Salem County Mosquito Control
QUESTIONS AND ANSWERS

Municipalities are encouraged to share this information with all residents in their community.

What does this government agency do?

Salem County Mosquito Control Division (under the Department of Public Works) is involved in all aspects of mosquito control. Mosquito control is a public service provided statutorily by the County Commissioners, free of charge, to the residents of Salem County. Inspectors will respond to service requests called in by county residents; in addition, they will also inspect known mosquito "hot spots" for the presence of mosquitoes. When mosquitoes are found, in any life stage, inspectors will take action accordingly. Staff survey for mosquito populations and provide public education regarding mosquitoes and the diseases they carry. Disease testing is coordinated by the Office of Mosquito Control Coordination, a division of the New Jersey Department of Environmental Protection. The county samples mosquitoes throughout the county and they are tested for any or all of the following diseases: West Nile virus, Eastern equine encephalitis, LaCrosse encephalitis, St. Louis encephalitis, Jamestown Canyon virus, Chikungunya virus, Dengue virus and Zika virus. When sampled mosquitoes test positive for any of the above viruses, we intensify our inspection and control efforts in the areas where these mosquitoes are found in an attempt to minimize potential risk to county residents.

Area-wide mosquito control adulticide applications may be made any time between May 1 and October 31 of 2026.

How does our agency control mosquitoes?

Salem County Mosquito Control uses an integrated pest management (IPM) approach to control mosquitoes. This approach utilizes multiple methods of pest control, including mechanical control, biological control, and chemical control. Source reduction (a form of mechanical control) is the principal technique used in our mosquito control program; in many cases this can permanently affect mosquito population levels. Biological control can also be very effective in mitigating mosquitoes. We identify isolated, permanent bodies of water (or abandoned swimming pools) and introduce fish

to feed on the mosquito larvae. Our chemical control program consists of the application of larvicides and pupicides to kill the immature mosquito stages, and adulticides to kill the flying adults. Typically, non-chemical methods are preferred; however, pesticides are necessary if other methods are ineffective or not feasible.

What can the general public do to help us with mosquito control?

It is very important that the general public be involved in mosquito control to make our program a success. It is everyone's responsibility to help reduce backyard mosquito habitats.

Here are some tips for reducing mosquitoes around your home:

- use screens in windows & doors.
- keep rain gutters free of debris.
- clean birdbaths at least every three days.
- eliminate standing water from crawl spaces and basements.
- wear EPA registered insect repellent (www.epa.gov/insect-repellents).
- keep your yard and surrounding areas free of any artificial containers* that may collect rainwater.

  *examples of artificial containers include, but are not limited to:
  - unused wading pools
  - open trash cans
  - tires
  - pool covers
  - wheel / tire ruts
  - toys
  - wheelbarrows
  - ornamental ponds without proper aeration or fish
  - empty planting pots or plant saucers

Anything that can hold rain water for three days can become a mosquito habitat. If you find a mosquito habitat, or if you think you might have an area conducive to the placement of mosquito-eating fish, do not hesitate to call our office.

Which pesticides are used to control mosquitoes in Salem County and how are they applied?

In Salem County we use larvicides, pupicides, and adulticides to control mosquitoes.

The **larvicides** that we may use include:

Altosid – active ingredient is methoprene.
CocoBear Oil – active ingredient is mineral oil.
Duplex – active ingredients are *Bacillus thuringiensis israelensis* & methoprene.
Fourstar – active ingredients are *Bacillus sphaericus* & *Bacillus thuringiensis israelensis*.
MetaLarv – active ingredient is methoprene.
Natular – active ingredient is Spinosad.
Spheratax – active ingredient is *Bacillus sphaericus.*
Sumilarv 5G – active ingredient is Pyripoxyfen
Sumilarv WSP – active ingredient is Pyripoxyfren
Teknar – active ingredient is *Bacillus thuringiensis israelensis.*
VectoBac – active ingredient is *Bacillus thuringiensis israelensis*
VectoLex – active ingredient is *Bacillus sphaericus.*
VectoMax - active ingredients are *Bacillus sphaericus* & *Bacillus thuringiensis israelensis*.
VectoPrime – active ingredients are *Bacillus thuringiensis israelensis* & methoprene.

The **pupicides** that we may use include:

CocoBear – active ingredient is mineral oil.

The **adulticides** that we may use include:

Duet HD - active ingredients are prallethrin & sumithrin.
Essentria All Purpose Concentrate – active ingredients are peppermint and rosemary oils.
Fyfanon – active ingredient is malathion.
ReMoa Tri – active ingredients are fenpropathrin, abamectin, and octanoic, nonanoic, and decanoic acids.
Zenivex - active ingredient is etofenprox.

