



U.S. ENVIRONMENTAL PROTECTION  
AGENCY  
Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

EPA Reg.  
Number:  
11930-14

Date of  
Issuance:  
APR - 4 2012

Term of Issuance:  
Conditional

Name of Pesticide Product:

Opti Mist 31 66 ULV

NOTICE OF PESTICIDE:

Registration  
 Reregistration

(Under FIFRA as amended)

Name and Address of Registrant (include ZIP Code):

Gil Manufacturing  
P.O. Box 242725  
Montgomery, AL 36124

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A), provided that you:

1. You will submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. You will make the following label changes before you release the product for shipment:

a. Revise the EPA Registration Number to read "EPA Registration Number 11930-14."

Signature of Approving Official:

*Linda A. DeLuzio for Richard Gelboen*

Date:

*April 4, 2012*



page 2

EPA Reg. No. 11930-14

- a. On page 1 delete "Technical" after "Piperonyl Butoxide".
- b. On page 1 delete "EPA File Sym.. `1490-Ru EPA Est.No. 62778-AL-1".
- c. On page 1 change "CAUTION:e" to "CAUTION:".
- d. On page 1 replace the Environmental Hazards section with

This pesticide is extremely toxic to aquatic organisms including fish and invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and other aquatic invertebrates. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate water when disposing of equipment wash waters.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

- e. Replace the PPE section with

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. Mixers, loaders, applicators and other handlers (including during mixing/loading, repair and cleaning of equipment and disposal of pesticide) must wear the following:

- Long-sleeved shirt and long pants
- Shoes plus socks,
- Chemical-resistant gloves such as barrier laminate, viton, neoprene rubber or nitrile rubber,
- Chemical-resistant apron for mixers/loaders, persons cleaning equipment and persons exposed to the concentrate.

In addition to the above PPE, mixers and loaders supporting aerial applications to forests must wear at least a NIOSH-approved respirator with:

- A dust/mist filter with MSHA/NIOSH approval number prefix TC-21C, or any R, P, or HE filter.

See engineering controls for additional requirements.



EPA Reg. No. 11930-14

f. Replace the User Safety Requirements:

User Safety Requirements:

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, 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.

g. Replace Engineering Controls section with

Engineering Controls-

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR170.240(d)(6)].

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

h. Replace User Safety recommendations section with

**User Safety Recommendations-**

- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should 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.

i. Under Environmental Hazards delete "except when applications are made...disaster recovery effort."

j. Replace the Precautions and Use Restrictions section with

**Precautions and Use Restrictions:**

- Apply this product only as specified on this label.
- For use only by federal, state, tribal or local government officials responsible for public health or vector control or by persons certified by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications or by persons under their direct supervision.
- Apply this product at temperatures greater than 50°F and when wind speed equals or exceeds 1 mph.
- Not for use in metered release systems.
- Not for use in outdoor residential misting systems.
- Do not make applications during rain.
- Do not spray this product on or allow it to drift onto cropland (other than crops listed), or potable water supplies.
- In the treatment of corrals, feedlots, animal confinements/houses, swine lots, poultry ranges and zoos, cover any exposed drinking water, drinking fountains and animal feed before application.
- For hand carried and/or lawn mower foggers: Do not fog wet foliage. Do not fog when wind conditions exceed 10 mph. Only use a clean, well maintained and properly calibrated fogger, known to give excellent performance. Fog down wind.
- Do not re-treat a site more than once in 3 days.
- Do not apply by fixed wing aircraft at a height less than 100 feet, or by helicopter at a height less than 75 feet unless specifically approved by the state or tribe based on public health needs.



