

ALPHA-THRIN 100 SC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ALPHA-THRIN 100 SC
Other identifier: ALPHA-CYPERMETHRIN 100 SC
Recommended use: Insecticide
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) 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		
Oral	Acute Toxicity 4	H302
Skin	Skin Irritation 2	H315
Skin Sensitiser	Skin Sensitiser 1	H317
Eye	Eye Irritation 2	H319
Specific Target Organ Toxicity (Single Exposure)	STOT SE 3	H335
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:
 Harmful if swallowed.
 Causes skin irritation.
 Causes serious eye irritation.
 May cause respiratory irritation.
 May cause an allergic skin reaction.

May cause damage to organs through prolonged or repeated exposure.

Label elements:



Signal word: Warning

Hazard statements:

H302: Harmful if swallowed.
 H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H319: Causes serious eye irritation.
 H335: May cause respiratory irritation.
 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:

P260: Do not breathe dust, fume, gas, mist, vapours and spray.
 P264+P265: Wash hands and face thoroughly after handling. Do not touch eyes.
 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 impervious rubber gloves and boots, protective clothing and chemical safety goggles.
 P301+P317: IF SWALLOWED: Get medical help.
 P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
 P319: Get medical help if you feel unwell.
 P330: Rinse mouth
 P332+P317: If skin irritation occurs: get medical help.
 P333+P317: If skin irritation or rash occurs: Get medical help.
 P337+P317: If eye irritation persists: Get medical help.
 P362+P364: Take off contaminated clothing and wash it before reuse.
 P391: Collect spillage.
 P403+P233: Store in a well-ventilated place. Keep container tightly closed.
 P405: Store locked up.
 P501: Dispose of contents/container in accordance with local regulations.
Other hazards:
 None known.

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Toxicity:

Classification according to GHS: Category 4

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Composition:

Chemical name	CAS	Conc. (m/m %)	Classification EC 1272/2008
Alpha-cypermethrin (Technical 97%)	67375-30-8	14.31 %	Acute Toxicity 3 (301) STOT SE 3 (H335) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Mono Ethylene Glycol	107-21-1	< 20%	Acute Toxicity 4 (302)
Synperonic NP9	9016-45-9	< 5%	Acute Toxicity 4 (302) Skin Irritation 2 (H315) Eye Irritation 2 (H319) Aquatic Chronic 2 (H411)
Proxel GXL	2634-33-5	< 5%	Acute Toxicity 4 (H302) Skin Irritation 2 (H315) Eye Damage 1 (H318) Skin Sensitization 1 (H317) Aquatic Acute 1 (H400)

4. FIRST AID MEASURES

Pyrethroids can induce burning, itching, or tingling sensations, typically in the face, and less frequently in other regions of the skin and readily disappear within several hours or 1 day after exposure. Nasal discharge and a scratchy throat from inhalation, ataxia, urinary incontinence, convulsions, nervous irritability, and tremors may also appear.

Sweating and washing with warm water can exacerbate these abnormal sensations. Transient red papules, congestion and oedema of the skin are occasionally seen. The systemic symptoms in mild cases include dizziness, headache, nausea, anorexia, and fatigue, or with signs of listlessness, vomiting and increased stomach secretion, usually resulting in sick leave for more than 1 day.

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.

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

Skin: Remove contaminated clothing, shoes, and leather goods. Wash skin gently and thoroughly with cold water and non-abrasive soap. Application of olive oil to the affected area will afford prompt relief. After the affected area is washed with soap and water, dry off and apply olive oil.

Eyes: Immediately flush eyes with a stream of clean water for at least 15-20 minutes, holding the eyelid(s) open. Obtain medical attention if irritation persists. **Seek medical attention.**

Ingestion: Seek medical attention or call a poison control centre for treatment advice. **Do not induce vomiting.** Do not give anything by mouth. Obtain medical attention. If the person is alert, rinse mouth thoroughly with water.

Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.

Anticipated acute effects:

Harmful if swallowed

Anticipated delayed effects: None known.

Most important symptoms / effects: None known.

Advice to physician: There is no specific antidote available.

In cases of ingestion, consider gastric lavage with water, or 5% sodium bicarbonate solution. Treatment should be symptomatic. Convulsions should be treated with anti-convulsants. Vomiting may be induced by using Ipecac Syrup.

Over-exposure may cause local irritation of the skin (burning sensation on the face and elsewhere) and irritation of the respiratory tract causing rhinorrhoea, chest tightness or dyspnoea.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock but avoid water coming in contact with the product. Use as little water as possible. Use spray or fog. Solid stream may cause spreading. Contain water used for firefighting

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for later disposal. Avoid the accumulation of polluted run-off from the site.

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

Specific hazards:

Flash point: None – water based. This material is not flammable.

