Herbicide



BRENNO 700 SC

Reg. No. L 8391 Act No. 36 of 1947

3: 12/01/2023 - March2023



A suspension concentrate herbicide with benoxacor as safener for the control of most annual grasses and certain broadleaf weeds in maize.

ACTIVE INGREDIENTS

acetochlor (α - Chloroacetamide) 250 g/ ℓ atrazine (triazine) 225 g/ ℓ terbuthylazine (triazine) 225 g/ ℓ benoxacor (safener) 13 g/ ℓ

GROUP 5;15 HERBICIDE



Hazard Statements:

May be harmful if swallowed.

May be harmful in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause respiratory irritation.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child

May cause damage to organs (Kidney). Very toxic to aquatic life with long lasting effects

Precautionary Statements:

Do not breathe dust, fume, gas, mist, vapours and spray.

Avoid release into the environment



UN Number: 3082

Registration holder: VILLA CROP PROTECTION (PTY) LTD.
Co. Reg. No.1992/002474/07
P.O. Box 10413, Aston Manor, 1630
Tel. (011) 396 2233
Website: www.villacrop.co.za

24 HR EMERGENCY NUMBERS:

Griffon Poison Centre: +27 82 446 8946 24 HR Transport / Spill Emergency no: (Hazcall24) +27 86 044 4411 (Client: Villa Crop Protection)

BRENNO 700 SC

Reg. No. L 8391 Act No. 36 of 1947 HRAC HERBICIDE GROUP CODE: 5 & 15

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WARNINGS

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May cause respiratory irritation.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs (Kidney).
Very toxic to aquatic life.

- Handle with care.
- Store in a cool place away from food, feeds, seed, fertilizers and other agricultural chemicals.
- Keep out of reach of children, uninformed persons and animals.
- In case of poisoning call a doctor and make this label available to him/her.
- Re-entry: Do not enter treated field within one (1) day after application, unless wearing protective clothing.

Aerial application:

Notify all inhabitants in the immediate vicinity of the lands 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 occurrence of resistance of the weed 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 event of any uncertainty.

PRECAUTIONS

Precautionary statements:

Obtain, read and follow all safety instructions before use.

Do not breathe dust, fume, gas, mist, vapours and spray.

Wash hands thoroughly after handling. Do not touch eyes.

Use only outdoors in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release into the environment.

Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.

IF SWALLOWED: Get medical help.

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IF ON SKIN: Wash with plenty of water and non-abrasive soap. Get medical help.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned, get medical advice.

Get medical help if you feel unwell.

Wash skin gently and thoroughly with water and non-abrasive soap.

If skin irritation occurs get medical help.

If skin irritation or rash occurs: Get medical help.

If eye irritation persists: Get medical help.

Take off contaminated clothing and wash it before reuse.

Collect spillage.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local regulations.

- Do not eat, drink or smoke while mixing and applying or before washing hands and face and change of clothing.
- Prevent spray drift and/or contamination onto susceptible crops, grazing, rivers, dams or any other areas not under treatment.
- TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS: 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.
- Prevent contamination of food, feeds, drinking water and eating utensils.

Relevant hazardous components		
Atrazine	225 g/ℓ	
Terbuthylazine	225 g/ℓ	
Acetochlor	250 g/ℓ	
Benoxacor	< 20 g/ℓ	
Monoethylene Glycol	< 50 g/ℓ	
Tenphos 680N	< 50 g/ℓ	
Rhodasurf 860P	< 10 g/ℓ	
Rhodacil 70B	< 20 g/ℓ	
Soprophor CY/8	< 30 g/ℓ	
Proxel GXL	< 5 g/ℓ	

SYMPTOMS OF HUMAN POISONING

Irritation effects on skin, eyes and mucous membranes are the most common reactions. Allergic skin reaction may occur. May cause skin sensitization. Large ingestions can cause nausea, vomiting, abdominal distress and diarrhoea.

FIRST AID TREATMENT

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. Immediately consult a doctor.