EPA Reg. No. 11930-14

k. Replace the Spray Droplet Size Determination section with

SPRAY DROPLET SIZE DETERMINATION

Ground-based Application: Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.5 < 30 urn) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 urn). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using laser based equipment to product acceptable droplet spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Application made at <200 feet above ground elevation: Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and that 90% of the spray is contained in droplets smaller than 100 microns (Dv 0.9 < 100 um). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Application made at >200 feet above ground elevation: Spray equipment must be adjusted so that the volume median diameter produced is less than 70 microns (Dv 0.5 < 70 um) and that 90% of the spray is contained in droplets smaller than 145 microns (Dv 0.9 < 145 um). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rates(s) are properly calibrated.

l. Replace the Ground Based application section as follows

**ULV Non-Thermal Aerosol (Cold Fog):** To control Mosquitoes, Midges and Blackflies apply Opti Mist 31 66 ULV using truck mounted ground ULV (cold fog) equipment. When applying the product undiluted, apply at a flow of 0.4794 to 1.91183 fluid ounces per minute at an average speed of 10 mph. These rates are equivalent to 0.00175 to 0.007 pound of Permethrin a.i. and 0.00380 to 0.01490 pounds of piperonyl butoxide a.i. per acre. If a different vehicle speed is used, adjust the rate accordingly. Vary flow rates according to vegetation density and mosquito population. Use higher rates in heavy vegetation or when insect populations are high. An accurate flow rate control system must be used to ensure proper flow rate. Opti Mist 31 66 ULV may also be shown in rate charts. If an alternate dilution rate is required, adjust



EPA Reg. No. 11930-14

the flow rate accordingly, provided the droplet size and spectrum remain within label specifications. Do not exceed 20 oz/minute unless recommended by manufacturers and/or Public Health Officials for vehicle speeds of 10 to 20 mph and when the fogging equipment is capable of such higher rates of output per minute.

**Thermal Fogging:** Apply Opti Mist 31 66 ULV diluted or by suitable Thermal Foggers mounted on trucks. If diluted use a 60 to 100 second viscosity mineral oil, or another suitable non-phytotoxic diluent to reduce oil requirements and sludge buildup in equipment. May be applied at truck speeds of 5 to 20 mph but do not exceed the maximum active ingredient application rates. **For Use with Hand Carried and/or Lawn Mower thermal fogger,** adjust the sprayer to apply the desired A.I. per acre based on a 50 foot swath and walking speed of 2 mph. Do not fog to wet foliage. Thermal fogging applications of Opti Mist 31 66 ULV can be made to deliver 0.00175 to 0.007 lb permethrin a.i. and 0.00175 to 0.01490 piperonyl butoxide per acre.

**Use As An Insect Barrier Treatment:** For use in non-Thermal ULV, motorized portable backpack, and fog type mist blower equipment apply Opti Mist 31 66 ULV with equipment adjusted to deliver ULV size droplets with volume median diameter of 50-100 micros. Opti Mist 31 66 ULV may be applied undiluted or diluted (see Application Rates table section). If diluted use a 30 to 100 second mineral oil, or another, (if recommended by Public Health Officials), suitable non-phytotoxic diluent. Use 0.00175 pounds Permethrin a.i. per acre at 50 ft. (15.2m) swath width, while walking at a speed of 2 mph (3.2 kph). Whether applied undiluted or diluted, or at a different speed, make sure that the same amount of permethrin a.i. is applied per acre.

m. Replace the Aerial Application section with

**\*\*Aerial Application**

Make Ultra- Low Volume aerial applications according to the application rate table on this label. Application should be made by suitable aerial ULV equipment at an altitude ranging from 120-175 feet depending on the terrain and weather conditions. The recommended airspeed for fixed wing aircraft with flat fan nozzles is from 120 to 160 mph. For aircraft equipped with rotary nozzles, apply at sufficient airspeed to deliver the appropriate amount of Opti Mist 31 66 ULV a.i. per acre. Do not exceed 0.007 lbs. permethrin a.i. and 0.01490 lbs piperonyl butoxide per acre. Do not apply greater than 0.3197 fluid oz. of undiluted Opti Mist 31 66 ULV per acre as listed in the rates chart.

