

VILLA DIRECTION 700 WDG

MATERIAL SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: DIRECTION 700 WDG
Herbicide

UN No.: 3077

Supplier: Villa Crop Protection (Pty) Ltd.
PO Box 10413
Aston Manor, 1630, 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: +27 086 199 9071
(Client: Villa Crop Protection)

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

2. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name: Amicarbazone

Chemical Name: 4-amino-N-tert-butyl-4,5-dihydro-3-isopropyl-5-oxo-1,2,4-triazole-1-carboxamide (IUPAC)

CAS No.: [129909-90-6]

Chemical Family: Triazolinone herbicides

Chemical Formula: C₁₀H₁₉N₅O₂ (Mol. wt.: 241.3)

Formulation: Amicarbazone 700 WDG
Water Dispersible Granule

Use / Mode of Action: Plant uptake occurs via roots; leaf absorption also occurs on emerged weeds, leading to contact action. This provides burndown as well as residual weed control.

Hazardous Ingredient:

Amicarbazone	±70 %
Inerts	±12 %

SYMBOLS: X_n, Xi, N

RISK-PHASE(S): R22, 36, 51, 58

3. HAZARD IDENTIFICATION

Toxicity class:
WHO (a.i.) III; EPA (formulation) III.
Non-irritant to skin and Moderate irritant to eyes.
Environmentally Hazardous Substance and Marine pollutant.

4. FIRST AID MEASURES AND PRECAUTIONS

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.

Symptoms of human poisoning: Exposure to high concentrations may cause respiratory irritation. The sign and symptoms may include nasal discharge, sore throat, cough and short of breath.

Amicarbazone is harmful if swallowed. Ingesting the product may cause irritation gastrointestinal, nausea, vomiting and diarrhoea. A single prolonged exposure is not like that the material, is absorbed through the skin in harmful quantities. May cause mild eye irritation. The degree of damage depends on the amount and the duration of contact, the speed and continuity of first aid treatment. The effects resulting from time can be redness, swelling and pain.

Inhalation: Immediately remove source of contamination or move victim to fresh air. If breathing has stopped, perform artificial respiration and administer oxygen. Avoid mouth-to-mouth resuscitation. Keep person warm and at rest. Treat symptomatically and supportively as and when required. Seek medical advice immediately.

Skin contact: Remove contaminated clothing, shoes and leather goods immediately. Gently wipe off excess chemical. Wash skin gently and thoroughly with non-abrasive soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15 to 20 minutes). Seek medical advice if necessary.

Eye contact: Flush eyes immediately with large amounts of gently flowing cold water or normal saline solution, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15 to 20 minutes). If irritation persists, get medical attention.

Ingestion: Have victim rinse mouth thoroughly with water. **Do not induce vomiting, due to the aromatic solvent. Seek medical advice immediately.** If the person is alert and respiration is not depressed, give large quantity of water to drink. Never give anything by mouth to an unconscious person. Establish and maintain airway. Treat respiratory difficulty with artificial respiration and oxygen. Qualified medical personnel should perform administration of gastric lavage or oxygen.

Advice to physician:
Treat symptomatically and supportively. No specific antidote. Treat symptomatically and give supportive therapy. Contact local Poison Centre if needed

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5. FIRE FIGHTING MEASURES

Special Hazards: Amicarbazone 700 WDG is not flammable. The active ingredient and inerts in the product are made of no potential thermal or explosive impact.

Fire/Explosion hazard:

Non-Flammable. **Flash point:** N/A

Extinguishing agents: Extinguish fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Use as little water as possible. Use spray or fog. Solid stream may cause spreading. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Firefighting: Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.

Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal.

Dyke fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways.

Do not use high volume water jet, due to contamination risk. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Personal protective equipment:

Fire may produce irritating or poisonous vapours or gases (oxides of chlorine and sulphur) or other products of combustion. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES (Spillage)

Personal precautions: Avoid contact with skin and eyes. Do not breathe in fumes. For personal protection see Section 8.

Environmental precautions:

Occupational spill: Do not touch-spilled material; stop leak if you can do it without risk. Keep out unprotected persons and animals.

For spills: Soak up with absorptive material such as damp earth or sand or other suitable non-combustible absorbent material. Place the material into a clean, dry container and cover for subsequent disposal. In situations where product comes in contact with water, contain contaminated water for later disposal. Prevent material from spreading by damming in with absorptive material.

Do not flush spilled material into drains. Keep spectators away and upwind.

To decontaminate spill area, tools and equipment, wash with a suitable solution (i.e. organic solvent, detergent bleach or caustic). Add the solution to the drums already collected. Label drums with its content and dispose it in accordance with local regulations.

Open burning or dumping of this material is prohibited. Do not get water inside containers.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Harmful if swallowed. Avoid inhalation and contact with eyes and skin. Use with adequate ventilation. Do not handle broken packages without protective equipment. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Seek medical advice.

Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Worker should shower at the end of each work day. Launder all clothing before it is re-used again.

Storage: Store in its original container in dry, cool, well-ventilated area. Avoid excess heat. Not to be stored next to foodstuffs and water supplies.

Keep out of reach of children, uninformed persons and animals. Do not contaminate other pesticides and fertilizers.

