

## DENIM® Insecticide

Date: 1/3/2019  
Replaces: 6/2/2015

### 1. PRODUCT IDENTIFICATION

Product identifier on label: **DENIM® Insecticide**  
Product No.: A10325A  
Use: Insecticide  
Manufacturer: Syngenta Crop Protection, LLC  
Post Office Box 18300  
Greensboro NC 27419  
Manufacturer Phone: 1-800-334-9481

**Emergency Phone: 1-800-888-8372**

### 2. HAZARDS IDENTIFICATION

Classifications: Specific Target Organ Toxicity: Single Category 1  
Flammable Liquid: Category 4  
Eye Damage/Irritation: Category 1  
Specific Target Organ Toxicity: Repeated Category 1

Signal Word (OSHA): Danger

Hazard Statements: Combustible liquid  
Causes serious eye damage  
Causes damage to organs  
Causes damage to organs through prolonged or repeated exposure

Hazard Symbols:



Precautionary Statements: Do not eat, drink or smoke when using this product.  
Wear eye protection.  
If exposed or concerned: Call a poison center, doctor or Syngenta.  
Immediately call a poison center, doctor or Syngenta.  
See Section 4 First Aid Measures.  
Store locked up.  
Keep away from heat, sparks, open flames, hot surfaces. No smoking.  
Do not breathe mist, vapors, spray.  
Wash hands and face thoroughly after handling.  
Wear protective gloves, protective clothing, eye protection.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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Get medical advice if you feel unwell.  
In case of fire: Use dry chemical, foam or CO2 for extinction.  
Store in a well-ventilated place. Keep cool.  
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Avermectin B1, 4"-deoxy-4"- (methylamino)-,(4"R)-, benzoate (salt)	Emamectin Benzoate	155569-91-8	2.14%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

### 4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

**Ingestion:** If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Eye Contact:** If in eyes: 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. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Inhalation:** If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

Eye irritation  
Skin irritation

Indication of immediate medical attention and special treatment needed:

Probable mucosal damage may contraindicate the use of gastric lavage. Early signs of intoxication include dilation of pupils, muscular incoordination and muscular tremors. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral 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 emamectin benzoate 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 emamectin benzoate exposure.

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### 5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.

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

Special protective equipment and precautions for firefighters:

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.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

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 in Protective Equipment Section. 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

Precautions for safe handling:

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.

Conditions for safe storage, including any incompatibilities:

Not Applicable

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Enamectin Benzoate	Not Established	Not Established	0.02 mg/m <sup>3</sup> TWA	Syngenta

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

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### 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 gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

### Inhalation:

A combination particulate/organic vapor respirator should be used until effective engineering controls are installed to comply with occupational exposure limits, or until exposure limits are established. Use a NIOSH certified respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Pale yellow-green liquid

Odor: Sweet, oily

Odor Threshold: Not Available

pH: 5.58

Melting point/freezing point: Not Available

Initial boiling point and boiling range: Not Available

Flash Point (Test Method): 143°F

Flammable Limits (% in Air): Not Available

Flammability: Combustible liquid

Vapor Pressure: Emamectin Benzoate 3 x 10<sup>-8</sup> mmHg @ 70°F (21°C)

Vapor Density: Not Available

Relative Density: 0.9 g/ml @ 77°F (25°C)

Solubility (ies): Emamectin Benzoate 30 - 50 ppm (pH 7)

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: 559°F

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

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### 10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: Heat; light.

Incompatible materials: None known.

Hazardous Decomposition Products: None known.

### 11. TOXICOLOGICAL INFORMATION

#### Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Lack of coordination, tremors, dilated pupils, Skin irritation

Delayed, immediate and chronic effects of exposure: Eye irritation, Skin irritation, Central and peripheral nervous system damage

#### Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	2950 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 2000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	9.6 mg/l air - 4 hours
Eye Contact:	Severely Irritating (Rabbit)	
Skin Contact:	Moderately Irritating (Rabbit)	
Skin Sensitization:	Not a Sensitizer (Guinea Pig)	

#### Reproductive/Developmental Effects

Emamectin Benzoate: Developmental and reproductive toxicity observed in dosages that are toxic to mature animals.

#### Chronic/Subchronic Toxicity Studies

Emamectin Benzoate: Tremors and nerve lesions observed at lowest dose tested in rabbits. Bladder changes reported in rats.

#### Carcinogenicity

Emamectin Benzoate: None observed.

Chemical Name	NTP/IARC/OSHA Carcinogen
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Avermectin B1, 4"-deoxy-4"-(methylamino)-, (4"R)-, benzoate (salt)	No
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#### Other Toxicity Information

None

#### Toxicity of Other Components

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### Target Organs

#### Active Ingredients

Emamectin Benzoate: Central nervous system, bladder

#### Inert Ingredients

## 12. ECOLOGICAL INFORMATION

### Eco-Acute Toxicity

#### Emamectin Benzoate:

- Fish (Rainbow Trout) 96-hour LC50 174 ppb
- Green Algae 5-day EC50 > 3.9 ppb
- Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 1.0 ppb
- Bird (Mallard Duck) 14-day LD50 46 mg/kg

### Environmental Fate

#### Emamectin Benzoate:

The information presented here is for the active ingredient, emamectin benzoate.  
 Low bioaccumulation potential. Persistent in soil. Stable in water. Immobile in soil. Sinks 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

- Ground Transport - NAFTA
- < 119 gal:
- Not regulated
- > 119 gal:
- Proper Shipping Name: Combustible Liquid, N.O.S. (1-Hexanol)
- Hazard Class: Combustible Liquid
- Identification Number: NA 1993
- Packing Group: PG III

### Comments

- Water Transport - International
- Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Emamectin Benzoate), Marine Pollutant
- Hazard Class: Class 9
- Identification Number: UN 3082
- Packing Group: PG III

- Air Transport - International
- Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Emamectin Benzoate)
- Hazard Class: Class 9
- Identification Number: UN 3082

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Packing Group: PG III

### 15. REGULATORY INFORMATION

**Pesticide Registration:**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**Danger:** Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear, goggles, or face shields. Harmful if swallowed or absorbed through the skin. Avoid contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash before reuse. Prolonged or frequently repeated exposure may cause allergic skin reactions in some individuals.

**EPA Registration Number(s):**  
 100-903

**EPCRA SARA Title III Classification:**

Section 311/312 Hazard Classes: See Section 2 Hazards

Section 313 Toxic Chemicals: None

**California Proposition 65:**

This product does not contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**CERCLA/SARA 304 Reportable Quantity (RQ):**  
 None

**RCRA Hazardous Waste Classification (40 CFR 261):**  
 Not Applicable

**TSCA Status:**  
 Exempt from TSCA, subject to FIFRA

### 16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2  
 Flammability: 2  
 Instability: 0

HMIS Hazard Ratings

Health: 2  
 Flammability: 2  
 Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: C,S

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 2/11/1999  
 Revision Date: 1/3/2019  
 Section(s) Revised: 2,3

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