PROHIBITION ON AERIAL USE IN FLORIDA: Not for aerial application in the State of Florida unless specifically authorized by the Florida Bureau of Entomology and the Florida Department of Agriculture and Consumer services.

You must retain the "The How to Apply and when to Use" tables.



page 6

EPA Reg. No. 11930-14

n. On page 3 under the "The How to Apply and when to Use" tables in section beginning "For proper ground application..." change "rate not to exceed .03584" to "rate not to exceed 0.3197"

o. Change "Opti Mist 31 66 ULV is recommended.." to "Opti Mist 31 66 ULV is approved..".

p. Delete "but not limited to" wherever it appears on the label.

q. On page 3 delete the "Important" section.

r. Replace the Urban ULV Mosquito Applications section with

URBAN ULV MOSQUITO APPLICATIONS

For control of resting or flying adult mosquitoes, biting flies and biting midges in application sites of Residential, Municipal and Recreational areas such as utility tunnels, sewers, storm drains and catch basins, pipe chases, underground basements, underground passages, parking decks, crawl spaces or underground buildings. This product may be applied using mechanical foggers, hand-held or truck mounted ULV equipment suitable for these applications. Apply at rates, up to, but not exceeding, 0.007 lbs active ingredient permethrin per acre. See Rate(s) Charts.

s. Replace "The May Be Applied Over the Following Crops" section with

MAY BE APPLIED OVER THE FOLLOWING CROPS

Opti Mist 31-66 ULV may be applied over specific growing crops and range grasses prior to harvest for the control of adult mosquitoes and biting flies within or adjacent to these areas. Application can only be made where the following crops are present:

- Almonds
- Apples
- Broccoli
- Brussel sprouts
- Cabbage
- Celery
- Cauliflower
- Cherries
- Corn, forage
- Corn, grain
- Eggplant
- Range Grasses
- Leafy vegetables (except brassica)
- Lettuce, head
- Onions, dry bulb
- Peaches - Pears
- Peppers, bell
- Soybeans
- Tomatoes
- Vegetables, cucurbits group2
- Walnuts



EPA Reg. No. 11930-14

1 Includes Amaranth, leafy amaranth, Chinese spinach, tampala); arugula (Roquette); cardoon; celery; celery, Chinese; celtuce; chervil; chrysanthemum, edible leaved; chrysanthemum, garland, corn salad; cress, garden; cress, upland (yellow rocket, winter cress); dandelion; dock (sorrel); endive (escarole); fennel, Florence (fmochio); lettuce, head and leaf; orach; parsley; purslane, garden, purslane, winter; radicchio (red chicory); rhubarb, spinach; spinach, New Zealand; spinach, vine (Malabar spinach, Indian spinach); Swiss chard.

2 Includes chayote (fruit); Chinese waxgourd (Chinese preserving melon); Citron melon; cucumber; gherkin, gourd, edible (hyotan, cucuzza, hechima, Chinese okra); Momordica spp. (balsam apple, balsam pear, bitter melon, Chinese cucumber); Muskmelon (hybrids and/or cultivars of Cucumis melo - true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persion melon, pineapple melon, Santa Claus melon and snake melon); pumpkin; squash, summer (crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); squash, winter butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon (hybrids and/or varieties of Citrullus lanatus).

t. Replace the Storage and Disposal section with

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store product in its original labeled container in a cool, dry, locked place designated for such insecticides and out of reach of children. Do not expose to extreme temperatures. In case of spillage, soak up with absorbent material such as sawdust, or fuller's earth; sweep up and place in a labeled container and dispose of as follows.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved wastes disposal facility.

