

Material Safety Data Sheet

Printing date 04/15/2002

Revised On 04/15/2002

1 Identification of substance

o Product details

o Name: SLICE (Emamectin benzoate 0.2% Aquaculture premix)

o MSDS Number: SP000125C

o **TRADENAMES/SYNONYM(s)**: SLICE Premix

o **Manufacturer/Supplier:**

Schering-Plough (Bray) Boghall Road Bray Co. Wicklow, IRELAND

o **Information department:**

Schering-Plough MSDS HelpLine: (800)770-8878 (USA & Canada) (908)629-3657 (Worldwide)

o **Emergency information:** + 353 1 2050900 (Schering-Plough (Bray))

2 Composition/Data on components

o **Chemical formula:** Mixture.

CAS No. Description

137512-74-4 Emamectin benzoate

9005-25-8 Corn starch

o **Description:**

The formulations for these products are proprietary information and are mixtures of hazardous and/or non-hazardous materials. These mixtures contain the listed hazardous components in concentrations >1%; other hazardous components may be present in concentrations <1%.

No carcinogens or potential carcinogens listed by NTP, IARC, or OSHA are present in concentrations >0.1% in these mixtures.

• **3 Hazards identification**

○ **EMERGENCY OVERVIEW:**

White to grey powder.
Very toxic to aquatic organisms.

○ **Potential Health Effects:**

The toxicological properties of this material have not been fully characterized in humans. No systemic toxicity, eye irritation, or skin irritation was observed in animal studies using the SLICE premix formulation. SLICE premix is not expected to cause dermal sensitization based on animal studies that used the pure concentration of the active ingredient, emamectin benzoate. Animals experienced tremors, mydriasis (dilation of the pupils), or nerve damage following inhalation or dermal exposure to pure emamectin benzoate; however, these effects are not expected to occur with the use of SLICE premix due to the low concentration of the active ingredient in the premix formulation.

○ **Additional information:**

This MSDS is written to provide health and safety information for individuals who will be handling the final product formulation. For health and safety information for individual components during manufacturing, refer to the appropriate MSDS of each component.

• **4 First aid measures**

○ **Respiratory:**

Remove from exposure. If breathing ceases, give artificial respiration. Get medical attention immediately.

○ **Dermal:**

Remove contaminated clothing. Wash exposed area with soap and water. Get medical attention immediately.

○ **Eye:**

Rinse opened eye for 15 minutes under running water or with normal saline solution. Get medical attention immediately.

○ **Ingestion:**

In case of accidental swallowing, give large amounts of water. Do not induce vomiting. Get medical attention immediately.

○ **Information for physician:**

The active ingredient in this product, emamectin benzoate, is an avermectin pesticide. Treat symptomatically.

• **5 Fire fighting measures**

- **Suitable extinguishing agents:** Water, dry chemical, or CO2.
- **Special hazards caused by the material, its products of combustion or resulting gases:**
Under normal conditions of use, this material does not present a significant fire or explosion hazard. However, like most organic compounds, it is combustible and may form a dust explosion risk if widely dispersed in air.
- **Protective equipment:**
Wear full protective clothing and self-contained breathing apparatus (SCBA).

• **6 Accidental release measures**

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
Spills should be handled in accordance with standard operating procedures. Chemical decontamination is recommended.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Dry sweeping is not permitted. HEPA vacuum and/or wet methods are recommended for clean up.
Dispose contaminated material as waste according to item 13.

• **7 Handling and storage**

- **Handling:**
Ensure adequate ventilation. Keep containers tightly closed when not in use.
- **Storage:**
Store in original container, tightly closed in a safe place away from oxidizing materials.

• **8 Exposure controls and personal protection**

○ **Engineering Controls:**

Traditional process technologies are acceptable. Enclosing type local exhaust ventilation should be located at all dust/mist generation and/or transfer points.

Occupational Exposure Guidelines and Standards

9005-25-8 Starch

ACGIH TLV: TWA: 10 mg/m3

NIOSH REL: TWA: 10*; 5** mg/m3

OSHA PEL: TWA: 15*; 5** mg/m3

*Total dust **Respirable

○ **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

○ **Breathing equipment:**

Use suitable respiratory protective device when high concentrations are present. Consult your site safety staff for additional guidance.

○ **Skin protection:**

Gloves appropriate for protection against direct contact with this material, formulation, excipients, or solvents. Consult your site safety staff for additional guidance.

○ **Eye protection:**

Safety glasses with side shields. Use of goggles or full face protection may be required. Consult your site safety staff for additional guidance.

○ **Body protection:** Protective work clothing.

• **9 Physical and chemical properties**

○ **Form:** Powder

○ **Color:** White to grey.

○ **Odor:** Slight to none.

