GROUP	7	INSECTICIDE
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ENSTAR® EW

# INSECT GROWTH REGULATOR

**Emulsifiable Concentrate** 

For control of whiteflies and aphids, and suppression of mealybugs in greenhouses on ornamental plants.

# COMMERCIAL

KEEP OUT OF REACH OF CHILDREN READ THE LABEL BEFORE USING

Net Contents 10 mL – 5 L

GUARANTEE: (S)-Kinoprene 18.42% Contains 1,2-Benzisothiazolin-3-one at 0.037% as a preservative.

REGISTRATION NO. 29661 PEST CONTROL PRODUCTS ACT

WELLMARK INTERNATIONAL 100 Stone Road West, Suite 111 Guelph ON N1G 5L3 1-800-688-7378

### **ENVIRONMENTAL HAZARDS**

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

**DIRECTIONS FOR USE Introduction:** ENSTAR EW is an insect growth regulator recommended for control of whiteflies and aphids and suppression of mealybugs on ornamental plants in the greenhouse.

ENSTAR EW does not produce an immediate insect kill but results in a gradual reduction of the insect population to below damaging levels. At the preventative maintenance rate, ENSTAR EW shows morphological, ovicidal, and sterilizing effects. At the higher rate for heavy populations, ENSTAR EW kills adults. A preventative spray schedule along with good management practices (such as keeping doors closed and not introducing heavily infested plants into the greenhouse) will provide effective pest control. In the case of heavy whitefly adult populations, ENSTAR EW should be used at the higher rate to quickly reduce the whitefly population. Effects on Greenhouse Plants: Slight to moderate injury has been noted on blooms under certain conditions. For whitefly and aphid control, and mealybug suppression, it is recommended that applications be made in the pre-bloom stage. Before making large scale applications to any crop, the growers should test spray small numbers of plants to determine plant safety under their own cultural conditions. ENSTAR EW has been tested in the greenhouse on coleous and chrysanthemum plants and many varieties of bracking poinsettia, without signs of phytotoxicity. However, due to the large number of different varieties grown, testing has been limited. Growing conditions and cultural practices vary and may influence phytotoxicity. It is strongly recommended that evaluations be conducted on a sample set of plant material to observe for phytotoxicity prior to treating an entire crop.

ENSTAR EW's use on roses may result in delayed damage to some varieties.

**GREENHOUSE APPLICATIONS Rates of Application:** Preventative Maintenance Program: Mix ENSTAR EW at the rate of 80-128 mL per 100 L of water, and apply to run-off every 2 weeks, to prevent whitefly, mealybug, and aphid populations from reaching damaging levels. Generally, approximately 32 mL of ENSTAR EW per 100 m<sup>2</sup> every two weeks is required for preventative maintenance. Heavy Population Control Program: When heavy populations of adult whiteflies, mealybug, or aphids exist, apply 2 applications, 7 days apart, of ENSTAR EW at a rate of 240 mL per 100 L of water. Apply mixture to the point of run off. After two weeks, begin preventative maintenance program. Mixing and Handling Instructions: 1. Store in a cool place. 2. Partially fill spray tank with water, then add the recommended amount of ENSTAR EW, agitate and complete filling. 3. Dilute spray solution should be used within 24 hours; always agitate before using. Methods of Application: Complete coverage of foliage is essential for control of whiteflies and aphids. For conventional spray equipment, mix the recommended amount of ENSTAR EW and water and spray both top and bottom surfaces of leaves until run-off. For other applications, follow the equipment manufacturer's specifications.

#### RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that ENSTAR EW contains a Group 7 insecticide. Any insect population may contain individuals naturally resistant to (s)-kinoprene and other Group 7 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

# To delay insecticide resistance:

- Where possible, rotate the use of (s)-kinoprene or other Group 7 insecticides with different groups that control the same pests in a field.
- Use tank mixtures with insecticides from a different group when such use is permitted.
- Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.
- · Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Wellmark International 1-800-688-7378.

### **PRECAUTIONS:**

**KEEP OUT OF REACH OF CHILDREN**. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Harmful if inhaled. Avoid breathing spray mist. Wash hands, face and exposed skin after use and before eating, drinking, or smoking. Wear coveralls over normal work clothes, chemical resistant gloves and a face shield when mixing, loading or applying or when cleaning or repairing contaminated equipment. DO NOT re-enter treated areas within 12 hours. Do not contaminate food, feed and domestic water supplies by storage or application of product. Do not use on crops grown for food or feed.

### FIRST AID:

**IF SWALLOWED**: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth 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 eye. Call a poison control centre or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

Take the container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

# **TOXICOLOGICAL INFORMATION:** Treat symptomatically.

**STORAGE:** Store in a cool, dry place. To prevent contamination store this product away from food or feed. Protect from heat or open flame.

### **DISPOSAL/DECONTAMINATION:**

Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.

Follow provincial instruction for any required additional cleaning of the container prior to its disposal.

Make the empty container unsuitable for further use.

Dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

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