

KOMBAT GARDEN INSECTS

Version: 1.2

Revision Date: December 2016



1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY UNDERTAKING:

PRODUCT INFORMATION

Product Name : KOMBAT GARDEN INSECTS
Design Code :
Registration No. : L8502, Act No. 36 of 1947
Use : Insecticide
Company : Kombat (Pty) Ltd
39 Dr. Gordon Road
Greytown
3250
Telephone : +27-33-417-1906/7



Harmful



Dangerous for the environment

EMERGENCY TELEPHONE NUMBERS

SPILLAGES:

Emergency telephone: +27-82-446-8946 (all hours)

POISONING INCIDENTS:

Poison Information Centre of the Western Cape: +27-861-555-777 (all hours)
Griffon Poison Information Centre +27-82-446-8946 (all hours)
UFS Pharmacology/Toxicology information centre: +27-82-491-0160

2. HAZARD IDENTIFICATION

Toxicity class:

WHO III CAUTION

A medium toxicity pesticide.

Likely routes of exposure:

Skin contact, absorption, and vapour/mist inhalation

Skin:

Causes moderate skin irritation especially on the facial area around the eyes and nose. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Eye:

Irritation, may cause redness, pain and blurred vision.

KOMBAT GARDEN INSECTS

Version: 1.2

Revision Date: December 2016

**Ingestion:**

The toxin is a central nervous system stimulant and an allergen; may cause numbness of lips and tongue, tremors, nausea, vomiting, diarrhoea, headache, convulsions and respiratory distress.

Inhalation:

Irritation, soreness of respiratory tract; distress.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name:	Deltamethrin
Chemical Name:	(S)- α -cyano-3-phenoxybenzyl (1R,3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC)
CAS No.:	52918-63-5
Chemical family:	Pyrethroid
Chemical formula:	$C_{22}H_{19}Br_2NO_3$
Molecular weight:	505.2
Use:	A stomach and contact insecticide for the control of harvest termites, lawn caterpillars, garden insects, cockroaches and various insect pests in the home and gardens.
Formulation:	deltamethrin (pyrethroid):10 g/kg, suspension concentrate
Active ingredients:	deltamethrin (pyrethroid)
Symbol:	X _n , Xi, N
Indication of danger:	Harmful if swallowed, irritant, environmentally dangerous
Risk Phrases:	R23/24/25, R36/37/38, R51, R55

4. FIRST- AID MEASURES**Eye:**

Hold eyelids open and flush with steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Skin:

Wash with plenty of soap and water. Seek medical attention.

Ingestion:

Call a doctor or poison information center and get medical attention. Do not administer anything by mouth to an unconscious person.

Inhalation:

Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

Note to Physician:

No specific antidote known. Probable muscular damage may contraindicate the use of gastric lavage. Deltamethrin may cause anaphylactic reactions.

KOMBAT GARDEN INSECTS

Version: 1.2

Revision Date: December 2016



5. FIRE-FIGHTING MEASURES

Fire and explosion hazard:

Flash point: Not applicable

This material is not flammable.

Extinguishing agents:

For large fires, use foam, water, move containers from fire area if within risk. Cool containers with water from maximum distance.

Hazardous products of combustion:

Deltamethrin decomposes in a fire to emit toxic fumes of Br, CN and NOx

Fire fighting Instructions:

Isolate hazard area. Avoid inhalation of smoke and fumes. Use water or foam to reduce fumes. Do not touch spilled material. Avoid release of extinguishing water into the environment.

Personal protective equipment:

Fire may produce irritating or poisonous vapours (toxic fumes of carbon monoxide, phosphorous oxides and nitrogen oxides), 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 or fumes. For personal protection see Section 8.

Environmental precautions:

Do not allow entering of drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

Occupational spill:

Remove all sources of flames and sparks For dry spills, shovel up and sweep up with damp earth or sand or other suitable absorbents, taking care not to raise a dust cloud. Place the material into a labelled, clean, dry container and store in a safe place to await proper disposal. All contaminated cleaning materials should be placed in closable receptacles. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Do not contaminate water while cleaning equipment or disposing of wastes. Keep spectators away and upwind.

7. HANDLING AND STORAGE

Handling:

Avoid contact with eyes, prolonged contact with skin, and inhalation of spray and fumes. Handle product with caution. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Remove clothing immediately if the herbicide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing.