Hazardous products of combustion: Fire may produce irritating or poisonous vapours (toxic fumes of hydrogen cyanide, chlorine, and oxides of nitrogen and carbon), mists or other products of combustion.

Special fire-fighting procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Use a recommended extinguishing agent for the type of surrounding fire.

Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Remain upwind of fire. 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: Fire may produce irritating or poisonous vapours (toxic fumes of hydrogen cyanide, chlorine, and oxides of nitrogen and carbon), mists or other products of combustion. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin and eyes. **Do not breathe in spray mist or vapours.** 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. Add the following where aquatic tox is flagged: This product is classified as very 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: For small liquid spills, soak up with lime, damp earth or sand, or other non-

combustible absorbent material and place into containers for later disposal. For large liquid spills, contain the liquid for later disposal.

Place the material into a clean, dry container and cover for subsequent disposal. All contaminated cleaning materials should be placed in closable receptacles with clear label.

In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Keep spectators away.

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: Handle with care. 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. Use with adequate ventilation. Keep containers closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high-water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

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 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 and avoid excess heat. 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: Product is incompatible with strong acids, oxidizers and copper.

Packaging material: Plastic containers.

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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Permissible concentration: No occupational exposure limits have 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: The use of chemically protective 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.

Skin and Body Protection: Employees must wear appropriate protective impervious clothing, rubber 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 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: White homogeneous flowable liquid suspension.

Odour: Weak aromatic odour.

Odour threshold: Not available.

pH (1% aqueous dilution): 6.3 (1% m/v solution).

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not available.

Flammability: Not flammable.

Upper / lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density / Relative density: 1,031 g/ml @ 20°C.

Solubility: Forms a suspension with water.

n-octanol / water partition coefficient: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

Oxidizing properties: None.

Materials to Avoid: Plain mild steel, tinplate or other metal packaging.

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: Can be decomposed in strong alkaline solution.

Possibility of hazardous reactions: Unlikely to occur.

Conditions to avoid: Extreme heat or exposure to flames.

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

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 (24h) 393.50 mg/kg (rat)

Dermal LD₅₀ 12960.52 mg/kg (rabbit)

Inhalation LC₅₀ (4h) > 9.29 mg/l (rat)

Skin Irritation: Causes skin irritation.

Eye Damage / Irritation: Causes serious eye irritation.

Skin Sensitization: May Cause an allergic skin reaction.

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: May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Not available.

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

Oral: Harmful if swallowed.

Inhalation: Respiratory irritation.

Eye contact: Causes serious eye irritation

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Other information: Not available.

12. ECOLOGICAL INFORMATION

This product is expected to be very toxic to aquatic organisms and is considered a marine pollutant.

ECOTOXICITY DATA:

Active ingredient: Alpha-cypermethrin

Fish:

LC ₅₀ (96 h)	Rainbow trout	2.3 x 10 ⁻³ mg/l
	Caspian roach	6.27 x 10 ⁻⁴ mg/l

Daphnia:

EC ₅₀ (48h)		2.2 x 10 ⁻⁴ mg/l
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Algae:

E _r C ₅₀ (96h)	<i>Navicula pelliculosa</i>	> 0.0703 mg/l
	<i>Skeletonema costatum</i>	> 0.0344 mg/l

Birds:

Acute oral	Bobwhite quail	> 2025 mg/kg
LD ₅₀	Zebra finch	1360 mg/kg

Dietary		> 5000 mg/kg
LD ₅₀ (8d)	Bobwhite quail diet	

Bees:

LD ₅₀ contact		0.03 µg/bee
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LD ₅₀ oral		0.246 µg/bee
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Worms:

LC ₅₀	Earthworms	> 100 mg/kg soil
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ENVIRONMENTAL EFFECTS

Based on information for the active ingredient

Plants: Not determined.

Persistence and degradability: Not determined.

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. 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's to the contents of the spray tank before destroying the container in the prescribed manner. 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

This product is considered a marine pollutant.

UN Number: 3082

Road Transport ADR / ORD:

Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally hazardous substance, liquid, N.O.S. (Alpha cypermethrin 100 g/l)

Maritime Transport IMDG / IMO:

Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally hazardous substance, liquid, N.O.S. (Alpha cypermethrin 100 g/l)

Marine pollutant (Y/N): Y

Air Transport IATA / ICAO:

Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally hazardous substance, liquid, N.O.S. (Alpha cypermethrin 100 g/l)

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

Transport in bulk: Refer to MARPOL 73/78, Annex II and the IBC code.

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 50, 100, 200, 250, 500 ml and 1, 5, 10, 20 and 25 litres plastic containers labelled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:

H301: Toxic if swallowed.

H318: Cause serious eye damage.

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.