

GRAINWATCH 400 WDG

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: GRAINWATCH 400 WDG
Other identifier: Carfentrazone 400 WDG
Recommended use: Herbicide
Restrictions on use: Agriculture

Supplier: Universal Crop Protection (Pty) Ltd.
Co. Reg. No.: 1983/008184/07
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:
(Hazcall24) +27 86 044 4411
(Client: Villa Crop Protection)
Griffon Poison Information Centre +27 82 446 8946
(Client: Villa Crop Protection)
Poisoning Emergency telephone numbers:
Griffon Poison Information Centre +27 82 446 8946
Poisons Information Centre +27 861 555 777

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. 3	H313 H316
Eye	Eye Dam. 1	H318
Specific Target Organ Toxicity - Single Exposure	STOT SE 3	H335
Environment		
Aquatic acute	Aquatic acute 1	H400
Aquatic chronic	Aquatic chronic 1	H410

The most important adverse effects:

Physiochemical effects:

None known.

Human health effects:

May be harmful in contact with skin. (Acute Tox. 5)
Causes mild skin irritation. (Skin Irrit. 3)
Causes serious eye damage. (Eye Dam. 1)
May cause respiratory irritation. (STOT SE 3)

Label elements:



Signal word: Danger.

Hazard statements:

H313: May be harmful in contact with skin.
H318: Causes serious eye damage.
H316: Causes mild skin irritation.
H335: May cause respiratory irritation.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P261: Avoid breathing dust, fume, gas, mists, vapours or spray.
P264+P265: Wash hands and face thoroughly after handling. Do not touch eyes.
P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P271: Use only outdoors in a well-ventilated area.
P273: Avoid release into the environment.
P302+P317: IF ON SKIN: Get medical help.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P354+P338: IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P319: Get medical help if you feel unwell.
P332+P317: If skin irritation occurs: get medical help.
P391: Collect spillage.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P501: Dispose of contents/container to suitable landfill in accordance with local regulations.

Special labelling of certain mixtures:

None known.

Other hazards:

None known.

Toxicity:

Classification according to GHS: Category 5

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

GRAINWATCH 400 WDG

SAFETY DATA SHEET

Chemical Name	CAS	Conc. (m/m %)	Classification EC 1272/2008
Carfentrazone-ethyl	128639-02-1	40%	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Sodium Dodecyl Sulfate	151-21-3	< 5%	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Aquatic Chronic 3 (H412)
Ethylenediamine tetraacetic acid disodium salt	6381-92-6	< 5%	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H332) STOT SE 3 (H335) Aquatic Chronic 3 (H412)

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 and consult a doctor.

Inhalation: If vapours or mists have been inhaled, move victim to fresh air and remove source of contamination if safe to do so. The patient should be kept under observation. Obtain medical attention if irritation persists.

Skin: Wash skin gently and thoroughly with cold water and non-abrasive soap. Obtain medical attention if irritation persists.

Eyes: Flush eyes with clean water. Lift eyelids to facilitate irrigation. If present, remove contact lenses and continue rinsing. Seek medical attention if irritation persists.

Ingestion: If the person is alert, give one or two cups of water. Obtain medical attention in the event of symptoms or complaints.

Anticipated acute effects: Causes mild skin irritation. Harmful if inhaled.

Anticipated delayed effects: None known.

Most important symptoms/effects: None known.

Advice to physician: There is no specific antidote available. Treat symptomatically and supportively.

5. FIRE-FIGHTING MEASURES

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

Unsuitable Extinguishing Media: Water.

Specific hazards: This product may emit toxic fumes when burned.

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 use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents 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 or fumes. 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. This product is classified to be very toxic to aquatic organisms and causes long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into water courses should be reported immediately to the police and the Department of Water/Environmental Affairs.

Methods and Materials for Containment: Contain spilled product.

Methods and Materials for Clean-up: 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.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Avoid contact with skin. Ensure adequate ventilation during handling and use. Do not handle broken containers without protective equipment. Immediately clean up spills that occur during handling. 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:

GRAINWATCH 400 WDG

SAFETY DATA SHEET

Conditions for safe storage: Keep out of reach of unauthorised persons, children and animals. Store in its original labelled container in an isolated, dry, cool and well-ventilated area. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Plastic/paper containers and bags.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Silica - Amorphous, including natural diatomaceous earth	6 mg/m ³ (total)	8-hour TWA	www.osha.gov

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 OSHA PELs 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: Wear a facemask if inhalation is likely to occur.

