

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

SHAKE THE BOTTLE WELL BEFORE USE.

Herbicide



ATRAFLO 500 SC

Reg. No. L 5434 Act/Wet No. 36 of/van 1947

3.30.06/00-Jan2019

A suspension concentrate herbicide for selective control of most annual broadleaf weeds, as well as Goose and Red bristle grass in maize, grain sorghum and sugarcane.

'n Suspensie konsentraat onkruidodder vir selektiewe beheer van die meeste eenjarige breëblaaronkruid, asook Jongosgras en Rooiborselgras in mielies, graansorghum en suikerriet.

ACTIVE INGREDIENTS / AKTIEWE BESTANDEDE

atrazine (triazine) **485 g/l** atrasien (triasien)
related active triazines **15 g/l** verwante aktiewe triasieni

HRAC HERBICIDE GROUP CODE **C1** HRAC ONKRUIDDODER GROEPPKODE



villa

Registration holder / Registrasiehouer:

Villa Crop Protection (Pty) Ltd.

Co. Reg. No. / Mpy. Reg. Nr. 1992/002474/07

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UN Number: 3082



Willow Set & Print 011 394-4486



**HARMFUL
SKADELIK**



GERUUKSAANWYSYNGS INGESLUIT

VERWYS NA BESONDERHEDE
GEDRUK OP HOUER/SAK

Date formulated:

Formuleringsdatum:

DIRECTIONS FOR USE ENCLOSED

REFER TO DETAILS PRINTED
ON CONTAINER/BAG

Batch number:

Lotnommer:

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Registration holder / Registrasiehouer:

VILLA CROP PROTECTION (PTY) LTD.

Co. Reg. No. 1992/002474/07 Mpy. Reg. Nr.

PO Box / Posbus 10413, KEMPTON PARK, 1620

Tel. (011) 396 2233

HARMFUL**SKADELIK****WARNINGS****Recropping intervals:**

The following waiting periods should lapse between application of ATRAFLO 500 SC and the planting of follow-up crops, to prevent damage to the next crop:	
a) Maize and Sugarcane	None
b) Grain Sorghum	12 months
c) Sunflowers, Groundnuts, Soybeans, Potatoes, Dry Beans, Forage Sorghum and Small Grains	18 months
d) All Other Crops (a testing planting is recommended)	24 months

Where the rate of **ATRAFLO 500 SC** applied does not exceed 2.0 litres per hectare, the waiting periods mentioned under (b) and (c) above can be reduced to 9 months except on the sandy soils of the Northwest Province and North Western Free State which contain 0 to 10 % clay.

IMPORTANT

The above mentioned waiting periods are valid only if the correct dosage rate of **ATRAFLO 500 SC** according to soil type was applied and normal or above average rainfall occurred after **ATRAFLO 500 SC** application.

- Poisonous when swallowed.
- Store in a cool, dry place, away from food, feeds, seed, fertilizers and other agricultural chemicals.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated area within 1 day after treatment unless wearing protective clothing.
- **In case of poisoning call a physician and make this label available to him/her.**

Aerial application:

Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not spray over or allow the drift to contaminate water or adjacent 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. 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, the occurrence of resistance of 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, the environment or harm to man or animal 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

- Do not inhale spray mist.
- Avoid contact with skin and eyes.
- Wash with soap and water after use and accidental skin contact.
- Wash contaminated clothing after use.

- Do not eat, drink or smoke whilst mixing, applying the product or before washing hands and face and change of clothing.
- Avoid drift onto other crops, grazing, rivers, dams or areas not under treatment or to nearby water sources.
- Do not mix and load within at least 15 metre from boreholes, streams, rivers and dams.
- Do not apply within at least 60 metre from dams.
- Ensure that no back-siphoning to boreholes or dams takes place where atrazine is applied through the irrigation system.
- Clean applicator before using with other material and dispose of wash water where it will not contaminate food, grazing, rivers or dams.
- Do not apply where the roots of desirable plants can absorb the chemicals.
- **TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining 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 a third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy the empty container by perforation and flattening.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING

Acute toxicity to this herbicide is expected to be low and no adverse effects from exposure have been reported. It can be absorbed orally, dermally and by inhalation. Symptoms of poisoning include abdominal pain, diarrhea and vomiting, eye irritation, irritation of mucous membranes and skin irritations.

