

Product Safety Data Sheet

1. Chemical product and company identification

- 1.1. *Prepared Date* : Feb. 20 . 2025
1.2. *Product information* : -
Trade name : Emactin -50 WDG
1.3. *Information about manufacturer / supplier* :
Saudi Delta Company for Chemical Industries
Riyadh – Saudi Arabia – 3rd Industrial City
Tel. 00966-11-2654533 Fax. 00966-11-2654532
P.O. Box 355809 Riyadh 11383 Saudi Arabia

2. Information on ingredients

2.1. *Chemical properties (Component substances)*

The product is a mixture of active ingredient, wetting agent, Dispersing agent, and carrier.

Emamectin Benzoate 5% w/w (active ingredient) Systemic Insecticide

Anionic / Nonionic surfactants 6% (wetting & Dispersing agents)

Carrier up to 100% w/w.

2.1.1. **Emamectin Benzoate :**

- **Chemical Name:** (IUPAC) name

: (10E,14E,16E,22Z)- (1R,4S,5'S,6S,6'R,8R,12S,13S,20R,21R,24S)-6'-[(S)-sec-butyl]-21,24-dihydroxy-5',11,13,22-tetramethyl-2-oxo-(3,7,19-trioxatetracyclo[15.6.1.14,8.020,24] pentacos-10,14,16,22-tetraene)-6-spiro2'-(5',6'-dihydro-2'H-pyran)-12-yl 2,6-dideoxy-3-O-methyl-4-O-(2,4,6- 232 trideoxy-3-O-methyl-4-methylamino- α -L-lyxo-hexapyranosyl)- α -L-arabino-hexapyranoside

- **CAS No.** : [155569-91-8]

- **Mol. Formula** : $C_{56}H_{81}NO_{15}$ (B1a) ; $C_{55}H_{79}NO_{15}$ (B1b)

- **Physical Form** : White to off-white powder

- **Melting Point** : 160 C (t_{ech})

- **Vapour Pressure** : 4×10^{-3} mPa (21 °C)

- **Solubility** : In water 0.024 g/l (Ph 7 , 21 °C) .

2.12.2 **Surfactants:**

50-100% Anionic Surfactants (lignosulfonate)

Anionic surfactants 10-25%

Form: Powder **pH:** 8 (5% H₂O)

M.P: > 100°C **F.P:** Not applicable

Colour: brown

V.P: < 1mb (20°C).

Water Solubility: Completely soluble.

Flammability (Solid, gas): No date available

3. Hazard Identification

3.1. Dangerous Substances : Moderately hazardous (Emamectin) .

3.2. Important Hazardous : aspiration hazardous .

3.3. Signs and Symptoms of over-exposure : Headache , dozzomess ; restlessness ; anxiety; mental confusion, convulsions; coma; depression of the respiratory center. These symptoms can occur in different combinations and time of on set sequence, and duration may very depending on the chemical, dose, and route of exposure.

4. First aid Measures

Eyes : immediately flush for 15 minutes with large amount of water .

Skin : remove all contaminated clothing atonce ; thoroughly wash with soap and water

Ingestion : Don't induce vomiting or administer liquids .

Vomiting should be induced only under professional supervision. Keep patient prone and quiet . Only a physician should induce vomiting as first aid for this slightly toxic substance due to increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent .

5. Fire Fighting Measures

5.1. Extinguishing media :

5.1.1. Suitable: Carbon dioxide, foam, water fog, dry chemical and halogenated agent.

5.1.2. Not to be used: Don't use water except in case important fire.

5.1.3. Protection against fire: Keep a way from sources of ignition.

6. Accidental Release Measures

6.1. Personal precautionary measures :

6.1.1. **Respiratory protection** : In case of insufficient ventilation wear apesticide respirator jointly approved by the local authorities .

6.1.2 **Protective gloves** : wear heavy duty , natural rubber gloves , or chemical resistant gloves such as Barrier laminate or Nitrile Rubber or. Neoprene rubber or viton .

6.1.3 **Eye protection** : wear safety goggles .

6.1.4. **Other protection** : wear water-proff pants , coat , hat , rubber boots or ruber overshoes.

