

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY. KEEP OUT OF REACH OF CHILDREN AND ANIMALS.



Herbicide

ZEONA 840 WDG

Reg. No. L 9842 Act No. 36 of 1947

3: 23/11/2023 - April2024

A selective water-dispersible granular herbicide for the control of weeds as indicated in crops as listed.

(WATER SOLUBLE SACHETS)

GROUP 2 HERBICIDE

ACTIVE INGREDIENT

diclosulam (triazolopyrimidine sulfonanilide) 840 g/kg



WARNING

Hazard Statements:

May be harmful in contact with skin.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Wash hands thoroughly after handling.
Do not touch eyes.
Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
Avoid release into the environment.

kg

villa

UN Number: 3077

Registration holder: VILLA CROP PROTECTION (PTY) LTD.
Co. Reg. No. 1992/002474/07
PO 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)

DIRECTIONS FOR USE ENCLOSED
Batch Number:
Date of Manufacture:

REFER TO DETAILS AS PRINTED ON CONTAINER / BAG

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HRAC HERBICIDE GROUP CODE: 2

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WARNINGS**Hazard statements:**

May be harmful in contact with skin.
Very toxic to aquatic life
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- Handle with care.
- Harmful if swallowed.
- May cause eye irritation.
- Store in a cool, dry, well-ventilated place in the original container, tightly closed and secured.
- Store 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 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 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 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 label instructions or to the occurrence of conditions, that could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS**Precautionary statements:**

Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
Avoid release into the environment.
Collect spillage.
Dispose of contents/container in accordance with local regulations.

- Avoid inhalation of the spray mist.
- Wash contaminated clothing after use.
- Wash with soap and water after use and after accidental skin contact.
- In case of eye contact, immediately flush the eyes with clean, gentle flowing lukewarm water for at least 20 minutes, holding the eyelid(s) open. If irritation persists, seek medical advice.
- Do not eat, drink or smoke whilst mixing or applying the product or before washing hands and face and change of clothing.
- Prevent drift of spray mist onto other crops, grazing, rivers, dams or areas not under treatment or to nearby water sources.
- **Cleaning of Application Equipment:** Special attention and care must be taken with cleaning of all equipment used in the mixing and application of **ZEONA 840 WDG**, before using it for applications in other crops:
 - Drain the spray tank and rinse thoroughly with ample water. Flush the pipes, boom and nozzles of applicator with the water.
 - Drain the spray tank again and fill with clean water to 20 % of tank capacity, whilst thoroughly rinsing all inside surfaces of the spray tank.
 - Add 1 litre household ammonia per 100 litres water.

- Bleed the system, to ensure that all pipes, booms and nozzles are filled with the ammonia solution by spraying the solution through all nozzles for 1 minute.
- Allow the solution to stand in the spray tank for several hours but preferably overnight
- Drain the spray tank and pipe system completely and rinse at least 2 times with clean water.
- In order to remove traces of the tank cleaner, flush the spray tank thoroughly with clean water, rinsing all the inside surfaces. Spray this rinsate through the nozzles and drain system.
- **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 (3) 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
- OR,**
- **CLEAN THE EMPTY PLASTIC BAG AS FOLLOWS:** Turn the bag inside out. Hold the bag over the spray or mixing tank and rinse the bag with running water for thirty seconds. Shake the rinsate off into the tank. Repeat the rinsing twice. Cut the bag into pieces and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the bag to any other parties that may use it as container for foodstuffs.
- **Do not** dispose the wash water where it will contaminate crops, grazing, rivers and dams and the root zone of desirable plants.
- Destroy the empty container by perforation and dispose of it in a safe and responsible way.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feed, drinking water and eating utensils.

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:** Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs. **Seek medical attention if you feel unwell after inhalation.**
- **Skin:** Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **Obtain medical attention if irritation persists.**
- **Eyes:** Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention if irritation persists.**
- **Ingestion:** Seek medical attention immediately. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.

RESISTANCE WARNING

ZEONA 840 WDG is a group code 2 herbicide. Any weed population may contain individuals naturally resistant to **ZEONA 840 WDG** and other group code 2 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **ZEONA 840 WDG** or any other group code 2 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.

Mode of Action: **ZEONA 840 WDG** contains **diclosulam**, which inhibits the acetolactate synthase (ALS) enzyme. The primary site of activity is within the chloroplast in plant meristems. Selectivity is attributed to limited translocation in soya beans and peanuts, rapid metabolism into a non-active form; DT₅₀ in soya beans 3 h.

USE RESTRICTIONS

- **MAXIMUM RESIDUE LEVELS (MRL'S)**
LOCAL MAXIMUM RESIDUE LEVELS (MRL's) WILL NOT BE EXCEEDED IF TREATMENTS ARE APPLIED AS INSTRUCTED HEREIN. HOWEVER, IT IS IMPORTANT TO NOTE THAT IMPORT TOLERANCES OF OTHER COUNTRIES MIGHT POSSIBLY BE EXCEEDED. IF THE TREATED

CROP WILL BE EXPORTED, FIRST CONSULT THE RELEVANT IMPORTER OR EXPORTING BODY REGARDING THE USE OF THIS PRODUCT, MRL's AND RECOMMENDED WITHHOLDING PERIODS.