FIRST AID TREATMENT

- **Skin contact:** If irritation occurs, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts). Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. If irritation persists, obtain medical assistance.
- **Eye contact:** Immediately flush the contaminated eyes with gently flowing lukewarm water for 20 minutes, holding the eyelid(s) open until no evidence of chemical remains.
- **Ingestion:** Have patient rinse mouth thoroughly with water. Do not induce vomiting. Obtain medical advice immediately.
- **Inhalation:** Remove source of contamination or move patient to fresh air. Keep patient under observation and obtain medical attention if irritation persists.

NOTE TO PHYSICIAN

No signs and symptoms of triazine poisoning are known or expected in humans. No specific antidote is available. Treat symptomatically and supportively when required. When large amounts have been ingested, consider gastric lavage or administer activated charcoal.

RESISTANCE WARNING

ATRAFLO 500 SC is a group code C1 herbicide. Any weed population may contain individuals naturally resistant to **ATRAFLO 500 SC** and other group code C1 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **ATRAFLO 500 SC** or any other group code C1 herbicide.

To delay herbicide resistance:

- avoid exclusive repeated use of herbicide from the same herbicide group code. Alternate or tank mix with 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.

RESTRICTIONS OF USE

- When **ATRAFLO 500 SC** is applied to soils which expand on wetting and crack or crumble on drying out, such as turf soils, the **ATRAFLO 500 SC** may remain active in the soil for much longer than the above mentioned waiting periods. Thus, **ATRAFLO 500 SC** should not be used on such soils if sensitive crops might be planted in the foreseeable future. On such soils **ATRAFLO 500 SC** may also give poor control of the weeds when applied pre-emergence.

- Do not apply **ATRAFLO 500 SC** to inbred parent plants of maize and grain sorghum hybrids or experimental or newly released maize and grain sorghum cultivars without first referring to the distributor or seed supplier.
- If **Gramoxone®** is added to the spray mixture the following conditions should be avoided:
 - maize under physiological stress,
 - maize with low yield potential,
 - windy conditions and
 - field with uneven surfaces.
- Under cold and/or very wet conditions **ATRAFLO 500 SC** may damage grain sorghum.

DIRECTIONS FOR USE: Use only as recommended.

Compatibility:

ATRAFLO 500 SC compatible with **Gramoxone®** (L 1174), and **Campatop 225 EC** (L 5320) as recommended on this label. It is also compatible with **Cypermethrin 200 EC** as well as other soil insecticides. The compatibility of **ATRAFLO 500 SC** with other products may be influenced by the formulation of the products involved as well as the quality of the water. Since the formulation of other products may change and water quality may vary from farm to farm a physical compatibility test should always be carried out prior to application.

Mixing Instructions:

- Shake well before use and replace screw-cap after use.
- Half fill the spray tank with water, then pour the required amount of **ATRAFLO 500 SC** through a 50 mesh sieve into the tank, whilst agitating
- Top up with water to the final volume required.
- When **ATRAFLO 500 SC** is tank mixed with **Gramoxone®** and/or **Cypermethrin 200 EC** and/or **Campatop 225 EC**, the **ATRAFLO® 500 SC** should be mixed first using a tank half filled with water and agitated well after which the spray tank should be filled almost to capacity. Only then should the **Cypermethrin 200 EC** and/or **Campatop 225 EC** and finally the **Gramoxone®** be added whilst the spray tank is filled to its final volume.
- Ensure thorough agitation during filling and spraying operations.

APPLICATION

- **ATRAFLO 500 SC** must be applied before or shortly after weeds emerge.
- The soil should preferably have a smooth surface, free of large clods.
- If dry conditions prevail for a period of 7 to 14 days after application, weeds may emerge and develop. In such cases it is recommended that a light cultivation be carried out with a rotary cultivator to destroy these weeds and to mix the herbicide into the top 10 to 20 mm of soil.
- **ATRAFLO 500 SC** can also be applied in a tank mixture with **Gramoxone®** as a directed interrow application. The maize must be at least be 30 cm tall to facilitate proper directing of the spray mixture. The weeds should not be taller than 10 cm to ensure effective control. For further information please consult the **Gramoxone®** label.