**CONTAINER DISPOSAL: Non-refillable Containers 5 gallons or less - Non-refillable container.** Do not refill or reuse this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with mineral oil (or other solvent used to dilute the product) and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once triple rinsed, recycle if available. Some agricultural pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact your local solid waste agency for disposal instructions. If recycling is not available, dispose of in a sanitary landfill or by incineration if allowed by state and local ordinances. **Non-refillable Containers over 5 gallons to 55 gallons- Non-refillable container.** Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with mineral oil (or other solvent used to dilute the product). 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 it back and forth several times. Turn the container over onto its other end and tip it 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. Once triple rinsed, recycle if available. Some agricultural pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact your local solid waste agency for disposal instructions. If recycling is not available, dispose of in a sanitary landfill or by incineration if allowed by state and local ordinances. **Refillable bulk containers over 55 gallons - Refillable container.** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the re-filler. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full of mineral oil. Agitate vigorously or re-circulate mineral oil with pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Once triple rinsed, recycle if available. Some agricultural pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact your local solid waste agency for disposal instructions. If recycling is not available, dispose of in a sanitary landfill or by incineration if allowed by state and local ordinances.



8/12

page 8

EPA Reg. No. 11930-14

2. Per 40 CFR 156.10(6), submit one copy of your final printed labeling before you release the product for shipment. As defined in 40 CFR 152.3, "final printed labeling" means the "label or labeling of the product when distributed or sold." Clearly legible reproductions or photo reductions will be accepted for unusual labels. Note that a clean copy of the master label in most cases does not meet the definition of final printed labeling. A stamped copy of the label is enclosed for your records.

If you have any questions regarding this action, please contact Linda A. DeLuise of my team at (703) 305-5428.



# OPTI MIST 31-66 ULV

For use only by Federal, State, Tribal, or local governmental officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the State or Tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision. This product is a Ready-To-Use, Quick knockdown, Low odor, Non-corrosive, Synergized, synthetic Pyrethroid for control of Adult Mosquitoes, Biting and Non-Biting Midges, Black flies and other outdoor flying insects as listed on this label which cause Public Health annoyance in Residential, Municipal and Recreational Areas.

## For Control of Adult Mosquitoes

### ACTIVE INGREDIENTS:

Permethrin; [CAS 52645-53-1] - - - - - 31.0%  
 Piperonyl Butoxide Technical; [CAS 51-03-6] - - - - - 66.0%

### OTHER INGREDIENTS:\*

Total: 100.0%

Contains 2.8025 lb. A.I. Permethrin plus 5.9668 lbs. A.I. Piperonyl Butoxide per Gallon. \* Contains Mineral

**ACCE EL**  
**With COMMENTS**  
**EPA Letter Dated:**  
**APR - 4 2012**

## KEEP OUT OF REACH OF CHILDREN CAUTION

"PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente (if you do not understand the label, find someone to explain it to you in detail).

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

11930-14

### FIRST AID

If Swallowed	<ul style="list-style-type: none"> <li>Call a Poison Control Center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If on skin or clothing	<ul style="list-style-type: none"> <li>Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.</li> </ul>
If in eyes	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.</li> </ul>
If inhaled	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>

Have this product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call 1-800-858-7378 for emergency medical treatment advice. See below for additional Precautionary Statements

EPA File Sym.. 1490-RU EPA Est. No. 62778-AL-1

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** e. Harmful if swallowed, or absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or the toilet. Prolonged or repeated skin contact may cause allergic reactions in some individuals. Remove contaminated clothing and wash before reuse.

**Personal Protective Equipment (PPE):** Some materials that are chemical-resistant to this product are: barrier laminate, nitrile rubber, neoprene rubber, or Viton. Mixers, loaders, applicators, and other handlers must wear long-sleeve shirt and long pants, shoes plus socks. In addition, all handlers except for applicators using motorized ground equipment, pilots and flaggers, must wear chemical-resistant gloves. In addition, mixers loaders, persons cleaning equipment, and other persons exposed to the concentrate must wear a chemical-resistant apron. See engineering controls for additional requirements.

**User Safety Requirements:** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

**Engineering Controls:** Pilots must use an enclosed cockpit that meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

#### USER SAFETY RECOMMENDATIONS.

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should 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 product is extremely toxic to aquatic organisms including fish and aquatic invertebrates. Runoff from treated areas or deposition to bodies of water may be hazardous to fish and other aquatic invertebrates. Before making the first application in a season it is advisable to consult with the state of tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist

Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present and weather conditions will facilitate movement of applied material away from water to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

This product is toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply to or allow drift onto blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a State, Tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the State or Tribe during a natural disaster recovery effort.



