

ZEONA 840 WDG

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ZEONA 840 WDG
Other identifier: Diclosulam 840 WDG
Recommended use: Herbicide
Restrictions on use: Agriculture

Supplier: Villa Crop Protection (Pty) Ltd.
 PO Box 801,
 Kempton Park, 1620, South Africa
Telephone: (011) 396 2233
Fax: (011) 396 4666
Website: www.villacrop.co.za

Emergency telephone numbers:
24 Hr Transport / Spill emergency no:
 Bateleur: +27 83 1233 911 or +27 860 333 911
 (Client: Villa Crop Protection)

Poisoning:
 Griffon Poison Information Centre +27 82 446 8946
 Western Cape Poisons Tel. Service +27 861 555 777
 Tygerberg Hospital +27 21 931 6129

2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
Health		
Dermal	Acute Tox.5 Skin Irrit. 2	H313 H315
Eye	Eye Irrit. 2	H319
Inhalation	Acute Tox.5	H333

The most important adverse effects:

Physicochemical effects:

None known.

Human health effects:

Causes skin irritation.
 Causes serious eye irritation.

Label elements:



Signal word: Warning.

Hazard statements:

H313: May be harmful in contact with skin.
 H315: Causes skin irritation.

H319: Causes serious eye irritation.

H333: May be harmful if inhaled.

Precautionary statements:

P264: Wash hands and face thoroughly after handling.
 P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
 P302/352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.
 P305/351/338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P332/313: If skin irritation occurs: get medical advice.
 P337/313: If eye irritation persists: Get medical advice.
 P362/364: Take off contaminated clothing and wash it before reuse.

Special labelling of certain mixtures:

None known.

Other hazards:

None known.

Toxicity:

Classification according to GHS: Cat. 5
 Classification according to WHO: Cat. III
 Classification according to GPIC (Active): Cat. U

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

Chemical Name	CAS	Conc. (m/m %)	Classification EC 1272/2008
Diclosulam	145701-21-9	84 %	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)

4. FIRST AID MEASURES

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.

Inhalation Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.

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 to 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Obtain medical attention if irritation persists.

Ingestion: Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or

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doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.

Anticipated acute effects:

Causes skin irritation.

Causes serious eye irritation.

Anticipated delayed effects: None known.

Most important symptoms/effects: None known.

Advice to physician Treat symptomatically and supportively. No specific antidote known.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fires with carbon dioxide, dry powder, or alcohol-resistant foam.

Unsuitable Extinguishing Media: Water. Use water spray or a water jet only to cool heated containers, but avoid water coming in contact with the product.

Specific hazards: Fire may produce irritating or poisonous vapours or gases (oxides of chlorine and sulphur) or other products of combustion.

Special Fire Fighting Procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Avoid pollution of waterways by run-off from the site.

Personal protective equipment: Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with skin and eyes. Do not breathe in spray mist or dust. Ventilate area of spill or leak, especially in contained areas.

Protective equipment: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

Emergency procedures: Alert firefighting personnel, evacuate unprotected personnel and animals.

Environmental Precautions: Prevent spilled product from entering sewers, waterways or ground water.

Methods and Materials for Containment: Contain spilled product by picking up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal. Do not create a powder cloud by using a brush or compressed air.

Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled

material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Avoid contact with skin and eyes. Ensure adequate ventilation during handling and use. Do not handle broken containers without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.

General occupational hygiene: Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used.

Storage:

Conditions for safe storage: Keep out of reach of unauthorised persons, children and animals. Store in its original labelled container tightly closed, in an isolated, dry, cool and well-ventilated area. Avoid excessive heat. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Plastic containers and bags.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration: No occupational exposure limits have been determined for the significant ingredients in this product.

Engineering Controls:

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

Personal Protective Equipment:

Respiratory Protection: For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved air-purifying respirator with cartridges/canisters approved for organic vapours.

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Hand Protection: The use of chemically protective gloves is recommended to prevent against skin contact.

Eye Protection: The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: Employee must wear appropriate protective clothing; Rubber boots, hat and equipment to prevent repeated or prolonged skin contact with this substance.

Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this substance; the employer should provide an eyewash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Brown, water-dispersing granule.

Odour: No distinctive odour.

pH (1% aqueous dilution): 5.0 - 8.0

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not available.

Flammability: Not flammable.

Upper/lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density/Relative density: 0.55 to 0.96 g/cm³.

