

Alion®

SEE ENCLOSED PAMPHLET FOR FULL PARTICULARS

Reg. No. L10791 (Act No. 36 of 1947)
Namibian Registration No. N-AR 2083

A pre-emergence suspension concentrate herbicide with long residual activity for the control of certain broadleaved and grass weeds in crops listed.

GROUP / GROEP **L29** HERBICIDE / ONKRUIDDODER

Active ingredient:

Indaziflam (Alkylazine)..... 500 g/ℓ

SIEN INGESLOTE PAMFLET VIR VOLLEDIGE BESONDERHEDE

Reg. Nr. L10791 (Wet Nr. 36 van 1947)
Namibiese Registrasie Nr. N-AR 2083

'n Vooropkoms suspensie konsentraat onkruidodder met lang nawerking vir die beheer van sekere breëblaar- en grasonkruide in gewasse soos aangedui.

Aktiewe bestanddeel:

Indaziflam (Alkylazine)..... 500 g/ℓ

REGISTERED BY / GEREGISTREER DEUR:

Bayer (Pty) Ltd / (Edms) Bpk
Reg. 1968/011192/07
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IN CASE OF POISONING PLEASE PHONE / IN GEVAL VAN VERGIFTIGING SKAKEL: 0861 555 777

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BATCH NUMBER: See on pack
LOTNOMMER:

DATE OF MANUFACTURE: Sien op houer
DATUM VERVAARDIG:

UN No. / VN Nr.: 3082

Bayer

RSA/0522/Alion 250ml/Booklet Label
ZA844879371 - South Africa



Alion®

Herbicide

A pre-emergence suspension concentrate herbicide with long residual activity for the control of certain broadleaved and grass weeds in crops listed.

contains:
Indaziflam (Alkylazine)

Packaging / Verpakking:
250 ml



**CAUTION
VERSIGTIG**



Herbicide

WARNINGS:

CITRUS: DO NOT HARVEST WITHIN 62 DAYS OF APPLICATION.

APPLES AND PEARS: DO NOT HARVEST WITHIN 108 DAYS OF APPLICATION.

STONE FRUITS: DO NOT HARVEST WITHIN 168 DAYS OF APPLICATION.

GRAPES: DO NOT HARVEST WITHIN 129 DAYS OF APPLICATION.

MACADAMIA AND PECAN NUTS: DO NOT HARVEST WITHIN 154 DAYS OF APPLICATION.

NOTE: Bayer acknowledges that Maximum Residue Limit (MRL) / import tolerances (IT) do not exist in all markets for edible produce treated plant protection products. Further on MRL/IT setting can be different country by country. Buyer agrees to inform its customers respectively to check with their Exporter of commodities for the latest information on MRLs and import tolerances before using plant protection products, and in case of doubt to contact local Bayer representative for support.

Handle with care.

Store in a cool place away from food, feed, seed and other agricultural remedies.

Keep out of reach of children, uninformed persons and animals.

Harmful if swallowed. Avoid contact with eyes, skin or clothing.

May cause damage to organs (nervous system) through prolonged or repeated exposure.

Very toxic to aquatic life with long-lasting effects.

RE-ENTRY: Do not enter treated area within one day after treatment unless wearing protective clothing.

Alion has been tested on most important cultivars and no significant phytotoxicity in the form of yield reduction has been recorded under normal growing conditions. Do not apply **Alion** to crops that exhibit injury from previous herbicide applications.

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 OCCURRENCE OF RESISTANCE OF THE WEEDS TO 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 breathe dust, fume, gas, mist, vapours from sprays.

Wear protective clothing (overall, boots, rubber gloves) when handling or applying the product.

Wash with soap and water immediately after use or accidental skin contact.

Do not eat, drink or smoke whilst mixing, applying or before washing hands and face.

Wash contaminated clothing daily.

Avoid spray drift onto other crops, desirable vegetation, grazing, and areas not under treatment, including row and tree crops listed on this label on land adjacent to area being treated as well as rivers and dams.

Prevent overlapping of the spray swaths.

Clean applicator immediately after use, dispose of wash water where it will not contaminate crops, grazing, rivers and dams. The spray equipment must be cleaned thoroughly to prevent contamination of subsequent applications.

Rinse empty container three times with a volume water equal to at least one tenth of that of the container and add the rinsing to the contents of the spray tank before disposing of the container in the prescribed manner.

Destroy empty container by perforation and flattening and never use for any other purpose.

Prevent contamination of food, feedstuffs, drinking water and eating utensils.

Do not spray, drain or flush equipment on or near desirable trees or plants or where their roots may extend. Water used for cleaning must not be allowed to contaminate untreated areas.

