



syngenta®

Reg. No. / Nr. **L8067** Act / Wet No. 36 of / van 1947

ONKRUIDDODERGROEP B(2) & O HERBICIDE GROUP

Aktiewe bestanddele / Active ingredients:

Prosulfuron (sulfonielureum / sulfonylurea) 50 g/kg
Dicamba (bensoë verbinding) (dimetielamiensout) / (benzoic compound) dimethylamine salt 500 g/kg

UN 3077

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'n Waterdispergeerbare korrel-onkruidodder vir die selektiewe na-opkomsbeheer van eenjarige breëblaaronkruid in grasperke.

A water dispersible granular herbicide for selective post-emergence control of annual broadleaf weeds in turf grasses.

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Batch No

Date of Manufacture

CAUTION
VERSIGTIG

1. WARNINGS

- Handle with care.
- Poisonous if swallowed, inhaled or absorbed through the skin
- May cause skin and eye irritation
- Store in a cool place.
- Store away from sun and damp, in original tightly closed containers in a well-ventilated place.
- Store away from food and feed, under lock and key.
- Keep out of reach of children, uninformed persons and animals.
- Avoid storage above 35 °C.
- Avoid spraying under cold conditions.
- **Do not apply CASPER or mixtures by air.**
- **Re-entry:** Do not enter treated area until spray deposit has dried unless wearing protective clothing.

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. The activity and effect 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 weed against the remedy, 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 man or animal, 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.

2. PRECAUTIONS

- Do not inhale the spray mist.
- Avoid skin contact.
- Wash with soap and water after use.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- Avoid drift or spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator after use. Ensure that all traces of **CASPER** are removed. (Read sprayer cleanup). Clean applicator with a household ammonia solution (1 %) before using with other herbicides. Allow solution to stand for several hours (preferably overnight).
- Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Spray equipment should not be used for applying chemicals other than herbicides.
- Destroy empty container and do not use it for any other purpose.

3. RESISTANCE MANAGEMENT

For resistance management, **CASPER** belongs both to the group code B(2) and O herbicides. Any weed population may contain individuals naturally resistant to **CASPER** and other group code B(2) or group O herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly and exclusively in programs. These resistant weeds may not be controlled by **CASPER** or any other group code B(2) herbicides or group code O herbicides.

To delay herbicides 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 disease control programs.

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

4. USE RESTRICTIONS

- Do not apply **CASPER** to turf and grasses that is stressed by severe weather conditions, drought, water logging, disease or insect damage.
- Yellowing of the funnel leaves and slight stunting may occur if cool, wet weather conditions prevail after application. Plants will however, outgrow these symptoms as they are of a cosmetic nature only, and will have no effect on yield.
- Do not apply **CASPER** together with organophosphate insecticides.
 - **CASPER** should not be applied if the insecticide COUNTER® (terbuphos) was applied at planting since this will increase the likelihood of injury.
 - If other organophosphate insecticides are used at planting, **CASPER** can only be applied a minimum of 20 days later.
- **CASPER** may lead to possible damage if applied to soils with pH (H₂O) of 7 and more, followed by heavy rain and/or cold shortly after application.
- Do not apply **CASPER** to inbred parent plants or experimental or newly released cultivars without first referring to the manufacturer or seed supplier.
- **CASPER** is recommended for use on soil with more than 20 % clay.
- To prevent damage, do not permit drift, vapour or spray mist to come into contact with sensitive broadleaf crops, fruit or ornamentals. Apply the product strictly in accordance with the application directions.
- Between application of **CASPER** and planting of follow-up broadleaf crops, a waiting period of 28 days should be observed.
- The efficacy of **CASPER** may be influenced by the quality of application water. Ammonium sulphate, e.g. Velocity-Glifo (L7768) must be added at 1 ℓ /100 ℓ water in hard water (Ca²⁺ + Mg²⁺ >150 dpm).

- The application water in which **CASPER** is tank mixed should never be allowed to be below a pH of 6. The solubility of **pro-sulfuron** increases more than 100 times at pH 7 versus at a pH of 5. Do not add surfactants, acidifiers or buffers which reduce the pH below 6 when applying **CASPER**. The use of ammonium sulphate e.g. Velocity-Glifo (L7768) at rates ranging between 1% and 2% is recommended. Velocity-Glifo contains only ammonium sulphate which does not decrease the pH significantly.
- Do not apply **CASPER** in combination with atrazine, paraquat, 2,4-D or bromoxynil.
- CASPER** contains dicamba and can cause serious damage to neighbouring broadleaf crops. Leave a minimal buffer zone between the treated areas and sensitive crops as listed on following table:

Wind speed and direction at the time of application, determines the distance which must separate the closest edge of the area to be sprayed from susceptible crops.	
WIND SPEED km/h	GROUND APPLICATION
1,5 - 5	200 m downwind 200 m crosswind 6 m upwind
5 - 10	400 m downwind 200 m crosswind 1,5 m upwind
10 - 15	800 m downwind 400 m crosswind 1,5 upwind
Above 15	Prohibited

4.1 MINIMUM RECROPPING INTERVALS AND CROP ROTATION GUIDELINES

Crops other than *Cynodon dactylon* or kikuyu may be very sensitive to low concentrations of **CASPER** in the soil. Therefore careful consideration should be given to crop rotation plans prior to using **CASPER**.

The minimum recropping interval is the time between the last application of **CASPER** and the anticipated date of planting a subsequent crop.

