



# Duplex™-G

**A DUAL ACTION extended residual BIOLOGICAL LARVICIDE AND INSECT GROWTH REGULATOR GRANULAR PRODUCT TO KILL MOSQUITO LARVAE AND PREVENT ADULT MOSQUITO EMERGENCE**  
(including those mosquitoes that may transmit diseases, including West Nile virus, Dengue, Chikungunya, and Zika virus)

## SPECIMEN LABEL

### ACTIVE INGREDIENT:

*Bacillus thuringiensis* subspecies *israelensis* Strain BMP 144 solids, spores, and insecticidal toxins\*

..... 5.35%

(S)-Methoprene (CAS # 65733-16-6)..... 1.60%

OTHER INGREDIENTS: ..... 93.05%

**TOTAL:** ..... 100.00%

\*Equivalent to 375 International Toxic Units (ITU/mg).

NOTE: The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA REG. NO. 89459-93 EPA EST. NO. 39578-TX-1

KEEP OUT OF REACH OF CHILDREN  
**CAUTION**

### 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. • Call a poison control center or doctor for treatment advice.

**HOTLINE 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 1-800-248-7763 for emergency medical treatment information.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Due to the size and abrasiveness of the granule, use protective eyewear and clothing (e.g., waterproof gloves) to minimize exposure during loading and handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs must wear a NIOSH-approved particulate respirator with any N, P or R filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

### ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwater 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 directly to treated, finished drinking water reservoirs or animal watering troughs.

**Zoëcon® Duplex™-G (Duplex™-G)** is a unique combination of a *Bacillus thuringiensis v. israelensis (Bti)* biological larvicide and S-Methoprene Insect Growth Regulator (IGR) that provides dual action control. **Duplex™-G** provides quick kill of existing mosquito larvae and residual control of subsequent broods. This dual combination larvicide is highly effective against multiple broods of mosquitoes in a variety of habitats. **Duplex™-G**, when applied to the water column, releases effective levels of *Bti* to begin killing larvae within 24 hrs. after application. Once the *Bti* has killed existing larvae, the IGR in **Duplex™-G** provides residual control and prevents adult mosquito emergence for up to 28 days when applied at rates of 5 – 20 pounds per acre.

**Duplex™-G** releases effective levels of the *Bti* biological larvicide for up to 72 hours after application and S-Methoprene insect growth regulator prevents the emergence of adult mosquitoes. Continue applications throughout the entire season to maintain control. IGR treated larvae continue to develop normally to the pupal stage where they die.

Rotary and fixed-wing aircraft equipped with granular spreaders capable of applying rates listed below may be used to apply **Duplex™-G**. Ground equipment that will achieve even coverage at these rates may also be used.

Apply **Duplex™-G** uniformly and repeat at intervals of 14 to 28 days.

**NOTE: Duplex™-G** has no effect on mosquitoes that have reached the pupal or adult stage prior to treatment.

**APPLICATION TIMING:** Apply **Duplex™-G** at any stage of larval mosquito development. Granules may be applied 7 to 14 days prior to flooding (i.e., "pre-hatch" or "pre-flood") in areas which flood. In such areas, one application of **Duplex™-G** can prevent adult mosquito emergence from several subsequent floodings. The actual length of control depends on the duration and frequency of flooding events.

**APPLICATION RATES: Duplex™-G** controls the major species of mosquitoes including: *Aedes*, *Anopheles*, *Culex*, and *Culiseta*. Apply **Duplex™-G** at 2.5 - 20 lb/acre (5.6 - 11.2 kg/ha). Within these ranges, use lower rates when water is shallow [ $<6''$ - $12''$ ] and vegetation and/or organic matter are minimal, and use higher rates when water is deep [ $>1$  foot] and vegetation and/or organic matter are heavy. In water depths greater than 2 feet, double the highest application rate for each subsequent foot of water. Depending on water depth and degree of organic matter, lower use rates may provide less IGR residual. Application of **Duplex™-G** to sites subject to water flow or exchange will diminish the product's effectiveness and may require higher application rates and/or more frequent applications. Lower residual activity may be seen at rates used at 5 pounds per acre or less; for consistent 28-day control, use rates at 7.5 pounds per acre or higher.

**APPLICATION SITES: Duplex™-G** may be applied to both crop and non-crop areas as directed above to temporary and permanent sites that support mosquito larval development. Examples of such sites include: snow pools, salt and tidal marshes, freshwater swamps and marshes (cattail, red cedar, and white maple marshes), woodland pools and meadows, dredging spoil sites, drainage areas, ditches, wastewater treatment facilities, livestock runoff lagoons, retention ponds, harvested timber stacks, swales, storm water drainage areas, sewers, catch basins, tree holes, water-holding receptacles (e.g., tires, urns, flower pots, cans, and other containers), irrigated and non-irrigated pastures, hoof prints and other natural and manmade water-holding sites, containers and depressions. Examples of crop areas include: irrigated croplands; pastures; rangeland; vineyards; rice fields (domestic and wild); date palm, citrus, fruit, and nut orchards; berry fields; bogs and row crops.

**STORAGE AND DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. **Pesticide Storage:** Store closed containers in a cool, dry place. **Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. **Container Handling: Plastic Bags:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Refillable Totes (2000 lbs):** Refillable container. Refill this container with this product only. Do not reuse this container for any other purpose. Return empty totes to Central Garden & Pet Company for cleaning and recycling. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. If the container is not returned, to clean the container before final disposal, completely empty container by tapping sides and bottom to loosen clinging material. Then offer for recycling if available or dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

For information, call 1-800-248-7763 or visit our Web site: [www.centralmosquitocontrol.com](http://www.centralmosquitocontrol.com)

**WARRANTY: IMPORTANT: READ BEFORE USE.** Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The Directions for Use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Central Garden & Pet Company. All such risks shall be assumed by the user or buyer. **DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Central Garden & Pet Company makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Central Garden & Pet Company is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Central Garden & Pet Company disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries, or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Central Garden & Pet Company's election, the replacement of product.

Manufactured for:  
**Central Garden & Pet Company**  
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