- **Minimum pre-plant intervals:**

After a **ZEONA 840 WDG** application, the following minimum pre-plant intervals* for follow-up crops must be adhered to, in order to avoid injury to follow-up crops:

(* pre-plant interval = time period between the (last) application of **ZEONA 840 WDG** and the anticipated date of planting of a follow-up crop).

Application treatment: ZEONA 840 WDG Plus:	Follow up crop pre-plant interval (months)				
	Soybeans	Groundnuts	Maize, Dry Beans, Grain Sorghum, Potatoes, Sunflowers	Wheat, Barley, Oats	All other crops
Alachlor 384 EC	0	0	10	5	24
Alachlor 480CS	0				
Acetochlor 900 EC	3				

IMPORTANT NOTES

Above-mentioned waiting periods are valid only if:

- only a single **ZEONA 840 WDG** application was applied per field per season.
- the recommended dosage rate of **ZEONA 840 WDG** in combination with complementary herbicide(s) was applied with regard to the soil (the recommended label rate must be regarded as the maximum rate of **ZEONA 840 WDG** that can be applied per season).
- normal or above average rainfall and/or irrigation occurred during and following the season in which the application was made.
- this rain and/or irrigation in the period after application of **ZEONA 840 WDG** and prior to planting of the follow crop was well-distributed and totalled more than 350 mm.
- Always deep plough the field before a follow crop is planted.
- **Do not use ZEONA 840 WDG:**
 - on poorly drained soils or soils with a compaction layer. Water logging in the presence of herbicides could cause stand reduction and/or stunted growth, which may lead to yield reduction.
 - on soils with a pH (H₂O) of 7 or more.
 - under conditions of heavy rain and/or irrigation on sandy or gravel soils.
 - under abnormally cold and / or abnormally wet conditions.
- **Planting depth:**
The planting of crop seed other than the optimum as recommended by the ARC Grain Crops Institute may result in crop damage. Recommended planting depths are 50 to 75 mm for groundnuts and 20 to 60 mm for soybeans (depending on seedbed and soil conditions).
- **ZEONA 840 WDG** may not be applied through any type of irrigation system.
- Flood irrigation may result in reduced weed control.
- Do not apply **ZEONA 840 WDG** tank-mixtures to inbred parent plants of crop cultivars as well as experimental or newly released cultivars, without first consulting the manufacturer, distributor or seed supplier in this regard.
- **ZEONA 840 WDG** in a mixture with **Alachlor 384 EC, Alachlor 480 CS/ Villa-Klor 480 CS, Acetochlor 900 EC, Platinum 960 EC** or **Palladium 960 EC** must be applied prior to crop emergence
- Do not apply **ZEONA 840 WDG** tank mixtures post-emergence to groundnuts or soybeans.

Compatibility:

- **ZEONA 840 WDG** is compatible with **ALACHLOR 384 EC (L 4348), Alachlor 480 CS/ Villa-Klor 480 CS (L 7675) Acetochlor 900 EC, Platinum 960 EC/ Metolachlor 960 EC and Palladium 960 EC/ Pentium 960 EC / Partisan 960 EC.**
- The compatibility of **ZEONA 840 WDG** in a tank mixture with other products is influenced by the formulations of these products, as well as quality of the spray water. It is recommended that a physical compatibility test always be performed prior to application as the formulation of other products can be altered, and the quality of water can vary from area to area.

- When tank mixing other herbicides in combination with **ZEONA 840 WDG** the warnings, precautions, use restrictions and directions for use on the labels of the herbicides concerned, must be fully adhered to.

Mixing Instructions:

Notes regarding the packaging of ZEONA 840 WDG:

- ZEONA 840 WDG** is provided in **water-soluble** sachets. Each single sachet contains 10 g of **ZEONA 840 WDG**.
- Ten sachets are packed together in a zip-lock foil overpack to give 100 g **ZEONA 840 WDG** per foil overpack. **Important Note: these foil packs only act as containers for the 10 g water-soluble sachets and will NOT dissolve in water.**
- 10 x 100 g foil overpacks are packed together in a 1 kg container.
- Do not** remove water-soluble sachets from overpack **except for immediate use.**
- Do not** handle the soluble sachets **excessively or allow to contact water prior to use as this may cause rupturing. Keep unused sachets in the zippered foil overpack.**

APPLICATION INSTRUCTIONS

Ground application:

- It is important that tank mixtures are applied with accurately calibrated spray equipment that is in good working order. **ZEONA 840 WDG** can be applied with standard medium or high-volume spraying equipment, equipped with a good agitation system that can provide even distribution and sufficient coverage.
- It is recommended to apply at a spray volume of 200 litres per hectare, using flat fan nozzles to obtain best results.
- Ensure agitation of spray mixture during application.
- Prepare a fine, even and firm seedbed, free of weeds, trash and clods.
- Apply **ZEONA 840 WDG** tank mixtures preferably at planting or immediately after planting, but not later than three (3) three days after planting. Use 200 litres spray mixture per hectare, for overall ground application, and 30 to 40 litres per hectare for aerial application.
- ZEONA 840 WDG** 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.