To ensure a maximum safety margin to sensitive rotational crops, it is always recommended ploughing the fields before re-cropping.

All dicot crops are sensitive to prosulfuron. Minimal re-cropping intervals can vary widely, depending on 3 factors:

- amount of herbicide reaching the soil;
- the speed of soil dissipation between application and planting of the succeeding crop and
- sensitivity of the succeeding crop to the soil residues

Under conditions with frequent drought, high pH or low biological activity in the soil the intervals may have to extend.

Warning: Possible increased efficacy, phytotoxicity and residual action

- Increasing the soil pH levels above 7 could produce conditions for increased efficacy and reduced selectivity. This increased pH may also result in increased soil residual action by certain herbicides influencing the choice of following crops especially under irrigation.
- In situations where pH adjustments has been done, take care when sulphonyl urea herbicides, triazolopyrimidine sulfonamide herbicides and imidazolinone herbicides, which are all sensitive to soil pH fluctuations, have been used or are about to be used.

Contact your local SYNGENTA representative to discuss crop rotation and crop protection programmes to follow before embarking on any pH adjustment programme

5. DIRECTIONS FOR USE

Use only as directed

General information

- Poor residual activity may be expected under dry soil conditions, especially on late germinating or large seeded weeds, due to reduced availability for uptake of **CASPER** in the soil solution.
- CASPER** rapidly inhibits growth of susceptible weeds. However, visible symptoms of dying weeds may not be noticeable for 1 to 3 weeks after application, depending on growing conditions and weed susceptibility.
- Rainfall occurring within 6 hours after a **CASPER** application may reduce weed control.

5.1 COMPATIBILITY

The compatibility of **CASPER** 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 without the knowledge of Syngenta and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application.

CASPER is only compatible with COMPLEMENT SUPER (L8169) and GESAPRIM SUPER (L3914).

CASPER should not be applied in mixtures with other herbicides, fungicides, insecticides, fertilisers or any other chemicals not recommended on the label.

5.2 MIXING INSTRUCTIONS

CASPER is a water dispersible granular formulation, which mixes easily with water, provided the following mixing procedures are observed:

- Quarter to half fill the spray tank with water. Commence agitation. Add the appropriate amount of surfactant. Add the required quantity of **CASPER** directly to the tank without prior creaming. Continue agitation while topping up the tank with water and while spraying.
- Use **CASPER** spray preparations within 24 hours as the effectiveness may be reduced due to product degradation. Thoroughly agitate before re-using.
- If **CASPER** is tank mixed with other herbicides, insecticides and fungicides, the **CASPER** must be well mixed and in suspension before the other compounds are added.

5.3 APPLICATION TECHNIQUES

5.3.1 Ground Application

CASPER may be applied with any medium or high volume sprayer properly calibrated and which is equipped with an efficient agitation mechanism and 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 - 400 l water/ha.

5.4 APPLICATION RATES

5.4.1 TURFGRASS

Application rate of CASPER in turf grass (Kikuyu and Cynodon dactylon).

CASPER g/ha	COMPLEMENT SUPER ml /ha	Weeds
450 - 1000	100	<i>Amaranthus hybridus</i> <i>Bidens pilosa</i> <i>Cleome monophylla</i> <i>Commelina bengalensis*</i> <i>Crotalaria sphaerocarpa</i> <i>Datura ferox</i> <i>Ipomoea purpurea</i> <i>Portulaca oleracea</i> <i>Tagetes minuta</i> <i>Tribulus terrestris</i> <i>Xanthium strumarium</i>

1. **CASPER** should always be tank mixed with **COMPLEMENT SUPER**.
2. Use higher **CASPER** rate in the case of larger weeds and/ or higher population pressure.
3. Apply **CASPER** in at least 200 ℓ water /ha.
4. **CASPER** will only give 35 - 42 days control

6. SPRAYER CLEANUP

To avoid injury to subsequent crops other than barley and wheat, immediately after spraying thoroughly remove all traces of **CASPER** from the mixing and spray equipment as follows:

- Drain spray system completely. While agitating, thoroughly rinse spray tank with clean water and spray out the rinsate through the nozzles. Drain system again.
- Refill spray tank with clean water to 15 - 20% of the tank volume, thoroughly rinsing all inside tank surfaces.
- Add 1 ℓ sodium hypochlorite (5.2 %) per 200 ℓ water while agitating. Rinse nozzles with rinsate for approximately 1 minute. Let remaining rinsate circulate in the spraying system for a minimum of 5 - 10 minutes.
- Completely spray out rinsate through the nozzles and dispose of it where it will not contaminate crops, pastures, rivers, dams and boreholes.
- To remove traces of the tank cleaner, flush the tank thoroughly with clean water, rinsing all inside tank surfaces. Spray out the remaining rinsate through the nozzles and drain system.

7. PRODUCT AND CONTAINER DISPOSAL

- Dispose of surplus product in an incinerator or on a landfill site approved for pesticides.
- Do not bury in, or spray onto any area under agricultural use.
- Dispose of containers made of plastic, cardboard or paper on a landfill site approved for pesticides or burn in a safe place where there is no risk of contamination by smoke and fumes.

GESAPRIM®, **CASPER®**, **PEAK®** = Registered Trade Marks of a Syngenta Group Company.

COMPLEMENT® = Proposed Trade Mark for a Syngenta Group Company.

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