
- Contaminated work clothing should not be allowed out of the workplace.
- IF SWALLOWED: Rinse mouth. Get medical help.
- IF ON SKIN: Wash with plenty of water. Specific treatment.
- If skin irritation or rash occurs: Get medical help.
- Take off contaminated clothing and wash it before reuse.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help.
- IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help.
- Collect spillage.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

- Avoid inhalation of the spray mist and contact with eyes and skin.
- Wear a face shield and rubber gloves when handling and preparing the spray mixture.
- Wash with soap and water after use or accidental eye and skin contact.
- Wash clothing after use.
- Do not eat, drink or smoke whilst applying or mixing or before washing hands and face or change of clothing.
- Prevent spray drift onto other crops, grazing, rivers, dams or areas not under treatment.
- Clean the applicator after use and dispose of wash water where it will not contaminate other crops, grazing, boreholes, rivers or dams.
- Triple rinse empty containers in the following manner: 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 empty container three times in succession with one quarter on 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 or donate the container to any other parties that may use it as a container for food or beverages.
- Prevent contamination of food, feeds, drinking water and eating utensils.

RELEVANT SUBSTANCES

Chemical name	w/w %	CAS no.
Prosulfocarb	>60%	52888-80-9
Calcium dodecylbenzene sulfonate	<10%	26264-06-2
Polyoxyethylene castor oil	<10%	61791-12-6
Cyclohexanone	<10%	108-94-1
Solvesso-150	<10%	64742-94-5

FIRST AID TREATMENT

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

Inhalation: Remove the patient immediately from the source of poisoning to a cool, well-ventilated area and keep him/her calm and reassured. Keep the patient warm and at rest. Consult a physician.

Skin contact: Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.

Eye contact: Wash eyes with clean, running water for at least 20 minutes while holding eyelid(s) open. If irritation persists get medical attention immediately.

Ingestion: Do not induce vomiting. If vomiting occurs, keep head below hips to prevent aspiration. Do not apply mouth-to-mouth respiration. Never give anything by mouth to an unconscious person. Take the patient immediately to the nearest physician and show this label to him/her.

Note to physician

Product contains an aromatic hydrocarbon organic solvent. No antidote is available, treat symptomatically.

RESISTANCE WARNING

RANGER is a group code 15 herbicide. Any weed population may contain individuals naturally resistant to **RANGER** and other group code 15 herbicides. These resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. Resistant weeds may not be controlled by **RANGER** or any group code 15 herbicides.

To delay herbicide resistance:

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

For more information regarding resistance management contact the registration holder of this product.

MODE OF ACTION

15: Inhibition of very long-chain fatty acid synthesis.

GENERAL INFORMATION

RANGER is specifically aimed at the control of annual Ryegrass (*Lolium* spp.) resistant to the post-emergence grass herbicides (fops and dims) and the sulfonylurea herbicides in wheat and barley, in the Western and Southern Cape. Control of between 70 and 90% of annual Ryegrass can be expected if this product is used together with trifluralin 480 EC as instructed.

USE RESTRICTIONS

RANGER applied on its own can cause retarded crop emergence, chlorosis (yellowing) or a reduction in crop stand. However, the crop should recover without an adverse effect on yield.

It is of utmost importance that the following “USE RESTRICTIONS” be implemented to reduce risk of damage to the crop:

- **RANGER** can only be applied if planting is performed with an Ausseeder (Ausplow) or a similar planter.
- **RANGER** must not be applied directly onto the wheat/barley seed. Ensure that the seed is covered with a layer of 20 to 30 mm of soil after planting
- Do not apply on to fields with a risk of stress conditions (e.g. areas prone to water logging, drought or frost, high nematode infestations, etc.).
- trifluralin 480 EC are decomposed by sunlight and therefore the applied product must be covered by soil within 10 minutes after application.
- The planting speed should be 5 to 6 km per hour. Ideally the planter speed must be such that the planter throws soil over the area in between the rows, but not onto the adjacent row, since this can cause damage to crops.
- Soil covered with organic material (e.g. stubble) or other structures (e.g. stones) that intercept spray droplets, will result in sub-optimal control of weeds.
- Where minimum tillage is practiced, stubble should be burned before planting.
- Any weeds that have emerged before planting should be pre-sprayed with Glyphosate.
- Climatological conditions: Under the following conditions crop damage or stand reductions may occur:
 - high rainfall and/or
 - cold temperatures.

- Damage may be more pronounced if seeds have been planted too shallow, without an adequate soil layer above the seeds
- Waiting periods: TAKE NOTE OF THE PERIODS TO AVOID INJURY TO FOLLOW-UP CROPS:

The following waiting periods must be observed following application of **RANGER**

Wheat	0 months
Canola	11 months
Other crops	24 months

DIRECTIONS FOR USE

Use only as directed.

Mixing instructions

Half fill the mixing tank with clean water and ensure thorough agitation during mixing.

Spray mixture must be sprayed immediately and not allowed to stand in the spray tank for any length of time, e.g. overnight.

Application instructions

- Use accurately calibrated equipment with appropriate, correctly spaced nozzles and an efficient agitation mechanism.
- Prepare a fine, even and firm seedbed free of weeds, trash, stones and clods.
- Spray evenly onto the soil surface in at least 200 liters water per hectare.

APPLICATION RATES

CROP	DOSAGE (L/ ha)	REMARKS
Wheat and barley Split pre & post plant application		
trifluralin 480 EC pre-plant followed post plant* by RANGER	1.5 L 2.0 L	Recommended under high Rye grass infestation pressure and for improved control of weeds within the row. Apply trifluralin 480 EC pre-plant and follow-up within 3 days after planting with RANGER , pre-emergence of weeds.

* **NOTE:** Post-plant application (within 2 to 3 days after planting), but still pre-emergence of weeds and crop.

WEEDS CONTROLLED

- **RANGER** will control Ryegrass, including ALS/ACCase resistant Ryegrass.
- Wild oats (*Avena* spp.) and Ripgut brome (*Bromus diandrus*) may also be suppressed by application of **RANGER** in combination with trifluralin 480 EC.
- Refer to the labels of trifluralin 480 EC for a list of weed species controlled by these products.