○

	<u>Value/Range</u>	<u>Unit</u>	<u>Method</u>
--	--------------------	-------------	---------------

○ **Melting point/Melting range:** Not determined.

○ **Boiling point/Boiling range:** Not determined.

- **Flash point:** Not determined.
- **Flammability (solid, gaseous):**
Combustible and may form dust explosion hazard if widely dispersed in air.
- **Density:** Not determined.
- **Solubility in/Miscibility with**
- **Water:** Soluble

● **10 Stability and reactivity**

- **Thermal decomposition/conditions to be avoided:**
No decomposition is expected if used according to specifications.
- **Conditions to avoid:**
Avoid extremes of temperature.
Avoid damp conditions.
Avoid strong oxidizing agents.
- **Dangerous reactions:** No dangerous reactions known.
- **Dangerous products of decomposition:**
Carbon monoxide
Carbon dioxide
Nitrogen oxides

● **11 Toxicological information**

All data presented are for the SLICE premix formulation, except where indicated. In those cases, the data are from studies using the pure active ingredient in the SLICE premix formulation, emamectin benzoate.

- **Acute toxicity:**
Lethal Dose/Lethal Concentration (LD/LC):

- **Inhalation:**
Changes in the central nervous system and/or peripheral nerves were observed following inhalation of >2.4 mg/L of emamectin benzoate; however, in another inhalation study, exposure to <0.10 mg/L of emamectin benzoate, no treatment-related effects were observed.
LC50/4-h (Rat): 2.1-4.4 mg/L (emamectin benzoate). The SLICE premix formulation is not expected to cause similar effects to those of the

emamectin benzoate, due to the low concentration of the active ingredient, emamectin benzoate, in the premix formulation.

o **Oral:**

No systemic effects were observed in an acute oral toxicity study in rats given SLICE premix in doses as high as 2000 mg/kg. LD50: >2000 mg/kg (SLICE premix).

Skin:

Not irritating. Tremors, nerve damage, and mydriasis were observed in rabbits following 4- or 24-hour dermal exposures to emamectin benzoate (LOEL: 500 mg/kg).

Eye:

Not irritating.

Sensitization:

Emamectin benzoate was not sensitizing in guinea pig dermal sensitization studies. Therefore, the SLICE premix formulation is not expected to cause dermal sensitization due to the low concentration of active ingredient (emamectin benzoate) in the premix formulation.

• **12 Ecological information**

Data are for the active ingredient, emamectin benzoate, or for the SLICE premix formulation.

o **Information about elimination (persistence and degradability):**

Emamectin benzoate is metabolized by mammals, fish, and invertebrates. It photodegrades in water and soils and is metabolized in water and sediments.

o **Mobility and bioaccumulation potential:**

Strongly adsorbed by soils and sediments.
Immobile.

o **Other information:**

Bioconcentration factor of 80 in Bluegill sunfish and 50% depuration in 3.9 days at 25 degrees C. Bioconcentration factors of 0.126 to 0.87 determined in marine crustaceans at 10 degrees C over 8 days.

o **Ecotoxicological effects:**

Aquatic toxicity:

Emamectin benzoate

48 hour EC50-Daphnia: 1.0 ppb (Daphnia Magna)
96 hour LC50- fish: 174 ppb (Rainbow Trout)
96 hour LC50- fish: 1340 ppb (Sheepshead minnow)
96 hour LC50- fish: 194 ppb (Fathead minnow)
96 hour LC50- other: 0.043 ppb (Mysid shrimp)

• **13 Disposal considerations**

◦ **Recommendation:**

Material should be disposed of according to Schering-Plough Good Environmental Practice (GEP)#4 and/or local regulations. Incineration is the preferred disposal method.

• **14 Transport information**

Not regulated.

• **15 Regulations**

TSCA (Toxic Substances Control Act):

This formulation is not subject to TSCA requirements.

◦ **Product related hazard information:**

The product has been classified and marked in accordance with directives on hazardous materials.

◦ **Hazard symbols:** N Dangerous for the environment

◦ **Risk phrases:** 50 Very toxic to aquatic organisms.

◦ **Safety phrases:**

20/21 When using-do not eat, drink or smoke.

22 Do not breathe dust.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

49 Keep only in the original container.

60 This material and its container must be disposed of as hazardous waste.

● **16 Other information**

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s). SLICE is a trademark of Schering-Plough Animal Health Corporation.

○ **Department issuing MSDS:**

Safety & Industrial Hygiene Schering-Plough Corporation 1095 Morris Avenue Union, NJ 07083 USA

Schering-Plough MSDS HelpLine: (800)770-8878 (USA & Canada) (908)629-3657 (Worldwide)

○ **Create date:** 03/30/2000