



www.clarkemosquito.com

# BIOMIST® 4+4 ULV

**For Use Outdoors as an Ultra-Low Volume (ULV) Application to Control Adult Mosquitoes in Residential and Recreational Areas.**

For use only by federal, state, tribal or local government 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.

**ACTIVE INGREDIENTS:**

Permethrin (3-Phenoxyphenyl) methyl (+/-) cis, trans-3-(2,2-dichlorethenyl)-2,2-dimethyl cyclopropanecarboxylate .....	4.00%
Piperonyl Butoxide, Technical* .....	4.00%
OTHER INGREDIENTS ** .....	92.00%
	100.00%

Contains 0.3 pounds of Permethrin and 0.3 pounds of Piperonyl Butoxide per gallon.

\*Equivalent to 80% (butylcarbityl)(6-propylpiperonyl) ether and 20% related compounds.

\*\*Contains a petroleum distillate

## CAUTION KEEP OUT OF REACH OF CHILDREN

EPA Reg. No. 8329-35

EPA EST. No. \_\_\_\_\_

AL0022

NET CONTENTS: \_\_\_\_\_

LOT NO. \_\_\_\_\_

Manufactured For

**CLARKE MOSQUITO CONTROL PRODUCTS, INC.**

159 N. GARDEN AVENUE • ROSELLE, ILLINOIS 60172

**See attached for additional Precautionary Statements.**

BIOMIST® is a Registered Trademark of Clarke Mosquito Control Products, Inc.

**PEEL BACK BOOK HERE AND RESEAL AFTER OPENING**

FIRST AID	
Have product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergencies, call the International Poison Control Center at 1-800-214-7753.	
<b>IF ON SKIN OR CLOTHING:</b>	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.
<b>IF INHALED:</b>	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth. Call a poison control center or doctor for further treatment advice.
<b>IF SWALLOWED:</b>	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
<b>IF IN EYES:</b>	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 the eye. Call a poison control center or doctor for treatment advice.
<b>NOTE TO PHYSICIAN: Product contains a petroleum distillate. Vomiting may cause aspiration pneumonia.</b>	

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**Caution.** Harmful if inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

**ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. 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 bodies of water when disposing of equipment rinsate or wash waters.

This product 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, 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. Do not allow spray treatment to drift on pastureland, cropland, (other than crops listed) or water supplies.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not use or store near heat or open flame. Flashpoint minimum of 300°F.

**DIRECTIONS FOR USE**

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

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.

**GENERAL**

BIOMIST® 4+4 ULV is recommended for applications as an ultra low volume (ULV) nonthermal aerosol (cold fog) to control adult mosquitoes in residential and recreational areas and other areas these insects occur, such as but not limited to parks, campsites, woodlands, athletic fields, golf courses, residential areas and municipalities, gardens, playgrounds, recreational areas and overgrown waste areas.

BIOMIST® 4+4 ULV can be applied over specific growing crops and range grasses prior to harvest for the control of adult mosquitoes within or adjacent to these areas. Application can only be made where the following crops are present:

Alfalfa	Cauliflower	Garlic	Pears
Almonds	Cherries	Range Grasses	Pepper, bell
Apples	Corn, fodder	Horseradish	Pistachio
Artichoke, globe	Corn, forage	Kiwifruit	Potato
Asparagus	Corn, grain (field & pop)	Leafy vegetables	Soybeans
Avocado	Corn, stover	(except Brassica)	Spinach
Broccoli	Corn, sweet kernel +	Lettuce, head	Tomatoes
Brussels Sprouts	cob with husks removed	Mushrooms	Vegetable, cucurbits
Cabbage	Eggplant	Onion, dry bulb	Walnuts
Celery	Filbert	Peaches	Watercress

In the treatment of corrals, feedlots, swine lots, poultry ranges and zoos cover any exposed drinking water, drinking fountains and animal feed before application. For best results apply when mosquitoes are most active and weather conditions are conducive to keeping the spray cloud close to the ground. An inversion of air temperatures and a light breeze is preferable. Application in calm air conditions is to be avoided. Apply only when ground wind speed is greater than 1 mph. Air temperatures should be greater than 50 °F when conducting all types of applications.

Do not treat a site with more than 0.007 pounds of permethrin per acre in a twenty-four hour period. Do not apply more than 0.18 pounds of permethrin per acre per year. More frequent applications 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.

**SPRAY DROPLET SIZE DETERMINATION**

**Ground-based Application:** Spray equipment must be adjusted so that the volume median diameter (VMD) is between 8 and 30 microns (8 ≤ Dv 0.5 ≤ 30 μm) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 μm). 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 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:** Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 μm) and that 90% of the spray is contained in droplets smaller than 115 microns (Dv 0.9 < 115 μm). 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.

**GROUND APPLICATION**

Apply BIOMIST® 4+4 ULV through standard ULV cold aerosol or non-thermal aerosol (Cold Fog) generators undiluted at a flow rate of 4.5 to 18.0 fluid ounces per minute, and an average vehicle speed of 10 MPH. If a different vehicle speed is used, adjust rate accordingly. These rates are equivalent to 0.00175 to 0.007 pounds of Permethrin and Piperonyl Butoxide per acre. An accurate flow meter must be used to ensure the proper flow rates. For proper application, mount the equipment so that the nozzle is at least 4 1/2 feet above ground level and directed out the back of the vehicle.

Vary flow rate according to vegetation density and mosquito population. Use higher flow rate in heavy vegetation or when populations are high.

Permethrin Pounds per Acre	Application Rates Fl.oz./Min.			Fl.oz. Biomist 4+4 ULV per Acre
	5MPH	10MPH	15MPH	
0.007	9.0	18.0	27.0	3.0
0.0035	4.5	9.0	13.5	1.5
0.00175	2.25	4.5	6.75	0.75

Failure to follow the above directions may result in reduced effectiveness.

**Urban ULV Mosquito Control Applications:** For control of resting or flying adult mosquitoes in areas such as utility tunnels, sewers, storm drains and catch basins, pipe chases, underground basements, underground passages, parking decks, crawl spaces or uninhabited buildings, apply BIOMIST® 4+4 ULV undiluted using mechanical foggers, hand-held or truck-mounted ULV equipment, or thermal foggers suitable for this application. Apply BIOMIST® 4+4 ULV at rates up to but not exceeding 0.007 lbs. permethrin and piperonyl butoxide per acre.

**AERIAL APPLICATION**

BIOMIST® 4+4 ULV may be applied undiluted at rates of 0.0035 to 0.007 pounds Permethrin (1.5 to 3.0 fl.oz. BIOMIST® 4+4 ULV) per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. Aerial application shall be made at altitudes ranging from 75 to 300 feet. Aerial applications shall only be made when recommended by public health officials and trained personnel of mosquito abatement districts and other mosquito control programs.

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

**STORAGE & DISPOSAL**

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

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

**PESTICIDE DISPOSAL:** Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

**CONTAINER DISPOSAL:** Metal containers – triple rinse or equivalent, then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Plastic containers – triple rinse, or equivalent, then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Then dispose of in a sanitary landfill or by other approved state and local procedures.

IN CASE OF MEDICAL EMERGENCY,  
CALL THE INTERNATIONAL POISON CONTROL CENTER  
1-800-214-7753

IN CASE OF TRANSPORTATION EMERGENCY,  
CALL INFO-TRAC 1-800-553-5053

**FOR MORE INFORMATION CALL: 1-800-323-5727**

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

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