MOCAP ® EC Nematicide-Insecticide
EPA Reg. No. 5481-9041 EPA SLN No. WA-130006
DANGER / POISON
For Use on Non-Bearing Blueberries in Whatcom County Washington

FIFRA 24(c) SPECIAL LOCAL NEED LABEL

For distribution and use only within the state of Washington in Whatcom County. This label for Mocap EC Nematicide-Insecticide expires and must not be distributed or used in accordance with this SLN registration after December 31, 2015.

This label and the federal label for this product must be in the possession of the user at the time of pesticide application. Follow all applicable directions, restrictions and precautions on this 24(c) label and the main EPA-registered label. It is a violation of Federal law to use this product in a manner inconsistent with its labeling. As with any crop-protection product, always read and follow label directions.

WSDA Aquatic Advisory
This pesticide is toxic to aquatic organisms (fish and invertebrates) and wildlife and extremely toxic to birds. Mocap EC Nematicide-Insecticide should not be used under this SLN label where impact on listed threatened or endangered species is likely. You may refer to the WSDA Endangered Species Program web site at http://agr.wa.gov/PestFert/NatResources/EndangSpecies.aspx, or contact the Washington Department of Fish & Wildlife, National Marine Fisheries Service (NOAA Fisheries) or US Fish & Wildlife Service for information regarding aquatic species listed as threatened or endangered. Consult the federal label for additional restrictions and precautions to protect aquatic organisms.

SPRAY ZONE APPLICATION RESTRICTION
To mitigate risks to fish and aquatic organisms, a 140 ft buffer must be maintained around streams, ponds, lakes, river, springs, swamps, bogs, marshes, or irrigation canals containing water at the time of application.

Do not allow spray drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands or animals.

CHEMIGATION INSTRUCTIONS
Mocap EC Nematicide-Insecticide can only be applied through properly equipped subsurface drip irrigation (SDI) systems. Do not apply this product through any other type of irrigation system. Do not apply product through chemigation systems connected to public water systems.

DIRECTIONS FOR CHEMIGATION
1. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
2. Calibrate the irrigation system and injection system or before applying Mocap EC. If you have questions about calibration, you should contact state extension service specialists, equipment manufacturers, or other experts.
3. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
4. Check the irrigation system to insure uniform application of water. The chemigation system, which is inclusive of the irrigation equipment and chemigation apparatus, must be properly maintained. Do not apply when system connections or fittings leak or when emitters are not properly functioning.
5. The injection unit and supply tank should be free of rust, fertilizer or pesticide residue, sediment, and foreign material, and equipped with an in-line strainer with a 100-mesh or larger screen positioned between the supply tank and the injection pump. Dispose of any residue in accordance with Federal or State laws.
6. Add specified amount of Mocap EC to the water in the supply tank.
7. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that the materials are compatible at the time of mixing and do not separate during application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control. Otherwise, agitate the spray solution before and during application.

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8. Application should be in sufficient water and of sufficient duration to apply the recommended rate evenly. The system must be properly calibrated (with water only) to ensure that the amount of Mocap EC applied corresponds to the recommended rate.
9. Start the water pump and irrigation system, allowing the desired pressure to be achieved throughout the SDI system before starting the injection process.
10. Apply continuously for the duration of the application period.
11. Do not apply when wind speed favors drift beyond the area intended for treatment.
12. Do not allow irrigation water to collect or run-off during chemigation and pose a hazard to workers, bystanders, livestock, wells, or adjoining crops.
13. Once the application is completed, thoroughly flush the entire irrigation and injection system with untreated water before turning off the irrigation water. To ensure the lines are flushed and free of this product, a dye indicator may be injected into the lines to mark the end of the application period.
14. Wear Personal Protective Equipment as defined in the PPE section of this label for applicators and other handlers when making adjustments or repairs on the chemigation system when Mocap EC is in the irrigation water. Do not enter treated area during the reentry interval specified in the Agricultural Use Requirements section of this label unless required PPE is worn.

CHEMIGATION EQUIPMENT REQUIREMENTS
1. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
2. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
3. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
4. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
5. Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
6. Any alternatives to the above required safety devices must conform to the “List of EPA-approved Alternative Devices.”
7. Check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through irrigation equipment.

