

SUCCESSION 225 EC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: SUCCESSION 225 EC
Other identifier: Clethodim/Haloxyfop-P-methyl
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
Physical		
Flammable	Flam. Liq. 4	H227
Health		
Oral	Acute Tox. 4 Asp. Tox 1	H302 H304
Dermal	Skin Irrit. 2 Skin Sens. 1	H315 H317
Eye	Eye Dam. 1	H318
Reproduction	Repr. 2	H361d
Single Target Organ Toxicity	STOT SE 3 STOT RE 2	H336 H373
Environment		
Aquatic acute	Aquatic acute 2	H400
Aquatic chronic	Aquatic chronic 2	H410

The most important adverse effects:

Physiochemical effects:

Combustible liquid (Flam. Liq. 4).

Human health effects:

Harmful if swallowed (Acute Tox. 4).
May be fatal if swallowed and enters airways (Asp. Tox. 1).
Causes skin irritation (Skin Irrit. 2).
May cause an allergic skin reaction (Skin Sens. 1).

Causes serious eye damage (Eye Dam. 1).
May cause drowsiness or dizziness (STOT SE 3).
Suspected of damaging fertility or the unborn child (Repr. 2).
May cause damage to organs through prolonged or repeated exposure (STOT RE 2).

Label elements:



Signal word: Danger

Hazard statements:

H227: Combustible liquid
H302: Harmful if swallowed
H304: May be fatal if swallowed and enters airways
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H318: Causes serious eye damage
H336: May cause drowsiness or dizziness
H361d: Suspected of damaging fertility or the unborn child
H373: May cause damage to organs through prolonged or repeated exposure
H400: Very toxic to aquatic life
H410: Very toxic to aquatic life with long lasting effects

Precautionary statements:

P203: Obtain, read and follow all safety instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260: Do not breathe dust, fume, gas, mist, vapours and spray.
P264: Wash hands and face thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P316: IF SWALLOWED: Get emergency medical help immediately.
P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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P305+P354+P338: IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P318: IF exposed or concerned, get medical advice.
P321: See label for specific treatment.
P330: Rinse mouth.
P331: Do NOT induce vomiting.
P333+P317: If skin irritation or rash occurs: Get medical help.
P362+P364: Take off contaminated clothing and wash it before reuse.
P264+P265: Wash hands thoroughly after handling. Do not touch eyes.
P370+P378: In case of fire: Use carbon dioxide or dry chemical for small fires and water fog or foam to extinguish large fires.
P391: Collect spillage.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P501: Dispose of content/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.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Clethodim	99129-21-2	15.23 %	Acute Tox. 4 (H302) Skin Sens. 1 (H317) Aquatic Chronic 3 (H411)
Haloxypop-P-methyl	72619-32-0	7.61 %	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic chronic 1 (H 410)
Calcium dodecyl-benzene-sulphonate	26264-06-2	< 15 %	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic chronic 4

			(H413)
Toluene	108-88-3	< 70 %	Flam Liq. 2 (H225) Skin Irrit. 2 (H315) Asp. Tox. 1 (H304) STOT SE 3 (H336) STOT RE 2 (H373) Repr. 2 (H361d)

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 you feel unwell after inhalation.**

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 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**

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 doctor. Do not give anything by mouth to an unconscious person.

Anticipated acute effects: None known.

Anticipated delayed effects: None known.

Most important symptoms/effects: None known.

Advice to physician: Treat symptomatically and supportively. No specific antidote known. Do not aspirate, formulation contains a solvent.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use carbon dioxide or dry chemical for small fires and water fog or foam for large fires.

Unsuitable Extinguishing Media: High volume water jet. Use a water jet only to cool heated containers. Water may be ineffective in controlling fire.

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

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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 mist or vapours.

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 specific authorities, evacuation of unprotected animals and people.

Environmental Precautions: Keep spilled product from entering sewers, waterways or ground water. This product is classified as very toxic / toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses 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 or earth.

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite, earth 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: Harmful if swallowed. Avoid contact with skin and eyes. Ensure adequate ventilation during handling and use. Do not inhale spray mist or vapours. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers 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 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. Do not store near heat, open flame, sources of ignition or hot surfaces. 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.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Toluene	10 ppm	TWA (8-hours)	"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: 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.

Hand Protection: The use of chemically protective (impervious) 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.

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

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: Brown liquid.

Odour: None.

pH (1% aqueous dilution): 5.0 - 7.5

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: > 65 °C.

