Arysta LifeScience

ALACHLOR

Reg. No.: L6667 Act /Wet No. 36 of/van 1947

A pre-emergence emulsifiable concentrate herbicide for the control of most annual grasses and certain broadleaf weeds in maize, sweetcorn, groundnuts, soybeans, sunflower, transplanted cabbage, broccoli, Brussels sprouts, potatoes, sugarcane and pineapples.

'n Vooropkoms emulgeerbare konsentraat onkruiddoder vir die beheer van die meeste eenjarige grasse en sekere breëblaaronkruide in mielies, suikermielies, grondbone, sojabone, sonneblom, aartappels, pynapples, uitgeplante kopkool, brokkoli, Brusselsespruite en suikerriet

HRAC HERBICIDE GROUP CODE:	K3	HRAC ONKRUIDDODERGROEP KODE:

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL:
Alachlor / alachlor ……384g/ℓ
(chloro-acetanilide) /(chloorasetanilied)

Registered by/Geregistreer deur:
Volcano Agroscience (Pty) Ltd./(Edms) Bpk
Co. Reg No./Nr. 2000/004551/07

Distributed By/Versprei deur:
Arysta LifeScience South Africa (Pty) Ltd
Co. Reg No./Nr 2009/019713/07
7 Sunbury Office Park, Off Douglas Saunders Drive,
La Lucia Ridge, South Africa, 4019
Tel: 031 514 5600

Contents/Inhoud
ℓ

Batch No. / Lot Nr.:	
Date of manufacture: / Datum van vervaardiging:	

U.N. No. 2902

READ THE LABEL IN DETAIL BEFORE OPENING THE CONTAINER. / LEES DIE ETIKET VOLLEDIG VOORDAT DIE HOUER OOPGEMAAK WORD.
For full particulars, see enclosed leaflet. / Vir volledige besonderhede, sien ingeslote pamflet.

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HARMFUL  **SKADELIK**

WARNINGS:

- Harmful if swallowed.
- Irritating to eyes and skin and may cause skin sensitisation by skin contact.
- Toxic to fish.
- Store in a cool dry place away from food, feeds, seed, fertilizers and other agricultural chemicals.
- FLAMMABLE - Keep away from flames.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry interval: **Do not enter treated field within 1 day after application unless wearing protective clothing.**
- In case of poisoning call a doctor and show him/her this label.
- **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 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 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 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 breathe fume or spray mist.
- Wear rubber gloves, boots and a face shield when handling the concentrate and rubber gloves and boots during application.
- In case of accidental contact with skin or eyes, wash immediately with plenty of water and in the case of eyes, get medical attention, if necessary.
- Do not smoke, eat or drink while using, or before washing and change of clothing.
- Prevent contamination of food, feeds, drinking water and eating utensils.
- Prevent drift and/or contamination onto susceptible or edible crops, grazing, rivers, dams or any other areas not under treatment.

- 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 the contents of the spray tank before destroying the container.
- Do not re-use empty container for any other purpose.

Symptoms of human poisoning:
Headache, dizziness and nausea.
First aid treatment:
Inhalation: Remove patient from exposure to fresh air. If breathing is difficult, administer artificial respiration. Obtain medical attention.
Skin contact: Wash contaminated skin with soap cold water.
Eye contact: Irrigate with eye wash solution or clean water for at least 15 minutes. Get medical attention.
Ingestion: Wash out the mouth with plenty clean water. Never give anything by mouth to an unconscious person. Get medical help.
Note to physician:
There is no specific antidote. Treat symptomatically and give supportive therapy.

Resistance warning:
For resistance management **ALACHLOR** is a group code K3 herbicide. Any weed population may contain individuals naturally resistant to **ALACHLOR** and other group code K3 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **ALACHLOR** or any other group code K3 herbicide.
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 group codes,
- Integrate the control methods (chemical, cultural, biological) into weed control programmes.

For specific information on resistance management contact the registration holder of this product.

DIRECTIONS FOR USE: Use only as directed.
General information:
Ensure accurately calibrated equipment.
A deep ploughing, just prior to planting is essential for:

- Improved control of *Cyperus esculentus* (yellow nutsedge). See paragraph on VARIABLE WEED CONTROL at the end of this label.
- Breaking of compaction layers which could lead to waterlogged soil and subsequent possible damage to maize following heavy rain.

Prepare a fine even seedbed free of weeds, trash and clods.
Do not apply **ALACHLOR** to inbred parent plants of maize hybrids or onto experimental or newly released cultivars, without first referring to the manufacturers or seed suppliers.
Do not apply to poorly drained soils. Water logging in the presence of herbicides could cause stand reduction and/or stunted growth.
Do not apply **ALACHLOR** to sandy soils.
Before using **ALACHLOR** in combination with other herbicides, read the labels and adhere to label recommendations.

Flood irrigation can reduce weed control efficacy.

