



MATERIAL SAFETY DATA SHEET

Garden Gun™

Date Issued: June 2014

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Revision: 4

Print Date: 22/11/18

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: NO INSECT OUTDOORS RTU

SUPPLIER: EFEKTO

PO BOX 652147

BENMORE

2010

TEL No. 011 287 5700

EMERGENCY TELEPHONE NUMBERS:

SPILLAGES: 086 199 9071

POISONINGS:

Poisons information Helpline: 0861 555 777 (all hour)

Griffon Poison Centre: 082 446 8946

Use: A long lasting suspension concentrate contact and stomach insecticide for the control of various insects for public health.

2. HAZARDS IDENTIFICATION

- Irritant.
- Very toxic to aquatic organisms.

Likely routes of exposure:

Skin and eye contact, ingestion and inhalation.

Eye contact: The product may cause irritation.

Skin contact: The product is irritating. Short-term dermal exposure may cause itching, burning, tingling, numbness, or a feeling of warmth, but not dermatitis.

Ingestion: Moderately toxic by ingestion.

Inhalation: Harmful by inhalation.

Reproductive hazard/ Carcinogenicity/ Mutagenicity: None.

UN No.: 3082

Symbols: Xn, N

Risk-phrase(s): R20/21/ 22, R50/R53

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredients:

Active ingredients.	CAS No.:	EC No.:
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Deltamethrin 0.2 g/l	52918-63-5	258-256-6
Esbiothrin 1.0 g/l	84030-86-4	
Inerts Balance		

Chemical Name(IUPAC):

(S)- α -cyano-3-phenoxybenzyl (R,3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate) and (S)-3-allyl-2-methyl-4-oxocyclopent-enyl (1R,3R)-2,2-dimethyl-3-(2-methylprop-1-nyl) cyclopropanecarboxylate

Chemical Family: Pyrethroid

Chemical Formula: C₂₂H₁₉Br₂NO₃ [Deltamethrin]

C₁₉H₂₆O₃ [esbiothrin]

NIOSH/RTECS No.: -

4. FIRST-AID MEASURES

Symptoms of exposure to the product include: mucous membrane irritation from inhalation, itching, numbness and burning of the skin, dizziness, headache, nausea, vomiting, gastro-enteritis with diarrhoea, nervousness, anxiety, salivation, inco-ordination, tremors, muscular paralysis, convulsions, coma, and death through respiratory failure. Deltamethrin can induce numbness, itching, tingling, and burning sensations in exposed workers, which develop after a latent period of approximately 30 min, peak by 8 hours, and disappear within 24 hours.

Inhalation:

Remove source of contamination or move victim to fresh air. Keep affected person warm and at rest. Treat symptomatically and supportively. Seek medical advice immediately.

Skin contact:

Remove contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap followed by alcohol. Seek medical advice if necessary. The product is not considered to be a dermal sensitizer, but persons who become sensitized may require specialized medical management with anti-inflammatory agents.

Eye contact:

Immediately flush eyes with gently flowing lukewarm water or saline solution for 20 minutes, holding the eyelid(s) open. Seek medical attention if necessary.

Ingestion:

Seek medical advice immediately. Administration of lavage or oxygen should be performed by qualified medical personnel. Do not administer milk, cream, or other substances containing vegetable or animal fats which enhance absorption of pyrethroids.

Advice to physician:

There is no specific antidote. Treat symptomatically and supportively.

5. FIRE-FIGHTING MEASURES

Fire and explosion hazard:

Product is not flammable.



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Extinguishing agents:

Extinguish small 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. Contain water used for fire fighting for later disposal.

Firefighting:

Remove container from fire area if possible. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Water can be used to cool unaffected containers but must be contained for later disposal. Avoid inhaling hazardous vapours. Keep upwind.

Personal protective equipment:

Fire may produce irritating or poisonous vapours (toxic oxides of 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 inhale fumes. For personal protection see Section 8.

Environmental precautions:

Do not allow to enter drains or water courses. When the product contaminates public waters, inform appropriate authorities immediately in accordance with local regulations.

Occupational spill:

Do not allow the product to come in contact with water systems. For small liquid spills, soak up with sand or other suitable noncombustible absorbent material, and place into containers for subsequent disposal. For large spills, contain liquid far ahead of spill. Contain spillage and contaminated water for subsequent disposal. Do not flush spilled material into drains. Keep spectators away and upwind.

7. HANDLING AND STORAGE

Handling:

Avoid contact with eyes and skin, and inhalation of fumes. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the insecticide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. 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.

Storage:

Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original labelled container in isolated, dry, cool and well-ventilated area. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits:

None established.

Engineering control measures:



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It is essential to provide adequate ventilation. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations. 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.

PERSONAL PROTECTIVE EQUIPMENT:

Respirator:

An approved respirator suitable for protection from dusts and mists of pesticides is required. 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 skin contact with the substance.

Gloves:

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

Eye protection:

The use of safety goggles is recommended.

Emergency eye wash: 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: An off-white clear liquid.

Odour: Slight odour.

Flammability: Not flammable.

Explosive properties: Not explosive.

Flash point: No flash point, it is a water based formulation.

Oxidising properties: None.

pH: 6,0

Density: 1,001 g/ml at 20°C.

