

## MATERIAL SAFETY DATA SHEET

### BENZEMA: Emamectin Benzoate 1.9 % EC

---

#### 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND SUPPLIER

<b>PRODUCT NAME</b>	:	<b>Emamectin Benzoate 1.9% E.C.</b>
<b>CHEMICAL GROUP</b>	:	<b>Abamectin group</b>
<b>RECOMMENDED USE</b>	:	<b>A liquid insecticide for agricultural use</b>
<b>CHEMICAL FAMILY OF A.I.</b>	:	<b>Avermectin</b>
<b>Molecular Formula of A. I.</b>	:	<b>C<sub>56</sub>H<sub>81</sub>NO<sub>15</sub></b>
<b>CORPORATE ADDRESS</b>	:	<b>Arbuda Agrochemicals Pvt. Ltd.</b> 1104, Ruby Crescent Business Boulevard, Ashok Chakravarti Road, Kandivali-East, Mumbai- 400101, Maharashtra, India Customer Care No- +91 9076907642 Email - info@arbudaagrochemicals.com
<b>MANUFACTURER ADDRESS</b>	:	<b>Arbuda Agrochemicals Pvt Ltd</b> Plot No.-279-283, GIDC, Taluka-Talod District- Sabarkantha, Gujarat-383215.

#### 2. COMPOSITION / INFORMATION ON INGREDIENTS

##### COMPONENTS CONTRIBUTING TO HAZARD:

<b>Ingredient 0020</b>	<b>CAS NO.</b>	<b>Percentage</b>
Emamectin Benzoate	155569-91-8	1.99% w/w
Other ingredients	-	98.01 % w/w

#### 3. HAZARD IDENTIFICATION

**Eyes:** Thoroughly wash the eyes with water for at least 15 minutes.

**Skin:** Wash the contaminated skin with Soap and water. If irritation persists seek medical attention.

**Inhalation:** Remove the victim from the source of exposure. If the person is affected by the products of Sulphur decomposition, give the fresh air immediately and seek medical attention. If breathing is irregular, administer artificial respiration and Oxygen if necessary.

**Ingestion:** Amount swallowed incidental to normal handling procedures and use are not expected to cause injury, burning sensation, and diarrhea may occur.

#### 4. FIRST AID AND MEASURES

- SKIN CONTACT** : Remove all contaminated clothes and shoes. Wash off immediately with soap and plenty of water (15-20 minutes). Get medical attention immediately.
- EYES CONTACT** : Wash affected eyes for at least 15 minutes under running water with eyelids held open Consult an ophthalmologist.
- INHALATION** : Remove from the exposure area to fresh air immediately. if breathing has stopped, perform artificial respiration. Keep the person warm and at rest. Get medical attention immediately.
- IF SWALLOWED** : Rinse mouth and then drink plenty of water. Consult a physician.
- SYMPTOMS** : Burning sensations on the skin, irritation of the mucous membranes, coughing, and sneezing maybe experienced.
- ANTIDOTE** : No specific antidote is known.
- TREATMENT** : Treat symptomatically and supportively.

#### 5. FIRE FIGHTING MEASURES

- Extinguishing Agents** : Small fires: Use water spray, alcohol-resistant foam, dry chemicals or carbon dioxide. Large fires: Alcohol-resistant foam or water spray. Do not use a solid water stream as it may scatter and spread fire.
- Fire-fighting instruction** : Remove spectators from the surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. Remove the container from the fire area if possible and without risk. Water can cool unaffected containers but must be contained for later disposal. Dyke fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways. Due to contamination

risk, do not use a high-volume water jet. Contains water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

**Personal protective equipment** : Fire may produce irritating or toxic fumes such as oxides of carbon, nitrogen, hydrogen chloride and other mists or other combustion products. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** : Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

**Environmental precautions** : Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/fire fighting water.

**Cleanup** : Avoid raising dust. Sweep/shovel up. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

## 7. HANDLING AND STORAGE

**Handling** : Harmful if swallowed. Avoid contact with eyes and skin, and inhalation of dust, spray and vapour. 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 pesticide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Water used to clean equipment must be disposed of correctly to avoid contamination.

**Storage** : Keep out of reach of unauthorized 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.

Engineering controlled : Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

### **Personnel protective equipment (PPE):**

**Eye/Protection** : Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

**Body protection** : Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE</b>	:	White to Yellowish brown liquid (liquid)
<b>ODOUR</b>	:	Sweetish Oily
<b>BULK DENSITY ( WATER =1)</b>	:	N.A.
<b>MELTING POINT</b>	:	N.A.
<b>VAPOUR PRESSURE</b>	:	$3 \times 10^{-8}$ mmHg @ 70°F (21°C)
<b>pH</b>	:	5.6

## 10. STABILITY AND REACTIVITY

<b>STABILITY</b>	:	Stable at room temperature in closed containers under normal storage and handling conditions.
<b>CONDITIONS TO AVOID</b>	:	High temperatures, sparks, flame and other sources of ignition, and dust generation.
<b>MATERIAL TO AVOID</b>	:	Strong bases, strong acids, strong oxidizing agents.
<b>INCOMPATIBLE MATERIALS</b>	:	Avoid contact with strong oxidizing agents.
<b>HAZARDOUS</b>	:	Will not occur
<b>DECOMPOSITION PRODUCTS</b>	:	

## 11. ECOLOGICAL INFORMATION

<b>Toxicity to Fishes</b>	:	174 ppb ( Raibow trout)
<b>Toxicity to daphnia</b>	:	EC50 1.0 ppb
<b>Toxicity to Bees</b>	:	8.0 µg/bee
<b>Toxicity to Birds</b>	:	46 mg/kg b.w (Mallard Duck)

## 12. DISPOSAL CONSIDERATIONS

- PESTICIDE DISPOSAL** : Burn in high temperature incinerator with effluent scrubbing or bury in a specially allocated landfill. Always dispose of in accordance with local regulations.
- CONTAINER DISPOSAL** : Contaminated packaging material should be treated as product.

## 13. TOXICOLOGICAL INFORMATION

- Acute Oral Toxicity- LD50** : rat 2950 mg/kg b.w.
- Acute Dermal Toxicity- LD50** : rat >2000 mg/kg b.w
- Acute Inhalation - LD50** : rat > 9.6mg/l Air
- Eye irritation** : Non-irritating to eyes
- Skin Irritation** : Non-irritating to skin
- Skin Sensitization** : Not sensitizer

## 14. TRANSPORT INFORMATION

- UN Number** : 3082
- Proper shipping name** : ENVIRONMENTALY SUBSTANCE, LIQUID, N.O.S. (Emamectin benzoate)
- Packaging Group** : III
- Class** : 9
- Marine Pollutant** : Yes

## 15. REGULATORY INFORMATION

- HAZARD SYMBOL** : Xn, N
- RISK PHRASES** : R22, R48/22, R50/53 and R68/20/21/22
- SAFETY PHRASES** : S2, S13, S20/21, S35, S36/37, S57

**16. OTHER INFORMATION**

MSDS PREPARATION DATE : 01/08/2024

REVISION DATE : 31/07/2026

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. They 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 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 sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS. Accordingly, no guarantee or warranty expressed or implied is made by Arbuda Agrochemicals Pvt. Ltd. as to the results to be obtained based upon the user's use of the information, nor does Arbuda Agrochemicals Pvt. Ltd. assume any liability arising out of the user's use of the information.