BIOMIST® 30 + 30 ULV

For Use Outdoors as an Ultra-Low Volume (ULV) Application to Control Adult Mosquitoes in Residential and Recreational Areas. Also for use against Biting and Non-Biting Midges and Blackflies.

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	30.0%
Piperonyl Butoxide*	30.0%
OTHER INGREDIENTS**	40.0%
	100.0%

Contains 2.5 pounds of Permethrin and 2.5 pounds of PBO per gallon

*PBO, (butyl carbityl) (6-propylpiperonyl) ether and related compounds

** Contains petroleum distillate

KEEP OUT OF REACH OF CHILDREN

CAUTION

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.	
IF SWALLOWED:	Immediately call a poison control center or doctor. Do not induce vomitng 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.
IF ON SKIN OR CLOTHING:	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.
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 the eye. Call a poison control center or doctor for treatment advice.
IF INHALED:	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.
NOTE TO PHYSICIAN: Product contains a petroleum distillate. Gastric lavage is indicated if material was taken internally. Vomiting may cause aspiration pneumonia.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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 materials 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 meets 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 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 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 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.

PHYSICAL OR CHEMICAL HAZARDS

Do not use 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.

Not for use in metered release systems. Not for use in outdoor residential misting systems. Do not contaminate cropland (other than crops listed) or potable water supplies with spray drift. Do not make applications during rain.

USE INFORMATION: BIOMIST 30+30 ULV is approved for applications as a thermal aerosol and 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, and overgrown waste areas.

BIOMIST 30+30 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 be made where the following crops are present:

Alfalfa	*Cauliflower*	*Garlic*	*Peach*
Almond	*Celery*	*Range grasses*	*Pepper, bell*
Apple	*Cherry*	*Horseradish*	*Pistachio*
Artichoke	*Corn, forage*	*Leaf petioles subgroup 4B*	*Potato*
Asparagus	*Corn, grain*	*Leafy greens subgroup 4A*	*Soybean, seed*
Avocado	*Corn, stover*	*Lettuce, head*	*Spinach*
Broccoli	*Corn, sweet, kernel + cob with husks removed*	*Mushroom*	*Tomato*
Brussels sprouts	*Eggplant*	*Onion, bulb*	*Vegetable, cucurbit, group 9**
Cabbage	*Fruit, pome, group 11*		*Walnut*
			Watercress

** 40 CFR 180.41 Crop Group 9: Cucurbit Vegetables, includes Crop Subgroup 9A (melon) and Crop Subgroup 9B (squash/cucumber).*

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 treat 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 wind speed is greater than 1 mph. Air temperature should be greater than 50°F when conducting all types of applications.

Do not treat a site with more than 0.007 lbs of each active ingredient, permethrin and PBO, per acre in a 3-day period. Retreatments within a 3-day period shall not exceed 0.007 total lbs permethrin in any site. Do not exceed 25 applications at 0.007 lbs permethrin or PBO per acre at any site in one year, or exceed 0.18 lbs of permethrin or PBO per acre per site per year. When rotating this product with other insecticides containing PBO, do not exceed 2 lbs PBO per acre per site 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.

SAMPLE LABEL

SPRAY DROPLET SIZE DETERMINATION

Ground-based Application: Spray equipment must be adjusted so that the volume median diameter (VMD) is less than 30 microns (Dv 0.5 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). 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 made at or below 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 greater than 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 rate(s) are properly calibrated.

GROUND ULV APPLICATION: Apply BIOMIST 30+30 ULV through a standard ULV cold aerosol or non-thermal aerosol (Cold Fog) generator undiluted at a flow rate of 0.5 to 2.2 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 each of Permethrin and PBO per acre. BIOMIST 30+30 ULV may also be applied by diluting with a suitable solvent such as mineral oil and applying so as not to exceed 0.007 pounds Permethrin per acre. The following charts represent suggested dilution and application rates for ground ULV applications. If an alternate dilution rate is used, adjust flow rate accordingly. Vary flow rate according to vegetation density and mosquito population. Use higher flow rate in heavy vegetation or when populations are high.