CHEMIGATION APPLICATION USING SUBSURFACE DRIP IRRIGATION (SDI) – SPECIFIC OPERATING INSTRUCTIONS
1. The irrigation system must contain an air gap; an approved reduced pressure principle assembly (RP) or reduced pressure principle detector assembly (RPDA); or an approved irrigation mainline chemigation valve consisting of a functional check valve, vacuum relief valve, inspection port, and low pressure drain. The devices must be appropriately located on the irrigation pipeline to prevent water source contamination from backflow. Refer to the American Society of Agricultural Engineer’s Engineering Practice 409 for more information or state specific regulations.
2. The Emission Uniformity (EU) of the drip irrigation system must be at least 85 percent or greater (refer to USDA-NRCS Practice Standard Code 441).
3. Mocap EC should not be applied at the same time that a dripline clean out product is being used as product performance may be jeopardized.
4. Apply Mocap EC Nematicide-Insecticide to pre-wetted hop yards through subsurface drip irrigation (SDI) with pressure compensating emitters only.
5. Irrigate crop in a manner to wet the root zone first, and then introduce Mocap EC for a period to distribute the material uniformly to the crop being treated. Discontinue use of Mocap EC long enough to purge the system with untreated water and allow the Mocap EC to remain in the root zone of the crop. Refer to the crop-specific use directions on labels for treatment rates and additional use information.
6. Product should be applied continuously for the duration of the water application. Product should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. To achieve optimum distribution in the treatment zone, meter Mocap EC at a continuous, uniform rate during the middle 1/3 of the irrigation cycle. Continue to irrigate during the final 1/3 of the irrigation set to ensure proper flushing of the irrigation system.
7. Follow chemigation with enough irrigation to move Mocap EC Nematicide-Insecticide into the top 4-6 inches of soil.

CALIBRATION OF SUBSURFACE DRIP IRRIGATION (SDI) SYSTEMS
• The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through a SDI system.
• Calibrate the irrigation and injection system before applying Mocap EC.
• Calibrate the injection pump with the irrigation system at the desired operating pressure.
• Calculation of application rate is based on the average wetted soil surface area (radius) around a drip emitter. Soil surface wetted area is measured from the emitter to the perimeter of the wetted area, which is the radius in the following calculation. To determine the application rate for Mocap EC for SDI systems, the following calculation must be used.

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1. Calculate soil surface wetted area (in square inches) of the emitter or micro-sprinkler, or A

\[ A = 3.14 \times \text{radius} \times \text{radius} \]

**Example:** If the average wetted area on the soil surface as measured from the emitter or micro-sprinkler to the perimeter of the wetted area is 16 inches, then

\[ A = 3.14 \times (16'' \times 16'') \]
\[ A = 3.14 \times 256 \text{ square inches} \]
\[ A = 804 \text{ square inches} \]

2. Calculate the soil surface wetted area (in square feet) per acre, or B.

\[ B = \frac{A \times \text{Number of emitters per acre}}{144 \text{ square inches per square foot}} \]

**Example:** If there are 3,200 emitters per acre, then

\[ B = \frac{804 \text{ square inches} \times 3,200 \text{ emitters per acre}}{144} = 17,867 \text{ square feet of wetted area per acre} \]

3. Calculate total surface area wetted by the micro-irrigation system, or C.

\[ C = B \times \text{acres treated by the micro-irrigation system} \]

**Example:** If the size of the application block (or field) is 20 acres, then

\[ C = 17,867 \text{ square feet of wetted surface area per acre} \times 20 \text{ acres} \]
\[ C = 357,340 \text{ square feet of the application block is wetted by the micro-irrigation system.} \]

4. Calculate the amount of Mocap EC to inject, or Q.

From the rate table, determine the desired broadcast rate per acre of Mocap EC, or R.

\[ Q = \frac{C \times R}{43,560 \text{ square feet per acre}} = \text{quarts of Mocap EC per acre} \]

**Example:** If the desired broadcast application rate of Mocap EC is 1.33 quarts per acre, then

\[ Q = \frac{357,340 \times 1.33}{43,560 \text{ square feet per acre}} = 11 \text{ quarts of Mocap EC injected during the application} \]

**Alternative Calculation Method – Strip or Bed Application**

When emitter spacing or dual driplines result in a line source (strip or bed) wetting pattern rather than a point source wetting zone, the following formula may be used to determine a broadcast equivalent application rate.

To calculate the quantity of Mocap EC to be applied to the strip or bed (that is, the treated area), the treated area (i.e., length x width) comprising the strips or beds in the application block (field) must be determined. The amount of Mocap EC applied to the total treated area, adding together area in the strips or beds, is a ratio of the broadcast application rate, or the Broadcast Equivalent Rate.

From the rate table, determine the desired broadcast rate per acre of Mocap EC, or R.
Broadcast Equivalent Rate = \frac{\text{Strip or bed width, in inches}}{\text{Center to center row spacing, in inches}} \times R

Example: Two drip irrigation lines are installed, with a dripline placed on each side and eight inches away from the planting row. The soil surface wetting zone radius for each emitter is 16 inches. The driplines form a wetting zone that coalesces into a wetted strip that is 32 inches wide. Row spacing between plantings, center to center, is 10 feet (or 120 inches). Application block is 10 acres.

Broadcast Equivalent Rate = \frac{32 \text{ inches}}{120 \text{ inches}} \times 1.33 \text{ quarts of Mocap EC per acre}

Or, 0.35 quart of Mocap EC per treated acre, or 3.5 quarts to be injected during the application.

POSTING OF AREAS TO BE TREATED
Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive area. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other locations affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared.

All words shall consist of letters at least 2½ inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words “KEEP OUT”, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word “STOP”. Below the symbol shall be the words “PESTICIDES IN IRRIGATION WATER”.