Hand Protection: Wear gloves to prevent contact with this mixture.

Eye Protection: Wear a face shield when handling the concentrate and when applying the product. The use of safety goggles is recommended if a face shield is not used.

Skin and Body Protection: The use of protective (impervious) clothing e.g. coveralls is recommended to prevent skin contact with this mixture.

Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this mixture; 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: Light to dark-brown solid

Odour: Not available.

pH: 6.0 - 9.0

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not available.

Flammability: Not flammable.

Upper/lower explosion limits: Not explosive.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density: Not available.

Solubility: Not available.

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 two 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: Avoid extreme heat temperatures or exposure to flames.

Incompatible Materials: Not Available.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂), Hydrogen fluoride, Hydrogen chloride and Nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS.

Oral LD₅₀ > 5000 mg/kg.

Dermal LD₅₀ > 4824.56 mg/kg.

Inhalation LC₅₀ (4 h) > 5 mg/L.

Skin Irritation/Corrosion: Causes mild skin irritation.

Eye Damage/Irritation: Causes serious eye damage.

Skin Sensitization: Not classified.

Respiratory Sensitization: Not classified.

Reproductive cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Not classified.

Specific target organ toxicity – single exposure: May cause respiratory irritation.

Specific target organ toxicity – repeated exposure: None known.

Aspiration hazard: Not available

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

Inhalation: May cause respiratory irritation.

Skin contact: Causes mild skin irritation.

Eye contact: Causes serious eye damage.

Ingestion: None known.

GRAINWATCH 400 WDG

SAFETY DATA SHEET

12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic life with long lasting effects.

ECOTOXICITY DATA:

Active ingredient: Carfentrazone

Fish:

LC₅₀ (96 h) 1.6-43 mg/ℓ

Daphnia:

EC₅₀ (48 h) Daphnia 9.8 mg/ℓ

Algae:

EC₅₀ 5.7 - 17 ug/ℓ

Other aquatic

spp.:

EC₅₀ (96 h) Eastern oysters 2.05 ppm

Mysid shrimp 1.16 ppm

EC₅₀ (14d) *Lemna gibba* 0.0057 mg/ℓ

Birds:

LD₅₀ (Acute oral) Bobwhite quail >2250 mg/kg

LC₅₀ Mallard duck >5620 ppm

Bees:

LD₅₀ (Oral) (48 h) >35 ug/bee

(Contact) (72 h) >200 ug/bee

Worms:

LC₅₀ > 820 mg/kg

ENVIRONMENTAL EFFECTS:

Based on information for the active ingredient

Plants: Rapidly converted to the free acid, which is hydroxylated and then oxidised at the triazolinone methyl to form the dibasic acid; DT₅₀ (carfentrazone-ethyl) <7 d, DT₅₀ (carfentrazone) <28 d.

Persistence and degradability: Broken down in the soil by microbial action; not susceptible to photodecomposition or volatility following soil application. In the laboratory, soil DT₅₀ is a few hours, degrading to the free acid, which in turn has DT₅₀ 2.5-4.0 d.

Bio-accumulative Potential: Not determined.

Mobility in soil: Strongly adsorbed to sterile soils (K_{oc} 750±60 at 25°C). In non-sterile soils, rapidly converted to the free acid, which has low soil binding (K_{oc} 15-35 at 25°C, pH 5.5).

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.

Container: Emptied containers retain 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. 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. 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. (Carfentrazone-ethyl 400 g/kg)

Maritime Transport IMDG/IMO:

Class: 9

Packaging group: III

UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Carfentrazone-ethyl 400 g/kg)

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. (Carfentrazone-ethyl 400 g/kg)

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)

GRAINWATCH 400 WDG

SAFETY DATA SHEET

Other national regulations: None.

Chemical Safety Assessment carried out? No

16. OTHER INFORMATION

Packaging: 200, 250, 500 g and 1, 2, 5, 10, 15, 20 and 50 kg plastic/paper containers and bags and labelled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H332: Harmful if inhaled.

H412: Harmful to aquatic life with long lasting effects.

IATA: International Air Transport Association.

IBC: International Bulk Chemical.

ICAO: International Civil Aviation Organization.

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization.

LD50 value: The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.

TWA: Time-weighted average – The average exposure over a specified period, usually a nominal eight hours.

ST/STEL: Short-term exposure limits.

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.