



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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

MAY 14 2009

Ms. Karen J. Larson  
Product Registration  
Clarke Mosquito Control Products, Inc.  
159 N. Garden Ave.  
Roselle, Ill 60172

SUBJECT: Application for Pesticide Notification (PRN 98-10)  
Request General Label Change, Marketing Claims and Revised Confidential  
Statement of Formula  
EPA Reg. No. 8329-82  
Application Dated March 27, 2009

Dear Ms. Larson:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 03/27/09 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The Confidential Statement of Formula (CSF) dated 03/27/09 label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Owen F. Beeder of my staff at 703-308-8899.

Sincerely,



Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

(A)

# EPA

United States Environmental Protection Agency  
Office of Pesticide Programs (H7505C)  
Washington, DC 20460

Registration  
Amendment  
Other

OPP Identifier Number

**Application for Pesticide:**

## Section I

1. Company/Product Number  <b>8329-82</b>	2. EPA Product Manager  <b>K. Nesci</b>	3. Proposed Classification  <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>Natular™ 2EC</b>	PM# <b>11</b>	
5. Name and Address of Applicant (Include ZIP Code)  Clarke Mosquito Control Products, Inc. 159 N. Garden Avenue Roselle, Illinois 60172  <input type="checkbox"/> Check if this is a new address	6. <b>Expedited Review.</b> In accordance with FIFRT Section 3(c)(3) (b)(1), my product is similar or identical in composition and labeling to:  <b>NOTIFICATION</b>  EPA Reg. No. _____ Product Name _____  <b>MAY 14 2009</b>	

## Section II

☐ Amendment - Explain below

☐ Resubmission in response to Agency letter dated \_\_\_\_\_

☒ Notification - Explain below.

☐ Final printed labels in response to Agency letter dated \_\_\_\_\_

☐ "Me Too" Application.

☐ Other - explain below.

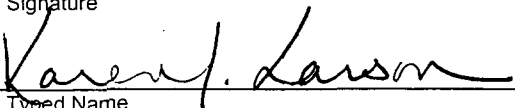
**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

Notification of addition of optional label marketing claims describing approved uses and submission of updated Confidential Statement of Formula as described in the enclosed cover letter. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

### Section III

1. Material This Product Will Be Packaged In:										
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No.			Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2. Type of Container <input checked="" type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify)_____			
*Certification must be submitted.			If "Yes," Unit Package wgt.		No. per container		If "Yes," Package wgt.		No. per container	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container					4. Size(s) of Retail Container 2.5-, 30-, 55-gal; mini-bulk			5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product		
6. Manner In Which Label is Affixed to Product					<input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other (       )					

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name  <b>Karen J. Larson, M.S.</b>	Title  <b>Registrations Manager</b>	Telephone No. (Include Area Code)  <b>630-671-3123</b>
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title <b>Registrations Manager</b>	
4. Typed Name <b>Karen J. Larson</b>	5. Date <b>March 27, 2009</b>	

# CLARKE™

3086  
159 NORTH GARDEN AVENUE  
P.O. Box 72197 / ROSELLE, IL 60172  
www.clarkemosquito.com  
TOLL-FREE: 800-323-5727

## Mosquito Control

PH: 630-894-2000  
FAX: 630-894-1774

March 27, 2009

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501

SERVICE

PRODUCTS

EQUIPMENT

EDUCATION

Subject: Notification per PR Notice 98-10; optional label marketing claims and submission of updated Confidential Statement of Formula

Product: Natular™ 2EC  
EPA Reg. No. 8329-82

Enclosed is notification per the guidance and requirements of Pesticide Registration Notice 98-10 for the registered product listed above. Clarke Mosquito Control Products, Inc. is notifying the agency of optional marketing claims on its product label describing approved uses.

Clarke is also submitting an updated Confidential Statement of Formula which simply updates the administrative sections of the current form on file with the Agency (dated Mar. 10, 2005) as follows:

- Updates the brand name to reference the primary brand name approved in the Agency letter dated Dec. 30, 2008;
- Reflects the current registrant and EPA registration number (assigned by transfer of the registration to Clarke on October 22, 2008);
- Updates the name and address of the Producer;
- Identifies a change in source of an approved inert ingredient; and
- Updates the EPA Product Manager assignment

No other changes have been made to the formulation of this product.

Thank you, in advance, for your prompt review of our submission. Please do not hesitate to call me directly at (630) 671-3123 or email me at [karenlarson@clarkemosquito.com](mailto:karenlarson@clarkemosquito.com) if you should have any questions.

Sincerely,



Karen J. Larson, M.S.  
Registrations Manager  
Clarke Mosquito Control Products, Inc.

Global  
Solutions for  
Mosquito  
Control™



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032709\_8329-82 / NF123008 AL0073

Text in [brackets] indicates optional text.

