

VIVEO® 10 SL

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: VIVEO® 10 SL
Other identifier: Forchlorfenuron 10 SL
Recommended use: Plant growth regulator
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:
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		
Eye Irritant	Eye Irritant 2	H319
Carcinogenicity	Carc.2	H351

The most important adverse effects:

Physiochemical effects:

None known.

Human health effects:

Causes serious eye irritation. Suspected of causing cancer.

Label elements:



Signal word: Warning.

Hazard statements:

H319: Causes serious eye irritation.

H351: Suspected of causing cancer.

Precautionary statements:

P203: Obtain, read and follow all safety instructions before use.

P264+P265: Wash hands thoroughly after handling. Do not touch eyes.

P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P318: If exposed or concerned, get medical advice.

P337+P317: If eye irritation persists: Get medical help.

P405: Store locked up.

P501: Dispose of contents/container in accordance with local regulations.

Special labelling of certain mixtures:

None known.

Other hazards:

None known.

Toxicity:

Classification according to GHS: Cat. 5

Classification according to WHO: Cat. II

Classification according to GPIC (Active): Cat. II

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

Chemical Name	CAS	Conc. (M/v %)	Classification EC 1272/2008
Forchlorfenuron (CPPU)	68157-60-8	10%	Carc. 2 (H351) Aquatic Chronic 2 (H411)
Surfactant	68439-46-3	<50%	Acute Tox. 4 (H302) Eye Irrit. 2 (H319)

4. FIRST AID MEASURES

Inhalation: Remove person/patient from contaminated area to fresh air, allow to rest and keep warm. Seek medical attention if irritation occurs.

Skin: After contact with the skin, special care should be taken to flush the affected area with running water as soon as possible. Remove contaminated clothing and wash before reuse. Get medical attention if symptoms arise and persist.

Eyes: Immediately flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Get medical attention if symptoms arise and persist.

Ingestion: Do not induce vomiting. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth out and then drink plenty of water. Get medical attention if discomfort occurs.

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Anticipated acute effects: None known.
Anticipated delayed effects: None known.
Most important symptoms/effects: None known.
Advice to physician: There is no specific antidote. Treat symptomatically. If required, perform gastric lavage. If necessary administer activated charcoal (10 – 20 g) and sodium sulphate (20 g).

5. FIRE-FIGHTING MEASURES

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

Unsuitable Extinguishing Media: High volume water jet. Use a water jet only to cool heated containers.

Specific hazards: None known.

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 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. 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 by diking area with sand, earth or lime.

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, earth vermiculite, chemical absorbent or other appropriate non-combustible 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

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material back in original container. Do not re-use spill material. 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. Add the solution to the drums already collected. Open burning or dumping of this material is prohibited. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Avoid contact with eyes and skin. Ensure adequate ventilation during handling and use. Do not handle broken containers without protective clothing/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. Do not store near heat, open flame, sources of ignition or hot surfaces. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: None known.

Packaging material: Plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration: No occupational exposure limits has 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: Always wear an organic cartridge respirator suitable for protection from mists/vapours of pesticides.

Hand Protection: Employee must wear appropriate chemically resistant gloves e.g., nitrile rubber or PVC gloves to prevent contact with this mixture.

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Eye Protection: Wear a face shield or safety goggles when handling the concentrate and when applying the product. Contact lenses are not protective eye devices.

Skin and Body Protection: The use of impervious protective clothing e.g. overalls, boots and hat, 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 eyewash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Pale yellow liquid.

Odour: Very faint, mild odour.

pH (1% aqueous dilution): 6.49 (20° C).

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Approx. 188°C.

Flash Point: >100°C.

Flammability: Not flammable.

Upper/lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density: 1.04 g/ml

Solubility: Soluble in water.

n-octanol/water partition coefficient: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: 60.79 mPa.s (20 °C, sheer rate 20).