Posting required for chemigation does not replace other posting and reentry requirements for farm worker safety.
**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label before using this product.

### Non-bearing Blueberries

<table>
<thead>
<tr>
<th>Application timing</th>
<th>Pest controlled</th>
<th>Broadcast Rate Quarts/Acre</th>
<th>Ground Equipment Application Directions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-plant</td>
<td>Symphylans</td>
<td>1.33</td>
<td>Method 1 (Preferred) Mix Mocap EC Nematicide-Insecticide with sufficient water and apply broadcast to the soil immediately ahead of equipment, such as a double disc or rotary cultivator, to thoroughly incorporate Mocap EC solution into the top 2 to 4 inches of soil. Method 2 Mix Mocap EC Nematicide-Insecticide with sufficient water and broadcast or band apply solution. Immediately apply 1 to 2 inches of overhead irrigation water to incorporate Mocap EC into soil. If band applying, apply in a band at least 2 feet wide over row. Regardless of method used wait a minimum of 3 days before planting blueberries.</td>
</tr>
<tr>
<td>Post-planting</td>
<td>Symphylans</td>
<td>1.33</td>
<td>Mix Mocap EC Nematicide-Insecticide with sufficient water and broadcast or band apply solution to the soil. Immediately apply 1 to 2 inches of overhead irrigation water to incorporate Mocap EC into soil. If band applying, apply in a band at least 2 feet wide over the plant row. Chemigation Method: Apply Mocap EC Nematicide-Insecticide to prewetted fields through subsurface drip irrigation (SDI) systems with pressure compensating emitters only. The Emission Uniformity (EU) of the drip irrigation system must be at 85 perfect or greater (refer to USDA-NRCS Practice Standard Code 441). Emitters below sawdust, mulch or weed mats are considered subsurface. Do not apply through any other type of irrigation system. Follow chemigation with enough irrigation to move Mocap EC into the top 2-4 inches of soil.</td>
</tr>
</tbody>
</table>

**RESTRICTIONS AND PRECAUTIONS**

- Do not make more than one application per year.
- Do not exceed 1.33 quarts (2 lbs/ai) per acre per year.
- Do not harvest blueberries treated under this registration for at least 1 year (365 days) starting from the date the product was applied.
- Soil Conditions: Sufficient moisture should be present at application for symphylans to be active in the top 4-6 inches of soil. Volatilization may happen in very dry soils; do not apply to dry soils. To minimize the potential for run-off and to increase efficacy, do not apply Mocap EC to saturated soils.
- Apply by ground equipment only. Do not apply by air or through irrigation systems, other than drip irrigation systems specified on this label.
- Do not apply by any method of application not stated on this label.
- To protect endangered avian species, do not use this product in areas of known species occurrence and during the breeding season in those areas.
- A 48 hour restricted entry interval is required.

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- Do not graze livestock in treated areas. Do not feed treated crop to livestock.
- Wear Personal Protective Equipment (PPE) listed for applicators and other handlers when making adjustments or repairs on the chemigation system when Mocap EC is in the irrigation water.

**WSDA Chemigation Guidance**

- Application off-site is prohibited. The chemigation application must be continuously observed whenever sensitive areas as defined in WAC 16-202-1002(44) (including but not limited to schools, parks, dwellings, occupied buildings or structures, public roadways, and waters of the state) are at risk of being exposed to drift, runoff, or overspray.
- An inspection port or a direct access point is required, and it must be positioned immediately upstream of the irrigation mainline check valve and be of sufficient size to allow visual and manual inspection of the check valve and low pressure drain. The inspection port or access point must have a minimum diameter of four inches, unless an alternative access system is approved by WSDA (WAC 16-202-1012[1]).
- The chemigation application tank cannot be placed within 20 feet of the wellhead or other sensitive areas. Mixing or loading activities cannot occur within 20 feet of the wellhead or other sensitive areas (WAC 16-202-1008[1]).
- WSDA Chemigation Rules (WAC 16-202-1001 through WAC 16-202-1024), and information on USEPA Authorized Alternative Chemigation Safety Equipment, Distribution Uniformity and other chemigation topics are available on the WSDA website (http://agr.wa.gov/PestFert/ChemFert/default.aspx).

**WSDA Container Disposal Guidance:**

Pesticide containers must be properly cleaned prior to disposal. The best time to clean empty pesticide containers is during mixing and loading, because residue can be difficult to remove after it dries. Triple rinse (or pressure rinse) the pesticide container, empty all pesticide rinse water into the spray tank, and apply to a labeled crop or site. Recycling cleaned containers is the best method of container disposal. Information regarding the recycling of empty and cleaned plastic pesticide containers in Washington is available on the WSDA Waste Pesticide Program web site at http://agr.wa.gov/PestFert/Pesticides/WastePesticide.aspx. Cleaned containers may also be disposed of in a sanitary landfill, if permitted by the county. Burning is not a legal method of container disposal in Washington.

24(c) Registrant:

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