6.2. Environmental Precaution : Stop any eventual leakage.

6.3. After spillage / leakage on soil: Liquid spillage should be damned off and pumped into containers; soak up remainder with absorbent material and dispose of in accordance with local regulations

7. Handling and Storage

- 7.1. Don't apply when weather conditions favor drift from treated area. Don't contaminate lakes, streams, ponds. When using don't eat, drink, or smoke. Don't breath spray. Wash hands and exposed skin before meals and after work. Wash out container thoroughly and dispose of safety. Store in original container in a cool, dry, well-ventilated, secure area out of reach of children and animals store in original container, tightly closed in a safe place.

8. Exposure controls , Personal Protections .

- 8.1. **Personal Protection:** Don't breath spray, after treatment, wash and change clothes prior anything else like eating, drinking, or smoking.
8.2. **Respiratory Protection :** Wear a suitable mask.
8.3. **Skin Protection :** Wear a suitable protective clothing mask.
8.4. **Eye Protection :** Wear eye, face protection.
8.5. **Ingestion :** Don't eat, drink, or smoke during application.

9. Physical and chemical properties

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|-------------------------------|---------------------------|
| 9.1. Shape | : Granules |
| 9.2. Color | : White to tan |
| 9.3. Odor | : Characteristics |
| 9.4. Product Use | : Insecticide / Acaricide |
| 9.5. Melting point | : Not applicable |
| 9.6. Boiling point | : N/A |
| 9.7. Bulk Density (20°C) | : 0.64 g/ml |
| 9.8. Vapor pressure | : Not available |
| 9.9. Viscosity (CPS) 25 °C | : N/A |
| 9.12. PH (1% aq. Susp.) w/v | : 4.0-7.0 |
| 9.13. Flammable limits | : Not available |

10. Stability and Reactivity

10.1. Hazardous Decomposition :

Emactin-50 WDG is stable under normal conditions 25°C , stable in neutral and slightly acidic media .

10.2. Dangerous products of decomposition :

(soil and water) binds tightly to soil , with rapid degradation by soil microorganisms No bioaccumulation .

11. Toxicological Information

- 11.1. Acute oral LD50 for rats 81.5 mg/kg .
- 11.2. Acute dermal LD50 for rabbits 439 mg/kg.
no irritating to skin (rabbits).
- 11.3. ADI (JMPR) 0.0025 mg/kg b.w
- 11.4. Toxicity class : (WHO) II
- 11.5. Other : Non mutagenic
- 11.6. NOEL : (1y) for dogs 0.25 mg/kg b.w

12. Ecological Data

- 12.1. **Birds** : Acute oral LD50 for mallard ducks 76 ,bobwhite quail 264 mg/kg .
- 12.2. **Fish** : LC50 (96 hr) for rainbow trout 174 , sheepshead minnows 1430 µg /L .
- 12.3. **Bees** : Toxic to bees.
- 12.4. **Daphnia** : LC50 0.99 µg /L .
- 12.5. **Other aquatic spp.** : Safe to a wide range of beneficial insects , due to rapid breakdown of the a.i limiting contact activity to >48h

13. Disposal Considerations

13.1. **Pesticides Disposal**

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of use according to label instructions contact.

Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

13.2. **Container disposal**

13.2.1. **Metal containers**: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by local authorities. Do not cut or weld metal containers.

13.2.2. **Plastic containers**: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by authorities, by burning. If burned, stay out of smoke.

13.2.3. **Returnable / Refillable Sealed Containers**: Don't rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

14. Transport Information

GGVE/GGVS : 9

RID/ADR : 9

IMDG-Code :9

IATA/ICAO : 9

UN NO.: 3077

IMO Class : 9

PACKING GROUP : III

UN Proper Shipping Name : Enviromently Hazardous Subs., solid ,Toxic, N.O.S

15. Regulatory Information

15.1. **Symbol(s)**: X Harmful.

15.2. **S-Phrase**: S22: Don't breath dust.

S24/25: Avoid contact with skin and eyes.

16. Other Information

The producer warrants the quality of this product in the original closed packaging , and of its conformity with authority agreement during 2 years .