Mixing instructions:
Shake container well before use. Close container securely after use.
To a spray tank half filled with clean water, add the required amount of **ALACHLOR** while maintaining agitation. Complete filling operation.
When mixing **ALACHLOR** with other herbicides, use the following procedure:

- Fill spray tank three quarters with clean water. Add required amount of complementary herbicide to the water agitating continuously.
- Add **ALACHLOR** just before the tank is filled to its full level.
- Ensure thorough agitation of the mixture in the tank during mixing and spraying.
- Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.
- Thoroughly flush out spraying equipment at the end of the spraying operation.

Application:
Apply **ALACHLOR** with planting or immediately after planting, but not later than two days after planting. Use a total of 200 ℓ spray mixture / ha for overall ground application and 30 - 40 ℓ / ha for aerial application.
Between 5 and 15 mm rain within 7 - 10 days after application is necessary for good results. Under dry conditions, weed seedlings may emerge. These are usually stunted and can be controlled with a shallow cultivation, which also mixes the herbicide with the top 10 - 20 mm soil.
If soil crusting becomes a problem, rotary harrow in the same direction the rows are planted, to assist maize germination. Harrowing after application may reduce weed control if untreated soil is thrown into deep planter furrows.
Ensure that sufficient fertilizer is placed in a band close to the seed during planting, to promote vigorous seedling growth.
Ensure equipment is accurately calibrated and regularly checked before and during application.

Aerial application:
ALACHLOR must not be applied from the air to maize. Aerial application of **ALACHLOR** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SABS Code 0118 (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 - 40 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: 25 - 35 droplets / cm^2 must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 350 - 400 micron is recommended. 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 - 4 m 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 - 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.

Application rates:

1. **MAIZE:**

Pre-emergence to crop and weeds.
Application to be made at planting or not later than two days after planting. Use the correct rates for different row and band widths.
To increase the spectrum of broadleaf weeds controlled in maize only tank mixtures with atrazine suspension concentrates are recommended.

% SOIL CLAY	ALACHLOR ℓ/ha	ATRAZINE 500 SCℓ/ha	REMARKS
0 – 10 11 – 16 17 – 20 21 – 35 ☐ 35	4,0 * 4,0 * 4,5 5,0 5,0	1,75 – 2,25 2,25 2,75 – 3,25 4,0 4,0	When a short soil persistence is required in view of follow-up crops, use only 1,5 ℓ / ha atrazine on soils up to 35 % clay and 2 ℓ / ha atrazine on soils over 35 % clay.
NOTE (*): On soils of 0 - 10 % clay in the North West Province and Northern Free State use the recommendations below.			

For special annual grass and broadleaf weed control in maize:
For use on soils of 0 - 20 % clay only (including soils of 0 - 10 % clay in North West Province and Northern Free State).

Apply the required **ALACHLOR** rate post planting of the crop and pre-emergence of the crop and weeds either in a tank mix with the required atrazine SC rate or alone followed by atrazine SC applied early post-emergence of the weeds according to the manufacturers label recommendations.

ALACHLOR ℓ/ha	ATRAZINE 500 SC ℓ/ha	WEED SPECIES
2,0 *	2,5 - 3,25 depending on soil type	*Eleusine indica*(Goose grass) *Chloris virgate* (Feathertop Chloris)
3,0	2,5 - 3,25 depending on soil type	*Digitaria sanguinalis* (Crab finger-grass) *Urochloa panicoides* (Herringbone grass)

ALACHLOR ℓ/ha	ATRAZINE 500 SC ℓ/ha	WEED SPECIES
		Panicum schinzii (Sweet buffalo grass)

NOTE :(*) Nutsedge (*Cyperus esculentus*) will not be controlled at these rates.
(**) In areas of known high *Digitaria sanguinalis* (crab finger-grass) infestations it is recommended to use **ALACHLOR** at 4,0 - 5,0 ℓ / ha in a tank mix with atrazine SC as recommended (excluding soils of 0 - 10 % clay in the North West Province and Northern Free State).

- For soils over 20 % clay, use **ALACHLOR** at 5,0 ℓ / ha as recommended above.
- Apply **ALACHLOR** at 3,0 ℓ / ha in a tank mix with atrazine SC according to the above recommendations up to 4 weeks after planting the maize.
- Emerged weeds should be destroyed with a shallow cultivation (less than 3 cm deep) prior to the **ALACHLOR** plus atrazine SC treatment.
- Where the crop has emerged, spraying should be directed between the crop rows and not over the crop.
- Do not apply **ALACHLOR** treatment in under 200 ℓ water / ha.
- Do not apply by aircraft to maize.

NOTE: atrazine tank-mixed with **ALACHLOR** results in soil persistent residues.

Do not plant atrazine sensitive crops before the time stated on the atrazine SC label.
However, if the rate of atrazine SC used was 1,5 ℓ / ha, then the waiting period is only 6 months and if 2,0 ℓ / ha is used the waiting period is 9 months, for the following crops:
Grain sorghum, Forage sorghum, Sunflowers, Groundnuts, Soybeans, Potatoes, Dry beans and Cereals.
If **ALACHLOR** plus atrazine SC tank mixtures are applied onto turf soils (soils which expand when wet and crack when dry), then the atrazine SC may remain active much longer in the soils than the above mentioned waiting periods.
Do not use **ALACHLOR** plus atrazine SC tank mixtures on these soils if it is anticipated that an atrazine SC sensitive crop is to be planted in rotation.

