

Reg # 8329-20

PM-19

192



**CLARKE**

# MOSQUITO MIST

For Application by Trained Personnel  
to Control Adult Mosquitoes in Residential Areas

## Precautionary Statements

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed, absorbed through the skin, or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

### ENVIRONMENTAL HAZARDS

This product is toxic to fish, birds and other wildlife. Shrimp, crab and fish may be killed at application rates recommended on this label. Do not apply to lakes, streams or ponds where these are considered important resources. Consult your State Fish and Game Department before using this product. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwaters. Apply this product only as specified on this label.

### PHYSICAL AND CHEMICAL HAZARDS

Do not 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.

## CONDITIONS and RATES to USE for MOSQUITO CONTROL

CLARKE MOSQUITOMIST 1.5 U.L.V. is recommended for application either as a thermal fog or as an ultra low volume (U.L.V.) nonthermal aerosol (cold fog) to control adult mosquitoes in residential and recreational areas and other non-cropland areas where these insects are a problem. For best results treat when mosquitoes are most active and weather conditions are conducive to keeping the fog close to the ground, e.g. cool temperatures and wind speed not greater than 10 mph. Application during the cool hours of the night or early morning is usually preferable. Repeat treatment as needed.

|   |         |
|---|---------|
| <b>ACTIVE INGREDIENT:</b>   |         |
| Chlorpyrifos (0,0-diethyl 0-(3, 5, 6-trichloro-2-pyridyl) phosphorothioate) ..... | 19.36   |
| <b>INERT INGREDIENTS</b> .....  | 80.64   |
|   | 100.00% |

Contains 1.5 pound chlorpyrifos per gallon.  
Contains petroleum distillates.

TO BE APPLIED ONLY BY OR UNDER THE SUPERVISION OF PUBLIC HEALTH ORGANIZATIONS, MOSQUITO ABATEMENT DISTRICTS OR CERTIFIED PEST CONTROL APPLICATORS

## CAUTION

**KEEP OUT OF REACH OF CHILDREN**

### STATEMENT OF PRACTICAL TREATMENT

**If Swallowed:** Call a physician or Poison Control Center. Do not induce vomiting because of aspiration hazard. Do not give anything by mouth to an unconscious person.

**If on Skin:** Wash thoroughly with soap and water. Get medical attention.

**If in Eyes:** Flush with plenty of water. Get medical attention if irritation persists.

**If Inhaled:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**Note to Physician:** Chlorpyrifos is a cholinesterase inhibitor. Atropine by injection is antidotal only if symptoms of cholinesterase inhibition are present. 2-PAM is also antidotal when given in conjunction with atropine.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

MANUFACTURED BY

**CLARKE MOSQUITO CONTROL PRODUCTS, INC.**

159 N. GARDEN AVENUE • ROSELLE, ILLINOIS 60172

E.P.A. EST. No. 83291L01

E.P.A. Reg. No. 8329-20

### NET CONTENTS

**NOTICE:** Seller makes no warranty, expressed or implied concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when use and/or handling is contrary to label instructions.

**Thermal Fog Application:** Thoroughly mix 9 gallons of 0.5% solution of No. 2 fuel oil with 52.5 gallons of No. 2 fuel oil suitable for insecticide application with any standard sprayer to deliver 52.5 gallons per acre to cover a swath of up to 100 feet.

**U.L.V. Nonthermal Aerosol:** CLARKE MOSQUITOMIST ground applicator capable of spraying with droplets ranging in mass median diameter (MMD) from 10 to 20 microns. Calibrate the equipment U.L.V. at a dosage equivalent to 1.5 pounds of chlorpyrifos per acre based on a flow rate of 7.75 fluid ounces per minute. Under normal residential conditions a dosage rate of 3.0 fluid ounces of MOSQUITOMIST per acre is recommended. Adjust rate accordingly. Ensure the proper flow rate of the applicator so that the nozzle is directed out the back of the applicator in the above directions may result in spray droplets, which may damage automobile paint. Aerial application: U.L.V. equipment with a speed of 150 miles per hour and a height of 500 ft. Flow rate should be adjusted to achieve a dosage rate of 3.0 fluid ounces of MOSQUITOMIST per acre.

**IN FLORIDA:** Do not use in residential situations and with the exception of Agriculture and Consumer Products.

**Directions for Determining MMD:** U.L.V. Nonthermal Aerosol: Use a glass microscope slide (General Electric SC-87) to determine the MMD of the solution of one part silicone oil to 100 parts of water. Collect droplets, wave the slide at a distance of 6 feet from the nozzle. The slides perpendicular to the spray. Measure the droplets on at least 2 slides. MMD measurements can be made by the following steps:

**ACCEPTED**  
**FEB 27 1995**  
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 8329-20

**BEST AVAILABLE COPY**

# MIST 1.5 U.L.V.

Qualified Personnel Only. For Use Outdoors to Control Mosquitoes in Residential and Recreational Areas.