10. STABILITY AND REACTIVITY

Chemical Stability: This 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: Stable product under recommended storage and handling conditions.

Conditions to Avoid: Protect from high temperatures and sources of ignition.

Incompatible Materials: Avoid accidental contact with strong acidic or alkaline solutions or oxidising materials.

Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS.

Oral LD₅₀ (24 h) rat >14 047 mg/kg.

Dermal LD₅₀ (24 h) rabbit >2000 mg/kg.

Inhalation LC₅₀ (4 h) rat >157 mg/l.

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Skin Irritation/Corrosion: Mild, transient irritation.

Eye Damage/Irritation: Mild, transient irritation.

Skin Sensitization: Not calculated.

Respiratory Sensitization: Not calculated.

Reproductive cell mutagenicity: Not calculated.

Carcinogenicity: Suspected of causing cancer.

Reproductive toxicity: Not calculated.

Specific target organ toxicity – single exposure: Not calculated.

Specific target organ toxicity – repeated exposure: Not calculated.

Aspiration hazard: Not calculated.

Chronic Effects: Not calculated.

POTENTIAL ADVERSE EFFECTS:

Eye contact: Causes serious eye irritation.

Carcinogenicity: Suspected of causing cancer.

12. ECOLOGICAL INFORMATION

No data available, but not expected to be hazardous to aquatic life.

ECOTOXICITY DATA: Based on the active ingredient Forchlorfenuron

Fish: LC ₅₀ (96 h) (48 h)	Rainbow trout Carp Goldfish	9.2 mg/l 8.6 mg/l 10-40 ppm
Daphnia: LC ₅₀ (48 h)		8.0 mg/l
Algae: E _b LC ₅₀ (72 h)	<i>Pseudokirchneriella subcapitata</i>	3.3 mg/l
Birds: Acute oral LD ₅₀ Dietary LC ₅₀ (5d)	Bobwhite quail Bobwhite quail	>2250 ng/kg. >5600 ppm.
Bees: (LD ₅₀ , mg/bee)	(contact)	>25 mg/bee.
Worms: LC ₅₀	Earthworms	>1000 mg/kg.

Plants: Not determined.

ENVIRONMENTAL EFFECTS:

Animal: In the rat, forchlorfenuron is rapidly absorbed and metabolised, with half of the radioactivity excreted via the urine and faeces within 16 h. The parent compound was a small component of radioactivity excreted; the majority of the recovered radioactivity was identified as the conjugate, forchlorfenuron sulphate.

Persistence and degradability: Essentially stable to all routes of dissipation except sensitised photo degradation in water. In sandy loam soil in the dark, DT₅₀ 578 d (calc.). Also stable in sediment/water systems. Moderately mobile to essentially immobile in soils; Freundlich K_{ads} 2-20 (EPA Fact Sheet); K_{oc} 852-3320 (mean 1763, 4 soils); K_d 5.79-39.84 (EU Rev. Rep.).

Bio-accumulative Potential: Not determined.

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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 containers may be taken to a registered 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 one third of that of the container. Add the rinsings to the contents of the spray tank before recycling or destroying the container in the prescribed manner. Destroy the container by perforating and flattening and dispose of through an approved waste dump site, incineration plant or recycling company. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN Number: Not regulated.

Road Transport ADR/IRD:

Class: None
Packaging group: None
UN Proper Shipping Name: None

Maritime Transport IMDG/IMO:

Class: None
Packaging group: None
UN Proper Shipping Name: None

Marine Pollutant (Y/N): None known.

Air transport IATA/ICAO:

Class: None
Packaging group: None
UN Proper Shipping Name: None

Special/Environmental Precautions: None known.

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

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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 500 ml, 1, 5, 10 and 20 litres plastic containers and labelled according to South African regulations and guidelines.

Additional H-statements (formulants)

H302: Harmful if swallowed.

H411: Toxic 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.

OEL/RL: Occupational exposure limit-recommended limit.

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.