

ELECTRON 500 SC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ELECTRON 500 SC
Other identifier: Fenhexamid 500 SC
Recommended use: Fungicide
Restrictions on use: Agriculture

Supplier: Villa Crop Protection (Pty) Ltd
Co. Reg. No.: 1992/002474/07
 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:
 Envirosure. +27 31 205 4918
 (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
Villa Crop Protection Emergency number:
National Safety, Health and Environmental Manager:
 +27 63 698 0668

2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
Health		
Eye	Eye Dam. 1	H318
Inhalation	Acute Tox. 4	H332
Environment		
Aquatic acute	Aquatic acute 2	H401
Aquatic chronic	Aquatic chronic 2	H411

The most important adverse effects:
Physicochemical effects: None known.
Human health effects: Causes serious eye damage.
Label elements:



Signal word: Danger.
Hazard statements:

H318: Causes serious eye damage.
 H333: Harmful if inhaled.
 H401: Toxic to aquatic life.
 H410: Toxic to aquatic life with long lasting effects.
Precautionary statements:
 P273: Avoid release into the environment.
 P271: Use only outdoors or in a well-ventilated area.
 P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
 P305/351/338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
 P310: IF IN EYES: Immediately call a POISON CENTRE.
 P391: Collect spillage.
 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 4.
 Classification according to WHO: Category III.
 Classification according to GPIC: Category U.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.
Composition:

Chemical Name	CAS	Conc. (m/v%)	Classification EC 1272/2008
Fenhexamid	12683-3-17-8	50	Aquatic Chronic 2 (H411)
Ethoxylated alcohols	68439-49-6	<10%	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 (H400)
Ethylene glycol	107-21-1	<10%	Acute Tox. 4 (H302)

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. Immediately consult a doctor.
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. If irritation persists, obtain medical attention.

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Eyes: Immediately flush eyes with clean water for at least 15-20 minutes. Lift eyelid (s) to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**

Ingestion: Seek medical attention immediately.
 Do NOT induce vomiting unless instructed to do so by a poison control centre or doctor. If the person is alert, rinse mouth thoroughly with water. Do not give anything by mouth to an unconscious person.

Anticipated acute effects: Causes serious eye damage.
Anticipated delayed effects: None known.

Most important symptoms/effects: None known.

Advice to physician: Treat symptomatically and supportively. No specific antidote known. Activated charcoal and sodium sulphate may be administered if more than a mouthful has been ingested.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use water spray, foam, sand or carbon dioxide.

Unsuitable Extinguishing Media: High volume water jet.

Specific hazards: Combustion may result in the release of the following gases: carbon monoxide, oxides of nitrogen, hydrogen chloride and hydrogen cyanide.

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. Water can be used to cool unaffected containers but must be contained for later disposal. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Contain fire control agents and wastewater 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: Do not breathe in spray mist or fumes. Avoid contact with eyes and skin. 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 as the product is classified as toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into water courses should be immediately reported to the

police and the Department of Water/Environmental Affairs.

Methods and Materials for Containment: Prevent material from spreading by diking area in with sand, silica gel or sawdust.

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, sawdust, universal binder, silica gel or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. 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: Ensure adequate ventilation during handling and use. Avoid contact with skin and eyes. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly closed when not in use. In 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 again.

Storage:

Conditions for safe storage: Keep under lock and key and 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. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers. Local regulations should be complied with.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Fenhexamid	5.1 mg/m ³	TWA	OES
Ethylene glycol	10 mg/m ³	TWA	OEL-RL

Engineering Controls:

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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 for organic vapours.

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

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. Contact lenses are not protective devices.

Skin and Body Protection: Employee must wear chemically impervious protective clothing; boots, hat and other 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 mixture; 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 suspension concentrate.
- Odour:** Slight characteristic odour.
- pH (1 % aqueous dilution):** 6.5 – 7.5 at 20 °C.
- Melting point:** Not available.
- Freezing Point:** Not available.
- Boiling Point:** Not available.
- Flash Point:** >100°C.
- Flammability:** Not flammable.
- Upper/lower explosion limits:** Not explosive.
- Vapour Pressure (mm Hg):** Not available.
- Relative Vapour Density:** Not available.
- Density/Relative density:** 1.176 g/cm³.
- Solubility:** Suspends 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: Avoid extreme heat and exposure to direct sunlight.