**PHYSICAL AND CHEMICAL HAZARDS**

Do not use, pour, spill, or store near heat, or open flame.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**Precautions and Use Restrictions:**

- Apply this product only as specified on this label.
- For use only by Federal, State, Tribal or local government officials responsible for the health or vector control or by persons certified by the State or Tribal lead pesticide regulatory agency, mosquito control or by persons under their direct supervision.
- Apply this product at temperatures greater than 50°F and when wind speed equals or exceeds 1 mph
- Not for use in metered release systems.
- Not for use in outdoor residential misting systems.
- Do not make applications during rain.
- Do not spray this product on or allow to drift
- on to cropland, (other than crops listed), or potable water supplies.
- In the treatment of corrals, feed lots, animal confinements, houses, swine lots, poultry ranges and zoos, cover any exposed drinking water, drinking fountains and animal feed before application.
- For hand carried and/or lawns mower foggers. Do not fog wet foliage. Do not fog when wind conditions exceed 10 mph. Only use a clean, well maintained Fogger, known to give excellent performance. Fog down wind.
- Do not retreat a site more than once in 3 days.
- Do not apply with fixed wing aircraft at a height less than 100 feet, or by helicopter at a height less than 75 feet unless specifically approved by the State or Tribe based on public health needs.

Do not retreat the site more than once in three days. Do not exceed 25 applications at 0.007 lb. Permethrin per acre per application or 0.0149 lb. piperonyl butoxide per acre per application, or 0.383 lbs. of permethrin per acre per season or 0.383 lb. piperonyl butoxide per acre per year. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito, borne diseases in animal or human populations, or if specifically approved by the state or tribe during a national disaster recovery effort.

**SPRAY DROPLET SIZE DETERMINATION**

**Ground-based Application:** Spray equipment must be adjusted so the volume median diameter or mass median diameter is less than 30 microns ( $D_v 0.5 < 30$  microns) and that 90% of the spray is contained in droplets smaller than 50 microns ( $D_v 0.9 < 50$  m). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser based measurement instrument must be used to adjust equipment to produce acceptable droplet spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rates (s) are properly calibrated.

**Aerial Application made at <200 feet above ground elevation.** Spray equipment must be adjusted so the volume median diameter produced is less than 60 microns ( $D_v 0.5 < 60$  microns) and that 90% of the spray is contained in droplets smaller than 100 microns ( $D_v 0.9 < 100$  m). The effects of flight speed for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rates (s) are properly calibrated.

**GROUND BASED APPLICATIONS****ULV NON-THERMAL AEROSOL (COLD FOG)**

To control Mosquitoes, Midges and Blackflies apply **OPTI MIST 31-66 ULV** using truck mounted ground ULV (cold fog) equipment. When applying this product undiluted, apply at a flow rate of 0.4794 to 1.91183 fluid ounce per minute at an average vehicle speed of 10 M.P.H. These rates are equivalent to 0.00175 to 0.007 pound of Permethrin a. i. and 0.00380 to 0.01480 pound of piperonyl butoxide a. i. per acre. If a different vehicle speed is used, adjust the rate accordingly. Vary flow rates accordingly to vegetation density and mosquito population. Use higher flow rates in heavy vegetation or when insect populations are high. An accurate flow rate control system must be used to ensure proper flow rate. **OPTI MIST 31-66 ULV** may also be applied by diluting, 1 part to 1 part of a 60 to 100 second mineral oil or another suitable solvent, applied so as not to exceed the maximum a. i. rates per acre as shown in the rates charts. If an alternate dilution rate is required, adjust the flow rate accordingly, provided the droplet size and spectrum remain within label specifications. Do not exceed a flow rate of 20 oz. minute unless recommended and required by equipment manufacturers and/or Public Health Officials for vehicle speeds of 10 to 20 m.p.h. and when the fogging equipment is capable of such higher rates of output per minute.