2. **SWEETCORN:**

ALACHLOR can be applied as a post plant pre-emergence treatment. Sweetcorn cultivars exhibit a wide variation in tolerance of **ALACHLOR** and only those cultivars known to be tolerant should be treated. Consult your seed supplier and / or representative before treating sweetcorn with **ALACHLOR.**

% CLAY	ALACHLOR ℓ / ha
0-10	Not recommended
11-15	4,0
16-20	4,5
21– 35	5,0
>35	Not recommended

3. **SUGARCANE:**
Pre-emergence in respect of weeds.
Apply 5,0 - 6,0 ℓ / ha: If *Panicum maximum* (from seed only) is expected to be a major problem use the higher rate.
For the control of a broad spectrum of broadleaf weeds and annual gasses, MCPA or atrazine SC can be added to the above rates of **ALACHLOR** as follows:

PRODUCT	DOSAGE
MCPA (potassium salts) (400 g / ℓ)	4,0 ℓ / ha
Atrazine 500 SC	2,0 ℓ / ha Sandy to sandy clay loam soil (up to 35 % clay)
Atrazine 500 SC	3,0 ℓ / ha Sandy clay to heavier clay (above 35 % clay)

Early post-emergence in respect of weeds.
ALACHLOR combinations for plant and ratoon cane.

Very early post-emergence of weeds / ha	6 ℓ **ALACHLOR** + 2,5 kg diuron	6ℓ **ALACHLOR** + 2 - 3ℓ atrazine SC + 1 - 2ℓ paraquat (*)
(*) Apply paraquat before the second leaf has unfurled.		

The **ALACHLOR** plus diuron combination provides control of *Cyperus esculentus*, annual grasses and broadleaf weeds.

4. **POTATOES:**

Pre-emergence in respect of weeds.
Apply 4,0 - 5,0 ℓ / ha: Unless irrigated, apply pre-emergence to potatoes and weeds, after the first summer rains. Use the lower rate on lighter soils (0 - 16 % clay).

Early post-emergence to weeds.
ALACHLOR is a pre-emergence herbicide.
However, for early post-emergence application, after the first summer rains (unless irrigated), add paraquat at 1 - 2 ℓ / ha. **(Paraquat / ALACHLOR mixtures must not be applied after 10 % potato emergence.)**

5. **GROUNDNUTS AND SOYBEANS:**
Pre-emergence of weeds and crop.
Apply 4,0 - 5,0 ℓ / ha: Application to be made at planting, or not later than two days after planting. Use the lower rate on lighter soils (0 - 16 % clay).

6. **SUNFLOWERS:**
Apply pre-emergence of weeds and crops at 4,0 - 5,0 ℓ / ha depending on soil type.
Use 4,0 ℓ / ha on lighter soils (0 - 16 % clay).

7. **TRANSPLANTED CABBAGE, BROCCOLI (late Corona and Premium Crop), BRUSSELS SPROUTS (Jade Cross).**
Pre-emergence of weeds after crop transplanted.
Apply 4,0 - 5,0 ℓ / ha: Apply as soon as possible after the first post-transplanted irrigation and pre-emergence of the weeds. Use 4,0 ℓ / ha on lighter soils (0 - 16 % clay).

8. **PINEAPPLES:**
Apply **ALACHLOR** at 4,0 - 5,0 ℓ / ha pre-emergence of weeds. Use 4,0 ℓ / ha on light soils (0 - 16 % clay).

WEEDS CONTROLLED:

Grasses:

Brachiaria eruciformis	Sweet signal grass
Chloris virgata	Feathertop Chloris
Digitaria sanguinalis	Crab finger-grass
Echinochloa crus-galli	Barnyard grass
Panicum maximum	Common buffalo grass
Panicum schinzii	Sweet buffalo grass
Setaria verticillata	Sticky bristle grass
Setaria pallide-fusca	Red bristle grass
Tragus racemosus	Large carrot-grass
Urochloa panicoides	Herringbone grass

Broadleaf weeds:

Amaranthus hybridus	Cape pigweed
Amaranthus spinosus	Thorny pigweed
	Red pigweed
Amaranthus thunbergii	Gallant soldier
	Purslane
Galinsoga parviflora	Sowthistle
Portulaca oleracea	
Sonchus oleraceus	

Variable weed control:

Anthemis cotula	Stinking mayweed
Cosmos bipinnatas	Cosmos
Chenopodium carinatum	Green goosefoot
Cleome monophylla	Spindlepod
Commelina benghalensis	Benghal wandering Jew
Cyperus esculentus (*)	Yellow nutsedge
Datura ferox (**)	Large thorn apple (Early germinating)
Datura stamonium (**)	Thorn apple (Early germinating)
Stellaria media	Chickweed
Tagetes minuta (**)	Khaki weed (Early germinating)

IMPORTANT: This product controls annual weeds. Other annual 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.