**Thermal Fog Application:** To prepare a fog solution, thoroughly mix 9 gallons of CLARKE MOSQUITOMIST ONE U.L.V. in 91 gallons of No. 2 fuel oil or other fuel, diesel or kerosene-type oil suitable for insecticide and fogging use. Apply the finished fog solution with any standard thermal fog machine calibrated to deliver 52.5 gallons per hour at an average vehicle speed of 5 mph to cover a swath of up to 300 feet.

**U.L.V. Nonthermal Aerosol (Cold Fog) Application:** Apply CLARKE MOSQUITOMIST ONE U.L.V. using any standard U.L.V. ground applicator capable of producing a nonthermal aerosol spray with droplets ranging in size from 5 to 30 microns and a mass median diameter (MMD) of 10 to 15 microns. To determine droplet size and MMD follow the accompanying directions. Calibrate the equipment to deliver CLARKE MOSQUITOMIST ONE U.L.V. at a dosage equivalent to 0.005 to 0.01 pounds of chlorpyrifos per acre based on an effective swath width of 300 feet. To obtain this rate apply the product undiluted at a flow rate of 3.88 to 7.75 fluid ounces per minute and an average vehicle speed of 10 mph. Under normal residential conditions a flow rate of 4.3 fluid ounces is recommended. If a different vehicle speed is used, adjust rate accordingly. An accurate flow meter must be used to ensure the proper flow rate. For proper 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. Failure to follow the above directions may result in reduced effectiveness and oversize spray droplets, which may deposit on and permanently damage automobile paint. Aerial applications should be done by suitable aerial U.L.V. equipment at an altitude of 300 ft. and a forward speed of 150 miles per hour, achieving an effective swath width of 500 ft. Flow rate should be set at 455 fluid ounces per minute to achieve a dosage rate of .023 pounds of active ingredient per acre (3.0 fluid ounces of MOSQUITOMIST ONE U.L.V.).

**IN FLORIDA:** Do not apply by aircraft except in emergency situations and with the approval of the Florida Department of Agriculture and Consumer Services.

**Directions for Determining the Droplet Size and MMD of U.L.V. Nonthermal Aerosols Using CLARKE MOSQUITOMIST ONE U.L.V.:** Collect droplets for measurement using glass microscope slides (1 x 3 inches) coated with silicone (General Electric SC-87 Dri-Film). To prepare the slides, dip in a solution of one part silicone to 9 parts of acetone, allow to dry, polish with lint-free paper tissue, and store in a tight slide box. To collect droplets, wave the treated slides through the aerosol cloud at a distance of 6 feet from the point of discharge, holding the slides perpendicular to the path of aerosol movement. Collect droplets on at least 2 slides and store in a tight slide box until measurements can be made. Determine droplet size and calculate MMD by the following steps.

1. Using a microscope with an eyepiece micrometer and 450 x magnification, measure the diameter (D), in eyepiece divisions, of 100 impinged droplets on each slide.
  2. Tabulate the number of droplets (N) falling within each size category (as measured in eyepiece divisions).
  3. Multiply D x N for each size category.
  4. Divide D x N for each size category by the sum of the products of D x N, i.e.  $\sum(D \times N)$ . The values obtained are the percent that each size category represents of the total.
  5. Determine the accumulative percentage for each size category by accumulative addition of the percentage values calculated in Step 4, starting with the smallest size category.
  6. Determine the size category that most closely corresponds to an accumulative percentage of 50%. This value is the approximate MMD in eyepiece divisions.
  7. Convert the above MMD to microns by determining the number of microns in one eyepiece division using a stage micrometer and multiplying this value by the estimated MMD in eyepiece divisions (Step 6).
  8. The MMD determined in Step 7 must then be corrected for spread of the droplets on the slides by multiplying by 0.49 (the spread factor). The value thus calculated is the true MMD in microns.
- NOTE:** Measure droplet size and determine MMD when the aerosol generator is first installed, after any modifications or adjustment, and after every 50 hours of operation.

**STORAGE AND DISPOSAL**

1. **PROHIBITIONS** Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.
2. **PESTICIDE DISPOSAL.** Pesticide, spray mixture or rinse water that cannot be used according to label instructions-State or local procedures.
3. **CONTAINER DISPOSAL** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or dispose of in a sanitary landfill or by other approved State and local procedures. Puncture container before disposal.
4. **GENERAL** Consult Federal, State or local disposal authorities for approved alternative procedures.

**MADE IN THE USA**

**FOR MORE INFORMATION CALL:**  
 1-800-323-5727 (Outside Illinois)  
 1-800-942-2555 (Inside Illinois)

**BEST AVAILABLE COPY**