Altosid is used as liquid, briquets, as pellets, granules or water soluble packets. Vectolex may be applied as granular or water soluble packet. Cocobear is a mineral oil that is applied to the surface of water bodies with a compressed air sprayer. Fourstar is applied as a briquet. Natular is applied as a liquid spray, granular or tablet formulation. Duplex, Vectobac and VectoPrime may be applied as a granular formulation. Vectomax may be applied as a water soluble packet. Spheratax may be applied as a water soluble packet. Sumilarv 5G may be applied as granular. Sumilarv WSP may be applied as a water soluble packet. All larvicide products are applied directly to water or on dry or damp areas that are likely to become flooded in the near future. Select larvicide products may also be applied by aircraft, when necessary.

Fyfanon, and Zenivex may be applied as Ultra-Low-Volume (ULV) cold aerosol spray via ground equipment. Fyfanon, DuetHD, Remoa Tri and Zenivex may be applied via aircraft at an Ultra-Low-Volume. Essentria AP-Concentrate is applied with a backpack sprayer. All adulticide treatments must be made when weather and specific timing allow, per pesticide control laws.

All products used are registered with both the US EPA and the NJ DEP, which means that they are legal for use in New Jersey. In addition, all staff (excluding office staff) are NJDEP licensed certified commercial pesticide applicators.

For further information about these pesticides and their use, please refer to the accompanying NJDEP-approved Fact Sheets and manufacturer labels.

How do I contact Salem County Mosquito Control for more information?

If you would like us to inspect your property, if you want to report a mosquito habitat, or you would like help with anything else that is mosquito or tick related, please call 856-935-7510 x3224 or x3225 Monday through Friday between 6:00am - 2:30pm (May -September) or 7:00am - 3:30pm (October - April). You may also visit the division's website at: www.salemcountynj.gov/departments/mosquito-control/.

General informational numbers pertaining to pesticides:

For overall pesticide-specific information:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures (24 hours):
New Jersey Poison Information & Education System **800-222-1222**

For pesticide regulation information, pesticide complaints, and health referrals:
NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-935-7510**
https://www.salemcountynj.gov/departments/mosquito-control/

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Where can I find more specific information on mosquito spraying in Salem County and how will I be notified?

Always feel free to call Salem County Mosquito Control at 856-935-7510 x3224 or x3225.

Enclosed is an example of a newspaper notice that is placed in local newspapers throughout the mosquito control treatment season. The municipality, Office of Emergency Management and other agencies are also notified before every spray mission. The spray schedule can also be found on the Salem County website.

Upon request, Salem County mosquito Control shall provide a resident with notification at least 12 hours prior to adulticide application, except for quarantine and disease vector control, when conditions necessitate pesticide applications without delay.

SALEM COUNTY MOSQUITO CONTROL

PUBLIC NOTICE

Mosquito control is everyone's responsibility; please do your part by preventing mosquitoes from breeding on your property. For more information on mosquitoes & mosquito control, contact the Salem County Mosquito Control program at 856-935-7510 x3224 or x3225.

In compliance with section 9.10 & 9.15 of the New Jersey Pesticide Control Code (N.J.A.C. Title 7, Chapter 30) Salem County Mosquito Control may be applying pesticides for the control of adult mosquito populations on an area-wide basis, as needed, throughout Salem County during the period of May 1, 2026 through October 31, 2026.

The Pesticides used for the control of adult mosquitoes may include: Malathion (Fyfanon®), Etofenprox (Zenivex®), Prallethrin/ Sumithrin (Duet®), Merus 3.0. or ReMoa Tri. Products will be applied from the ground by truck and/or by aircraft, using Ultra Low Volume techniques. The applications will be made according to product labeling (law).

Contact the National Pesticide Information Center at 1-800-858-7378 for routine pesticide related health inquiries. Call the New Jersey Pesticide Control Program at 1-609-984-6568 for pesticide regulation information, pesticide complaints and health referrals. In the case of any pesticide emergency please contact the New Jersey Poison Information and Education System at 1-800-222-1222.

Upon request, Salem County Mosquito Control shall provide a resident with notification at least 12 hours prior to the application, except for Quarantine and Disease Vector Control only, when conditions necessitate pesticide applications sooner than that time.

Those seeking further information regarding Salem County Mosquito Control's activities are requested to contact Salem County Mosquito Control at 856-935-7510 x3224 or x3225, 900 Route 45, Building #4, Woodstown, NJ 08098. You may also visit https://www.salemcountynj.gov/departments/mosquito-control/ for more information.