**THERMAL AEROSOL FOGGING**

Apply **OPTI MIST 31-66 ULV** diluted or undiluted by suitable Thermal Foggers mounted on trucks. If diluted use a 60 to 100 second viscosity mineral oil, or another suitable non-phytotoxic diluent to reduce oil requirement and sludge buildup in equipment. May be applied at truck speeds of 5 m.p.h. to 20 m.p.h. but do not exceed the maximum active ingredient application rates.

For use with Hand Carried and/or Lawn Mower thermal foggers, adjust the sprayer to apply the desired A.I. per acre based on a 50 foot swath and a walking speed of 2 m.p.h. Do not fog to wet foliage. Thermal fogging applications of **OPTI MIST 31-66 ULV** can be made to deliver 0.00175 to 0.007 lb. of permethrin a.i. per acre and 0.00175 to 0.01490 lb. piperonyl butoxide per acre.

**USE AS AN INSECT BARRIER TREATMENT**

For use in non-Thermal ULV, motorized, portable, backpack, and fog type mist blower equipment apply **OPTI MIST 31-66 ULV** with equipment adjusted to deliver ULV size droplets with a volume median diameter of 50 -100 microns. **OPTI MIST 31-66 ULV** may be applied undiluted or diluted (see Application Rates tables section). If diluted use a 30 to 100 second mineral oil, or another, (if recommended by Public Health Officials), suitable non-phytotoxic diluent. Use 0.00175 pound Permethrin A.I. per acre at a 50 ft. (15.2 m) swath width, while walking at a speed of 2 m.p.h. (3.2 k.p.h.). Whether applied undiluted or diluted, or at a different speed, make sure that the same amount of Permethrin A.I. is applied per acre.

**AERIAL APPLICATION**

Make Ultra-Low Volume aerial applications of **OPTI MIST 31-66 ULV** according to the application rate table on this label. Application should be made by suitable ULV equipment at an altitude ranging from 120 - 175 feet depending on the terrain and weather conditions. The recommended speed for fix with flat fan nozzles is 120 - 160 mph. For aircraft equipped for rotary nozzles apply at sufficient airspeed to deliver the appropriate amount of OPTI MIST 31-66 ULV per acre.

Do not exceed 0.007 lb. permethrin a.i. and 0.01490 lb. of piperonyl butoxide per acre. Do not apply greater than 0.3197 fluid ounces of undiluted OPTI MIST 31-66 ULV per acre as listed in the rates chart.

**PROHIBITION ON AERIAL USE IN FLORIDA:** Not for aerial application in the State of Florida unless specifically authorized by the Florida Bureau of Entomology and the Florida Department of Agriculture and Consumer Services.



# OPTI MIST<sup>TM</sup> 31-66 ULV

## HOW TO APPLY and WHEN TO USE

### CONDITIONS AND RATES TO USE OPTI MIST 31-66 ULV UNDILUTED

pounds of a.i. per acre		APPLICATION RATES				FL. OZ. of OPTI MIST 31-66 per Acre
PERMETHRIN	PBO	Fl. oz. per Minute at Vehicle Speeds				
		5 MPH	10 MPH	15 MPH	20 MPH	
0.00700	0.01490	0.9591	1.9183	2.8773	3.8364	0.3197
0.00350	0.00750	0.4797	0.9054	1.4391	1.9188	0.1599
0.00175	0.00380	0.2398	0.4794	0.7191	0.9588	0.0799