USE RESTRICTIONS:

1. Do not apply **Alion** in vineyards in the Northern Cape and in the Trawal/Vredendal areas of the Western Cape.
2. Do not apply **Alion** to apples, citrus, macadamia and pecan nuts, pears and stone fruit within three years after transplant. Avoid treatment of young interplants in established orchards.
3. Do not apply **Alion** to grapes within five years after transplant. Avoid treatment of young interplants in established vineyards.

4. Do not follow up with any crop within 36 months after the last application of **Alion**. Planting earlier than this may result in crop injury or death.
 - **Annual crops:** After 36 months from last application of **Alion**, a bioassay should be conducted prior to planting of annual crops. A successful field bioassay means growing a test strip or several plots of the intended crop from seed or transplant to maturity without any observed herbicide symptoms. The test should be conducted in representative areas across the field that includes knolls, low areas, field edges, and changes in soil texture. The field bioassay should be continued until acceptable or no injury is observed and safe re-cropping interval has been determined.
 - **Perennial crops (listed on the label):** Replanting after application or within 36 months after last application can be done only by removing the treated soil from the planting hole and filling the hole and around the new planting with soil not treated in the last 36 months.
5. Only use in vineyards where the grapes have been planted at least 30 cm deep or where there is 30 cm of soil barrier between the soil surface and the major portion of the root system.
6. Do not apply **Alion** in nurseries.
7. Avoid excessive overlapping of spray swaths and double spraying.
8. Avoid direct or indirect spray contact with crop foliage, green bark, roots, or fruit as it may cause localised crop injury or death.
9. Prevent spray mist or drift onto the foliage of the crop.
10. Do not apply near desirable plants or trees (such as wind breaks in orchards or vineyards) or to areas where their roots may extend to.
11. Do not apply in areas where the chemical may be washed or moved into contact with the roots of desirable plants.
12. Do not use on soil where susceptible crops or any susceptible plants are to be grown in the foreseeable future.
13. Do not use in crops that exhibit low vigour or poor health as they may be more susceptible to crop injury. Causes of reduced vigour may include such things as previous pesticide applications, excess fertilizer or salt, diseases, insects, nematodes, drought, flooding, wind damage, frost, nutrient deficiency, or mechanical damage.
14. Any other use not in accordance with the directions on this label may cause crop damage.
15. **Alion** is a pre-emergence herbicide only. Already emerged weeds should therefore be controlled by using a registered post-emergence herbicide (such as **Roundup**).
16. Do not apply **Alion** at more than 200 ml/ha per season.
17. Do not apply **Alion** where excessive debris or mulch is present on the soil surface.
18. **Do not use Alion on soils with more than 20 % gravel content.**
19. The soil surface where **Alion** is to be applied should not have open channels or cracks in the soil. This is to prevent the product from reaching the crop roots either through direct contact from the spray application or water movement from rain or irrigation as this may cause crop injury.
20. Do not apply this product to water-saturated soil.
21. Do not apply **Alion** through any type of irrigation system.
22. Do not use this product in orchards or vineyards under flood irrigation.
23. Use of soil-applied phosphonates and phosphonic acids with **Alion** within the same season may result in crop damage and should be avoided.



Herbicide

RESISTANCE WARNING:

Alion (Indaziflam) belongs to the Alkylazine group of herbicides. Indaziflam is a Cellulose Biosynthesis Inhibitor, and is classified as a Group Code L29 herbicide by HRAC. It inhibits crystalline cellulose deposition in the plant cell wall. This action severely affects cell wall formation as well as cell elongation and division. Consequently only actively growing meristematic root and shoot tissues will be affected, hence germinating weed seeds die before emerging. Any weed population may contain or develop plants naturally resistant to Indaziflam and other Group Code L29 herbicide. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **Alion** or any other Group Code L29 herbicide.

Since the presence of resistant weeds is difficult to detect prior to herbicide application, it is of the utmost importance that treated areas are timeously inspected at regular intervals to identify the occurrence of herbicide resistant weeds. Bayer (Pty) Ltd. will not accept liability for performance failures in the event of a build-up of resistant weeds resulting from inadequate resistance management practices as indicated on the label.

To delay herbicide resistance:

- Avoid exclusive, repeated use of herbicides from the same herbicide Group Code.
- Alternate with products from different herbicide Group Codes.
- Integrate other control methods [chemical, cultural, etc.] in weed control programmes.
- Any weed regrowth should be spot sprayed with a registered post-emergence herbicide before it becomes well developed and flowers.

For specific information on resistance management contact your local Bayer representative.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

COMPATIBILITY:

Alion is compatible with **Roundup** (Reg. No. L407) and **Roundup Turbo** (Reg. No L7166). Not all glyphosate-based formulations have been tested and it is advisable to test compatibility prior to application. Since the quality of water may vary from farm to farm a physical compatibility test should always be carried out prior to application.

