

CLV LC
 A Liquid Concentrate
 Insecticidal Virus
 for Control of Caterpillar Pests

ACCEPTED
 DEC 22 2003
 Under the Federal Insecticide,
 Fungicide, and Rodenticide Act,
 as amended, for the pesticide
 registered under
 EPA Reg. No. 70051-41

FOR ORGANIC PRODUCTION

CLV LC is an IVP (Insecticidal Virus Product) for control of various pest caterpillars on field and greenhouse crops and ornamentals. Read this label carefully. Refer to the Technical Bulletin for Additional Guidelines for Use.

Active Ingredient*

Polyhedral occlusion bodies (Obs) of the nuclear polyhedrosis virus of <i>Anagrapha</i> <i>falcifera</i>	0.64%
Other Ingredients.....	99.36%
Total.....	100.00%

*This lot contains at least 2 billion Obs/ml

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID STATEMENTS

If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice.

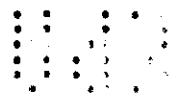
If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

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 do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further 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.

EPA Reg. no. 70051-41
EPA Establishment No. 70051-CA-001



PRECAUTIONARY STATEMENTS

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

PERSONAL PROTECTIVE EQUIPMENT:

Applicators and other handlers must wear:

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

Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic reactions.

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

USER SAFETY RECOMMENDATION

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

ENVIRONMENTAL HAZARDS: Do not contaminate water when disposing of equipment washwaters.

STORAGE AND DISPOSAL: Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not re-use empty containers.

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 may be disposed of on site or at an approved waste disposal facility. Pesticide, spray mixture or rinsate that cannot be used should be disposed of on site or in an approved waste disposal facility in accordance with Federal and local regulations.

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 burning is allowed, 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.

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.

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

CLV 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 CLV 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 CLV LC in 20-100 gallons of water per acre for ground application and in at least 5 gallons of water for aerial application.

A spreader/sticker and ultraviolet screening agent may enhance the performance of this product.

Fill the mix tank with desired quantity of water. Use agitation during mixing. If a spreader/sticker or ultraviolet screen is used, add prior to the addition of CLV LC. Mixing time can be reduced by premixing CLV LC with a small amount of water and vigorously agitating before adding to the tank. Mix final formulation for 10-30 minutes.

**TECHNICAL BULLETIN
CLV LC INSECTICIDAL VIRUS****PRODUCT DESCRIPTION**

CLV-LC contains an insecticidal baculovirus (scientific name: *Anagrapha falcifera* nuclear polyhedrosis virus) that is specific to Lepidoptera. Because of this specificity, CLV LC provides a unique opportunity for biological control of caterpillars without harmful effects on humans, domestic animals, wildlife, beneficial insects and plants.

BIOLOGICAL PROPERTIES and MODE OF ACTION

CLV LC is an insecticidal virus which must be ingested by larvae in order to be effective. Upon ingestion, the viral occlusion bodies (OBs) dissolve in the larval midgut and release infectious virions. These enter the cells lining the digestive tract and replicate in the nuclei of those cells. The resulting progeny virus infect other tissues within the larva, which stops feeding and eventually dies from massive viral infection. After death, the larva

disintegrates, releasing billions of new OBs which may infect other larvae upon ingestion. Death occurs 3 to 7 days after ingestion of CLV LC, depending on dosage and ambient temperature. Death may occur more quickly at higher temperatures and higher dosage.

Baculoviruses have been found only in invertebrates, no member of this family is known to infect vertebrates or plants. CLV LC does not reproduce in mammalian cells. No adverse effect to fish, wildlife or beneficial organisms have been observed.

This product can be inactivated by continuous exposure to temperatures above 90°F. For best results, keep the product refrigerated or frozen when not in use.

PRODUCT INFORMATION Application

CLV LC biological insecticide is for use against the following species of pest caterpillars on the crops listed below: Cotton bollworm (*Helicoverpa zea*), tobacco budworm (*Heliothis virescens*), beet armyworm (*Spodoptera exigua*), cabbage looper (*Trichoplusia ni*), and diamondback moth (*Plutella xylostella*).

APPLICATION RATES

CROP	RATE		
	Billions Obs Per Acre	Mls Per Acre	Fluid Oz Per Acre
Vegetables: Tomatoes, lettuce, cabbage, beans, peppers, celery, escarole, sweet corn, peas, asparagus, beets, cauliflower, cucumber broccoli, onion	200	100-200	3.4-6.8
Other Crops: Cotton, alfalfa, soybeans, peanuts, potatoes, corn, wheat, sweetpotatoes, tobacco, sunflower, sugarbeets	200	100-200	3.4-6.8
Floriculture: Chrysanthemum, gypsophila, gerbera, rose, carnation, azalea, gladiolus, cyclamen, saintpaulia, geranium, Bouvardia	200	100-200	3.4-6.8

Repeat as necessary to maintain control.

Make applications when larvae are small (first and second instars).

USE NON-CHLORINATED WATER AT A pH NEAR 7.0 IN THE SPRAY-TANK MIX.

CLV LC may be applied up to and including the day of harvest and storage.

LIMITATION OF WARRANTY AND CONDITIONS OF SALE

Read this Limited Warranty and Liability before buying or using this product.

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.

CERTIS

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