- **Inhalation:** If vapours or mists have been inhaled, and irritation has developed, remove the source of contamination or move victim to fresh air. The patient should be kept under observation and obtain medical attention if irritation persists.
- **Skin:** Remove contaminated clothing, shoes and leather goods. Wash skin gently and thoroughly with cold water and non-abrasive soap. Application of olive oil to the affected area will afford prompt relief. After the affected area is washed with soap and water, dry off and apply olive oil.

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- **Eyes:** Immediately flush eyes with a stream of clean water for at least 15 to 20 minutes, holding the eyelid(s) open. Obtain medical attention if irritation persists. **Seek medical attention.**
- **Ingestion:** Seek medical attention or call a poison control centre for treatment advice. **Do not induce vomiting.** Do not give anything by month. Obtain medical attention. If the person is alert, rinse mouth thoroughly with water. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.

NOTE TO PHYSICIAN

No specific antidote available. Treat symptomatically and supportively.

Mode of Action:

BRENNO 700 SC contains Atrazine, Terbuthylazine and Acetochlor. Acetochlor, a chloroacetamide compound which belongs to HRAC group code 15. It is a selective, systemic herbicide, absorbed primarily by shoots and secondarily by roots of germinating plants, translocated acropetally in the xylem. Acetochlor is used as pre-emergence and pre-plant control of annual grass and certain annual broad-leaved weeds. Atrazine and Terbuthylazine, both of which are 1,3,5-triazine compound which belongs to HRAC group code 5. Both actives act as a photosynthetic electron transport inhibitor that are used as selective, systemic herbicides. Atrazine and Terbuthylazine is primarily absorbed by the roots and to some extent the foliage, from where it is translocated acropetally in the xylem and accumulates in the apical meristems and leaves. Atrazine and terbuthylazine are used pre- and post-emergence for the control of grass and broad leaf weeds in a variety of crops.

RESISTANCE WARNING

BRENNO 700 SC is a group code 5 & 15 herbicide. Any weed population may contain individuals naturally resistant to **BRENNO 700 SC** and other group code 5 & 15 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **BRENNO 700 SC** or any other group code 5 & 15 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 other control methods (chemical, cultural, biological) into weed control programmes.

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

USE RESTRICTIONS

- Follow-up crops: To avoid damage to follow-up crops, the following waiting periods must be observed:
 - Maize and sugarcane: None
 - Grain sorghum: 12 months
 - Potatoes, dry beans, groundnuts, small grain, soybeans, sunflower and fodder sorghum: 18 months
 - All other crops (a test planting is recommended): 24 months
- Do not apply **BRENNO 700 SC** to inbred parent plants of maize hybrids nor onto experimental or newly released cultivars, without referring to the registration holder and seed supplier, before application.
- Reduced weed control can be obtained where flood irrigation is used.
- Do not apply **BRENNO 700 SC** to poorly drained soils or soils with a compaction layer, as water logging and herbicide injury may occur.
- Heavy rain (25 mm per day or 50 mm over a 3- to 7-day period) on very sandy soils (< 15 % clay), low in organic matter (< 1 %), as well as flood irrigation, can reduce weed control.
- Adhere to all use restrictions for any herbicides used in combination with BRENNO 700 SC.

<u>DIRECTIONS FOR USE:</u> Use only as indicated.

Compatibility:

- BRENNO 700 SC is compatible with Platinum Plus 915 EC/Metolachlor 915 EC and Leap 840 EC/Premium 840 EC.
- If tank mixtures are performed with other products, small quantities of the products should be mixed in the correct ratio with the appropriate quantity of water, to determine compatibility.
- Water quality and formulation of other products may influence compatibility.
- When BRENNO 700 SC is used in conjunction with any other agricultural remedy, all WARNINGS,
 PRECAUTIONS and DIRECTIONS FOR USE mentioned on that label, must be adhered to.

Mixing instructions:

• Shake container well before use. Close container after use.

