

ANTSET 200 SC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ANTSET 200 SC
Other identifier: Fipronil / Lambda-cyhalothrin 200 SC
Recommended use: Insecticide
Restrictions on use: Agriculture, Small-scale farming

Registration holder: 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
Health		
Oral	Acute Toxicity 4	H302
Dermal	Acute Toxicity 5	H313
Inhalation	Acute Toxicity 4	H332
Specific Target Organ Toxicity - Repeated Exposure	STOT RE 1	H372
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.
May be harmful in contact with skin.
Harmful if inhaled.
Causes damage to organs (central nervous system) through prolonged or repeated exposure.

Label elements:



Signal word: Danger.

Hazard statements:

H302: Harmful if swallowed.
H313: May be harmful in contact with skin.
H332: Harmful if inhaled.
H372: Causes damage to the central nervous system 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 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 or in a well-ventilated area.
P273: Avoid release into the environment.
P301+P302+P304+P317: IF SWALLOWED, INHALED OR ON SKIN: Get medical help.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P319: Get medical help if you feel unwell.
P330: Rinse mouth.
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.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

Chemical Name	CAS	Conc. (m/m %)	Classification EC 1272/2008
Fipronil (95% Tech)	120068-37-3	17.5 %	Acute Toxicity 3 (H301) Acute Toxicity 3 (H311) Acute Toxicity 2 (H330) STOT RE 1

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			(H372) (central nervous system) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Lambda-Cyhalothrin (94% Tech)	91465-08-6	1.75 %	Acute Toxicity 3 (H301) Acute Toxicity 4 (H312) Acute Toxicity 2 (H330) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Ethoxylated Isodecyl Alcohol	61827-42-7	<1 %	Acute Toxicity 4 (H302) Eye Damage 1 (H318)
Ethylene glycol	107-21-1	<5 %	Acute Toxicity 4 (H302)
Proxyl GXL	2634-33-5 1310-73-2	<1 %	Acute Toxicity 4 (H302) Skin Irritation 2 (H315) Eye Damage 1 (H318) Skin Sensitization 1 (H317) Aquatic Acute 1 (H400) Skin Corrosion 1A (H314)

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 if symptoms persist consult a doctor.

Inhalation: If vapours or mists have been inhaled, move victim to fresh air and remove source of contamination if safe to do so. The patient should be kept under observation. **Seek medical attention.**

Skin: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **Seek medical attention.**

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 if irritation persists.

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: Harmful if swallowed. May be harmful in contact with skin. Harmful if inhaled.

Anticipated delayed effects: Causes damage to the central nervous system through prolonged or repeated exposure.

Most important symptoms/effects: None known.

Advice to physician: Fipronil is a reversible gamma-aminobutyric (GABA) receptor inhibitor. During intoxication it will reduce neurological stimulation with possible convulsions. Treat symptomatically. No specific antidote known. Phenobarbital and to a lesser extent, benzodiazepines, have been shown experimentally to be effective in preventing convulsions induced by Fipronil. Due to slow absorption of Fipronil through the gut, symptoms of intoxication may be delayed several hours to one day. Absorption may be decreased by the use of gastric lavage, saline purgative and activated charcoal (possible enterohepatic recirculation). Continue monitoring due to slow absorption.

Lambda-cyhalothrin may cause severe pneumonitis if aspirated. In cases of ingestion, consider gastric lavage, however, prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Treat symptomatically and supportively.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fires with carbon dioxide, dry powder, water 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.

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Harmful if swallowed. Avoid contact with skin. Do not breathe in spray mist. 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 and will cause 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 silica gel.

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 (i.e. organic solvent, detergent bleach or caustic). 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: Harmful if swallowed. 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 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. 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: Refer to product label.

Packaging material: Plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration:

Components	Exposure limits	Type of exposure limit	of	Source
Sodium hydroxide	(C) 2 mg/m ³	TWA (8 hours)	(8)	OSHA PEL

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: The use of appropriate protective clothing, boots, hat and equipment is recommended 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: Suspension concentrate (White to off-white).

