

8329-63

3/18/2009

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Ms. Karen J. Larsen  
Clarke Mosquito Control Products, Inc.  
159 N. Garden Avenue  
Roselle, Illinois 60172

MAR 18 2009

Dear Ms. Larsen:

Subject: Amendment- Confidential Statement of Formula and label  
amendment  
Biomist 2+20 ULV  
EPA Registration Number 8329-63  
Your submission dated January 22, 2009

The application referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable with the following comments:

1. Please remove "ULV application provides excellent control at Rates Up To 0.007 Pounds Permethrin Per Acre.
2. Please add "Combustible" under Physical and Chemical Hazards.

Alternate Confidential Statement of Formula dated 01/21/09 is acceptable and will be placed in your registration file.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Richard Gebken".

Richard Gebken  
Product Manager (13)  
Insecticide Branch  
Registration Division (7505P)

Enclosure

**BIOMIST® 2+2 ULV**

{Alternate Brand Name: "CLARKE BIOMIST 2+2 ULV"}

A Quick Knockdown, Low Odor, Non-Corrosive, Synthetic Pyrethroid for Control of Adult Mosquitoes in Outdoor Residential and Recreational Areas. Also For Use Against Biting and Non-Biting Midges and Blackflies.

[For Aerial or Ground Application]

[ULV application provides excellent control at Rates Up to 0.007 Pounds Permethrin Per Acre]

[For Aerial or Ground ULV, thermal fog, or barrier application]

|  |        |
|--|--------|
| Active Ingredients   |        |
| Permethrin (3-Phenoxyphenyl) methyl (+/-) cis,<br>trans-3-(2,2-dichlorethenyl)-2,2-dimethyl cyclopropanecarboxylate..... | 2.0%   |
| Piperonyl Butoxide, Technical * .....  | 2.0%   |
| Other Ingredients ** .....   | 96.0%  |
|  | 100.0% |
| Contains 0.167 pounds of Permethrin and<br>0.167 pounds of Piperonyl Butoxide per gallon.                                |        |
| * Equivalent to 80% (butylcarbityl)(6-propylpiperonyl) ether and 20% related compounds.                                  |        |
| ** Contains petroleum distillate   |        |

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

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

**REGISTERED**  
**with COMMENTS**  
**in the Federal Register**

**MAR 18 2009**

*Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
it is amended, for the pesticide  
registered under EPA Reg. No.  
8329-63*

EPA Reg. No.: 8329-63

EPA Est. No.: \_\_\_\_\_

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

BATCH/LOT NO.: \_\_\_\_\_

| <b>FIRST AID</b>   |   |
|--|---|
| <b>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> |   |
| <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 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 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 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 swallowed, inhaled or absorbed through the skin. Avoid breathing vapors or spray mist. Avoid contact with eyes, skin, or clothing. May cause contact sensitization following repeated contact with skin in susceptible individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash 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 recover effort.

### PHYSICAL OR 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.**

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.

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.

BIOMIST® 2+2 ULV is recommended for application as an ultra low volume (ULV) nonthermal aerosol (cold fog) to control adult mosquitoes in residential and recreational areas where these insects are a problem, 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. 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 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.

Do not contaminate food or feed products. Do not allow spray treatments to drift onto ~~pastureland~~, cropland, poultry ranges or potable water supplies. Do not use on crops for food or forage ~~or pasture~~. In treatment of corrals, feed lots, swine lots, and zoos, cover any exposed drinking water, drinking water fountains and animal feed before application.

### 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 ( $8 = D_v 0.5 = 30 \text{ um}$ ) and that 90% of the spray is contained in droplets smaller than 50 microns ( $D_v 0.9 < 50 \text{ um}$ ). 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 Equipment:** Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns ( $D_v 0.5 < 60 \text{ um}$ ) and that 90% of the spray is contained in droplets smaller than 115 microns ( $D_v 0.9 < 115 \text{ um}$ ). 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® 2+2 ULV through standard ULV cold aerosol or non-thermal aerosol (Cold Fog) generators undiluted at a flow rate of 9.0 to 36.0 fluid ounces per minute at an average vehicle speed of 10 mph. If a different vehicle speed is used, adjust rate accordingly. An accurate flow meter must be used to ensure the proper flow rate. BIOMIST® 2+2 ULV may also be applied by diluting with a suitable solvent such as mineral oil and applying so as not to exceed the maximum 0.007 pounds permethrin per acre.

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

| Permethrin/PBO<br>Pounds/acre | Application Rates<br>Fl.oz./Min. |        |        | Fl.oz. BIOMIST® 2+2<br>ULV per acre |
|-------------------------------|----------------------------------|--------|--------|-------------------------------------|
|                               | 5 MPH                            | 10 MPH | 15 MPH |                                     |
| 0.007                         | 18.0                             | 36.0   | -      | 6.0                                 |
| 0.0035                        | 9.0                              | 18.0   | 27.0   | 3.0                                 |
| 0.00175                       | 4.6                              | 9.0    | 18.0   | 1.6                                 |

### THERMAL AEROSOL FOGGING

Apply BIOMIST® 2+2 ULV undiluted through truck mounted thermal fogging equipment. Do not exceed the maximum rate of 0.007 pounds permethrin per acre. May be applied at speeds of 5 mph to 20 mph. To reduce oil requirement and sludge buildup in equipment, use 100-second viscosity mineral "fog" oil. For use with hand carried foggers, use same rates of active ingredient per acre. Do not wet foliage since oil base formulations may be phytotoxic. Do not fog when wind conditions exceed 10 mph. Use a clean, well-maintained and properly calibrated fogger. Fog downwind.

### BARRIER APPLICATIONS

Apply BIOMIST® 2+2 ULV through non-thermal ULV portable backpack equipment adjusted to deliver ULV particles of 50 to 100 microns VMD. Use 76 fl.oz. of the undiluted spray per acre (equal to 0.1 lb permethrin/acre) as a 50-ft. (15.2 m) swath while walking at a speed of 2 mph. May also be applied diluted; make sure that the same amount of permethrin is applied per acre. When this product is applied as a barrier treatment, do not apply within 100 feet (30 meters) of lakes and streams.

### AERIAL APPLICATION

BIOMIST® 2+2 ULV may be applied undiluted at rates up to 6.0 fluid ounces BIOMIST® 2+2 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 unless approved by the Florida Department of Agriculture & Consumer Services.

[Storage and Disposal for non-refillable containers, capacity 5 gallons or less]

**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:** Nonrefillable 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 and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water or mineral oil and recap. Shake for 10 seconds. If rinsing with water do not pour into application equipment. Store rinsate for later disposal. If rinsing with oil 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.

[Storage and Disposal for non-refillable containers, capacity greater than 5 gallons]

**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:** Nonrefillable 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 water or mineral oil. 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 oil rinsate into application equipment or a mix tank or store rinsate for later use or disposal. If rinsing with water do not empty into application equipment, store rinsate for later disposal. Repeat this 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.

[Storage and Disposal for refillable containers]

#### 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:** 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**

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 and/or 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.