



## MATERIAL SAFETY DATA SHEET

PRODUCT : Emamectin Benzoate 1.2% + Imidacloprid 5% EC

PRODUCT DESIGNATION : Insecticide

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### Section 1. Product & Company Identification

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Common Name : Emamectin Benzoate 1.2% + Imidacloprid 5% EC

Grade : Formulation

Active Ingredient : Emamectin Benzoate; Imidacloprid

Chemical Name of Active Ingredient (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)

**Imidacloprid:** 1-(6-chloro-3-pyridinylmethyl)-N-nitroimidazolidin-2-ylideneamine

Chemical Family of A. I. : **Emamectin Benzoate:** Avermectin, Insecticide

**Imidacloprid:** Chloronicotinyl

Molecular Formula of A. I. : **Emamectin Benzoate:** C<sub>56</sub>H<sub>81</sub>NO<sub>15</sub> (B1a); C<sub>55</sub>H<sub>79</sub>NO<sub>15</sub> (B1b)

**Imidacloprid:** C<sub>9</sub>H<sub>10</sub>ClN<sub>5</sub>O<sub>2</sub>

Molecular Mass of A. I. : **Emamectin Benzoate:** 119791-41-2

**Imidacloprid:** 138261-41-3

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 Number : +91 8375844625



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## Section 2. Composition / Information on Ingredients

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Component	CAS Number	Content (w/w)
Emamectin Benzoate	119791-41-2	1.2%
Imidacloprid	138261-41-3	5.0 %
Inert ingredients	non-hazardous	93.8%

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## Section 3. Hazard Identification

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**Inhalation** : Inhalation of dust of this material can cause drying of mucous membranes of the eyes, nose and throat which may result in irritation and occasional nosebleeds.

**Eye contact** : Direct contact with dust may cause slight eye irritation.

**Skin contact** : Direct contact with dust may cause slight skin irritation. Ingestion : Slightly toxic if swallowed. Emergency Antidote : No specific antidote. Treat symptomatically.

**Antidote**: No specific antidote. Treat symptomatically.

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## Section 4. First Aid Measures

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### Emergency and First Aid Procedure –

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20min. remove contact lenses, if present, after the first 5 min, then continue rinsing eye.

**If on Skin:** Take off contaminated clothing, rinse skin immediately with plenty of water for 15-20 minutes.

**If Inhaled:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

**If Swallowed:** Give a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Seek doctor for treatment advice immediately.

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## Section 5. Fire Fighting Measures

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### Hazardous product of Combustion.



**Extinguishing Media:** Water spray, carbon dioxide, foam, dry agent.

**Special Fire fighting procedures:** Wear full protective equipment and self-contained breathing protection. Avoid Creating significant airborne dust. Spray unopened containers with water to keep cool. Contain fire-fighting water by bonding area with sand or earth to prevent it entering any bodies of water. Dispose of fire control extinguishing agent and spillage later in safe manner.

**Unusual fire and Explosion Hazards:** Toxic gases including carbon monoxide, carbon dioxide, oxides of nitrogen, and Smoke.

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## Section 6. Accidental Release Measures

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**Personal Precautions:** Personnel handling this material should be thoroughly trained to handle spills and releases. Wear appropriate gear for the situation.

**Environmental Precautions:** Do not flush to drain. If spilled on the ground, the affected area should be scraped and placed in an appropriate container for disposal. Prevent material from entering public sewer system or any waterway.

**Steps to be taken in case of a spill:** Obey all Federal, State or local regulations for health & safety and environmental protection when the accidental release is treated. Sweep up, place in a bag and hold for waste disposal. Wash spill site with soap and plenty of water after material pick-up is complete. Do not discharge to river, sea, lake, waterway or sewer systems directly.

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## Section 7. Handling & Storage

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**Precautions in Handling:** Avoid breathing dust. Keep container tightly closed; flush container clean before discarding. Do not reuse container. Do not apply when weather conditions may cause drift. Do not allow this product to drift to non-target areas.

**Precautions in Storage:** Store in the closed, original container in a cool, secure, well-ventilated area.

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## Section 8. Exposure Control, Personal Protection

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**Personal Protection :** Appropriate respirator for dust. Working cloths with long sleeves and long pants.

**Protective Gloves:** Outside: Polyvinyl chloride, or Rubber. Inside: Cotton , rayon Polyethylene.



**Eye Protection:** Use safety glasses. If there is a potential to exposure for dust, wear safety goggles.

**Skin Protection:** Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

**Engineering Control:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

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## Section 9. Physical and Chemical Properties

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**Appearance** : Yellowish to brown, Liquid

**Odour** : Characterstic odour

**Melting Point** : Not Available (mixture)

**Boiling Point** : Not Applicable (mixture)

**Specific Gravity/ Density** : 0.9 g/cm<sup>3</sup>

**pH** : 5.58

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## Section 10. Stability & Reactivity

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**Chemical Stability:** Chemically stable under normal storage and handling conditions

**Condition to Avoid:** Avoid high temperature.

**Incompatible Materials:** oxidizing agents , strong acids , strong bases

**Hazardous Polymerization:** will not occur

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## Section 11. Toxicological Information

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**Acute toxicity for the formulated product:**

**Acute Oral Toxicity** Rat: LD50: >2000 mg/kg bw

**Acute Dermal Toxicity** Rat: LD50: > 1000 mg/kg bw

**Acute Inhalation Toxicity** Rat: LC50 (4 h): > 7.0 mg/L

**Skin Irritation** Rabbit: Non Irritating



**Eye Irritation** Rabbit: Non Irritating

**Sensitization** Guinea pig: Not a sensitizer

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## Section 12. Ecological Information

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### 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.

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## Section 13. Disposal Consideration

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**Waste Treatment Methods:** Contaminated absorbents, surplus product (in diluted form), etc., should be buried in approved landfill. Comply with any local legislation applying to waste disposal. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options.

**Containers:** For incinerate this material at a facility that. Refer to the product label for container disposal instructions. Do not re-use empty containers.

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## Section 14. Transport Information

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

(Emamectin Benzoate 1.2% + Imidacloprid 5% EC)

**UN number:** 3077

**Class:** 9



**Subsidiary Risk:** None

**Packaging group:** III

**Marine pollutant:** Yes

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## Section 15. Regulatory Information

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### 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

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## Section 16. Other Information

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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 resented 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 on 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 containing this product, it is the recipient's



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