

Biological Insecticide

# Novodor®

Flowable Concentrate

**For the Control of Colorado Potato Beetle on Potatoes, Tomatoes, and Eggplant, and Elm Leaf Beetle on Shade Trees and Ornamentals.**

ACTIVE INGREDIENT: *Bacillus thuringiensis* subspecies *tenebrionis*, strain NB-176, fermentation solids and solubles ..... 10%  
OTHER INGREDIENTS ..... 90%  
TOTAL ..... 100%  
POTENCY: 15,000 Leptinotarsa Units (LTU) per gram of product equivalent to 16.3 Million LTU's per quart of product. The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No. 73049-48  
EPA Est. No. 33762-IA-001  
List No. 60473

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**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

**1.0**

**FIRST AID**

<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

**HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-892-0099 for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-6-VALENT (682-5368).

**2.0**

**PRECAUTIONARY STATEMENT**

**2.1**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Causes moderate eye irritation. Harmful if absorbed through the skin. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling.

**2.2**

**Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride or viton
- Shoes plus socks

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

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 sensitization.

When handlers used 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.

**2.3**

**User Safety Recommendations**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling the product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

CONTINUED

## 2.4 Environmental Hazards

For terrestrial uses, 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 cleaning equipment or disposing of equipment washwaters.

## 3.0 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 through any type of irrigation system.

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.

## 4.0 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 exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. 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
- Chemical-resistant gloves such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride or viton
- Shoes plus socks

## 5.0 STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal of waste.

**Storage:** Store in a cool place. Storage at temperatures between 40° F and 50° F is recommended for maximum product stability. Storage at temperatures above 90° F for an extended period of time should be avoided.

Keep containers tightly closed when not in use.

**Pesticide Disposal:** Pesticide waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility in accordance with federal and local regulations.

**Container Disposal:** 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.

## 6.0 GENERAL USE INSTRUCTIONS

*Novodor* FC is a highly effective biological insecticide containing the active protein crystal produced by *Bacillus thuringiensis* subspecies *tenebrionis*. *Novodor* FC is recommended for use against the larval stage of the Colorado Potato Beetle, *Leptinotarsa decemlineata*, and the Elm Leaf Beetle, *Pyrrhalta luteola*. *Novodor* FC is most effective against first and second instar larvae. Therefore, applications should be timed to coincide with the first egg hatch of the target pest. Applications should be followed by close scouting for signs of reinfestations. Reapply as necessary to maintain control.

Due to its unique mode of action, *Novodor* FC must be ingested by the target insect larvae to be effective. Therefore, thorough coverage of the crop to be protected is essential for best results. Upon ingestion, the protein is activated under the specific gut conditions of the target insect causing general gut paralysis and cessation of feeding within hours. Death occurs in 2-5 days.

When larvae and adult beetles are present an effective adulticide with rapid knock-down activity should be used.

**Mixing:** Shake or stir *Novodor* FC thoroughly before use. Fill spray or mixing tank half full of water and begin agitation. Add the recommended amount of *Novodor* FC into water while maintaining agitation. Add other spray materials, if any, and balance of water.

Do not allow diluted spray to remain in the tank for more than 72 hours.

While *Novodor* is formulated to provide desirable coverage and adherence to crop surfaces, additional adjuvants, spreaders, or stickers may be added to improve product performance, especially under rainy conditions or heavy dew. Avoid application if rainfall is imminent. Combinations with commonly used insecticides, fungicides, or other spray tank adjuvants are generally not deleterious to *Novodor* FC if the tank mix is used promptly. Before mixing in the spray tank, it is advisable to test physical compatibility by mixing all components in a small container in proportionate quantities. Use of tank mixes should be in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

## 7.0 APPLICATION VOLUME

*Novodor* FC may be applied by ground or aerial equipment with sufficient quantities of water to provide thorough coverage of plant parts to be protected. The amount of water needed per acre will depend upon crop size, weather, spray equipment, and local experience.

**Ground Application:** Use the recommended amount of *Novodor* FC in a minimum of 20 gallons of water per acre.

**Aerial Application:** Use recommended amount of *Novodor* FC in a minimum of 3 gallons of water per acre.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all of these factors when making decisions.

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## 8.0 APPLICATION RATE

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The *Novodor* FC application rate depends on the population pressure and the stage of the larval development. For light to moderate populations of early instar larvae (newly hatched to 1/4 inch in length) apply 1 to 3 quarts of *Novodor* FC per acre. Against heavy infestations of early instar larvae apply 2 to 3 quarts per acre. When mixed populations of younger and older larvae are present, apply *Novodor* FC at 3 to 4 quarts per acre.

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## 9.0 NOTICE OF WARRANTY

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VALENT MAKES NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PURPOSE, OR OTHERWISE, EXPRESS OR IMPLIED, CONCERNING THIS PRODUCT OR ITS USES WHICH EXTEND BEYOND THE USE OF THE PRODUCT UNDER NORMAL CONDITIONS IN ACCORD WITH THE STATEMENTS MADE ON THIS LABEL. IN NO CASE SHALL THE SELLER BE LIABLE FOR CONSEQUENTIAL, OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER.

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