



MATERIAL SAFETY DATA SHEET INSECTICIDE

SECTION :1.PRODUCT & COMPANY IDENTIFICATION

Product Name	:	Emamectin Benzoate 40g/l + Lufenuron 50g/l EC
Active Ingredient (a. i.)	:	Emamectin Benzoate; Lufenuron
Chemical Family (a. i.)	:	Emamectin Benzoate: Avermectin, Insecticide Lufenuron: Benzoylurea
Molecular Formula	:	Emamectin Benzoate: C ₅₆ H ₈₁ NO ₁₅ (B1a); C ₅₅ H ₇₉ NO ₁₅ (B1b) Lufenuron: C ₁₇ H ₈ Cl ₂ F ₈ N ₂ O ₃
CAS RN	:	Emamectin Benzoate: 119791-41-2 Lufenuron: 103055-07-8
Chemical Name (IUPAC)	:	Emamectin Benzoate: (4"R)-5-O-demethyl-4"-deoxy-4"-(methylamino)avermectin A1a + (4"R)-5-O-demethyl-25-de(1-methylpropyl)-4"-deoxy-4"-(methylamino)-25-(1-methylethyl)avermectin A1a (9:1) (CA) Lufenuron: 1-[2,5-Dichloro-4-(1,1,2,3,3,3-hexafluoropropoxy)phenyl]-3-(2,6-difluorobenzoyl)urea
Manufacturer/Supplier	:	M/S PERFECT SOLUTIONS Office Add: B-371, Paschim Vihar, New Delhi - 110063 (India) Factory Add: 15/1, 15/2, 15/3 Industrial Estate, Vidisha - 464001 (M.P.)
Telephone Numbers	:	+91 8375844625



SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Content (g/l w/v)
Emamectin Benzoate	119791-41-2	40 g/l
Lufenuron	103055-07-8	50 g/l
Inert ingredients	non-hazardous	910 g/l

SECTION 3. HAZARDS IDENTIFICATION

Hazard Classification:

Risk Phrases:

R 22 Harmful if swallowed

R 36 Irritating to eyes

SECTION 4. FIRST AID MEASURES

Ingestion:

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact:

If in eyes: Hold eye open and rinse slowly and gently with water for 15- 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.

Skin Contact:

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.



Inhalation:

If inhaled: Move person to fresh air. If person is not breathing, give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Poisoning Symptoms:

Over exposure may result in Anxiety, Tremor, lacrimation excessive salivation, wet perineum, piloerection and emaciation, nasal discharge and hypoactivity etc.

Antidote

Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method): Not Applicable

Autoignition Temperature: Not Available

Flammability: Not Applicable

In Case of Fire

Use dry chemical, foam or CO₂ extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

SECTION 6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak



Control the spill at its source. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. If a solid, sweep up material and place in a compatible disposal container. If a liquid, cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent. Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

SECTION 7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:

Where eye contact is likely, use chemical splash goggles.

Skin Contact:

Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Inhalation:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits.



SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Slightly yellow-brown, Liquid
Odour	: Non specific
Melting Point	: Not Available (mixture)
Boiling Point	: Not Applicable (mixture)
Specific Gravity/ Density	: 0.92-0.96 g/cc
pH	: 4 - 8 (1% w/ w dilution in deionized water)

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable under normal use and storage conditions.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Heat and light.

Materials to Avoid: None known.

Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity for the formulated product:

Acute Oral Toxicity Rat: LD50: >5000 mg/kg bw

Acute Dermal Toxicity Rat: LD50: > 10000 mg/kg bw

Acute Inhalation Toxicity Rat: LC50 (4 h): > 6.0 mg/L

Skin Irritation Rabbit: Irritating

Eye Irritation Rabbit: Irritating



Sensitization Guinea pig: Not a sensitizer

SECTION 12. ECOLOGICAL INFORMATION

Available data for Emamectin Benzoate technical:

Birds: Acute oral LD50 for mallard ducks 46, bobwhite quail 264 mg/kg. Dietary LC50 (8 d) for mallard ducks 570, bobwhite quail 1318 ppm.

Fish: LC50 (96 h) for rainbow trout 174, sheepshead minnow 1430 µg/l.

Daphnia: LC50 0.99 µg/l.

Bees LD50 (24h) oral 0.0036 µg/bee

Earthworms LC50 >1000 mg/kg dry soil.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, environmental regulations.

SECTION 14. TRANSPORT INFORMATION

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S.

(Emamectin Benzoate 40g/l + Lufenuron 50g/l)

UN number: 3077

Class: 9

Subsidiary Risk: None

Packaging group: III



Marine pollutant: Yes

SECTION 15. REGULATOR INFORMATION

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Not Applicable

California Proposition 65

Not applicable

CERCLA/SARA 302 Report Quantity (RQ)

None.

RCRA Hazardous Waste Classification (40 CFR 261)

Not applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

SECTION 16. OTHER INFORMATION

Data/information provided in this MSDS are of general nature and for the awareness of the concerned people regarding hazardous nature of material.

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Prepared by : M/S Perfect Solutions, Safety Division



PERFECT SOLUTIONS

Office Add.: B-371, Paschim Vihar, New Delhi - 110063 (India)

Factory Add.: 15/1, 15/2, 15/3 Industrial Estate, Vidisha - 464001 (M.P.)

Email: info@perfectsolution.best