MIXING AND APPLICATION INSTRUCTIONS:

1. Half fill the spray tank with water.
2. Mix the required amount of **Alion** with a little clean water before adding to the spray tank.
3. Keep the mixture in continuous suspension by means of agitation and use the spray mixture within 6 hours after mixing.
4. Apply with correctly calibrated equipment which will distribute the required amount evenly over the area to be treated in a spray volume of at least 200 l/ha. Use a coarse spray droplet as to reduce drift. Good results are obtained using flat-fan or double outlet flat fan (Twin Jet) spray nozzles to ensure even spray distribution. However, where there is a danger of drift onto susceptible plant tissue, drift reducing type nozzles or equivalent is recommended.
5. With application, ensure that the spray nozzles have an even spray pattern and that even coverage of the soil surface and the weed foliage are obtained when applied in a tank mix with **burndown products such as Roundup**.
6. Where **spray brooms** are used in crops with low overhanging branches such as stone fruit, faulty application techniques can cause unsprayed areas which may result in unacceptable weed control.

Directed (Band) Applications:

Alion should be applied as a **directed band spray** to the area under the trees/vines where the weeds need to be controlled. For such band applications of **Alion**, proportionately less product and spray water per hectare will be required versus a broadcast overall application.



APPLICATION TABLE:

SUMMER RAINFALL AREA

CROP*	APPLICATION RATE PER HECTARE	REMARKS
CITRUS GRAPES (excluding Northern Cape, MACADAMIA and PECAN NUTS STONE FRUIT	Alion at 200 ml/treated hectare (200 ml/10,000 m²) - refer "Band applications"	Apply Alion at the start of the rainy season to a weed free soil. Where Alion is applied to established weeds, it must either be preceded or tank mixed with an appropriate registered post-emergence contact herbicide (such as Roundup) to kill the existing weeds or the area should be cleaned by mechanical means prior to the application of Alion .

WINTER RAINFALL AREA

CROP*	APPLICATION RATE PER HECTARE	REMARKS
APPLES CITRUS GRAPES (excluding Trawal/ Vredendal area) PEARS STONE FRUIT	Alion at 100 to 150 ml/treated hectare (100 to 150 ml/ 10,000 m²) – refer "Band applications" Use the lower rate where control is required for up to 6 months and the higher rate when a longer period of control is required.	Apply Alion at the start of the rainy season to a weed free soil. Where Alion is applied to established weeds, it must either be preceded or tank mixed with an appropriate registered post-emergence contact herbicide (such as Roundup) to kill the existing weeds or the area should be cleaned by mechanical means prior to the application of Alion .

* Please refer to use restrictions.

Herbicide

BROADLEAVED WEEDS CONTROLLED:

Ageratum conyzoides
Amaranthus hybridus
Bidens pilosa
Chenopodium album
Commelina benghalensis
Conyza spp. (*Erigeron bonariensis*)
Euphorbia hirta
Erodium moschatum
Plantago lanceolata
Raphanus raphanistrum
Richardia brasiliensis
Senecio spp.
Sonchus oleraceus
Stellaria media

Flossflower
Hybrid pigweeds
Common blackjack
White Goosefoot
Wandering Jew
Fleabane
Red Euphorbia
Musk heron's bill
Narrow leaved Plantain
Wild radish
Mexican Richardia
Ragwort
Common Sow-thistle
Common chickweed

GRASS WEEDS CONTROLLED:

Avena fatua
Chloris virgata
Digitaria sanguinalis
Eleusine coracana
Eragrostis spp.
Lolium spp.
Tragus racemosus

Common wild oats
Feathertop chloris
Hairy finger grass
Goose grass
Love grass
Rye grass
Carrot seed grass

NOTES:

1. **Alion** is activated by moisture and best weed control is achieved when applied to moist soil followed by ± 15 mm rainfall or irrigation after application.
2. **Alion** is a pre-emergence herbicide and will only control weeds that have not germinated at the time of application. If existing weeds are present, these may have a detrimental effect on the efficacy of **Alion** if not chemically or mechanically well controlled.
3. Other weed species that were not present in development trials may also be controlled by **Alion** however, Bayer (Pty) Ltd. does not accept any liability in respect of the level of control of unlisted weeds.
4. **Alion** should be applied as a directed spray and contact of the spray mixture with the foliage or fruit of the crop should be avoided as far as possible. If contact with the leaves of the crop should occur, **Alion** may cause chlorosis/necrosis but these symptoms are of a transitory nature and will therefore not adversely affect the yield.

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