**NOTIFICATION**

MAY 14 2009

# Natular<sup>™</sup> 2EC

Mosquito Larvicide / Liquid Emulsifiable Concentrate  
[An insecticide for the control of mosquito larvae]

To be used in governmental mosquito control programs, by professional pest control operators, or in other mosquito or midge control operations.

Active Ingredient:	
Spinosad (a mixture of spinosyn A and spinosyn D)*	20.6%
Other ingredients:	79.4%
Total	100.0%

U.S. Patent No. 5,362,634 and 5,496,931

\* Naturalyte<sup>®</sup> Insect Control

Contains 2 lb of active ingredient per gallon.

Group

5

INSECTICIDE

## Keep Out of Reach of Children CAUTION

EPA Reg. No. 8329-82

EPA Est. No. 8329-IL-XX

Manufactured for  
Clarke Mosquito Control Products, Inc.  
159 North Garden Avenue  
Roselle, IL 60172

**Precautionary Statements****Hazards to Humans and Domestic Animals**

Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes or clothing. Wear protective eyewear. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

**First Aid**

If in eyes:	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with warm water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed:	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything to an unconscious person.</li> </ul>

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

**Environmental Hazards**

This product is toxic to aquatic invertebrates. Non-target aquatic invertebrates may be killed in water where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply when weather conditions favor drift from treated areas. Drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on the label.

This product is toxic to bees exposed to treatment and for 3 hours following treatment. Do not apply this product to blooming, pollen-

shedding or nectar-producing parts of plants if bees may forage on the plants during this time period unless the application is made in response to a public health emergency declared by appropriate state or federal authorities.

**Directions for Use**

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

Read all Directions for Use carefully before applying.

**General Information**

NATULAR 2EC is a Naturalyte<sup>®</sup> insect product for killing mosquito and midge larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. NATULAR 2EC may be applied with suitable ground or aerial application equipment.

**General Use Precautions****Integrated Pest Management (IPM) Programs**

NATULAR 2EC is intended to kill mosquito and midge larvae. Mosquitoes are best controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

**Insecticide Resistance Management (IRM)**

NATULAR 2EC contains a Group 5 insecticide. Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticide groups is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are recommended:

- Base insecticide use on comprehensive IPM and IRM programs.
- Do not use less than the labeled rates.
- Routinely evaluate applications for loss of effectiveness.
- Rotate with other labeled effective mosquito larvicides that have a different mode of action.
- In dormant rice fields, standing water within agricultural/crop sites, and permanent marine and freshwater sites, do not make more than 20 applications per year.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not exposed to products with the same mode of action.
- Contact your local extension specialist, technical advisor, and/or Clarke Mosquito Control representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Clarke Mosquito Control representative by calling 800-323-5727.

**Mixing**

NATULAR 2EC should be diluted with water. Shake well before using as NATULAR 2EC may separate on standing and must be thoroughly agitated prior to dilution. Partially fill spray tank with water. Start agitation and add the required amount of NATULAR 2EC. Continue agitation while mixing and filling the spray tank to the required spray volume. Maintain sufficient agitation during application to ensure uniformity of the spray mix. Do not allow water or spray mixture to back-siphon into the water source. Do not mix more NATULAR 2EC than can be used in a single application.

**Mixing Formula:** If an application rate of X fl oz of NATULAR 2EC per acre is desired, the spray equipment is calibrated to deliver Y gallons per acre, and a total of Z acres is being treated, the following formula would apply:

$$X \text{ fl oz of NATULAR 2EC per acre} \times Z \text{ acres to be treated} = W \text{ total fl oz of NATULAR 2EC required}$$

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To treat Z acres, mix W fl oz of NATULAR 2EC in V gallons of water and apply at a rate of Y gallons per acre.

For example, to treat 10 acres at 2 fl oz of NATULAR 2EC per acre with equipment calibrated at 2 gallons per acre, mix 20 fl oz of NATULAR 2EC into 20 gallons of water and apply at a rate of 2 gallons of finished spray per acre. The addition of NATULAR 2EC to the total volume of water will not significantly affect the total targeted volume of spray mixture.

#### Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making the decision to apply this product.

The following spray drift management requirements must be followed to avoid off-target drift movement from applications.

1. The boom width must not exceed 75% of the wingspan or 90% of the rotor blade.
2. Nozzles must always point backward, parallel with the air stream, and never be pointed downward more than 45 degrees.
3. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
4. Do not apply when wind speed favors drift beyond the treatment area.

Where states have more stringent regulations, they must be observed.

#### Application

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. The following recommendations are provided for ground and aerial application of NATULAR 2EC.