KOMBAT GARDEN INSECTS

Version: 1.2

Revision Date: December 2016



Operators should change and wash clothing after use. Do not apply directly to areas where surface water is present, or to inertial areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage:

Store in its original, labelled and closed container in dry, cool, shaded, well-ventilated area, away from heat, sparks and other sources of ignition. Do not store with other pesticides, fertilizer, seeds, foodstuffs and water supplies. Store away from incompatible substances. Product is incompatible with galvanized steel or unlined mild steel. Keep out of reach of unauthorized persons, children and animals. Local regulations should be complied with.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT:

If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

Respirator:

It is usually safe to use the product without a respirator. If the product is used in dusty or confined conditions, a mask or respirator suitable for protection from dusts and mists of pesticides is adequate. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

Clothing:

Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

Gloves:

Employee must wear appropriate synthetic protective gloves to prevent contact with this substance.

Eye protection:

Wear safety goggles or face shield.

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 (ACTIVE INGREDIENT)

Appearance: Colourless crystals

Relative density:

Bulk density: 0.55 g/ml (25°C)

Solubility in water: < 0,2 µg/l (25 °C)

Flash point: Not applicable

KOMBAT GARDEN INSECTS

Version: 1.2

Revision Date: December 2016



pH: 4.24

10. STABILITY AND REACTIVITY

Stability:

Stable under normal temperatures and pressures.

Dilution stability:

Stable in aqueous solutions at 20 °C.

Storage stability:

Stable for 2 years under normal warehouse conditions. Store at temperatures below 40 °C and above 0 °C. Stable to light.

Incompatibility:

Product is relatively stable. Do not mix with any other products

Thermal decomposition:

Toxic oxides of carbon, hydrogen bromide and hydrogen cyanide are released when the product decomposes on heating.

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀:

Rat: 87 – 5,000 mg/kg depending on carrier medium

Acute dermal LD₅₀:

Rat: >2000 mg/kg

Inhalation LC₅₀ :

Rat: 0.6 mg/16h

Acute skin irritation:

Not irritating to skin (rabbit). Not skin sensitizer.

Acute eye irritation:

Moderately irritating to eyes

Carcinogenicity:

Animal studies did not detect any carcinogenic effects. Deltamethrin is a IARC Class 3 compound

Teratogenicity:

Deltamethrin was not teratogenic to rats or rabbits.

Mutagenicity:

Deltamethrin was non-genotoxic in a battery of in vitro and in vivo genotoxicity assays.

12. ECOLOGICAL INFORMATION

Degradability:

Microbes are primarily responsible for breakdown.

Half-life ranges from 1-2 weeks.

KOMBAT GARDEN INSECTS

Version: 1.2

Revision Date: December 2016

**Mobility:**

The product is practically immobile. It is strongly adsorbed to most soils. It does not leach appreciably, and has low potential for runoff.

Accumulation:

The product shows little or no tendency to bio-accumulate and poses no long term threat to wildlife.

ECOTOXICOLOGY: (for deltamethrin tech)**Birds: Slightly toxic.**

LC₅₀: Mallard duck: > 4640 mg/kg diet

LC₅₀: Bobwhite quail: > 5620 mg/kg diet

Fish: Toxic to fish

LC₅₀ (96 hours): Bluegill sunfish: > 1.4 µg/l

Trout: > 0.91 µg/l

Bees: Very Toxic.

LD₅₀ orall: > 79 ng/bee

Algae:

E_bC₅₀ (72 h) for green algae
(*Selenastrum capricornutum*) >9.1 mg/l

Daphnia:

LC₅₀ (48 hours): 3.5 µg/l

Other Beneficial organisms:

Very toxic to *Typhlodromum pyri*, a predatory mite, *Encarsia Formosa*, parasitic wasp and spiders

13. DISPOSAL CONSIDERATIONS**Pesticide disposal:**

Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be re-used or reprocessed. Never pour untreated waste or surplus products 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.

Container disposal:

Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

Empty the container of excess product into the mixing or spray tank of the applicator. Triple rinse container, puncture and dispose of via a licensed plastics recycler. Do not re-use the empty container for any other purpose. Comply with any local legislation applying to disposal.

Prevent contamination of food, feedstuffs, drinking water and eating utensils.

14. TRANSPORT INFORMATION

UN NUMBER: 2902

Road Transport ADNR/IRD: Not dangerous goods

Air Transport ICAO/IATA: Not dangerous goods

Maritime Transport IMDG/IMO: Not dangerous goods

KOMBAT GARDEN INSECTS

Version: 1.2

Revision Date: December 2016



15. REGULATORY INFORMATION

Symbol: Xi, X_n, N
Indication: Toxic Dangerous for the environment.
Risk phrases: R 23/24/25, 36//37/38, 51, 55
Safety phrases: S2, 3, 13, 20/21, 23, 37

16. OTHER INFORMATION

Packaging:

Packed in 1ml, 2ml, 5ml, 10ml, 20ml, 25ml, 50ml, 100ml, 200ml, 250ml, 500ml, 1Lt, 5Lt, 10Lt, 20Lt plastic/Pet containers and labelled according to South African regulations and guidelines.

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.