

COCREATE GLOBAL TECHNOLOGIES PRIVATE LIMITED

U21009KA2023PTC179006

Registered address: FFK Towers, #445, 2nd Floor, 17th Cross Road, Sector 4, HSR Layout, Bangalore, Bangalore South, Karnataka - 560102, India.

Email: info@scimplify.com

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SAFETY DATA SHEET

Emamectin Benzoate 1.9% EC

1. Identification

- **Product Name:** Emamectin Benzoate 1.9% EC
- **Chemical Name (IUPAC):**
(1'R,2R,3S,4'S,6S,8'R,10'E,12'S,13'S,14'E,16'E,20'R,21'R,24'S)-2-[(2S)-butan-2-yl]-21',24'-dihydroxy-12'-[(2R,4S,5S,6S)-4-methoxy-5-[(2S,4S,5S,6S)-4-methoxy-6-methyl-5-(methylamino)oxan-2-yl]oxy-6-methyloxan-2-yl]oxy-3,11',13',22'-tetramethylspiro[2,3-dihydropyran-6,6'-3,7,19-trioxatetracyclo[15.6.1.14,8.020,24]pentacosa-10,14,16,22-tetraene]-2'-one
- **Molecular Formula:** C₅₆H₈₁NO₁₅
- **Molecular Mass:** 1008.3 g/mol
- **Supplier/Manufacturer :**
Cocreate Global Technologies Private Limited

2. Composition / Information on Ingredients

Ingredient	Concentration (% w/w)
Emamectin Benzoate (a.i.)	1.90%
Other components	98.10%

3. Hazards Identification

- **Eye Contact:** May cause irritation.
- **Skin Contact:** Wash with soap and water.
- **Inhalation:** Remove victim to fresh air. If symptoms persist, seek medical attention.
- **Ingestion:** May cause a burning sensation and diarrhea. Seek medical help if necessary.

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4. First Aid Measures

- **Inhalation:** Move to fresh air, seek medical attention if breathing difficulties occur.
 - **Skin Contact:** Remove contaminated clothing and wash affected areas with soap and water.
 - **Eye Contact:** Rinse thoroughly with water for **at least 15 minutes**.
 - **Ingestion:** Rinse mouth and drink plenty of water. Do not induce vomiting.
 - **Note to Physician:** No specific antidote. Treat symptomatically.
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5. Fire-Fighting Measures

- **Extinguishing Media:**
 - **Small fires:** Water spray, alcohol-resistant foam, dry chemical, or CO₂.
 - **Large fires:** Alcohol-resistant foam or water spray. **Do not use solid water streams.**
 - **Protective Equipment for Firefighters:**
 - **Self-contained breathing apparatus (SCBA).**
 - **Protective clothing.**
 - **Hazardous Combustion Products:**
 - Oxides of carbon, nitrogen, and hydrogen chloride.
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6. Accidental Release Measures

- **Personal Precautions:**
 - Avoid inhalation and contact with skin or eyes.
 - Wear appropriate protective equipment.
- **Environmental Precautions:**
 - Prevent entry into **drains, soil, or waterways.**
- **Cleanup Procedures:**
 - Sweep up spills and collect in sealed containers.

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- Wash the spill area with water and collect for disposal.

7. Handling & Storage

- **Handling Precautions:**
 - Avoid contact with **eyes, skin, and inhalation of dust, spray, or vapors.**
 - Wash hands **before eating, drinking, smoking, or using the toilet.**
- **Storage Conditions:**
 - Store in a **cool, dry, and well-ventilated area.**
 - Keep away from **food, water sources, and unauthorized persons.**

8. Exposure Control / Personal Protection

- **Personal Protective Equipment (PPE):**
 - **Eye Protection:** Safety goggles with side shields.
 - **Skin Protection:** Gloves and protective clothing.
 - **Respiratory Protection:** If exposure risk is high, use **NIOSH-approved respirator.**

9. Physical and Chemical Properties

Property	Value
Appearance	White to Yellowish brown liquid
Odor	Sweetish, oily
Vapor Pressure	3×10^{-8} mmHg @ 21°C
pH	5.6
Melting Point	Not available
Bulk Density	Not available

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10. Stability & Reactivity

- **Stability:** Stable under normal conditions.
- **Conditions to Avoid:** Heat, sparks, open flames, and strong oxidizers.
- **Incompatible Materials:** Strong acids, bases, and oxidizing agents.
- **Hazardous Decomposition Products:** May produce CO, CO₂, NO_x, and other toxic fumes.

11. Toxicological Information

Toxicity Parameter	Result
Oral LD50 (Rat)	2950 mg/kg
Dermal LD50 (Rat)	>2000 mg/kg
Inhalation LC50 (Rat, 4h)	>9.6 mg/L
Eye Irritation	Non-irritant
Skin Irritation	Non-irritant
Skin Sensitization	Not a sensitizer

12. Ecotoxicological Information

- **Toxic to Fish:**
 - LC50 (96h, Rainbow Trout): **174 ppb**
- **Toxic to Aquatic Invertebrates:**
 - EC50 (48h, Daphnia): **1.0 ppb**
- **Highly Toxic to Bees:**
 - LD50 (Oral, Bee): **8.0 µg/bee**
- **Toxic to Birds:**

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- LD50 (Mallard Duck): **46 mg/kg**

13. Disposal Considerations

- **Pesticide Disposal:**
 - Burn in a **high-temperature incinerator** with scrubbing.
 - **Do not dump into waterways.**
- **Container Disposal:**
 - Triple rinse empty containers before disposal.

14. Transport Information

Mode	Classification
UN Number	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Emamectin Benzoate)
Hazard Class	9
Packaging Group	III
Marine Pollutant	Yes

15. Regulatory Information

- **Hazard Symbols:**
 - **Xn (Harmful), N (Dangerous for the environment)**
- **Risk Phrases:**
 - **R22:** Harmful if swallowed.
 - **R50/53:** Very toxic to aquatic life, may cause long-term adverse effects.

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- **Safety Phrases:**
 - **S2:** Keep out of reach of children.
 - **S36/37:** Wear protective clothing and gloves.

16. Other Information

- **Disclaimer:**
 - Information provided is based on current scientific knowledge.
 - The user assumes full responsibility for handling and disposal.