### DILUTION RATES FOR OMBGO MIST MAC

#### FOR A 1 : 4 DILUTION

Mix 1 part OPTI MIST 31-66 ULV with 4 parts Suitable Mineral Oil; Apply as follows:

pounds of a.i. per acre		Application Rates				Fl. oz. finished spray per acre
PERMETHRIN	PBO	Fl. oz. per Minute at Vehicle Speeds				
		5 MPH	10 MPH	15 MPH	20 MPH	
0.00700	0.01490	4.4727	8.9454	14.3181	19.0908	1.5909
0.00350	0.00750	2.3865	4.7730	7.1595	9.5460	0.7955
0.00175	0.00380	1.1934	2.3868	3.5803	4.7736	0.3978

#### FOR A 1:8 DILUTION

Mix 1 part OPTI MIST 31-66 ULV with 8 parts Suitable Mineral Oil; Apply as follows:

pounds of a.i.'s per acre		Application Rates				Fl. oz. finished spray per acre
PERMETHRIN	PBO	Fl. oz. per Minute at Vehicle Speeds				
		5 MPH	10 MPH	15 MPH	20 MPH	
0.00700	0.01490	8.4000	16.8000	25.2000	33.6000	2.8000
0.00350	0.00750	4.2000	8.4000	12.6000	16.8000	1.4000
0.00175	0.00380	2.1000	4.2000	6.3000	8.4000	0.7000

#### FOR A 1:2 DILUTION

Mix 1 part OPTI MIST 31-66 ULV with 2 parts Suitable Mineral Oil; Apply as follows:

pounds of a.i.'s per acre		Application Rates				Fl. oz. finished spray per acre
PERMETHRIN	PBO	Fl. oz. per Minute at Vehicle Speeds				
		5 MPH	10 MPH	15 MPH	20 MPH	
0.00700	0.01490	2.8767	5.7534	8.6302	11.5068	0.9589
0.00350	0.00750	1.4385	2.8770	4.3255	5.754	1/4795
0.00175	0.00380	0.7184	1.4388	2.1582	2.8770	0.2398

Apply when temperatures are above 50°F and wind speed is equal to or is greater than 1 m.p.h..

For proper ground application mount the fog applicator so that the nozzle is at least 4 1/2 feet above ground level and directed out the back of the vehicle. May be applied at speeds of 5 m.p.h. up to 20 m.p.h. Failure to follow these label directions may result in reduced effectiveness. For \*\*Aerial Application refer to the \*\*Aerial Application section on this label. **OPTI MIST 31-66 ULV** may be used as is, or diluted with a suitable solvent such as a 60 to 100 Second viscosity mineral oil and applied at a rate not to exceed 0.3584 fl. oz. of **OPTI MIST 31-66 ULV**, per acre. Both aerial and ground applications should be made when the wind is less than 10 m.p.h. For exact rates, see the "UNDILUTED" or the "DILUTION" Rates charts on this label.

**OPTI MIST 31-66 ULV** is recommended for application as an Ultra Low Volume (U.L.V.) Thermal or Non-thermal aerosol (cold fog) to control adult mosquitoes, and other insects as listed on this label, in residential and recreational areas where these insect pests become a problem; such as, but not limited to parks, campsites, woodlands, athletic fields, golf courses, residential areas, municipalities, gardens, playgrounds, and non-crop waste areas.

For best results; treat when mosquitoes or insects are most active and weather conditions are conducive to keeping the fog close to the ground. e.g. cool temperatures and wind speeds are not greater than 10 m.p.h. Applications during the cool hours of night or early morning are usually preferable.

**IMPORTANT!** Do not re-treat a site more than once in 24 hours; and no more than 2 applications should be made to any site in a 1 week period. Do not apply more than 0.185 lb. of permethrin per acre, per year, to any site. More frequent treatments may be made to prevent or control a threat to public and / or animal health determined by a State, Tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the State or Tribe during a natural disaster recovery effort.





**URBAN ULV MOSQUITO APPLICATIONS**

For control of resting or flying adult mosquitoes, biting flies and biting midges in application sites of Residential, Municipal and Recreational areas such as utility tunnels, sewers, storm drains and catch basins, pipe chases, underground basements, underground passages, parking decks, crawl spaces or underground buildings. This product may be applied using mechanical foggers, hand-held or truck mounted ULV equipment suitable for these applications. Apply at rates, up to, but not exceeding, 0.007 lb. active ingredient permethrin per acre. See Rate(s) Charts.

