

2020-5933  
2022-12-09

## **Cuc-GUARD**

SUSPENSION

For use in the production of greenhouse cucumber against *Cucumber green mottle mosaic virus*

COMMERCIAL

ACTIVE INGREDIENT: attenuated *Cucumber green mottle mosaic virus* strain ON-BM3; AI-Bio10  
– not less than  $2 \times 10^8$  particles/mL

REGISTRATION NO. 34682 PEST CONTROL PRODUCTS ACT

PREVENT ACCESS BY UNAUTHORIZED PERSONNEL

POTENTIAL SENSITIZER

CAUTION – EYE AND SKIN IRRITANT

READ THE LABEL BEFORE USING

NET CONTENT: 500 mL- 1000 L

Date of manufacture:

Lot No.:

**The entire contents of the container should be used after opening.**

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519-452-7272

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## **GENERAL INFORMATION**

Cuc-GUARD is a suspension containing an attenuated strain of the *Cucumber green mottle mosaic virus*. The application of Cuc-GUARD on greenhouse cucumber plants according to the label directions provides protection against virulent strains of the *Cucumber green mottle mosaic virus* by cross-protection.

## **PRECAUTIONS**

KEEP OUT OF REACH OF CHILDREN. May cause sensitization. May irritate skin and eyes. Avoid contact with skin, eyes or clothing. Avoid inhaling/breathing spray mist. Wear a long-sleeved shirt, long pants, protective eyewear (goggles), waterproof gloves, socks and shoes, and a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter when handling, mixing/ loading, or applying the product, and during all clean-up/ repair activities. Wash thoroughly with soap and water after handling the product.

Remove contaminated clothing and wash before reuse.

## **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 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.

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.

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

## **TOXICOLOGICAL INFORMATION**

Treat symptomatically.

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## **DIRECTIONS FOR USE**

**CROP:** Greenhouse cucumber

**PEST/DISEASE:** *Cucumber green mottle mosaic virus (CGMMV)*

**RATE:** 4-8 L/ha

**SPRAY VOLUME:** 160 - 300 L/ha

### PRE - APPLICATION INFORMATION

Cuc-GUARD is to be applied on two- to three-week old cucumber plants. Only plants that are free of CGMMV may be treated with this product. Cuc-GUARD must not be applied when there is clear, dispersed infection of the cucumber crop by CGMMV.

CGMMV-free cucumber seeds must be used for seedlings to apply Cuc-GUARD if possible. Otherwise, prior to treatment with Cuc-GUARD, samples of plant material must be obtained and sent to a laboratory for analysis to determine that the cucumber plants to be treated are free of CGMMV. Contact A&L Canada Laboratories Inc. to obtain details of these pre-application steps.

### **APPLICATION INSTRUCTIONS:**

Shake the product thoroughly before use and prepare the spray solution. Rinse the empty container with water and add the rinsate into the tank. Agitate the spray solution well after dilution.

Prepare the required amount of Cuc-GUARD spray solution that can be applied within 4 hours. Apply the entire spray solution directly to the cucumber plants. Do not store unused spray solution.

Monitor the temperature carefully during application to ensure the solution never exceeds 20°C.

Agitate the spray solution every 2 hours.

Cuc-GUARD may be applied with a spray robot typically used in greenhouse cucumber production or with portable greenhouse sprayers with only one nozzle at the end of the spray boom, provided the spray covers and penetrates the plant canopy. DO NOT use ultra - low volume (ULV) application equipment as mentioned above.

Ensure plant and canopy penetration with the spray solution by using the appropriate spray pressure at application (80 – 120 PSI).

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The 4.0 L/ha rate may be used when the risk of infection to cucumber plants is low and rapid colonization of the treated cucumber plants is not required. Use the 8.0 L/ha rate when rapid colonization of Cuc-GUARD treated cucumber plants is needed (e.g. when treating newly planted cucumber plants adjacent to infected greenhouses or where a higher risk of CGMMV is anticipated).

Apply Cuc-GUARD alone, do not tank mix.

Apply one application per greenhouse cucumber crop growing cycle.

#### POST - APPLICATION INFORMATION

To optimize protection of cucumber plants by Cuc-GUARD, conduct crop maintenance immediately at the end of the restricted entry interval following application to encourage spread of the inoculum and obtain a homogeneous colonization of the crop. This step consists of manual plant manipulation in order to slightly damage the plants and facilitate the spread and entry of the mild virus particles into the plant. Monitor nutrient availability to cucumber plants treated with Cuc-GUARD as they may require an application of potassium to ensure proper development of fruit color.

Three to five weeks after application of Cuc-GUARD, provide plant samples to a laboratory to confirm that treated plants have been colonized by CGMMV-BM3 strain. Contact A&L Canada Laboratories Inc. to obtain details of these post-application steps.

#### DISPOSAL OF PLANT MATERIAL

At the end of the production cycle, all Cuc-GUARD-treated cucumber plant tissue must be destroyed in isolation away from all *Cucumber green mottle mosaic virus* susceptible plants to prevent the development of new aggressive isolates resulting from the recombination of the CGMMV-BM3 strain with aggressive forms of the *Cucumber green mottle mosaic virus*. Cuc-GUARD-treated plants must NOT be composted or used as green manure.

Do Not reuse growing media unless steam sterilized.

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

**DO NOT** allow worker entry into treated areas for 4 hours or until sprays have dried unless wearing waterproof gloves, long-sleeved shirt, long pants, socks and shoes.

#### Preharvest interval (PHI):

Cuc-GUARD can be used up to and including the day of harvest. PHI = 0 days.

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## **RESTRICTIONS**

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

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

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

DO NOT use this product as a curative, apply as a preventative only to cucumber plants not infected by CGMMV.

DO NOT use this product on cucumber crops grown for seed production.

DO NOT apply this product using ultra-low volume (ULV) application equipment such as electrostatic sprayers or fogging machines.

DO NOT apply this product through any type of irrigation equipment.

DO NOT use this product in a tank-mix with other pesticides.

DO NOT use this product in a tank mix with fertilizers.

DO NOT use this product in a tank mix with other spray additives.

## **STORAGE**

Store product in refrigerated conditions at 4 °C, in the original container only, away from food or feed. Not for use or storage in or around the home. Keep container closed.

DO NOT store sealed UNOPENED container longer than 12 weeks after date of manufacture.

## **DISPOSAL**

1. Triple- or pressure-rinse the empty container. Add the rinsings to the 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.

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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.