Incompatible Materials: None known.

Hazardous Decomposition Products: Combustion may release toxic and irritant vapours.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY (Experimental data):

Oral LD₅₀ (24 h) rat >18 000 mg/kg.

Dermal LD₅₀ (24 h) rat >5 000 mg/kg.

Inhalation LC₅₀ (4 h) rat >2.3 mg/l.

Skin Irritation/Corrosion: Not a skin irritant.

Eye Damage/Irritation: Causes serious eye damage.

Skin Sensitization: Not a skin sensitizer.

Based on classification according to GHS:

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: Harmful by inhalation.

Skin contact: Not available.

Eye contact: Causes serious eye damage.

Ingestion: Not available.

12. ECOLOGICAL INFORMATION

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

ECOTOXICITY DATA (based on active ingredient):

Fish:

LC ₅₀ (96 h)	Rainbow Trout	1.34 mg/l
	Bluegill sunfish	3.42 mg/l

Daphnia:

EC ₅₀ (48 h)		>18.8 mg/l
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Algae:

E _r C ₅₀ (72 h)	<i>Scenedesmus subspicatus</i>	>26.1 mg/l
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Birds:

LD ₅₀	Bobwhite quail	>2000 mg/kg
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Bees:

LD ₅₀ (oral)		>200 µg/bee
LD ₅₀ (contact)		>200 µg/bee

Worms:

LC ₅₀ (14d)	<i>Eisenia foetida</i>	>1000 mg/kg soil
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Plants:

The metabolic pathway is similar in all crops; in all plant samples, the unchanged active ingredient was identified as the largest single constituent.

ENVIRONMENTAL EFFECTS (based on active):

Persistence and degradability:

DT₅₀ in soil ≤1 d (4 soils, 20 °C). Studies and calculation show that the compound can be classified as having no, or only low, leaching potential; no problems of groundwater contamination will be expected. In sterile aquatic systems, fenhexamid was stable to hydrolysis. In natural water/sediment systems, fenhexamid degrades rapidly and completely, ultimately forming CO₂; overall DT₅₀ (calc.) was a few days.

Bio-accumulative Potential: Does not bioaccumulate.

Mobility in soil: Fenhexamid is slightly mobile in soil.

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. Waste should only be handled by licensed facilities. Comply with local legislation applying to waste disposal. The product may be taken to a certified waste disposal site or incineration plant.

Container: Emptied containers retain vapour and product residues. Do not re-use the empty container for any other purpose. Triple rinse empty containers by inverting the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a third of that of the container. Add the rinsing to the contents of the spray tank before recycling or destroying the container in the prescribed manner. Observe all labelled safeguards until container is destroyed. Destroy the container by perforation and flattening and dispose of in a safe way. The container may be taken to a certified waste disposal site or incineration plant. Where possible, recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

14. TRANSPORT INFORMATION

UN NUMBER: 3082
Road Transport ADR/RID:
 Class: 9
 Packaging group: III
 Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S.

(Fenhexamid 500 SC)

Maritime Transport IMDG/IMO:

Class: 9
 Packaging group: III
 Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S.
(Fenhexamid 500 SC)

Marine Pollutant: Yes

Air Transport IATA/ICAO:

Class: 9
 Packaging group: III
 Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S.
(Fenhexamid 500 SC)

Special/Environmental Precautions: Refer to sections 4 to 8 of this document.

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 50, 100, 250 & 500 millilitres and 1, 2, 5, 10, 20, 25 & 50 litres plastic containers, labelled according to South African regulations and guidelines.

Additional H Statements (formulants):

H302: Harmful if swallowed.

H400: Very toxic to aquatic life.

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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Next revision date: January 2025

For detailed information on revisions, contact the Registration holder.