NOTICE TO USER:

This agricultural remedy is to be used only in accordance with the instructions on the label. It is an offence under the Act to use the agricultural remedy for any purpose in a manner contrary to the directions on the label.

APPLICATION RATES

1. **ZEONA 840 WDG plus Acetochlor 900 EC or Alachlor recommendations for use in Groundnuts**

Soil Type % Clay	ZEONA 840 WDG g/ha	PLUS Acetochlor 900 EC l/ha	OR Alachlor 384 EC l/ha	OR Alachlor 480 CS l/ha
0 to 10	10	0.75	4.0	3.2
11 to 20	15	1.0	4.0 to 4.5	3.2 to 3.6
21 to 30	20	1.0 to 1.5	4.5 to 5.0	3.6 to 4.0

2. ZEONA 840 WDG plus S-Metolachlor 960 EC or Metolachlor 960 EC recommendations for use in Soybeans.

Soil Type % Clay	ZEONA 840 WDG g/ha	PLUS Palladium 960 EC l/ha	OR Platinum 960 EC l/ha
0 to 10	10	0.8	1.2
11 to 20	15		
21 to 30	20	1.0	1.5

3. ZEONA 840 WDG plus Alachlor recommendations for use in Soybeans.

Soil Type % Clay	ZEONA 840 WDG g/ha	PLUS Alachlor 384 EC l/ha	OR Alachlor 480 CS l/ha
0 to 10	10	4.0	3.2
11 to 20	15	4.0 to 4.5	3.2 to 3.6
21 to 30	20	4.5 to 5.0	3.6 to 4.0
31 to 40	25	5.0	4.0
>40	30		

WEEDS CONTROLLED

The broadleaf weed species listed below are normally controlled by pre-emergence applications of **ZEONA 840 WDG** in combination with **Alachlor 384 EC**, **Alachlor 480 CS**, **Acetochlor 900 EC**, **Palladium 960 EC** or **Platinum 960 EC** at the recommended dosage rates.

Refer to the **Alachlor 384 EC**, **Alachlor 480 CS**, **Acetochlor 900 EC**, **Palladium 960 EC** or **Platinum 960 EC** labels for a list of grass weeds controlled by these products.

BROADLEAF WEEDS CONTROLLED BY ZEONA 840 WDG IN A MIXTURE WITH ALACHLOR 384 EC, ALACHLOR 480 CS OR ACETOCHLOR 900 EC:	
Botanical Name	Common Name
<i>Amaranthus hybridus</i>	Common pigweed
<i>Bidens pilosa</i>	Common blackjack
<i>Chenopodium album</i>	White goosefoot
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Cleome gynandra</i>	Spider wisp
<i>Cleome monophylla</i>	Spindlepod
<i>Galinsoga parviflora</i>	Gallant soldier
<i>Schkurgia pinnata</i>	Dwarf marigold
<i>Tribulus terrestris</i>	Dubbeltjie

BROADLEAF AND NUTSEGE WEEDS CONTROLLED VARIABLY BY ZEONA 840 WDG IN A MIXTURE WITH ALACHLOR 384 EC, ALACHLOR 480 CS OR ACETOCHLOR 900 EC:	
Botanical Name	Common Name
<i>Amaranthus hybridus</i>	Common pigweed
<i>Crotalaria sphaerocarpa</i>	Mealie Crotalaria
<i>Cyperus esculentus</i>	Yellow Nutsedge
<i>Datura ferox</i>	Large thorn apple
<i>Datura stramonium</i>	Common thorn apple
<i>Gisekia pharnacoides</i>	Gisekia
<i>Hibiscus trionum</i>	Bladderweed
<i>Ipomoea purpurea</i>	Common morning glory
<i>Portulaca oleraceae</i>	Purslane
<i>Tagetes minuta</i>	Khaki weed
<i>Xanthium strumarium</i>	Cocklebur

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

- **ACETOCHLOR 900 EC** (L 7633 / N-AR 1101) = **PREMIUM 900 EC** (L 7637) and
- **ALACHLOR 480 CS** = **VILLA-KLOR 480 CS** (L 7675) (**Alachlor**)
- **PLATINUM 960 EC** (L 7434) = **METOLACHLOR 960 EC** (L 7136 / W 130057 / N-AR 1362)and
- **PALLADIUM 960 EC** (L 9360) = **PALLADIUM 960 EC** (L 9360) = **PARTISAN 960 EC (S-metolachlor)**,

ACETOCHLOR 900 EC, VILLA-KLOR 480 CS, PALLADIUM 960 EC and **PLATINUM 960 EC** are registered products of **VILLA CROP PROTECTION (PTY) LTD.**

ALACHLOR 384 EC, PREMIUM 900 EC, PENTIUM 960 EC and **METOLACHLOR 960 EC** are registered products of **UNIVERSAL CROP PROTECTION (PTY) LTD.**

PARTISAN 960 EC are registered products of **CROPASURE (PTY) LTD.**