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12/11/2012

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 <p align="center">U S ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7504P) 1200 Pennsylvania Ave N W Washington D C 20460 0001</p> <p align="center">NOTICE OF PESTICIDE <u>X</u> Registration ____ Reregistration (under FIFRA as amended)</p>	EPA Reg Number 8329-94	Date of Issuance DEC 11 2012
	Term of Issuance Unconditional	
	Name of Pesticide Product MERUS 2 0	

Name and Address of Registrant (include ZIP Code)
 Clarke Mosquito Control Products, Inc
 110 E Irving Park Road, 4th Floor
 P O Box 72197
 Roselle, IL 60172-2013

Note Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant the above named pesticide is hereby registered/reregistered under the Federal Insecticide Fungicide and Rodenticide Act

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment the Administrator on his motion may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with section 3(c)(5) of FIFRA provided that you

- 1 Submit and/or cite all data required for registration of your product under section 3(c)(5) of FIFRA when the Agency requires all registrants of similar products to submit such data and submit acceptable responses required for reregistration of your product under section 4 of FIFRA

(continued on page 2)

Signature of Approving Official See page #3 Richard J Gebken Product Manager (10) Insecticide Branch, Registration Division (7504P)	Date DEC 11 2012
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EPA Form 8570 6

2 Make the following change(s) to the label

- a Change the product registration number to EPA Reg No 8329 94
- b Make the following label revision(s)

General Comment

- 1 Delete all text throughout the subject label marked with ~~strikethrough~~

National Organic Program (NOP) Labeling Review comment(s)

- 2 Based upon completion of the NOP labeling review for the proposed product including a review of the accepted basic CSF and the subject label, the proposed NOP language "For use in Organic Production" is acceptable for this commercial/state mosquito control product

Efficacy Review comment(s)

- 3 Based upon review of the one (1) cited efficacy (product performance) field study (MRID 48833810) the submitted data supports the listing of adult mosquitoes on the subject label provided the registrant agrees to conduct a study that includes *Anopheles spp* mosquitoes Other pests listed on the subject label are not supported by any efficacy data and must be deleted

Precautionary Statements First Aid Statements subsection comment(s)

- 4 To facilitate inclusion of required label language from Chapter 7 Section III G 1(c) of the Agency's Label Review Manual you must revise the existing NOTICE TO PHYSICIAN subsection to read NOTICE TO PHYSICIAN Contains petroleum distillate Vomiting may cause aspiration pneumonia

Precautionary Statements Hazards to Humans & Domestic Animals subsection comment(s)

- 5 To facilitate inclusion of required label language from the acute toxicity review completed for the proposed product you must insert the following text immediately following the last sentence within this subsection to read Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals Wear long sleeve shirt and long pants socks shoes and chemical resistant gloves (such as Barrier Laminate Nitrile Rubber Neoprene Rubber Viton Selection Category E)

Directions for Use, USE RESTRICTIONS subsection comment(s)

- 6 To facilitate inclusion of required label language from the RED for pyrethrins since the proposed product is NOT labeled for use around or near floor drains you must insert the following new use restriction immediately preceding the existing text statement starting with MERUS 2.0 may be used undiluted or diluted to read Application of this product is prohibited directly into sewers or drains or to any area like a gutter where drainage to storm sewers storm drains water bodies or aquatic habitat can occur Do not allow this product to enter any drain during or after application

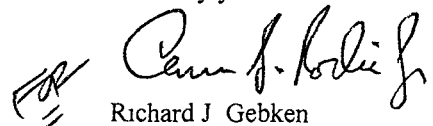
Conditional Data Requirements

- 7 Within one (1) year from the date of this registration, Clarke Mosquito Control Products Inc Company must do the following
 - Conduct and submit an efficacy study that includes *Anopheles spp* mosquitoes
 - Conduct and submit a one (1) year Storage Stability (830 6317) study and a Corrosion Characteristics (830 6320) study on this product in support of this registration Clarke Mosquito Control Products Inc must conduct these studies in commercial containers and it is recommended that the observations be made at 0, 6, 9 and 12 month intervals
- 3 You must submit two (2) copies of the revised final printed labeling, incorporating the above changes before releasing the product for shipment If these conditions are not complied with the registration will be subject to cancellation in accordance with section 6(e) of FIFRA Your release for shipment of the product bearing amended labeling constitutes accepting of these conditions

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A copy of your label stamped 'Accepted with Comments' is enclosed for your records along with hard copies of the acute toxicity efficacy product chemistry and NOP labeling reviews completed for this product. If you have any questions please contact Mr. Carmen J. Rodia Jr. at (703) 306-0327 or via e-mail at Rodia.Carmen@epa.gov

Sincerely yours




Richard J. Gebken
Product Manager (10)
Insecticide Branch
Registration Division (7504P)

Enclosures
Label stamped Accepted with Comments dated December 11 2012
Acute Toxicity Review dated November 6 2012
Efficacy Review dated November 30 2012
Product Chemistry Review dated October 2 2012
NOP Labeling Review dated November 27 2012