Storage stability: Stable for a period of 2 years under normal warehouse conditions.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

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. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT:

Respirator: An approved full-face respirator suitable for protection from spray or mists of pesticides is required. Limitations of respirator use specified by the approved agency and the manufacturer must be observed.

Clothing: Employee must wear appropriate protective (impervious) clothing; boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing.

Gloves: Employee must wear appropriate chemical resistant protective gloves to prevent contact with this substance.

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Eye protection: The use of chemical resistant goggles or a face shield.

Emergency eyewash:

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Water dispersal granule

Colour: Light yellow

Flash point: Not applicable

Flammability: Non-Flammable

pH 1% dilution in distilled water: 6.3 at 20 ± 2 °C

Solubility in water: Disperse in water

10. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and storage conditions.

Condition to avoid: Extreme heat and fire

Compatibility of material: Incompatible with other material

Hazardous decomposition products: Oxides of carbon and nitrogen may be given off when exposed to extreme heat of fire.

Hazardous Polymerisation: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀: >1015 mg/kg (tech.).

Acute dermal LD₅₀: >2000 mg/kg.

Acute inhalation LC₅₀: >6.242 mg/l air /4 hours.

Acute skin irritation: None skin irritant.

Acute eye irritation: Moderate irritant.

Sensitization: Non sensitizer.

Teratogenicity: Not teratogenic or oncogenic.

ADI/RfD: (EPA) aRfD 0.10, cRfD 0.023 mg/kg b.w. [2005] (tech.)

12. ECOLOGICAL INFORMATION

In animals: In rats it is rapidly absorbed, metabolised and eliminated; within 72 h of application, 64% of the dose was recovered in the urine, and 27% in faeces; only 3% of the dose was recovered as parent compound. The major metabolites arose by N-deamination, followed by hydroxylation at the secondary carbon of the isopropyl group, and by glucuronic acid conjugation.

In Plant: maize, the major metabolic pathway involves N-deamination, followed by hydroxylation at the secondary carbon of the isopropyl group

In the soil: Hydrolysis DT₅₀ 64 d (pH 9, 25 °C); stable at pH 5, 7. Aerobic DT₅₀ in soil 50 d. Preliminary results indicate: soil photolysis DT₅₀ 54 d; K_{oc} 23–37 l/kg; field dissipation DT₅₀ 18–24 d; lowest depth detected at >LOQ 12 inch (parent), 24 inch (metabolite). The main transformation products are formed by N-deamination, subsequent N-methylation, and by removal of the carboxamide side-chain.

ECOTOXICOLOGY:

Birds: Acute oral LD₅₀ (14 d) for bobwhite quail >2000 mg/kg. Dietary LC₅₀ for bobwhite quail >5000 mg/kg.

Fish: LC₅₀ (96 h) for bluegill sunfish >129, rainbow trout >120 mg/l.

Daphnia: LC₅₀ (48 h) >119 mg/l.

Bees: LD₅₀ (48 h) (oral) 24.8 µg/bee (contact) >200 µg/bee

Other aquatic spp: EC₅₀ for *Lemna gibba* 226 µg/l.

This product is a Marine Pollutant.

13. DISPOSAL CONSIDERATION

Pesticide disposal: Open dumping or burning of this pesticide is prohibited. Never pour untreated waste or surplus products 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.

Emptied containers/bags retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

Empty the container/bag of excess product into the mixing tank or spray tank of the applicator. Destroy the emptied containers/bags by perforation and flattening. Bury in an approved dumpsite. Do not re-use the empty container/bag for any other purpose. Comply with any local legislation applying to disposal.

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

14. TRANSPORT INFORMATION

UN No.: 3077

Road Transport ADR/IRD:

Class: Packing group:III
Shipping name: Environmentally Hazardous Substance, solid, N.O.S + Marine pollutant
Amicarbazone 700 WDG

Maritime Transport IMDG/IMO:

Class: 9 + Marine pollutant
Packing group: III
Shipping name: Environmentally Hazardous Substance, solid, N.O.S
Amicarbazone 700 WDG

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15. REGULATORY INFORMATION

Symbol: X_n, X_i, N
Indication of danger: Harmful, Irritant and Environmentally Hazardous Substance

Risk phrases:

R 22 Harmful if swallowed.
R 36 Irritating to eyes
R 51 Toxic to aquatic organisms
R 58 May cause long-term adverse effects in the environment.

Safety phrases:

S 1/2 Keep locked up and out of the reach of children.
S 3/7/9 Keep container tightly closed in cool, well ventilated place
S 13 Keep away from food, drinks and animal feeding stuffs.
S 15 Keep away from heat.
S 26 In case of contact with eyes, rinse immediately with plenty of water
S 29 After contact with skin wash immediately with water
S 29/35 Do not empty into drains; dispose of this material and its container in a safe way
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 45 In case of an accident or if you feel unwell, seek for medical advice
S 60 This material and its container must be disposed of as hazardous waste.
S 61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Revision no.: (1)
Next revision: July 2021

16. OTHER INFORMATION

Packing and Labelling: Packed in 500 g, 1, 5, 10, 20, 25, 50 and 100 kg plastic containers and labelled according to the South African regulations and guidelines.

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 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.

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Compiled: February 2013

Reviewed: July 2018