**RESTRICTED USE PESTICIDE**

Toxic to fish and aquatic organisms. For retail sale to and use only by certified applicators, or persons under their direct supervision and only for those uses covered by the certified applicator’s certification.

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**BIFENTHRIN**

**GROUP 3A INSECTICIDE**

**B. amyloliquefaciens**

**GROUP 44 FUNGICIDE**

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**ETHOS 3D**

**INSECTICIDE / FUNGICIDE**

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**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.

**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:**
- 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.

**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 1-800-331-3148 for emergency medical treatment information.

**NOTE TO PHYSICIAN**

This product contains a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

**For Emergency Assistance Call (800) 331-3148.**

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**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**WARNING**

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if swallowed or if absorbed through skin. Avoid contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

**Personal Protective Equipment (PPE):**

Mixers, Loaders and Applicators must wear:
- Protective eyewear
- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Wear a minimum of a NIOSH approved particulate filtering facepiece

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**Sold By**

**FMC Corporation**

2929 Walnut Street
Philadelphia, PA 19104

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**NET CONTENTS:** 15 Gallons
respirator with any R or P filter; or a NIOSH approved elastomeric particulate respirator with any R or P filter; or a NIOSH approved powered air-purifying respirator with a HE filter.

**USER SAFETY REQUIREMENTS**

Follow manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions exist for washable PPE, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product’s concentrate. Do not reuse them.

**ENGINEERING CONTROLS**

When handlers use 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.

**USER SAFETY RECOMMENDATIONS**

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

**ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not make applications when water conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater.

This product is highly toxic to bees exposed to direct treatment or residues of the bee-attracting crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are foraging the treatment area. The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

**DIRECTIONS FOR USE**

**RESTRICTED USE PESTICIDE**

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. Do not apply this product through any type of irrigation system.

ETHOS® 3D Insecticide/Fungicide must be applied in-furrow with the seed or transplant. Do not make foliar applications of this product. Do not apply this product by air.

**3RIVE 3D System Information:** ETHOS 3D Insecticide/Fungicide must be applied with a 3RIVE 3D system. Refer to the 3RIVE 3D equipment and user manual for information on system operation and calibration.

**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 (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 12 hours.

**Exception:** If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry into 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, and Shoes plus socks.

**RESISTANCE MANAGEMENT**

For resistance management, ETHOS 3D Insecticide/Fungicide contains a Group 3A insecticide. Any insect population may contain individuals naturally resistant to ETHOS 3D Insecticide/Fungicide and other Group 3A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed.

To delay insecticide resistance, take the following steps:
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM recommendations for the specific site and pest problems in your area.

To reduce the potential for pesticide resistance, use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions.

**APPLICATION AND MIXING INSTRUCTIONS**

ETHOS 3D Insecticide/Fungicide is an insecticide/fungicide for furrow and plant applications. This product contains 1.4 pounds per gallon of the insecticide bifenthrin together with the biopesticide Bacillus amyloliquefaciens strain D747 at a minimum of 1.0 x 10^10 colony-forming units (cfu) per milliliter. Bacillus amyloliquefaciens strain D747 is a naturally occurring beneficial bacterium used for early season suppression of fungal plant diseases. The rate of application is variable according to pest pressure. Use lower rates under light to moderate pest infestations, and higher rates under heavier pest pressure. In arid climates application rates are generally higher. ETHOS 3D Insecticide/Fungicide must be used in equipment designed specifically for application of this type of formulation.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State, this product may not be applied within 100 feet (using ground equipment) of coastal marshes or streams that drain into coastal marshes.

ETHOS 3D Insecticide/Fungicide must be applied in-furrow with the seed or transplant. Do not mix with any other product unless that product has been specifically designed to work with the ETHOS 3D Insecticide/Fungicide formulation.

Use rates in the individual crop sections are listed as fluid oz/1000 Linear feet based on 30-inch row spacings. For conversion to rates applicable to different row spacings, see the table below.

The maximum application rate per acre per season (pounds active ingredient/acre/season) as listed under the use directions for each crop must not be exceeded.

