



石家庄市兴柏生物工程有限公司  
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## MSDS FOR ABAMECTIN TECH

### 1. PRODUCT IDENTIFICATION

Product Name: ABAMECTIN TECH MFG No.:  
Active Ingredient (%): Abamectin CAS No.: 71751-41-2  
Chemical Name: A mixture of avermectins containing primarily Avermectin B1a and Avermectin B1b  
Chemical Class: Botanical

### 2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA carcinogen
Abamectin	Not Established	Not Established	Not Established	No

### 3. HAZARDS IDENTIFICATION

#### Symptoms of Acute Exposure

Causes eye and skin irritation. Harmful if swallowed or absorbed through the skin. Allergic skin reactions are possible.

#### Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

#### Physical Properties

Appearance: White or light yellow crystal or powder  
Odor: Odorless

## Unusual Fire, Explosion and Reactivity Hazards

This product is non-flammable and non-explosive. Extinguish warehouse and factory fires using fine water-spray or foam. Do not allow fire-water to enter drains.

### **4. FIRST AID MEASURES**

- Ingestion:** Doctor immediately for treatment advice. Do not give any liquid to the person. 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.
- Eye Contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.
- Skin Contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
- Inhalation:** Move person to fresh air. If person is not breathing, call an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Doctor for further treatment advice.

#### **Notes to Physician**

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Early signs of intoxication include dilation of pupils, muscular incoordination and muscular tremors. Toxicity following accidental ingestion of abamectin can be minimized by early administration of chemical adsorbents (e.g. activated charcoal). If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parental fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms and measurements. In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic abamectin exposure.

### **5. FIRE FIGHTING MEASURES**

#### **Fire and Explosion**

Flash Point(Test Method):	Not applicable	
Flammable Limits(% in Air):	Lower:% Not Applicable	Upper: % Not Applicable
Autoignition Temperature:	Not Available	

Flammability: Non-flammability

### **Unusual Fire, Explosion and Reactivity Hazards**

This product is non-flammable and non-explosive. Extinguish warehouse and factory fires using fine water-spray or foam. Do not allow fire-water to enter drains.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

### **In Case of Fire**

Use appropriate extinguishing media for combustibles in the area. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

## ***6. ACCIDENTAL RELEASE MEASURES***

### **In Case of Spill or Leak**

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

## ***7. HANDLING AND STORAGE***

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

## ***8. EXPOSURE CONTROLS/PERSONAL PROTECTION***

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

**Inhalation:** A combination particulate/ organic vapor respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with an HE prefilter. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

**Chemical formula:** C<sub>48</sub>H<sub>72</sub>O<sub>14</sub>(B<sub>1a</sub>), C<sub>47</sub>H<sub>70</sub>O<sub>14</sub>(B<sub>1b</sub>)

**Molecular weight:** B<sub>1a</sub>= 872.1, B<sub>1b</sub>= 858.1

**Appearance:** White or light yellow crystal or powder

**Odor:** Odorless

## ***9. PHYSICAL AND CHEMICAL PROPERTIES***

**Vapor Pressure:** 199.98 npa

**Melting point:** 150~155°C

**Solubility in water:** 7- 10 μ g/L

## ***10. STABILITY AND REACTIVITY***

**Stability:** Stable under normal use and storage conditions.

**Hazardous Polymerization:** Will not occur.

**Conditions to Avoid:** None known.

**Materials to Avoid:** None known.

**Hazardous Decomposition Products:** Can decompose at high temperatures forming toxic gases.

**Ingestion:** Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

**Eye Contact:** Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Skin Contact:** Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

## ***11. TOXICOLOGICAL INFORMATION***

### **Acute Toxicity/Irritation Studies**

**Ingestion:** Oral (LD50 Rat) : ♀ 8.60~18.40 mg/kg ♂ 7.30~17.30mg/kg  
**Dermal:** Dermal (LD50 Rat) ♀ 195.4~409.3 mg/kg ♂ 172.1~368.8mg/kg  
**Eye Contact:** Slightly irritating (Rabbit)  
**Skin Sensitization:** None irritating (Rabbit)

### **Subchronic Toxicity Studies**

90 days feeding dog no effect level: 0.50 mg/kg body weigh/day

### **Carcinogenicity and chronic study**

26 months feeding rat no effect level: 1.5 mg/kg/day

### **Reproductive/Developmental Effects**

Species	Maternotoxicity		Developmental		Fetotoxicity	
	NEL	MEL	NEL	MEL	NEL	MEL
Rat	1.6	2.0	1.6	2.0	1.6	Nototoxicity
Mouse	0.05	0.075	0.2	0.4	0.2	0.4
Rabbit	1.0	2.0	1.0	2.0	1.0	2.0

NEL= no effect level (mg/kg/day)

MEL= minimal effect level(mg/kg/day)

## ***12. ECOLOGICAL INFORMATION***

### **Summary of Effects**

Highly toxic to fish, invertebrates, birds and bees. Not bioconcentrateable in fish.

### **Eco-Acute Toxicity**

Bees LC50/EC50 0.002 µ g/bee

Invertebrates (Water Flea) LC50/EC50 0.00037 ppm

Fish (Trout) LC50/EC50 0.0036 ppm

Fish (Bluegill) LC50/EC50 0.0096 ppm

Birds (8-day dietary - Bobwhite Quail) LC50/EC50 3,102 ppm

Birds (8-day dietary - Mallard Duck) LC50/EC50 383 ppm

### **Environmental Fate**

The information presented here is for the active ingredient, abamectin. Low bioaccumulation potential. Not persistent in soil. Stable in water. Low mobility in soil. Mixes in water (after 24 h).

## ***13. DISPOSAL CONSIDERATIONS***

### **Disposal**

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

**Characteristic Waste:** Not Applicable

**Listed Waste:** Not Applicable

## ***14. TRANSPORT INFORMATION***

### **DOT Classification**

Proper Shipping Name: Pesticides, Organic, Toxic Solid, N.O.S., Marine Pollutant

Hazard Class or Division: Division 6.1

Identification Number: UN2811

Packing Group: PG II

### **B/L Freight Classification**

Insecticides, Poison

## ***15. REGULATORY INFORMATION***

**OSHA Status:** not listed

**TSCA Status:** not listed

## ***16. OTHER INFORMATION***

**Manufacture information:**

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