Solubility: Disperses in water.

n-octanol/water partition coefficient: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

10. STABILITY AND REACTIVITY

Chemical Stability: The product is stable for 2 years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50°C, preferably below 30°C, and not for prolonged periods in direct sunlight.

Reactivity: None known.

Possibility of Hazardous Reactions: None known.

Conditions to Avoid: None known.

Incompatible Materials: Avoid contact with strong oxidising materials.

Hazardous Decomposition Products: If this product heated in fire, oxides of nitrogen, sulphur and halogen derivatives may be formed.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Calculated according to GHS.

Oral LD₅₀ (24 h) rat >5000 mg/kg.

Dermal LD₅₀ (24 h) rat >2300 mg/kg.

Inhalation LC₅₀ (4 h) rat 6.0 mg/ℓ.

Skin Irritation/Corrosion: Causes skin irritation.

Eye Irritation/Corrosion: Causes serious eye irritation.

Skin Sensitization: Not available.

Respiratory Sensitization: Not available.

Reproductive cell mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Specific target organ toxicity – single exposure: Not available.

Specific target organ toxicity – repeated exposure: Not available.

Aspiration hazard: Not available.

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

Inhalation: May be harmful if inhaled.

Skin contact: Causes moderate skin irritation.

Eye contact: Causes serious eye irritation.

Ingestion: None known.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA: Based on the active ingredient.

Diclosulam.

Fish:

LC ₅₀ (96 h)	Rainbow trout	>110 mg/ℓ.
	Bluegill sunfish	>137 mg/ℓ.
	Sheepshead minnows	>120 mg/ℓ.

Daphnia:

LC ₅₀ (48 h)		72 mg/ℓ.
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Algae:

EC ₅₀ (14 d)	Green algae (<i>Selenastrum capricornutum</i>)	1.6 µg/ℓ.
	Blue-green algae (<i>Anabaena flos-aquae</i>)	83 µg/ℓ.

Birds:

Acute oral LD ₅₀	Bobwhite quail	>2250 mg/kg.
Acute dietary LC ₅₀	Bobwhite quail & Mallard ducks	>5620 ppm.

Bees:

LD ₅₀ (48 h, contact)	Honeybees	>25 mg/bee.
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Worms:

LC ₅₀ (14 d)	Earthworms	>991 mg/kg.
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Plants: Not determined.

ENVIRONMENTAL EFFECTS:

Animal: Metabolised primarily by dealkylation of the ethoxy group and hydrolysis of the sulfonamide linkage.

Persistence and degradability: Dissipation of diclosulam occurs primarily through microbial degradation and is minimally influenced by soil PH. Soil DT₅₀ (in a wide variety of soils) c. 33-65 d. K_{oc} 90.

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Low application rates and half-life mean diclosulam is not likely to contaminate groundwater.

Bio-accumulative Potential: Not determined.

Mobility in soil: Not determined.

Other adverse effects: Not determined.

13. DISPOSAL CONSIDERATIONS

Waste: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

Container: Emptied containers retain dust and product residues. Do not re-use the empty container for any other purpose. Empty containers by inverting the empty container over the spray or mixing tank. Thereafter, rinse the container three times with a volume of water equal to a minimum of one third of that of the container. Destroy the container by perforating and flattening and dispose of through an approved waste dumpsite, incineration plant or recycling company. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN Number: 3077
Road Transport ADR/IRD:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Diclosulam 840 WDG)

Maritime Transport IMDG/IMO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Diclosulam 840 WDG)

Marine Pollutant (Y/N): Yes

Air transport IATA/ICAO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Diclosulam 840 WDG)

Special/Environmental Precautions: None known.

Transport in bulk (according to MARPOL 73/78, Annex II and the IBC code): Not available.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

OHSA 1993 Regulations for Hazardous Chemical Substances.

Relevant information regarding restrictions: None.

EU regulation: Regulation EC1272/2008 (EU-GHS/CLP)

Other national regulations: None.

Chemical Safety Assessment carried out? No

16. OTHER INFORMATION

Packaging: Packed in 250, 500 g, 1, 5, 10, 20 and 25 kg plastic containers, 5 and 20 g water-soluble bags and labelled according to the South African regulations and guidelines.

Additional H-statement (s) (formulants)

None.

Disclaimer: The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

END OF DOCUMENT

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For detailed information on revisions, contact the Registration holder.