**ETHOS 3D Insecticide/Fungicide Required Per Acre for Various Row Spacings**

<table>
<thead>
<tr>
<th>Row Spacing</th>
<th>36&quot;</th>
<th>30&quot;</th>
<th>20&quot;</th>
<th>15&quot;</th>
<th>Twin Row 30&quot; Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear row ft/A</td>
<td>14.520 ft</td>
<td>17.434 ft</td>
<td>28.136 ft</td>
<td>34.848 ft</td>
<td>34.848 ft</td>
</tr>
<tr>
<td>Conversion</td>
<td>0.21 fl oz/1000 Lin ft</td>
<td>3.1 fl oz/A</td>
<td>3.7 fl oz/A</td>
<td>5.5 fl oz/A</td>
<td>7.4 fl oz/A</td>
</tr>
<tr>
<td>0.56 fl oz/1000 Lin ft</td>
<td>3.8 fl oz/A</td>
<td>4.6 fl oz/A</td>
<td>6.9 fl oz/A</td>
<td>9.2 fl oz/A</td>
<td>9.2 fl oz/A</td>
</tr>
<tr>
<td>0.32 fl oz/1000 Lin ft</td>
<td>4.6 fl oz/A</td>
<td>5.5 fl oz/A</td>
<td>8.2 fl oz/A</td>
<td>11.1 fl oz/A</td>
<td>11.1 fl oz/A</td>
</tr>
<tr>
<td>0.42 fl oz/1000 Lin ft</td>
<td>6.1 fl oz/A</td>
<td>7.3 fl oz/A</td>
<td>11.0 fl oz/A</td>
<td>14.6 fl oz/A</td>
<td>14.6 fl oz/A</td>
</tr>
<tr>
<td>0.52 fl oz/1000 Lin ft</td>
<td>7.6 fl oz/A</td>
<td>9.1 fl oz/A</td>
<td>13.7 fl oz/A</td>
<td>18.3 fl oz/A</td>
<td></td>
</tr>
<tr>
<td>0.78 fl oz/1000 Lin ft</td>
<td>11.4 fl oz/A</td>
<td>13.7 fl oz/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.83 fl oz/1000 Lin ft</td>
<td>12.1 fl oz/A</td>
<td>14.6 fl oz/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.06 fl oz/1000 Lin ft</td>
<td>15.2 fl oz/A</td>
<td>18.3 fl oz/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.57 fl oz/1000 Lin ft</td>
<td>22.8 fl oz/A</td>
<td>27.4 fl oz/A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CROP ROTATION RESTRICTIONS

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days following the final application of bifenthrin.

MAXIMUM ALLOWABLE ETHOXS 3D INSECTICIDE/FUNGICIDE USE PER ACRE PER YEAR

Refer to the individual crop sections for maximum allowable ETHOXS 3D Insecticide/Fungicide usage per acre per year. The maximum allowable use of the bifenthrin active ingredient must include all registered use patterns including at-plant, soil applied and foliar applications of all bifenthrin containing products for a 12-month period. The 12-month period is to begin upon the initial application to the acre.

BUFFER ZONES

Vegetative Buffer Zones

Construct and maintain a minimum 10-foo-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply products containing bifenthrin onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information on constructing and maintaining effective buffers:


CROP USES

CORN

Including: Field Corn, Popcorn, Field Corn Grown for Seed, Sweet Corn, Sweet Corn Grown for Seed.

At-Plant

<table>
<thead>
<tr>
<th>PEST/DISEASE</th>
<th>USE RATES</th>
<th>DIRECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fluid oz/1000 Lineal ft.</td>
<td>Pound bifenthrin/acre</td>
</tr>
<tr>
<td></td>
<td>0.52 – 1.05</td>
<td>0.1 – 0.2</td>
</tr>
</tbody>
</table>

Apply in-furrow with the seed. ETHOXS 3D Insecticide/Fungicide must be applied with a 3RIV E 3D system.

Heavy Corn Rootworm Pressure Management Program: In areas where large corn rootworm populations are present, a multi-approach system may be needed for optimal pest management. However, if the population level is not known and if a corn rootworm adult scouting program along with threshold adult control measures were not completed during the previous growing season, then utilize a maximum dosage seed treatment program or genetically modified corn rootworm resistant hybrid in addition to ETHOXS 3D Insecticide/Fungicide.

