

70051-45

12/22/2003

Page 1 of 4

# Gemstar<sup>®</sup> LC

## INSECTICIDAL VIRUS

A Liquid Concentrate Biological Insecticide For Control of Corn earworm  
(Cotton bollworm, Tomato fruitworm), and Tobacco budworm

FOR ORGANIC PRODUCTION



GEMSTAR<sup>®</sup> LC is an IVP (Insecticidal Virus Product) for control of the caterpillars of the corn earworm, *Helicoverpa zea* (also known as the cotton bollworm and the tomato fruitworm), and the tobacco budworm, *Heliothis virescens*. Read this label carefully.

**Active Ingredient:**

Polyhedral occlusion bodies (OBs) of the nuclear polyhedrosis virus of <i>Helicoverpa zea</i> (corn earworm).....	0.64%
<b>Other Ingredients:</b> .....	99.36%
<b>TOTAL:</b> .....	100.00%

\*This lot contains at least 2 billion OBs/ml.

KEEP OUT OF REACH OF CHILDREN  
**CAUTION**

Net Weight 2.5 Gallons  
EPA Reg. No. 70051-45  
EPA Est. No. 70051-CA-001

Manufactured by  
Certis USA  
9145 Guilford Road  
Suite 175  
Columbia, MD 21046  
**CERTIS**

**ACCEPTED**  
  
DEC 22 2003  
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 70051-45

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

284

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS (AND DOMESTIC ANIMALS): CAUTION:** Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Harmful if inhaled. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

**FIRST AID**

**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.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

**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 a poison control center or doctor for treatment advice

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Hot Line Number: 1-800-255-3924.

**PERSONAL PROTECTIVE EQUIPMENT:**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry

**Engineering Control Statements:**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.

**USER SAFETY RECOMMENDATION**

Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

**ENVIRONMENTAL HAZARDS:** Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

384

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exemptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants, soil, or water is:

- Coveralls
- Waterproof gloves
- Shoes plus socks.

**GENERAL INFORMATION**

GEMSTAR® LC is a highly selective insecticide for use against the insects and on the crops listed on this label. Always follow these directions:

Treat when larvae are young (early instars) and are actively feeding. Apply before extensive damage has occurred. When insect infestations are heavy, use the higher label rates. Thorough spray coverage is essential for good insect control. Apply GEMSTAR® LC by conventional ground or aerial application equipment with quantities of water to provide thorough coverage of infested plants without runoff. The amount of water needed per acre will depend on weather, spray equipment, and local experience. Use the application amount of GEMSTAR® LC in 20-100 gallons of water per acre for ground application and in at least 5 gallons of water for aerial application. Use of a spreader/sticker and ultraviolet screening agent can enhance the performance of this product. Fill the mix tank with desired quantity of water. Use agitation during mixing. If spreader/sticker or ultraviolet screen is used, add prior to the addition of GEMSTAR® LC. Mixing time can be reduced by premixing GEMSTAR® LC with a small amount of water and vigorously agitating before adding to the tank. Mix final formulation for 10-30 minutes.

**APPLICATION RATES**

CROP	RATE		
	Billions Obs Per Acre	Mls Per Acre	Oz Per Acre
<b>Vegetables:</b> Tomatoes, lettuce, cabbage, beans, peppers, celery, escarole, sweet corn, peas, asparagus, beets, cauliflower, cucumber, broccoli, onion, strawberries, okra	600	300	10
<b>Other Crops:</b> Cotton, alfalfa, soybeans, peanuts, potatoes, corn, wheat, sweetpotatoes, tobacco, sunflower, sugarbeets, sorghum, various flowers, & border plants.	600	300	10

USE NON-CHLORINATED WATER AT A pH NEAR 7.0 IN THE SPRAY-TANK MIX. GEMSTAR® LC can be applied up to and including the day of harvest and storage.

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**STORAGE AND DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal.

**STORAGE:** Store this product in original sealed container in a cool, dry place inaccessible to children and pets. Store at temperatures below 90°F. Bioactivity may be impaired by storage above 90°F. Storing the product in a freezer or refrigerator will extend its shelf-life.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Plastic container - triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Glass container - triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved State and local procedures.

Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. **NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.**  
**SHAKE WELL BEFORE USING**

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M081803 OMRi  
M111603 OMRi non-markup