Ground application: (Flat fan type spray nozzles)

ATRAFLO 500 SC can be applied with any medium or high volume sprayer, with efficient agitation which is capable of adequate coverage and even distribution. Best results are obtained using flat fan-type spray nozzles and applying a minimum spray volume of 200 litres per hectare spray mixture.

Aerial application:

Aerial application of **ATRAFLO 500 SC** may only be performed by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS 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 litres per hectare is recommended. **Pre-emergence** – 30 litres per hectare. **Post-emergence** – 30 to 35 litres per hectare. 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 aurally at a lower volume rate than recommended above.
- Droplet coverage: The following number of droplets per cm² must be recovered at the target area: **Pre-emergence** - 20 to 30. **Post-emergence** - 35 to 45.

- **Droplet size:** The following droplet spectra are recommended: **Pre-emergence**- VMD of 350 to 400 micron. **Post-emergence** - VMD of 300 to 350 micron. Limit the production of fine droplets less than 150 micron (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 per hour.
- 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.

MAIZE

Table 1: Application rates of **ATRAFLO 500 SC**.

Soil type	% Clay	Overall Application
Light sand / sand	0 to 10 %	2.5 ℓ / ha
Loamy sand / sandy loam	11 to 20 %	3.25 ℓ / ha
Sandy clay loam	21 to 30 %	4.0 ℓ / ha
Sandy clay loam / sandy clay	31 to 40 %	4.75 ℓ / ha
Sandy clay and soils high in organic matter	41 to 50 %	6.0 ℓ / ha

GRAIN SORGHUM

Note the following use restrictions:

Pre-emergence: Recommended **only** on soils containing more than 35 % clay.

Post-emergence: Recommended **only** on soils containing more than 25 % clay.

- **ATRAFLO 500 SC** can only be applied post-emergence if broadleaf weeds have not developed beyond the seedling stage (2 leaf stage), grasses and Khaki weed (*Tagetes minuta*) have not yet emerged, and the grain sorghum has 5 or more leaves. Where grasses have already emerged and broadleaf weeds have developed beyond the seedling stage, these weeds must first be destroyed by cultivation and the product then applied onto clean soil.

Table 2: Application rate of **ATRAFLO 500 SC**.

Soil type	% Clay	Overall application	Time of application
Light sand / sandy loam	0 to 20 %	Not recommended	
	21 to 25 %	Not recommended	
Sandy clay loam	26 to 30 %	4.0 ℓ / ha	post-emergence only
	31 to 35 %	4.75 ℓ / ha	post-emergence only
Sandy clay and soils high in organic matter	36 to 40 %	4.75 ℓ / ha	pre- or post-emergence
	41 to 50 %	6.0 ℓ / ha	pre- or post-emergence

IMPORTANT (Maize and Grain Sorghum):

Ensure that sufficient fertilizer is band-placed near the seed at planting to promote vigorous seedling growth.

Post-emergence application:

- **ATRAFLO 500 SC** plus **Campatop 225 EC** - Ground application **only**.
- Where a grass killer has been applied before or at planting of maize or grain sorghum the above-mentioned broadleaf weeds can be controlled after emergence with a mixture of 1 to 2 litres per hectare **ATRAFLO 500 SC** plus 1.0 litre per hectare **Campatop 225 EC**.
- In addition to the above mentioned broad-leaved weeds, Cocklebur (*Xanthium strumarium*), Common morning glory (*Ipomoea purpurea*), *Ipomoea coscosperum* as well as Khaki weed (*Tagetes minuta*) can be controlled. The weeds should be sprayed early post-emergence, i.e., not older than the 4 leaf stage with the exception of Bengal wandering Jew (*Commelina benghalensis*), which should be sprayed in the 2 to 3 leaf stage.

