

MATERIAL SAFETY DATA SHEET
Enstar AQ Insect Growth Regulator

Manufacturer: Wellmark International
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Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Enstar AQ Insect Growth Regulator
Chemical Name/Synonym: (S)-Kinoprene
Chemical Family: Juvenile hormone mimic
Formula: C₁₈H₂₈O₂
EPA Registration No.: 2724-793
RF Number: RF2067A

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component (chemical, common name)</u>	<u>CAS Number</u>	<u>Weight</u>	<u>Tolerance</u>
(S)-Kinoprene;			Not
2-propynyl (2E,4E)-(7S)-3,7,11-trimethyl-2,4-dodecadienoate	65733-20-2	18.4%	established
Inert ingredients (non-hazardous and/or trade secret)		81.6%	

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENTS
KEEP OUT OF REACH OF CHILDREN
CAUTION: Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing.

PRIMARY ROUTE OF ENTRY Dermal/Eye: Yes. Oral: No. Inhalation: Yes.

ACUTE TOXICITY Oral: No specific hazard identified.
 Dermal: No specific hazard identified.
 Inhalation: No specific hazard identified.

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: May cause slight skin irritation.
Eye Irritation: May cause minimal eye irritation.
Sensitizer: Not a skin sensitizer.

4. FIRST AID MEASURES

- If swallowed:**
- Call a poison control center or doctor immediately for treatment advice.
 - Have person sip a glass of water if able to swallow.
 - Do not induce vomiting unless told to by a poison control center or doctor.
 - Do not give anything to an unconscious person.
- If in eyes:**
- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
 - Call a poison control center or doctor for treatment advice.

Note to Physician: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.

5. FIRE FIGHTING MEASURES

NFPA Rating:	Health: 2	Fire: 1	Reactivity: 0
Flammability Class:	Class III B Liquid.		
Flash Point:	Not available.		
Explosive Limits (% of Volume):	Not available.		
Extinguishing Media:	Water spray, foam, dry chemical, CO ₂ .		
Special Protective Equipment:	Firefighters should wear full protective clothing and self contained breathing apparatus.		
Fire Fighting Procedures:	Normal procedures. Do not allow fire fighting waters or material to enter waterways or sewers.		
Combustion Products:	Carbon monoxide, carbon dioxide.		
Unusual Fire/Explosion Hazards:	[Specific to (S)-Kinoprene] From thermal stability testing, susceptible to exothermic air oxidation at elevated temperatures >130°C.		

6. ACCIDENTAL RELEASE MEASURES

- Steps to be taken:** Soak up spilled material with absorbents and carefully collect into a suitable waste container for disposal. Wash spill area with water. Caution - may form slippery surface when mixed with water. Do not allow rinse waters to enter sewers.
- Absorbents:** Clay granules or other appropriate inert absorbent material.
- Incompatibles:** None known.

7. HANDLING AND STORAGE

- Handling:** Avoid contact with skin, eyes or clothing. Avoid breathing spray mist.
- Storage:** Store in a cool, dry area away from food, water, or feed. Do not store in direct sunlight or heat.

8. EXPOSURE CONTROL / PERSONAL MEASURES

- Exposure Limits:** Not available for product mixture. This product contains a proprietary chemical that has a Manufacturers Recommended Exposure Limit of 10 mg/m³.
- Ventilation:** Use with adequate ventilation.
- Personal Protective Equipment:** Use appropriate impervious chemical resistant gloves. Use appropriate protective eyewear. Use appropriate protective clothing. If adequate ventilation is not available an approved respirator may be necessary.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Milky white emulsion, similar to Munsell Color N 9.25 / 84.2% R. Moderate, unpleasant, oil-like odor.
Boiling Point:	Not available.
Melting Point:	Not applicable.
Vapor Pressure (mm Hg):	Not available.
Vapor Density (Air = 1):	Not available.
Specific Gravity:	1.0164
Bulk Density:	8.5 lbs / gallon.
Solubility:	Miscible in water (emulsifies).
Evaporation Rate:	Not available.
pH:	6.65

10. STABILITY AND REACTIVITY

Stability:	Stable.
Reactivity:	Not reactive.
Incompatibility w/ Other Materials:	None known.
Decomposition Products:	Carbon dioxide and monoxide from incomplete combustion.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Acute oral toxicity (rat): LD50 = 3129 mg/kg
Acute dermal toxicity: LD50 >5,000 mg/kg
Acute inhalation toxicity: 4-hr LC50 >2.05 mg/L
Skin irritation: Slight irritation
Eye irritation: Minimal irritation
Dermal Sensitization: Not a sensitizer

Kinoprene

CHRONIC TOXICITY [Specific to Active Ingredient(s)]

In 90-day feeding studies, the no-observed effect level (NOEL) was 1000 ppm in rats and 900 ppm in dogs. The target organ was identified as the liver in rats at 5000 ppm, where both decreased body weight gains, liver enlargement and liver pathology were seen.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Specific to Active Ingredient(s)]

No adverse maternal or developmental effects were seen in rats at 75 mg/kg/day; both maternal deaths and fetal toxicity were seen at higher levels.

MUTAGENICITY [Specific to Active Ingredient(s)]

Not mutagenic when tested in either bacterial or mammalian cells.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE [Active Ingredients Only]

Hydrolysis: Not determined

Photolysis: Not determined

Soil half life: Not determined

Water solubility: 0.2 mg/l (20°C)

ECOTOXICITY [Active Ingredients Only]

Acute Toxicity: Fish: LC50 (Trout): 20 mg/liter (ppm) (96 hour test)

Aquatic Invertebrates: LC50(daphnia): 0.113 mg/ liter (ppm) (48 hours)

13. DISPOSAL CONSIDERATIONS

Wastes resulting from use of this product should be disposed of in accordance with all federal, state and local requirements. For additional regulatory information, see section 15 of this document.

14. TRANSPORT INFORMATION

DOT49CFR Description: Not Applicable.

Freight Classification: Insecticides NOI O/T Poison.

15. REGULATORY INFORMATION

CERCLA (Superfund): Not regulated.

RCRA: Not regulated.

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes.

Delayed Health: No.

Fire: No.

Sudden Pressure: No.

Reactivity: No.

The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all inclusive and the manner and conditions of use and handling may involve other or additional considerations.