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- Half fill the spray tank with clean water; add the required amount of **BRENNO 700 SC** through a 50-mesh sieve while maintaining agitation. Then complete the filling operation.
- When mixing **BRENNO 700 SC** with other herbicides (e.g., **Platinum Plus 915 EC**), use the following procedure:
 - 1. Fill the spray tank three quarters with clean water. Add the required amount of **BRENNO 700 SC** to the water, agitating continuously.
 - 2. Continue filling the spray tank with water and add the required amount of complementary herbicide just before the tank is filled to its full level.
- Ensure thorough agitation of the mixture in the tank during mixing and spraying.
- Spray 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 recommendation:

- Pre-emergence application:
 - Apply **BRENNO 700 SC** or its tank mixtures preferably at planting or immediately after planting, but not later than (3) three days after planting.
- Post-emergence application:
 - Apply early post-emergence when broadleaf weeds are not bigger that the 4-leaf stage. In case of bigger broadleaf weeds, or if grass weeds are present, first destroy the weeds by means of a cultivation before application of **BRENNO 700 SC**.
- Use accurately calibrated equipment with properly arranged suitable nozzles and an efficient agitation mechanism.
- Use 200 litres spray mixture per hectare, for overall ground application, and 30 to 40 litres per hectare for aerial application.
- Prepare a fine, even and firm seedbed, free of weeds, trash and clods.
- BRENNO 700 SC can also be shallowly incorporated early in the season, to improve reliability of weed control.
- 10 to 20 mm rain within 7 to 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 to 20 mm of soil.
- If soil crusting becomes a problem, rotary harrow in the same direction that the rows are planted, to assist crop germination.
- Harrowing after application may reduce weed control if untreated soil is thrown into deep planter furrows.
- Ensure that sufficient fertilizer is placed near the seed at planting, to promote vigorous seedling growth.

Aerial application:

Aerial application of **BRENNO 700 SC** may only be done 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). It is important to 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:

- <u>Volume</u>: A spray mixture volume of 30 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.
- <u>Droplet coverage</u>: Droplet coverage of 20 to 30 droplets per cm² must be recovered at the target.
- <u>Droplet size</u>: A droplet spectrum with a VMD of 350 to 400 micron is recommended. Ensure that the production of fine droplets (less than 150 micron with high drift & evaporation potential) is restricted to a minimum.
- <u>Flying height</u>: The height of the spray boom should be maintained at 3 to 4 metres above the target. Do not spray when aircraft is in a climb, at the top, during a dive, or when banking.
- Use suitable <u>atomising equipment</u> (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product either through endodrift (within target field) or exodrift (outside target field). The operator must use a setup that will produce a droplet spectrum with the lowest possible Relative Span.
- All nozzles/atomisers should be positioned within the inner 60 % to 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in <u>temperature</u> between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C.

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- Stop spraying if the wind speed exceeds 15 km per hour.
- Aerial application of this product must not be done under <u>turbulent</u>, unstable conditions during the heat of the day when rising thermals and downdraughts occur.
- Spraying under temperature <u>inversion conditions</u> (spraying in or above the inversion layer) and/or <u>high humidity conditions</u> (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 the movement of the suspended spray cloud away from the target field.
- Ensure that the fields are accurately marked and 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 spray log and kept for future reference.

APPLICATION RATES

<u>MAIZE</u>

Table 1: Control of certain broadleaf weeds and annual grasses.

% Clay	BRENNO 700 SC ℓ/ ha
0 to 10	1.8 to 2.25
11 to 15	2.25 to 2.75
16 to 20	2.75 to 3.50
21 to 30	3.50 to 4.25
31 to 40	4.25 to 5.00
>40	Not recommended

NOTE

• Use the higher dosage rates where high infestations of the following weeds occur:

Cyperus esculentus	Yellow nutsedge
Digitaria sanguinalis	Crab fingergrass
Datura ferox	Large thorn apple
Datura stramonium	Thorn apple
Tagetes minuta	Tall khakiweed

Table 2: Control of annual grasses, certain broadleaf weeds and Yellow nutsedge (Cyperus esculentus).

