

8329-43

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

January 3, 2007

Ms. Karen J. Larson
Regulatory Affairs Manager
Clarke Mosquito Control Products, Inc.
159 North Garden Avenue
Roselle, IL 60172

Dear Ms. Larson,

Subject: Agency Initiated Action – Product Labeling
Biomist 31+ 66 ULV
EPA Reg. No. 8329-43
Application dated December 28, 2006

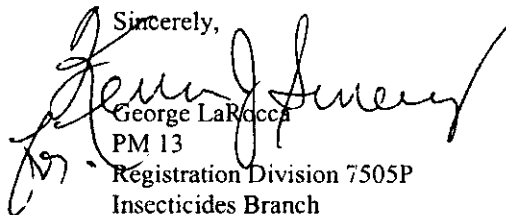
The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, is acceptable provided you:

1. Change the statement under the aerial application directions for use on page 4 from "Aerial application shall be made at altitudes ranging from 75 to 300." to "Aerial application shall be made at altitudes ranging from 75 to 300 feet."

Please note that the availability of EPA's reregistration eligibility document (RED) for products containing permethrin was published in the FR on June 28, 2006 (Vol. 71 No. 124 pg. 36788). Additional data or labeling changes may be required for products containing permethrin.

A stamped copy of the label is enclosed for your records. Please submit 2 copies of the final printed label before releasing the product for shipment. If you have any questions, please do not hesitate to contact Kevin Sweeney at (703) 305-5063. Thank you for your patience and cooperation in this matter.

Sincerely,


George LaRocca
PM 13
Registration Division 7505P
Insecticides Branch

Enclosure

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BIOMIST® 31+66 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	31.28%
Piperonyl Butoxide, Technical *	66.00%
Other Ingredients	2.72%
	100.00%
Contains 2.86 pounds of Permethrin and 6.09 pounds of Piperonyl Butoxide per gallon.	
* Equivalent to 80% (butylcarbityl)(6-propylpiperonyl) ether and 20% related compounds.	

ACCEPTED
with COMMENTS

In EPA Letter Dated
JAN 03 2007

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

8329-43

CAUTION
KEEP OUT OF REACH OF CHILDREN

Manufactured For
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172

EPA Reg. No.: 8329-43

EPA Est. No.: _____

NET CONTENTS: _____

LOT NO.: _____

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 vomiting unless told to do so by a poison control center or doctor. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.
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.
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.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution. Harmful if swallowed. Harmful if absorbed through skin or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing of 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 contaminated clothing and wash before use.

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.

BIOMIST® 31+66 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® 31+66 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:

Almond	Corn, fodder	Onion, dry bulb
Apple	Corn, forage	Peach
Broccoli	Corn grain	Pear
Brussels sprouts	Eggplant	Pepper, bell
Cabbage	Range Grasses	Soybean
Celery	Leafy vegetables (except Brassica)	Tomato
Cauliflower	Lettuce, head	Vegetables, cucurbit, group 9
Cherry	Mushroom	Walnut

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. 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 ($8 \leq D_v 0.5 \leq 30 \mu\text{m}$) and that 90% of the spray is contained in droplets smaller than 50 microns ($D_v 0.9 < 50 \mu\text{m}$). 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 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 ($D_v 0.5 < 60 \mu\text{m}$) and that 90% of the spray is contained in droplets smaller than 115 microns ($D_v 0.9 < 115 \mu\text{m}$). 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® 31+66 ULV through standard ULV cold aerosol or non-thermal aerosol (Cold Fog) generators undiluted at a flow rate of 0.9 to 3.8 fluid ounces per minute, and an average vehicle speed of 20 MPH. If a different vehicle speed is used, adjust rate accordingly. These rates are equivalent to 0.00175 to 0.007 pounds of permethrin per acre. BIOMIST® 31+66 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

Permethrin Pounds per Acre	Application Rates Fl. oz./Minute				Fl.oz. Biomist 31+66 ULV per Acre
	5 MPH	10 MPH	15 MPH	20 MPH	
0.007	0.9	1.9	2.8	3.8	0.31
0.0035	0.5	0.9	1.4	1.9	0.16
0.00175	0.2	0.5	0.7	0.9	0.08

FOR A 1:2 BIOMIST 31+66 ULV/SOLVENT DILUTION RATIO

Mix one (1) part BIOMIST® 31+66 with two (2) parts solvent and apply at the following rates.

Permethrin Pounds per Acre	Application Rates Fl. oz./Minute				Fl.oz. Finished Spray per Acre
	5 MPH	10 MPH	15 MPH	20 MPH	
0.007	2.8	5.7	8.5	11.4	0.94
0.0035	1.4	2.8	4.3	5.7	0.47
0.00175	0.7	1.4	2.1	2.8	0.23

FOR A 1:4 BIOMIST 31+66 ULV/SOLVENT DILUTION RATIO

Mix one (1) part BIOMIST® 31+66 with four (4) parts solvent and apply at the following rates.

Permethrin Pounds per Acre	Application Rates Fl. oz./Minute				Fl.oz. Finished Spray per Acre
	5 MPH	10 MPH	15 MPH	20 MPH	
0.007	4.7	9.5	14.2	19.0	1.57
0.0035	2.4	4.7	7.1	9.5	0.78
0.00175	1.2	2.4	3.6	4.7	0.39

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FOR A 1:8 BIOMIST 31+66 ULV/SOLVENT DILUTION RATIO

Mix one (1) part BIOMIST® 31+66 with eight (8) parts solvent and apply at the following rates.

Permethrin Pounds per Acre	Application Rates Fl. oz./Minute				Fl.oz. Finished Spr / per Acre
	5 MPH	10 MPH	15 MPH	20 MPH	
0.007	8.5	17.1	25.6	34.2	2.82
0.0035	4.3	8.5	12.8	17.1	1.41
0.00175	2.1	4.3	6.4	8.5	0.70

For proper application, mount the equipment so that the nozzle is at least 4 ½ feet above ground level and directed out the back of the vehicle. 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® 31+66 ULV undiluted using mechanical foggers, hand-held or truck-mounted ULV equipment, or thermal foggers suitable for this application. Apply BIOMIST® 31+66 ULV at rates up to but not exceeding 0.007 lbs. permethrin per acre.

AERIAL APPLICATION

BIOMIST® 31+66 ULV may be applied undiluted at rates 0.16 to 0.31 fl.oz. BIOMIST® 31+66 ULV per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. BIOMIST® 31+66 ULV may also be diluted with a suitable solvent such as mineral oil and applied by aerial ULV equipment so long as 0.31 fluid ounce per acre of BIOMIST® 31+66 ULV is not exceeded. Aerial application shall be made at altitudes ranging from 75 to 300. 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.

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