## HELICOVEX<sup>®</sup> Suspension Concentrate Insecticidal Virus

### LIVE ORGANISM

For the Suppression of Corn Earworm (*Helicoverpa zea*) in Sweet Corn, Field Corn, Seed Corn, Popcorn, Hemp and outdoor Cannabis

COMMERCIAL

# READ THE LABEL BEFORE USING KEEP OUT OF REACH OF CHILDREN

ACTIVE INGREDIENT: *Helicoverpa armigera* Nucleopolyhedrovirus, (HearNPV) isolate BV-0003 Minimum of 7.5 x 10<sup>12</sup> occlusion bodies (OBs)/L.

## **REGISTRATION NO: 33169 PEST CONTROL PRODUCTS ACT**

Net Contents: 200 mL – 5L

CAUTION – EYE IRRITANT POTENTIAL SENSITIZER



1350 Regent Street Fredericton, New Brunswick, E3C 2G6 Tel: 1-888-870-6444

> Batch Number: Date of Manufacture:

2021-1380 2021-04-29

#### **PRECAUTIONS:**

**KEEP OUT OF REACH OF CHILDREN.** May cause sensitization. May irritate eyes. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing. Wear waterproof gloves, long-sleeved shirt, long pants, eye goggles, socks with shoes and use a NIOSH-approved mist filtering respirator or NIOSH-approved mist filtering mask when mixing/loading, applying and during all clean-up and repair activities. Wash thoroughly with soap and water after handling the product. Remove contaminated clothing and follow manufacturer's directions for cleaning/maintaining personal protective equipment (PPE) before reuse.

Can be applied up to and including the day of harvest. The pre-harvest interval (PHI) is 0 days.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, school and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

#### **RESTRICTED ENTRY INTERVAL (REI):**

DO NOT enter or allow worker entry into treated areas for 4 hours or until sprays have dried, unless wearing appropriate personal protective equipment including waterproof gloves, long-sleeved shirt, long pants, and socks with shoes.

#### FIRST AID:

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 ON SKIN OR CLOTHING - Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control center 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 center or doctor for further 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.

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

#### TOXICOLOGICAL INFORMATION

Treat symptomatically.

#### **GENERAL INFORMATION:**

*Helicoverpa armigera* nucleopolyhedrovirus (HearNPV) is a naturally occurring baculovirus within the genus *Alphabaculovirus*. It is infectious to larvae of corn earworm (*Helicoverpa zea*). To be effective, deposits of HearNPV must be ingested by susceptible larvae. Thorough coverage of target foliage where larvae are feeding is essential. When ingested by the host larvae, the occlusion bodies (OBs) of HearNPV dissolve in the larval midgut and release the virus to initially infect midgut cells and then systemically infect other tissues within the larvae. The infected larvae stop eating, become sluggish and die. Mortality occurs typically within 5-7 days.

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Baculoviruses co-evolved with and have only been found in insects. Member of the genus *Alphabaculovirus* do not infect Hymenopteran pollinators and parasitoids or insect predators such as praying mantis and ladybird beetles. No member of the Baculoviridae family has been found in vertebrates or plants and HearNPV does not replicate in mammalian cells. Baculoviruses do not affect or infect fish, wildlife, humans or beneficial organisms.

Read and understand the entire label before opening this product. If you have questions call the supplier at 1-888-870-6444 or obtain technical advice from the distributor or your provincial agricultural representative.

#### CROPS:

Sweet corn Field Corn Seed Corn Popcorn Hemp Outdoor Cannabis

#### DIRECTIONS FOR USE:

For suppression of corn earworm (*Helicoverpa zea*): Application timing should target eggs or 1<sup>st</sup> instar larvae. The use of pheromone traps is recommended to determine when adults arrive to lay eggs.

**Application rate:** 50-200 mL/ha  $(3.75 \times 10^{11} \text{ to } 1.5 \times 10^{12} \text{ OBs/ha})$ , depending on infestation pressure. Apply in sufficient water volume to ensure thorough coverage, especially of the silks in corn and the flowering parts of hemp or cannabis. The pH of the spray solution should range between 5 and 8.5. To be effective, larvae must ingest deposits of **HELICOVEX**. Uniform coverage is essential for optimal control. The use of water sensitive cards is recommended to check coverage.

Repeat application every 3-5 days if monitoring indicates that it is necessary; 3-5 applications may be required. Use the shorter reapplication interval with lower application rates or when weather is sunny. **HELICOVEX** can be applied up to and including the day of harvest.

#### SHAKE BEFORE USE!

Do not tank mix with strong acid or alkaline substances or copper products. The pH of any tank mix should range between 5 and 8.5.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

DO NOT apply using aerial application equipment.

**STORAGE:** This product should be used within 24 months from the date of manufacture when stored at 5°C or less. Store container upright and keep tightly closed when not in use. Shake vigorously to re-suspend contents immediately prior to addition in water.

To prevent contamination store this product away from food or feed.

#### DISPOSAL:

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

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

- 3. Make the empty container unsuitable for further use.
- 4. Dispose of the container in accordance with provincial requirements.

5. 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 a control product in a way that is inconsistent with the directions on the label.