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Text in [brackets] indicates optional labeling claims
[Alternate Brand Name CMP119 004]

**ACCEPTED
With COMMENTS
In EPA Letter Dated
December 11, 2012**
**Under the Federal Insecticide, Fungicide
and Rodenticide Act, As amended, for the
pesticide Registered under EPA Reg No**
MERUS 2.0
8329-94

- [A [ULV] Mosquito Adulticide]
- [For Ultra Low Volume (ULV) Application]
- [For Aerial or Ground ULV Application]
- [Use Undiluted or Diluted]
- [For control of adult mosquitoes in Outdoor Residential, Recreational and Agricultural areas]
- [Quick Knockdown]
- [Contains pyrethrins – a botanical insecticide derived from chrysanthemums]
- [] [For use in Organic Production]

Active Ingredient	
Pyrethrins, a botanical insecticide	5 0%
Other Ingredients*	<u>95 0%</u> 100 0%
Contains 0.41 pounds Pyrethrins per gallon	
* 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 or information on health concerns for this product, you may call 1-800-214-7753	
IF SWALLOWED	<ul style="list-style-type: none"> • 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
NOTE TO PHYSICIAN May pose an aspiration pneumonia hazard Contains petroleum distillate	

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

CAUTION Contains petroleum distillate Harmful if swallowed Wash hands thoroughly with plenty of soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet Remove and wash contaminated clothing before reuse

Personal Protective Equipment (PPE) Mixers, loaders, applicators and other handlers must wear the following long-sleeve shirt, long pants, shoes and socks. In addition, all handlers, except for applicators using truck-mounted or aerial application equipment, must wear chemical resistant gloves (such as barrier laminate, nitrile rubber, neoprene rubber, Viton, Selection Category E). 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.

User Safety Recommendations Users should wash hands before eating, drinking, chewing gum, 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. As soon as possible, wash thoroughly and change into clean clothing.

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.

ENVIRONMENTAL HAZARDS

This pesticide is 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.

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.

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.

DIRECTIONS FOR USE

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

USE RESTRICTIONS

Apply this product only as specified on this label

This product is not for use in outdoor residential misting systems

Do not apply this product with thermal fogging equipment

Do not apply this product in enclosed spaces using hand-held or portable backpack spray equipment

Do not make applications during rain

Apply this product only as an aerial or ground ULV (vehicle-mounted, backpack, or hand-held ULV) mosquito adulticide

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

IN CALIFORNIA This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only

IN FLORIDA Do not apply by aircraft unless approved by the Florida Department of Agriculture and Consumer Services

The maximum application rate for wide-area mosquito adulticide applications is 0.0025 lb [a.i.][Pyrethrins]/acre per day. When targeting *Aedes taeniorhynchus* and other difficult species, applications may be made up to 0.008 lb a.i./acre/day

Do not apply more than 0.2 lb [a.i.][Pyrethrins] per acre per year in any treated area. More frequent treatments 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

WIND SPEED Apply only when wind speed is greater than 1 mph

MERUS 2.0 may be used undiluted or diluted with suitable light mineral oil and applied as an ultralow volume (ULV) non-thermal aerosol (cold fog) or in suitable mechanical spray equipment. MERUS 2.0 cannot be diluted in water.

→ MERUS 2.0 may be used to control adult mosquitoes, ~~flies and gnats~~ in mosquito control programs including residential, industrial, recreational, and agricultural areas, in vegetation

surrounding swamps, marshes, overgrown waste areas, roadsides and pastures and other areas adult mosquitoes occur For best results, treat when mosquitoes are most active Application during the cool hours of the night or early morning is usually preferable, with a minimum application temperature of 50°F

SPRAY DRIFT MANAGEMENT for WIDE AREA MOSQUITO ABATEMENT

A variety of factors including weather conditions (e g , wind direction, wind speed, temperature, relative humidity) and method of application (e g , ground, aerial) can influence pesticide drift The applicator must evaluate all factors and make appropriate adjustments when applying this product

Ground-based wide-area mosquito abatement application

Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (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

→ To control mosquitoes, ~~flies and gnats~~, apply MERUS 2 0 using any standard ULV vehicle-mounted applicator capable of producing a non-thermal (cold fog) aerosol spray cloud with appropriately sized droplets Apply undiluted at a flow rate of 3 0 to 4 7 fluid ounces per minute at an average vehicle speed of 10 mph If a different vehicle speed is used adjust rate accordingly These rates are equivalent to 0 0016 to 0 0025 pounds active ingredient per acre Within this range, vary flow rate according to vegetation density and mosquito population Use higher rate in heavy vegetation or when pest population numbers are high

Rates to use MERUS 2 0 Undiluted for mosquito control

[a i][Pyrethrins] /Acre (lb)	Application Rates (Fl oz /Minute) at vehicle speeds of				MERUS 2 0/Acre (fl oz)
	5 MPH	10 MPH	15MPH	20MPH	
0 0025	2 4	4 7	7 1	9 5	0 78
0 0021	2 0	4 0	6 0	7 9	0 66
0 0018	1 7	3 4	5 1	6 8	0 56
0 0016	1 5	3 0	4 5	6 1	0 50