10. STABILITY AND REACTIVITY

Storage stability:

Stable for up to 2 years under normal warehouse conditions. Stable to heat (up to 2 years).

Incompatibility:

This product is ready to use. Do not physically mix directly with other herbicides or pesticides.

Thermal decomposition:

Toxic oxides of carbon are produced when the product decomposes on heating.

11. TOXICOLOGICAL INFORMATION

The toxicological data refer to a similar formulation.

Deltamethrin:



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Acute oral LD₅₀: ~5000 mg/kg depending on carrier mg/kg in rats.

Acute dermal LD₅₀: > 2 000 mg/kg in rabbits.

Acute inhalation LC₅₀: >2.2 mg/L of air over 4 hours (rats).

Skin irritation: Slight irritant

Eye irritant: Slight

Teratogenicity

Animal studies did not detect any teratogenic effects.

Mutagenicity:

Animal studies did not detect any mutagenic activity.

Esbiothrin:

Acute oral LD₅₀: 378-432 mg/kg.

Acute dermal LD₅₀: >2000 mg/kg.

Acute inhalation LC₅₀: >2.63 mg/L of air over 4 hours (rats).

Acute skin irritation: Irritating to skin.

Acute eye irritation: Eye irritant.

Dermal sensitisation:

May cause tingling (finger tips and nose), nerve deadening, numbness or pain

Carcinogenicity: Not carcinogenic.

Teratogenicity: Animal studies did not detect any teratogenic effects.

Mutagenicity: Animal studies did not detect any mutagenic activity.

12. ECOLOGICAL INFORMATION

DELTAMETHRIN:

ECOTOXICOLOGY:

Data as for active ingredient.

Birds:

Acute oral LD₅₀: >4640 mg/kg (mallard duck).

Fish:

Deltamethrin is highly toxic to fish under laboratory conditions, but is not toxic to fish under natural conditions.

Deltamethrin had an impact on aquatic herbivorous insects.

This impact led to an increase of algae. Crustacea may be affected.

LC₅₀ (96 hr): 0.91 µg/l (rainbow trout).

Daphnia:

Toxic to *Daphnia magna*.

LC₅₀ (48 h): 0.35 µg/l.

Bees:

Toxic to bees

LD₅₀(oral): 79 ng/bee(contact).

Earthworms(LC₅₀):

28.57 mg.kg soil.

Degradability:

Deltamethrin undergoes microbial degradation within 1-2 weeks. There is strong adsorption by soil colloids and no risk of leaching

ESBIOTHRIN:

Birds LC₅₀ (in food): > 5000 mg/kg



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Toxic to aquatic organisms.

Fish (LC₅₀ 96H) 0,01 mg/l.
Rainbow Trout: 13 µg/l.

Daphnia(EC₅₀ 48h): 0,0089 mg/l.

13. DISPOSAL CONSIDERATIONS

Pesticide disposal:

Dispose of in government approved landfill site.

Contaminated absorbents, surplus product, etc., should be burned in a high- temperature incinerator (> 1000 °C) with effluent gas scrubbing.

Where no incinerator is available, hydrolysis under alkaline conditions (pH 12 or above) is a suitable method to dispose of small quantities of the product. Before disposal of the resultant waste, the material must be analysed to ensure that the active ingredient has been degraded to a safe level. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Comply with local legislation applying to waste disposal.

Package product wastes:

Containers must be triple rinsed before disposal. Add rinsing to spray tank. DO NOT dispose of undiluted chemicals on-site. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

UN NUMBER: 3082

ADR

Proper shipping name: Environmentally Hazardous Substance,Liquid,n.o.s. (Pyrethroids)

Classification Code: M6
Class: 9
Label : 9
Packing Group: III
Hazard ID No.: 90

IMDG

Proper shipping name: Environmentally Hazardous Substance,Liquid,n.o.s. (Pyrethroids)

Class: 9
Label: 9 **Marine Pollutant**
Packing Group: III

IATA

Proper shipping name: Environmentally Hazardous Substance,Liquid,n.o.s. (Pyrethroids)

Class : 9
Label: 9



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Packing Group:	III
Pack Instr. Passenger:	914
Pack Instr. Cargo:	914

Tremcard No. : 90GM6-III

Remarks: Sample shipment not allowed by mail.

15. REGULATORY INFORMATION

Symbol: Xn , N

Indication of danger: Harmful, Dangerous for the Environment.

Risk phrase(s):

R20 Harmful by inhalation.

R22 Harmful if swallowed.

R36 Irritating to eyes.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S2 Keep out of the reach of children.

S20/21 When using do not eat, drink or smoke.

S60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

National Legislation:

In accordance with the South African National Road Traffic Act, 1996 (Act 93 of 1996), the Fire Brigade Act, 1987 (Act 99 of 1987) and the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).

16. OTHER INFORMATION

Compiled by: Danie Fourie

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

REFERENCES



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- Similar product MSDS 2007.
 - Agrevo, Esbiothrin MSDS, 08/01/1998
 - The Pesticide Manual; Thirteenth Edition; Editor Clive Tomlin; Crop Protection Publications, 2003.
 - ADR 2011, Part 3.
 - IMDG Code, 2005 Edition, Vol. 2.
 - IATA Dangerous goods regulations, Effective 1 January 2011

END OF MSDS