**OPTI MIST 31-66 ULV** may be applied over the following crops and range grasses prior to harvest for control of adult mosquitoes and biting flies within or adjacent to these areas. Application can only be made where the following crops are present:

**MAY BE APPLIED OVER THE FOLLOWING CROPS**

Alfalfa, Almond, Apple, Artichoke, Asparagus, Avocado, Broccoli, Cabbage, Cauliflower, Celery, Celuço, Cherry, Chervil, Chinese Amaranth, Chinese Broccoli, Collards,

Corn (Field, Pop and Sweet), Cucurbit Vegetable Group <sup>2</sup>, Dandelion, Dock (sorrel), Eggplant, Endive (escarole), Fennel, Filbert, (hazelnut), Garden Purslane, Garden Cress, Garlic, Garland Chrysanthemum,

Head Lettuce, Horseradish, Leafy Vegetables, (except brassica) <sup>1</sup>, Melons (Cantaloupe), Mushrooms, Onion, Drach (mountain spinach), Papaya, Parsley, Peach, Pear, Peppers (bell), Pistachio, Potato, Pumpkin.

Range Grasses, Rhubarb, Roquette (arugula), Soybeans, Spinach, Spinach (New Zealand), Squash (winter), Swiss Chard, Tomato, Turnip, Upland Cress, Walnut, Water Cress, Winter Purslane.

<sup>1</sup> Includes Amaranth, leafy amaranth, Chinese spinach, tampala, arugula, (Roquette), cardoon, celery, Chinese celtuce, chervil, chrysanthemum, edible leafed, chrysanthemum, gariand, corn salad, cress, upland (yellow rocket, winter cress, ), dandelion, dock (sorrel), endive, (escarole), fennel, Florence (finochio), lettuce, head and leaf, , orach, parsley, purslane, garden purslane, winter; radicchio, (red chicory), rhubarb, spinach, spinach, New Zealand, Swiss chard.

<sup>2</sup> Includes Chayote (fruit), Chinese waxgourd, ( Chinese preserving melon), Citron melon, Cucumber, gherkin, gourd, edible, (hyotan, cucuzza, hechima, Chinese okra), momordica spp., (balsam apple, .balsam pear, bitter melon, Chinese cucumber Muskmelon, hybrids and/ or cultivars, of cucumis melon,- true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persion melon, pineapple melon, Santa Claus melon and snake melon, pumpkin, squash, summer, (crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), squash, winter butternut squash, calabaza squash, hubbard squash, acorn squash, spaghetti squash, watermelon, (hybrids and \ or varieties, of citrullus lanatus)

Do not spray on or allow drift onto pastureland, cropland, (other than those crops listed), or potable water supplies. In the treatment of corrals, feed lots, swine lots, poultry ranges and zoos; cover any exposed drinking water, drinking fountains and animal feed before application.

**Gil Manufacturing, Inc.**  
P.O. Box 242725 - Montgomery, AL 36124 U.S.A.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE AND SPILL PROCEDURES:** Store container upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:**

Rigid, Non-refillable containers small enough to shake (i.e. with capacities equal to or less than 5 gallons)

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip.

Repeat this procedure two more times, then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and locale authorities, by burning. If burned, stay out of smoke.

Rigid Non-refillable containers that are too large to shake (i.e. with capacities greater than 5 gallons or 50 lbs.)

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/2 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 it 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 or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Refillable 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 from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate mineral oil with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

PRODUCT BATCH CODE NO. \_\_\_\_\_

**NET CONTENTS:**

\_\_\_\_\_ 1 QUART

\_\_\_\_\_ 1 GALLON

\_\_\_\_\_ 5 GALLON

\_\_\_\_\_ 55 GALLON

\_\_\_\_\_ 275 GALLON