Applications up to 2 50 fl oz (0 008 lb a i) per acre may be made when targeting *Aedes taeniorhynchus* or other difficult to control species

[a i][Pyrethrins] /Acre (lb)	Application Rates (Fl oz /Minute) at vehicle speeds of				MERUS 2 0/Acre (fl oz)
	5 MPH	10 MPH	15MPH	20MPH	
0 008	7 6	15 1	22 7	30 3	2 50

If dilution is preferred, adjust the flow rate accordingly to achieve 0 0016 to 0 0025 pounds [a 1][Pyrethrins]/Acre Applicable flow rates for a 1 part concentrate to 1 part oil dilution are presented If an alternate dilution rate is used, adjust the flow rate accordingly

Rates to use a 2 5% pyrethrins dilution (1 to 1 dilution ratio) for mosquito control

[a 1][Pyrethrins] /Acre (lb)	Application Rates (Fl oz /Minute) at vehicle speeds of				Finished Spray/Acre (fl oz)
	5 MPH	10 MPH	15MPH	20MPH	
0 0025	4 7	9 5	14 2	18 9	1 56
0 0021	4 0	7 9	11 9	15 9	1 31
0 0018	3 4	6 8	10 2	13 6	1 12
0 0016	3 0	6 1	9 1	12 1	1 00

Urban ULV mosquito control for control of resting or flying adult mosquitoes in areas such as utility tunnels, pipe chases, underground basements, underground passages, parking decks, crawl spaces or uninhabited buildings Apply using handheld or truck-mounted ULV equipment, or other spray equipment suitable for this application Apply at rates up to but not exceeding 0 0025 pounds [a 1][Pyrethrins] per acre per day (0 78 fluid ounces of undiluted spray per acre per day) Do NOT use hand-held equipment for this type of application in enclosed spaces

MERUS 2 0 may also be applied with non-thermal, portable, motorized backpack equipment adjusted to deliver ULV particles of less than 100 microns VMD Use 0 50 to 0 78 fl oz of the undiluted spray per acre (equal to 0 0016 to 0 0025 lb a1 /acre) as a 50 ft (15 2 m) swath while walking at a speed of 2 mph (3 2 kph) Dilute with a suitable mineral oil if dilution is preferred Do NOT use portable backpack equipment for application in enclosed spaces

Aerial wide-area mosquito abatement 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 80 microns (Dv 0 9 < 80 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

Apply using nozzle height of no less than 100 feet for fixed wing aircraft or 75 feet for rotary wing aircraft above the ground or canopy, unless specifically approved by the state or tribe based on public health needs

Apply by suitable fixed wing or rotary aircraft equipped with nozzles capable of producing a non-thermal (cold fog) aerosol spray cloud with appropriately sized droplets Flow rate and swath width should be set so as to achieve 0 50 to 0 78 fluid ounces of undiluted MERUS 2 0 per acre

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[a 1][Pyrethrins] /Acre (lb)	MERUS 2 0/Acre (fl oz)
0 0025	0 78
0 0021	0 66
0 0018	0 56
0 0016	0 50

MERUS 2 0 may also be diluted with suitable diluent light mineral oil and applied by suitable aircraft at appropriate flow rates to achieve a dosage of 0 0016 to 0 0025 lb [a 1][Pyrethrins] per acre Diluted or undiluted, applications up to 2 50 fl oz MERUS 2 0 (0 008 lb a 1) per acre/day may be made when targeting *Aedes taeniorhynchus* or other difficult to control species

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE AND SPILL PROCEDURES Keep this product in its tightly closed original container when not in use Store upright at room temperature in a dry (preferably locked) area that is inaccessible to children and animals Avoid exposure to extreme temperatures In case of spill or leakage, soak up with 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 Nonrefillable containers of 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 ¼ full with mineral oil and recap Shake for 10 seconds Pour rinsate into application equipment or a rinse 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 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]

[For Nonrefillable containers over 5 gallons] [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 the application equipment or a mix tank Fill the container ¼ full with 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 the rinsate into application equipment or a mix tank or store rinsate for later use or disposal Repeat this procedure two more times] 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]

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[For Refillable Containers] [Refillable container Refill this container with pesticide only Do not reuse this container for any other purpose 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 appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities 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]

FOR MORE INFORMATION CALL 1-800-323-5727

NOTICE To the extent consistent with applicable law, [seller] [Clarke Mosquito Control Products, Inc] makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label To the extent consistent with applicable law, Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions

Manufactured [By] [For]
CLARKE MOSQUITO CONTROL PRODUCTS, INC
159 N GARDEN AVENUE
ROSELLE, ILLINOIS 60172

EPA Reg No 8329-xx
EPA Est No [8329-IL-01] [8329-IL-03] [1021-MN-02]
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