



# Natular SC

## Mosquito Larvicide

Liquid Suspension Concentrate.

For use in urban and rural areas where mosquito breeding can occur including Temporary Standing Water, Freshwater Sites, Freshwater Swamps and Marshes, Marine/Coastal Areas, Stormwater/Drainage Systems, Wastewater, Dormant Rice Fields, Natural and Artificial Containers, and Listed Agricultural/Crop sites where mosquito breeding can occur.

Kills larvae of mosquitoes which may transmit West Nile Virus, Dengue, Chikungunya, or Zika.

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

Active Ingredient:		
Spinosad (a mixture of Spinosyn A and Spinosyn D) .....	22.5%	
Other Ingredients: .....	77.5%	
Total .....	100.0%	

Contains 2 lb of active ingredient per gallon.

## KEEP OUT OF REACH OF CHILDREN

### PRECAUTIONARY STATEMENTS

#### 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.

This product is highly toxic to bees and other pollinating insects exposed to direct treatment, or to residues in/on blooming crops or weeds. Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.

### 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.

#### Product Information

Natular® SC is a product for killing mosquito larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. Mix Natular® SC with water and apply with suitable ground or aerial application equipment.

### USE PRECAUTIONS

#### Integrated Pest Management (IPM) Programs

Natular® SC is intended to kill mosquito 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® SC 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.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or sales representative.
- 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 manufacturer 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 representative by calling 800-323-5727.

### SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift.

### TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

### WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

- Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

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 larvae. The following recommendations are provided for ground and aerial application of Natular® SC.

#### Mixing Directions

Natular® SC should be diluted with water. Shake well before using Natular® SC. Avoid freezing. Fill the spray tank with water to about 1/2 of the required spray volume. Start agitation and add the required amount of Natular® SC. 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.

#### 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® SC either undiluted or diluted with water as a spot treatment to areas where mosquitoes are breeding at rates appropriate for the treatment site habitat and conditions.

### Aerial Application

Natular® SC may be aerially applied 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 larvae in the listed habitat sites. Within this range, use lower rates when water is shallow, vegetation and/or pollution are minimal, and mosquito populations are low. Do not use less than labeled rates. Natular® SC 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.

### USE RESTRICTIONS

- Do not apply directly to treated, finished drinking water systems.
- Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.

For killing mosquito larvae in residential, urban, industrial, and rural areas, and other natural and artificial or man-made sites:

Sites	fl oz/acre (lb ai/acre)
<b>Temporary Standing Water</b> Woodland pools, snow pools, standing pools, roadside ditches, retention ponds, floodwater, freshwater dredge spoils, tire tracks and other natural or manmade depressions, rock holes, pot holes, and similar areas subject to holding water	1.2 - 2.1 (0.018 - 0.033)
<b>Other Freshwater Sites</b> Natural and manmade aquatic sites, edges of lakes, ponds, canals, stream eddies, creek edges, detention ponds	
<b>Freshwater Swamps and Marshes</b> Mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation	2.9 (0.045)
<b>Marine/ Coastal Areas</b> Intertidal areas above the mean high water mark, mangroves, brackish water swamps and marshes, coastal impoundments and similar areas	
<b>Stormwater/ Drainage Systems</b> Storm sewers, catch basins, drainage ditches, storm water retention areas, and similar areas	2.1 - 2.9 (0.033 - 0.045)
<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	
<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)	1.2 - 2.1 (0.018 - 0.033)
<b>Natural and Artificial Containers</b> Tree holes, bromeliads, leaf axils and other similar natural water holding containers or areas subject to holding water  Cemetery urns, bird baths, flower pots, garbage bins, cans, rain barrels, buckets, single tires, tires stockpiled, 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	1.2 - 2.9 (0.018 - 0.045)

### Agricultural/Crop sites where mosquito breeding occurs:

Apply Natular® SC at the rate of 1.2 to 2.9 fl.oz./acre in standing water within agricultural/crop sites where mosquito breeding occurs: pastures/hay fields, rangelands, orchards, vineyards and citrus groves. Do not apply to waters intended for irrigation.

## 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. 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. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994 (available 24 hours a day, 365 days a year).

### Terms and Conditions of Use

To the extent permitted by law, if terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

### Warranty Disclaimer

To the extent permitted by law, CLARKE MOSQUITO CONTROL PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT PERMITTED BY LAW, CLARKE MOSQUITO CONTROL PRODUCTS, INC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

### Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Vegetation injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, site conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of CLARKE MOSQUITO CONTROL PRODUCTS, INC. or the seller. To the extent permitted by law, all such risks shall be assumed by buyer.

### Limitation of Remedies

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at CLARKE MOSQUITO CONTROL PRODUCTS, INC.'s election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used

CLARKE MOSQUITO CONTROL PRODUCTS, INC. shall not be liable for losses or damages resulting from handling or use of this product unless CLARKE MOSQUITO CONTROL PRODUCTS, INC. is promptly notified of such loss or damage in writing. In no case shall CLARKE MOSQUITO CONTROL PRODUCTS, INC. be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of CLARKE MOSQUITO CONTROL PRODUCTS, INC. or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or Limitation of Remedies in any manner.

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

### Produced for

Clarke Mosquito Control Products, Inc.  
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