SOYBEANS**

At-Plant

<table>
<thead>
<tr>
<th>PEST/DISEASE</th>
<th>USE RATES</th>
<th>DIRECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fluid oz/1000 Lineal ft.</td>
<td>Pound bifenthrin/acre</td>
</tr>
<tr>
<td></td>
<td>0.21 – 0.52</td>
<td>0.04 – 0.1</td>
</tr>
</tbody>
</table>

Apply in-furrow with the seed. ETHOXS 3D Insecticide/Fungicide must be applied with a 3RIV E 3D system.

**For improved performance and better disease management, use the highest application rate; however, under moderate to severe disease pressure, or when environmental conditions are conducive to rapid disease development, mix ETHOXS 3D Insecticide/Fungicide with other fungicides labeled for this use with the 3RIV E 3D System.**

Soybean Restrictions:

• Do not apply more than 0.1 pound bifenthrin active ingredient per acre per season as an at-plant application.
• Do not apply more than 0.2 pound bifenthrin active ingredient per acre total per season including PPI, at-plant, PRE, and foliar applications of other bifenthrin products.

**NOT for use on Soybeans in California.**
PEAS AND BEANS, succulent shelled – Crop Subgroups 6A and 6B

Including: Pea (Pisum species); dwarf pea, edible-pod pea, English pea, garden pea, green pea, snow pea, sugar snap pea, pigeon pea; Bean (Phaseolus species); broad bean (succulent), lima bean (green), runner bean, snap bean, wax bean; Bean (Vigna species): asparagus bean, black-eyed pea, Chinese longbean, cowpea, moth bean, southern pea, yardlong bean; jackbean; soybean (immature seed); sword bean

At-Plant

<table>
<thead>
<tr>
<th>PEST/DISEASE</th>
<th>USE RATES</th>
<th>DIRECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fluid oz/1000 Linear ft.</td>
<td>Pound bifenthrin/acre</td>
</tr>
<tr>
<td>Wireworm</td>
<td>0.21 – 0.52</td>
<td>0.04 – 0.1</td>
</tr>
<tr>
<td>Grape colaspis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root maggot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seedcorn maggot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Army cutworm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cylindrospore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>True armyworm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armyworm species</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Suppression of “Damping off,” seedling blights, and root or crown diseases caused by Pythium, Rhizoctonia, Fusarium, or Phytophthora</td>
<td>3 See rate table on page 2 for amount of ETHOS 3D Insecticide/Fungicide required per acre for various crop row spacings.</td>
<td></td>
</tr>
</tbody>
</table>

2 For improved performance and better disease management, use the highest application rate; however, under moderate to severe disease pressure, or when environmental conditions are conducive to rapid disease development, mix ETHOS 3D Insecticide/Fungicide with other fungicides labeled for this use with the 3RIVE 3D System.

Succulent Peas and Beans Restrictions:
- Do not apply more than 0.1 pound bifenthrin active ingredient per acre per season as an at-plant application
- Do not apply more than 0.2 pound bifenthrin active ingredient per acre per season including PPI, at-plant, PRE, and foliar applications of other bifenthrin products.

STORAGE AND DISPOSAL
Do not contaminate water, food or feed by storage and disposal.

Pesticide Storage
If storing this product below freezing, user should shake or roll the container to ensure proper product consistency. Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Store at less than 95°F. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Contain spills. Call CHEMTREC (Transportation and Spills) at 1-800-424-9300. To confine spill, dike surrounding area or absorb with sand, cat litter or commercial clay. Place damaged package in a holding container, identify contents.

Pesticide Disposal
Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinseate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Handling:

U-Turn® Container:
- Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

Metal or Plastic Container: Non-refillable container (in sizes 5 gallons or less):
- Do not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds, pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Non-refillable container (in sizes greater than 5 gallons):
- Do not reuse or refill this container. Triple rinse or pressure rinse.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable/Refillable Containers (if other than U-Turn Container):
Refill this container with pesticide only. Do not reuse this container for any other purpose. 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. To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.
The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of FMC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) Seller or FMC, and Buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHER THEORETICAL) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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