CONDITIONS and RATES to USE for MOSQUITO CONTROL - UNDILUTED

Permethrin/PBO Pounds per Acre	*Application Rates Fl.oz./Minute*				*Fl.oz. BIOMIST 30+30 ULV per Acre*
	5 MPH	*10 MPH*	*15 MPH*	*20 MPH*	
0.007	*1.1*	*2.2*	*3.3*	*4.3*	*0.36*
0.0035	*0.5*	*1.1*	*1.6*	*2.2*	*0.18*
0.00175	*0.3*	*0.5*	*0.8*	*1.1*	*0.09*

FOR A 1:2 BIOMIST 30+30 ULV/SOLVENT DILUTION RATIO: Mix one part BIOMIST 30+30 with two parts solvent and apply at the following rates:

Permethrin/PBO Pounds per Acre	*Application Rates Fl.oz./Minute*				*Fl.oz. finished spray per Acre*
	5 MPH	*10 MPH*	*15 MPH*	*20 MPH*	
0.007	*3.3*	*6.5*	*9.8*	*13.0*	*1.08*
0.0035	*1.6*	*3.3*	*4.9*	*6.5*	*0.54*
0.00175	*0.8*	*1.6*	*2.4*	*3.3*	*0.27*

FOR A 1:4 BIOMIST 30+30 ULV/SOLVENT DILUTION RATIO: Mix one part BIOMIST 30+30 with four parts solvent and apply at the following rates:

Permethrin/PBO Pounds per Acre	*Application Rates Fl.oz./Minute*				*Fl.oz. finished spray per Acre*
	5 MPH	*10 MPH*	*15 MPH*	*20 MPH*	
0.007	*5.4*	*10.9*	*16.3*	*21.7*	*1.79*
0.0035	*2.7*	*5.4*	*8.2*	*10.9*	*0.90*
0.00175	*1.4*	*2.7*	*4.1*	*5.4*	*0.45*

FOR A 1:8 BIOMIST 30+30 ULV/SOLVENT DILUTION RATIO: Mix one part BIOMIST 30+30 with eight parts solvent and apply at the following rates:

Permethrin/PBO Pounds per Acre	*Application Rates Fl.oz./Minute*				*Fl.oz. finished spray per Acre*
	5 MPH	*10 MPH*	*15 MPH*	*20 MPH*	
0.007	*9.8*	*19.6*	*29.3*	*39.1*	*3.23*
0.0035	*4.9*	*9.8*	*14.7*	*19.6*	*1.61*
0.00175	*2.4*	*4.9*	*7.3*	*9.8*	*0.81*

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

BIOMIST 30+30 ULV may be applied through truck-mounted thermal fogging equipment. Do not exceed the maximum rates listed above. To reduce oil requirement and sludge buildup in equipment, use a 60- 100-second viscosity mineral "fog" oil or other fuel-type oil. Use a clean, well-maintained and properly calibrated fogger. Do not wet foliage since oil base formulations may be phytotoxic. For use with hand carried foggers, use same rates of active ingredient per acre and a swath width of 50 ft with a walking speed of 2 mph. Do NOT use hand carried thermal fogger for application in enclosed spaces. Fog downwind, with the wind at your back.

AERIAL APPLICATION: BIOMIST 30+30 ULV may be applied undiluted at rates up to 0.36 fl.oz. BIOMIST 30+30 ULV per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. BIOMIST 30+30 ULV may also be diluted with a suitable solvent such as mineral oil and applied by aerial ULV equipment so long as 0.007 pounds permethrin or PBO per acre is not exceeded. 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. 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 unless approved by the Florida Department of Agriculture & Consumer Services

STORAGE & DISPOSAL

Do not contaminate water, food or feed 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: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

For Non-Refillable Containers, capacity 5 gallons or less:

Nonrefillable container. Do not reuse or refill this container. Triple 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 mineral oil 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 if available, 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.

For Refillable Containers:

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 water with the pump for 2 minutes. Pour or pump rinsate into rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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

MANUFACTURED FOR:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE, ROSELLE, ILLINOIS 60172

EPA REG. NO. 8329-42

EPA EST. NO. _____

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NET CONTENTS: Marked on Container

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.