

LOUPE 420 SC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: LOUPE 420 SC
Other identifier: Tembotrione 420 SC
Recommended use: Herbicide
Restrictions on use: Agriculture

Supplier: Universal Crop Protection (Pty) Ltd.
Co. Reg. No.: 1983/008184/07
 65 Botes Road, Glen Marais,
 Kempton Park, 1619, South Africa

Telephone: (011) 3962233
Fax: (011) 3964666
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		
Skin Sensitizer	Skin Sensitization 1	H317
Reproductive Toxicity	Reproductive toxicity 2	H361
Specific Target Organ Toxicity Repeated Exposure	STOT RE 2	H373
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 cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. May cause damage to the eyes, kidneys and liver through prolonged or repeated exposure.

Label elements:



Signal word: Warning.

Hazard statements:

H317: May cause an allergic skin reaction.
 H361d: Suspected of damaging fertility or the unborn child.
 H373: May cause damage to the eyes, kidneys and liver 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.
 P261: Avoid breathing mists, vapours or spray.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P273: Avoid release into the environment.
 P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
 P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.
 P318: IF exposed or concerned, get medical advice.
 P319: Get medical help if you feel unwell.
 P321: See specific treatment on this label.
 P333+P317: If skin irritation or rash occurs: Get medical help.
 P391: Collect spillage.
 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: Unclassified.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Tembotrione TC	335104-84-2	42%	Skin Sensitization 1 (H317) STOT RE 2 (eyes, kidneys, liver) (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

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			Reproductive toxicity 2 (H361)
Isoxadifen-ethyl	163520-33-0	21%	Acute Toxicity 4 (H302) Skin Sensitization 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Ethanediol	107-21-1	<5%	Acute Toxicity 4 (H302)

Specific hazards: Thermal decomposition can lead to the release of hydrogen chloride, hydrogen fluoride, nitrogen oxide and carbon monoxide.

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.

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. If exposed or concerned, get medical advice.

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. **Obtain medical attention if irritation or rash occurs.**

Eyes: Flush eyes with clean water for at least 15 – 20 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. If the person is alert, rinse mouth thoroughly with water.

Anticipated acute effects: May cause an allergic skin reaction.

Anticipated delayed effects: Suspected of damaging fertility or the unborn child.

May cause damage to the eyes, kidneys and liver through prolonged or repeated exposure.

Most important symptoms/effects: None known.

Advice to physician: There is no specific antidote. Treat symptomatically and supportively as and when required.

5. FIRE-FIGHTING MEASURES

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

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

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with skin. Do not breathe in mists, vapours or spray. 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 with 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 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 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 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. Add the solution to the drums already collected. Open burning or dumping of this material is prohibited. See section 13 for disposal considerations.

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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. 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. Avoid excess heat. Not to be stored next to foodstuffs, feed and water supplies. 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: 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: Employees must wear protective gloves to prevent against skin contact.

Eye Protection: This product should not have an adverse effect on the eye under normal usage, but as a safety precaution, chemical safety goggles could be worn to prevent against eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: Employees must wear appropriate protective clothing, boots, hat and 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 eye wash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off-white viscous liquid.

Odour: Unspecified.

pH (1% aqueous dilution): 4.1

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not available.

Flammability: Not available.

Upper/lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density: 1.56 g/cm³.

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 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: Unlikely to occur.

Conditions to Avoid: None known.

Incompatible Materials: None known.

Hazardous Decomposition Products: Alcohols. carbon monoxide and carbon dioxide may form under burning conditions or with incomplete combustion.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Calculated according to GHS.

Oral LD₅₀ (24 h) >6700 mg/kg (rat).

Dermal LD₅₀ (24h) > 5300 mg/kg (rat).

Inhalation LC₅₀ (4 h) >13 mg/l (rat).

Skin Irritation/Corrosion: Not classified.

Eye Damage/Irritation: Not classified.

Skin Sensitization: May cause an allergic skin reaction.

Respiratory Sensitization: Not classified.

Reproductive cell mutagenicity: Not classified.

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Carcinogenicity: Not classified.
Reproductive toxicity: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity – single exposure: Not classified.
Specific target organ toxicity – repeated exposure: May cause damage to the eyes, kidneys and liver through prolonged or repeated exposure.
Aspiration hazard: Not classified.
Chronic Effects: Not classified.
POTENTIAL ADVERSE EFFECTS:
Inhalation: Not classified.
Skin contact: May cause an allergic skin reaction.
Eye contact: Not classified.
Ingestion: Do not ingest.

(geometric mean 13.7 d). In water/sediment systems, mean DT₅₀ for dissipation from the water phase is 14 d.
Bio-accumulative Potential: Following application to rats, tembotrione is well absorbed, with >96% recovered, primarily in urine and faeces (males) and in urine (females), within 24 h. Metabolism is by hydroxylation of the cyclohexyl ring.
Mobility in soil: Not determined.
Other adverse effects: Not determined.

12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic organisms and may cause long lasting effects in the aquatic environment.

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.

12. ECOTOXICITY DATA:

Based on the active ingredient: Tembotrione

Fish:
 oral LC₅₀ (96 h) Rainbow trout >100 mg/ℓ.

Algae:
 E_bC₅₀ (96 h) *Pseudokirchneriella* 0.38 mg/ℓ,
 E_rC₅₀ (96 h) *subcapitata* 0.75 mg/ℓ

Birds:
 Oral LD₅₀ Bobwhite quail >2250 mg/kg.
 Dietary LC₅₀ Bobwhite quail >5620 mg/kg

Bees:
 (LD₅₀, mg/bee) (oral) >93 µg/bee.
 (72 h) (contact) >100 µg/bee.

Worms:
 LC₅₀ (14 d) *Eisenia fetida* 1000 mg/kg soil.

Other aquatic species:
 E_rC₅₀ (7 d) *Lemna gibba* 0.008 mg/ℓ
 E_bC₅₀ (7 d) *Lemna gibba* 0.006mg/ℓ

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 ADR/IRD:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Tembotrione 420 g/ℓ)

Maritime Transport IMDG/IMO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Tembotrione 420 g/ℓ)

Marine Pollutant (Y/N): Yes

Air transport IATA/ICAO:
 Class: 9
 Packaging group: III

ENVIRONMENTAL EFFECTS:

Plants: Rapidly metabolized, mainly by stepwise hydroxylation of the cyclohexanedione ring, followed by cleavage at the hydroxylated ring, resulting in the formation of the corresponding substituted benzoic acid.

Persistence and degradability: Tembotrione is rapidly degraded in aerobic soils, DT₅₀ 4-56 d

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UN Proper Shipping Name: ENVIRONMENTALLY
 HAZARDOUS
 SUBSTANCE, LIQUID, N.O.S
 (Tembotrione 420 g/l)

Special/Environmental Precautions: None known.
Transport in bulk: Refer to MARPOL 73/78, Annex II and the IBC code.

END OF DOCUMENT

Compiled: October 2023
Reviewed: June 2025
Revision no.: (2)
Next revision date: June 2025

For detailed information on revisions, contact the Registration holder.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:
 OSHA 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 200, 250, 500 millilitres and 1, 2, 5, 10, 20, 25 and 50 litres plastic containers and 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.