#### Ground Application

Use conventional ground application equipment with enough water to provide uniform coverage of the target area. Use hand-pump, airblast, mist blower, etc. spray equipment. Apply at the designated rate for the targeted site.

#### Spot Treatment

Apply NATULAR 2EC as a spot treatment to areas where mosquitoes are breeding at rates appropriate for the treatment site habitat and conditions.

#### Aerial Application

NATULAR 2EC may be aerially applied either undiluted or diluted with water through fixed wing aircraft or helicopter with either conventional boom and nozzle systems or rotary atomizers. Use a nozzle configuration that produces a droplet size distribution that ensures droplet deposition in the targeted area. Apply at the designated rates for the targeted site.

#### Application Sites and Rates

The rates listed are typical for efficaciously killing mosquito and midge larvae in the listed habitat sites. NATULAR 2EC may be applied at rates up to 6.4 fl oz per acre in waters high in organic content (such as polluted water, sewage lagoons, animal waste lagoons, and waters with high concentrations of leaf litter or other organic debris), deep-water mosquito habitats or those with dense surface cover, and where monitoring indicates a lack of kill at typical rates. Do not re-apply within 7 days of the initial application unless monitoring indicates that larval populations have reestablished or weather conditions have rendered initial treatments ineffective. Do not apply to water intended for irrigation.

#### For killing mosquito larvae species in the following non-crop sites:

Non-Crop Site	NATULAR 2EC fl oz/acre (lb ai/acre)
<b>Temporary Standing Water</b> Woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks and other natural or manmade depressions, rock holes, pot holes and similar areas subject to holding water <b>Other Freshwater Sites</b> Natural and manmade aquatic sites, edges of lakes, ponds, canals, stream eddies, creek edges, detention ponds	1.1 - 2 (0.018 - 0.033)
<b>Freshwater Swamps and Marshes</b> Mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation <b>Marine/Coastal Areas</b> Intertidal areas above the mean high water mark, mangroves, brackish water swamps and marshes, coastal impoundments and similar areas	2.8 (0.045)
<b>Stormwater/Drainage Systems</b> Storm sewers, catch basins, drainage ditches, and similar areas <b>Wastewater</b> Sewage effluent, sewers, sewage lagoons, cesspools, oxidation ponds, septic ditches and tanks, animal waste lagoons and settling ponds, livestock runoff lagoons, wastewater impoundments associated with fruit and vegetable processing, and similar areas	2 - 2.8 (0.033 - 0.045)
<b>Dormant Rice Fields</b> Impounded water in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle)	1.1 - 2 (0.018 - 0.033)
<b>Natural and Artificial Containers</b> Tree holes, bromeliads, leaf axils, and other similar natural water holding containers.  Cemetery urns, bird baths, flower pots, rain barrels, buckets, single tires, tires stockpiled in dumps, landfills, recycling plants and other similar areas, abandoned swimming pools, ornamental ponds, flooded roof tops and similar water holding sites.  Landfill containers, salvage yards, abandoned vehicles	1.1 - 2.8 (0.018 - 0.045)

#### For killing mosquito larvae species in standing water within agricultural/crop sites where mosquito breeding occurs:

Agricultural/Crop Site	NATULAR 2EC fl oz/acre (lb ai/acre)
Pastures/hay fields, rangeland, orchards, citrus groves	1.1 - 2.8 (0.018 - 0.045)

(Storage & Disposal statement for rigid, non-refillable container, 5 gallons or less)

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.  
**Pesticide Storage:** Store in original container only. In case of leak or spill, contain material with absorbent materials and dispose as waste.  
**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.  
**Container Disposal:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure 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 water 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. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

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(Storage & Disposal statement for rigid, non-refillable container, greater than 5 gallons)

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container only. In case of leak or spill, contain material with absorbent materials and dispose as waste.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.

**Container Disposal:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. 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.

(Storage & Disposal statement for rigid, refillable container)

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container only. In case of leak or spill, contain material with absorbent materials and dispose as waste.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.

**Container Disposal:** 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% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

{Optional Market Label}

FOR ORGANIC PRODUCTION

#### Terms and Conditions of Use

Clarke Mosquito Control Products, Inc. acknowledges that this product may be misbranded if one or more of its ingredients, active and/or inert, is reclassified as non-organic and/or removed from the United States Department of Agriculture (USDA) National List of approved substances for use in organic production and handling. If one or more of the ingredients in this pesticide product are so reclassified and/or removed (delisted) from the National List, Clarke Mosquito Control Products, Inc. will take appropriate remedial measures with respect to the labeling for this product.

NOTIFICATION

MAY 14 2009

#### Warranty

To the extent consistent with applicable law CLARKE MOSQUITO CONTROL PRODUCTS, INC. makes no warranty, express 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.

Lot: \_\_\_\_\_

Net Contents: \_\_\_\_\_