Odour: Slight odour / Pesticide typical.

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pH (1% aqueous dilution): 6.0 to 7.0.
Melting point: Not available.
Freezing Point: Not available.
Boiling Point: Not available.
Flash Point: Not applicable.
Flammability: Not Flammable.
Upper/lower explosion limits: Not explosive.
Vapour Pressure (mm Hg): Not available.
Relative Vapour Density: Not available.
Density: 1.095 mg/ℓ.
Solubility: Forms a suspension.
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: Extreme heat or exposure to flames.

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

Hazardous Decomposition Products: Toxic thermal decomposition may include oxides of carbon, sulphur and nitrogen and compounds of chlorine and fluorine.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS.

Oral LD₅₀ (24 h) >400 mg/kg (rat)

Dermal LD₅₀ >2000 mg/kg (rabbit)

Inhalation LC₅₀ (4 h) >1.4 mg/ℓ (rat)

Skin Irritation/Corrosion: Not classified.

Eye Damage/Irritation: Not classified.

Skin Sensitization: Not classified.

Respiratory Sensitization: Not classified.

Reproductive cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Not classified.

Specific target organ toxicity – single exposure: Not classified.

Specific target organ toxicity – repeated exposure:

Causes damage to central nervous system through prolonged or repeated exposure.

Aspiration hazard: Not classified.

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

Inhalation: Harmful if inhaled.

Skin contact: May be harmful in contact with skin.

Eye contact: None known.

Ingestion: Harmful if swallowed.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA: Active ingredient

Fish:

Fipronil

Acute LC ₅₀ (96 h)	Bluegill sunfish	0.085 mg/ℓ
	Rainbow trout	0.248 mg/ℓ
	European carp	0.43 mg/ℓ

Lambda-cyhalothrin

LC ₅₀ (96 h)	Bluegill sunfish	0.21 µg/ℓ
	Rainbow trout	0.36 µg/ℓ
	Channel catfish	0.16 µg/ℓ
	Zebrafish	0.64 µg/ℓ
	Fathead minnows	0.70 µg/ℓ

Daphnia:

Fipronil

LC ₅₀ (48 h)	0.19 mg/ℓ
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Lambda-cyhalothrin

EC ₅₀ (48 h)	0.23 µg/ℓ
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Algae:

Fipronil

EC ₅₀ (96 h)	<i>Scenedesmus subspicatus</i>	0.068 mg/ℓ
EC ₅₀ (120 h)	<i>Selenastrum capricornutum</i>	>0.16 mg/ℓ
	<i>Anabaena flos-aquae</i>	>0.17 mg/ℓ

Lambda-cyhalothrin

EC ₅₀ (96 h)	<i>Selenastrum capricornutum</i>	>1.0 mg/ℓ
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Birds:

Fipronil

Acute oral LD ₅₀	Bobwhite quail	11.3 mg/kg
	Mallard ducks	>2000 mg/kg
	Pheasants	31 mg/kg

	Red-legged partridges	34 mg/kg
	House sparrows	1120 mg/kg
	Pigeons	>2000 mg/kg
Dietary LC ₅₀ (5 d)	Bobwhite quail	49 mg/kg diet
	Mallard ducks	>5000 mg/kg diet

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Lambda-cyhalothrin

Acute oral LD ₅₀	Mallard ducks	>3950 mg/kg
Dietary LC ₅₀	Quail	>5300 mg/kg

Bees:

Fipronil

Highly toxic to honeybees, both by direct contact and by ingestion. However, no risk to bees when used as a soil or seed treatment.