% Clay	BRENNO 700 SC // ha	Leap 840 EC / Premium 840 EC
0 to 10	2.25	0.8
11 to 15	2.75	0.8
16 to 20	3.50	0.8
21 to 30	4.25	0.8
31 to 40	5.00	0.8
>40	Not recommended	Not recommended

Notes with regard to control of Yellow nutsedge (Cyperus esculentus):

- Use the higher dosage where a choice is given in the dosage rate range.
- Precede planting by deep ploughing.

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WEEDS CONTROLLED BY BRENNO 700 SC:

As **BRENNO 700 SC** controls annual grasses, other annual grasses not listed below, may also be controlled to a greater or lesser degree. The registration holder cannot accept any liability with regard to the control of unlisted weeds.

	Grass weeds:
Brachiaria eruciformis	Sweet signal grass
Chloris virgata	Feather-top Chloris
Digitaria sanguinalis	Crab fingergrass
Eleusine indica	Goose grass
Panicum maximum***	Common buffalo grass
Panicum schinzii***	Sweet buffalo grass
Setaria pallide-fusca***	Red bristle grass
Setaria verticillata***	Bur bristle grass
Tragus berteronianus***	Small carrotseed grass
Tragus racemosus	Large carrotseed grass
Urochloa brachyura***	Garden grass
Urochloa mosambicensis***	Bushveld herringbone grass
Urochloa panicoides	Herringbone grass
•	Broadleaf weeds
Acanthospermum australe	Eight-seeded prostrate starbur
Acanthospermum glabratum	Five seeded prostrate starbur
Acanthospermumhispidum	Upright starbur
Amaranthus deflexus	Perennial pigweed
Amaranthus hybridus	Common pigweed
Amaranthus spinosus	Thorny pigweed
Amaranthus thunbergii	Red pigweed
Bidens bipinnata	Spanish blackjack
Bidens formosa*	Cosmos
Bidens pilosa	Blackjack
Chenopodium album	White goosefoor
Chenopodium carinatum	Green goosefoot
Cleome monophylla	Spindlepod
Cleome rubella	Pretty lady
Commelina benghalensis*	Wandering Jew
Crotolaria sphaerocarpa	Mealie crotolaria
Cucumis myriocarpus**	Striped wild cucumber
Cyperus esculentus#	Yellow nutsedge
Datura spp*	Thorn apple (only early germinating)
Galinsoga parviflora	Gallant soldier
Gisekia pharnaceoides	Gisekia
Hibiscus cannabinus*	Kenaf
Hibiscus trionum	Bladderweed
Ipomoea purperea**	Common morning glory
Nicandra physaloides	Apple of Peru
Physalis angulata	Wild gooseberry
Portulaca oleracea	Purslane
Richardia brasiliensis	Tropical Richardia
Schkuhria pinnata	Dwarf marigold
Sonchus oleraceus	Sowthistle
Tagetes minuta	Khaki weed
Tribulus terrestris**	Dubbeltjie Dubbelt
Xanthium strumarium**	Cocklebur
* Weeds controlled with the higher rate	

- * Weeds controlled with the higher rates.
- ** Additional weeds controlled by post-emergence application.
- *** Grasses controlled with addition of Leap EC/Premium 840 EC or Platinum Plus 915 EC/Metolachlor 915EC as indicated on the label.

Variable control.

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The following products mentioned in this label may be replaced with equivalent products:

- METOLACHLOR 915 EC (L 7841 / W1301418 / N-AR 1105) = PLATINUM PLUS 915 EC (L 7844)
 (Metolachlor + Benoxacor) and
- LEAP 840 EC L 8064 / N-AR 1103 / W1301419) = PREMIUM 840 EC (L 8066) (Acetochlor + Benoxacor).

PLATINUM PLUS 915 EC and LEAP 840 EC are registered products of VILLA CROP PROTECTION (PTY) LTD.

METOLACHLOR 915 EC and PREMIUM 840 EC are registered products of UNIVERSAL CROP PROTECTION (PTY) LTD.

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