Flammability: Combustible liquid.

Upper/lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density/Relative density: 0.894 g/ml

Solubility: Emulsifies 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 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: Will not occur.

Conditions to Avoid: Extreme heat or exposure to flames. Avoid moisture.

Incompatible Materials: Strong oxidizers, strong bases, strong reducing agents.

Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Based on experimental data

Oral LD₅₀ (24h) 665.82 mg/kg rat.

Dermal LD₅₀ > 5000 mg/kg rat/rabbit.

Inhalation LC₅₀ (4h) > 5.0 mg/l rat.

Skin Irritation/Corrosion: Causes skin irritation.

Eye Damage/Irritation: Causes serious eye damage.

Skin Sensitization: May cause an allergic skin reaction.

Respiratory Sensitization: There was no mortality during studies, but the product is anticipated to be harmful when inhaled.

Reproductive cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Suspected of damaging fertility or the unborn child.

Specific target organ toxicity – single exposure: May cause drowsiness or dizziness.

Specific target organ toxicity – repeated exposure: May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: May be fatal if swallowed and enters airways.

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

Ingestion: Harmful if swallowed.

12. ECOLOGICAL INFORMATION

This product is considered a marine pollutant.

ECOTOXICITY DATA:

Clethodim

Fish:

LC ₅₀ (96 h)	Rainbow trout	>67 mg/l
	Bluegill sunfish	>120 mg/l

Daphnia:

EC ₅₀ (48 h)		>120 mg/l
NOEC (48 h)		>60 mg/l

Algae:

EC ₅₀ (5 d)	Freshwater algae	57.8 mg/l
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Birds:

LD ₅₀	Mallard ducks	>6000 mg/kg
	Bobwhite quail	>5000 mg/kg diet

Bees:

LD ₅₀ (48h)		>100 µg/bee
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Worms:

LC ₅₀		>454 mg/kg soil
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Haloxypop-P-methyl

Fish:

LC ₅₀ (96 h)	Rainbow trout	>0.46 mg/l
	Bluegill sunfish	>0.0884 mg/l

Daphnia:

EC ₅₀ (48 h)		>12.3 mg/l
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Algae:

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EC ₅₀ (5 d)	<i>Navicula pelliculosa</i>	1.72 mg/l
Birds:		
LD ₅₀	Bobwhite quail	>414 mg/kg
Bees:		
LD ₅₀ (48h)		>100 µg/bee
Worms:		
LC ₅₀ (14d)		>1343 mg/kg soil
Other aquatic organisms:		
EC ₅₀ (14d)	Lemna minor	3.1 mg/l

ENVIRONMENTAL EFFECTS:

Clethodim

Animals: Metabolised to the sulfoxide and sulfone.

Plants: Metabolised to the sulfoxide, sulfone and S-methyl sulfoxide

Persistence and degradability: Aerobic DT₅₀ in soil 1–3 d. K_d 0.08–1.6 (5 soil types).

Bio-accumulative potential: Not determined.

Mobility in soil: Not determined.

Other adverse effects: Not determined.

Haloxypop-P-methyl

Animals: In both ruminants and chickens. >95 % of the applied dose was excreted.

Plants: Not significantly metabolised. Forms conjugates with glucose and other sugars.

Persistence and degradability: Primary degradation in soil is microbial and proceeds via cleavage of the aryloxy bridge to two metabolites; a minor metabolite results from hydrolysis of the propionic acid side-chain; ave. DT₅₀

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 product residues. Do not re-use the empty container for any other purpose. Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter **RINSE THE EMPTY CONTAINER THREE TIMES** in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. 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: 3082

ROAD TRANSPORT DR/IRD:

Class: 9
Packaging group: III
Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S
(Haloxypop-P-methyl 75 g/l + Clethodim 150 g/l)

Maritime Transport IMDG/IMO:

Class: 9
Packaging group: III
Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S
(Haloxypop-P-methyl 75 g/l + Clethodim 150 g/l)

Air Transport ICAO/IATA:

Class: 9
Packaging group: III
Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S
(Haloxypop-P-methyl 75 g/l + Clethodim 150 g/l)

Marine Pollutant (Y/N): Yes

Special/Environmental Precautions: Wedge drums tightly to avoid movement.

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

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16: OTHER INFORMATION

Packaging: Packed in 1, 5, 10, 20, 25, 50, 100, 200 litres plastic containers, labelled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:

H302: Harmful if swallowed.

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.