LD ₅₀ (oral)	0.00417 µg/bee
LD ₅₀ (contact)	0.00593 µg/bee

Lambda-cyhalothrin

LD ₅₀ (oral)	0.909 µg/bee
LD ₅₀ (contact)	0.038 µg/bee

Worms:

Lambda-cyhalothrin

LC ₅₀	<i>Eisenia fetida</i>	>1000 mg/kg soil
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Plants:

Fipronil

When applied as an incorporated soil treatment to cotton, maize, sugar beet or sunflowers, uptake of fipronil into plants in all cases was low (c. 5%). At crop maturity, the major residue components observed in all plants were fipronil, the sulfone, and the amide. Following foliar application to cotton, cabbage, rice and potatoes, at crop maturity, fipronil and the photodegrade were the major residue components.

Lambda-cyhalothrin

For details of metabolism of lambda-cyhalothrin in cotton and soya bean leaves, see D.A. French & J. P. Leahey, *Proc. Br. Crop Prot. Conf. – Pests Dis.*, 1990, **3**, 1029-1034.

ENVIRONMENTAL EFFECTS:

Persistence and degradability:

Fipronil

Results of lab, and field studies: Readily degraded; major degradates in soil (aerobic) are sulfone and amide, (anaerobic) are sulfide and amide. Photolysis of soil-applied fipronil gives the photodegrade together with sulfone and amide.

Lambda-cyhalothrin

Rapidly degraded in soil; DT₅₀ under lab. conditions 23-82 d, in the field 6-40 d. Rapid dissipation from water in aquatic systems. DT₅₀ for dissipation from surface waters in lab. Water-sediment systems 5-11 h; in a microcosm, DT₅₀ <3 h. Rapid and extensive degradation of parent compound in aquatic systems; DT₅₀ for degradation in lab. Water-sediment systems 7-15 d; in a microcosm, DT₅₀ <3h, DT₉₀ <3 d.

Bio-accumulative Potential:

Fipronil

Log K_{ow} 4.0. Once absorbed in rats, the distribution and metabolism of fipronil is rapid. Elimination is mainly via the faeces as fipronil and its sulfone.

Lambda-cyhalothrin

Log K_{ow} 5.5. In rats, following oral administration, the compound is rapidly eliminated in urine and faeces.

Mobility in soil:

Fipronil

K_{oc} 427 (Speyer 2.2) to 1248 (sandy loam). Both fresh and aged column leaching studies (5 soils) indicate that fipronil and its metabolites present a low risk of downward movement in soil; this is supported by field dissipation studies. Following soil incorporated in-furrow granular applications, quantifiable residues were confined to the top 30 cm of soil, with no significant lateral movement or residues.

Lambda-cyhalothrin

Strongly adsorbed to soil and sediment organic matter, K_{oc} 330 000. Negligible potential for leaching of lambda-cyhalothrin and its degradation products through 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. 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 ADR/IRD:

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Class: 9
 Packaging group: III
 UN Proper Shipping Name: ENVIRONMENTALLY
 HAZARDOUS SUBSTANCE,
 LIQUID, N.O.S
 (Fipronil + Lambda-
 cyhalothrin 200 g/l)

Maritime Transport IMDG/IMO:

Class: 9
 Packaging group: III
 UN Proper Shipping Name: ENVIRONMENTALLY
 HAZARDOUS SUBSTANCE,
 LIQUID, N.O.S
 (Fipronil + Lambda-
 cyhalothrin 200 g/l)

Marine Pollutant (Y/N): Yes, Considered a marine pollutant.

Air transport IATA/ICAO:

Class: 9
 Packaging group: III
 UN Proper Shipping Name: ENVIRONMENTALLY
 HAZARDOUS SUBSTANCE,
 LIQUID, N.O.S
 (Fipronil + Lambda-
 cyhalothrin 200 g/l)

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:

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

Additional H-statement (s) (formulants)

H301: Toxic if swallowed.

H311: Toxic in contact with skin.

H312: Harmful in contact with skin.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H330: Fatal if inhaled.

H331: Toxic if inhaled.

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

Compiled: December 2017

Reviewed: May 2022

Revision no.: (4)

Next revision: May 2027

For detailed information on revisions, contact the Registration holder.