IMPORTANT

- Sometimes scorching may occur on the leaves after treatment with **ATRAFLO 500 SC** plus **Campatop 225 EC**. These scorch marks are normally outgrown within 2 to 3 weeks and have no effect on yield.
- On soils with less than 20 % clay **ATRAFLO 500 SC** plus **Campatop 225 EC** should not be applied before the 5-leaf stage of grain sorghum since damage may occur.
- For further particulars consult the **Campatop 225 EC** label.

STALE SEEDED / MINIMUM TILLAGE / STUBBLE MULCH

- Where minimum tillage or stubble mulch is practised, weeds may have emerged at the time of planting. If crops are planted under such conditions or into a stale seed, where grass weeds have already emerged and/or broadleaf weeds have developed beyond the seedling stage, it is recommended that **Gramoxone®** be added to **ATRAFLO 500 SC** according to the recommendation of the manufacturer. The **Gramoxone** will destroy the emerged weeds and create a pre-emergence situation for the **ATRAFLO 500 SC**.

IMPORTANT

- When **Gramoxone®** is added, spraying should be carried out prior to the emergence of the crop as **Gramoxone®** will damage the crop if it is applied post-emergence.
- In the case of minimum tillage or stubble mulch the density of the stubble and humus may affect the efficacy of **ATRAFLO 500 SC**. Therefore consult a representative of the manufacturer or distributor.

SUGARCANE

For the control of broadleaf weeds on light to medium soils, apply **ATRAFLO 500 SC** as an overall spray immediately after planting and before weeds emerge.

Table 3: Application rate of **ATRAFLO 500 SC**.

Soil type	% Clay	Application rate
Light to medium	0 to 35 %	2.5 ℓ/ ha

Table 4: Weeds controlled.

The following weed species are normally controlled by ATRAFLO 500 SC at the dosage rates recommended:	
Broad-leaved weeds:	
<i>Acanthospermum australe</i>	Eight-seeded prostrate starbur
<i>Acanthospermum glabratum</i>	Five-seeded prostrate starbur
<i>Acanthospermum hispidum</i>	Upright starbur
<i>Amaranthus deflexus</i>	Perennial pigweed
<i>Amaranthus hybridus</i>	Common pigweed
<i>Amaranthus spinosus</i>	Thorny pigweed
<i>Amaranthus thunbergii</i>	Red pigweed
<i>Bidens bipinnata</i>	Spanish blackjack
<i>Bidens formosa</i>	Cosmos
<i>Bidens pilosa</i>	Blackjack
<i>Chenopodium album</i>	White goosefoot
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Cleome monophylla</i>	Spindlepod
<i>Cleome rubella</i>	Pretty lady
<i>Commelina benghalensis</i>	Bengal wandering Jew
<i>Crotalaria sphaerocarpa</i>	Mealie Crotalaria
<i>Datura ferox</i>	Large thorn apple
<i>Datura stramonium</i>	Thorn apple
<i>Galinsoga parviflora</i>	Gallant soldier
<i>Gisekia pharnaceoides</i>	Gisekia
<i>Hibiscus cannabinus</i>	Kenaf
<i>Hibiscus trionum</i>	Bladderweed
<i>Nicandra physaloides</i>	Apple of Peru
<i>Physalis angulata</i>	Wild gooseberry
<i>Portulaca oleracea</i>	Purslane
<i>Richardia brasiliensis</i>	Tropical Richardia
<i>Schkuhria pinnata</i>	Dwarf marigold
<i>Tagetes minuta</i>	Khaki weed
<i>Vigna vexillata</i>	Wild cow-pea
Grasses:	
<i>Eleusine indica</i>	Goose grass
<i>Setaria pallide-fusca</i>	Red bristle grass
If dry conditions prevail for a period of 7 to 14 days after pre-emergence application the following weed species may not be adequately controlled, especially on heavy soils:	
<i>Bidens formosa</i>	Cosmos
<i>Commelina benghalensis</i>	Bengal wandering Jew
<i>Datura spp.</i>	Thorn apple
<i>Eleusine indica</i>	Goose grass
<i>Tagetes minuta</i>	Khaki weed
Under abnormal wet conditions late-season weed control may be inadequate.	

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