Municipal Packet Index

Larvicides and Pupicides

Trade Name	Active ingedient(s)	Formulation	Label	Fact Sheet
Altosid	methoprene	liquid larvicide	8	92
Altosid	methoprene	G	12	92
Altosid	methoprene	WSP	14	92
Altosid	methoprene	XR	16	92
Altosid	methoprene	XR-G	18	92
CocoBear Oil	mineral oil	larvicide oil	20	94
Duplex-G	*Bacillus thuringiensis israelensis* , methoprene	G	22	98
Fourstar	*Bacillus thuringiensis israelensis, Bacillus sphaericus*	briquet, 180 day	24	103
Fourstar	*Bacillus thuringiensis israelensis, Bacillus sphaericus*	briquet, 150 day	25	103
Fourstar	*Bacillus thuringiensis israelensis, Bacillus sphaericus*	briquet, 90 day	26	103
Fourstar	*Bacillus thuringiensis israelensis, Bacillus sphaericus*	briquet, 45 day	27	103
Natular	spinosad	XRT	28	109
Natular	spinosad	G	30	109
Natular	spinosad	G30	31	109
Natular	spinosad	DT	33	109
Natular	spinosad	2EC	34	109
Spheratax SPH	*Bacillus sphaericus*	WSP	36	114
Sumilarv 0.5G WSP	pyripoxyfen	WSP	37	116
Sumilarv 0.5G	pyripoxyfen	G	47	116
Teknar	*Bacillus thuringiensis israelensis*	G	57	119
VectorPrime	*Bacillus thuringiensis israelensis* , methoprene	FG	59	127
VectoBac	*Bacillus thuringiensis israelensis*	G	61	121
VectoLex	*Bacillus sphaericus*	FG	63	123
VectoLex	*Bacillus sphaericus*	WSP	65	123
VectoMax	*Bacillus sphaericus*	FG	67	125
VectoMax	*Bacillus sphaericus*	WSP	69	125

Adulticides

Trade Name ,	Active Ingredient	Formulation	Label	Fact Sheet
Duet HD	prallethrin, sumithrin, piperonyl butoxide	ULV spray	71	96
Essentia All Purpose	rosemary and peppermint spray	barrier spray	73	100
Fyfanon	malathion	ULV spray	79	105
ReMoa Tri	fenpropathrin, abamectin, and octanoic, nonanoic, and decanoic acids	space spray	81	111
Merus 3.0	pyrethrins	ULV spray	86	107
Zenivex E4	etofenprox	ULV spray	88	129

Altosid®

ZOËCON®

LIQUID LARVICIDE
MOSQUITO GROWTH REGULATOR

PREVENTS ADULT MOSQUITO EMERGENCE (*Including those which may transmit West Nile virus, Zika, chikungunya and dengue*)

For control of mosquito larvae using ULV application

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6)	5%
OTHER INGREDIENTS:	95%
TOTAL:	100%

Formulation contains 0.43 lb/gal (51.3 g/liter) active ingredient

EPA REG. NO. 2724-392 EPA EST. NO. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE ADDITIONAL PRECAUTIONARY STATEMENTS

BECAUSE OF THE UNIQUE MODE OF ACTION OF **A.L.L.**, SUCCESSFUL USE REQUIRES FAMILIARITY WITH SPECIAL TECHNIQUES FOR APPLICATION TIMING AND TREATMENT EVALUATION. SEE **GUIDE TO PRODUCT APPLICATION** OR CONSULT LOCAL MOSQUITO ABATEMENT AGENCY.

PRECAUTIONARY STATEMENTS – HAZARDS TO HUMANS – CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

FIRST AID

If in eyes • 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 eye. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters or rinsate.

DIRECTIONS FOR USE

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

CHEMIGATION

Refer to supplemental labeling entitled **"Guide to Product Application"** for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

MIXING AND HANDLING INSTRUCTIONS

1. **SHAKE WELL BEFORE USING. Zoëcon® Altosid® Liquid Larvicide Mosquito Growth Regulator (A.L.L.)** may separate on standing and must be thoroughly agitated prior to dilution.
2. Do not mix with oil; use clean equipment.
3. Partially fill spray tank with water; then add the labeled amount of **A.L.L.**, agitate and complete filling. Mild agitation during application is desirable.
4. Use spray solution within 48 hours; always agitate before spraying.

APPLICATION INSTRUCTIONS

Introduction: **A.L.L.** must be applied to 2nd, 3rd, or 4th larval instars of target mosquitoes to prevent adult emergence. Treated larvae continue normal development to the pupal stage where they die. This insect growth regulator **has no effect when applied to pupae or adult mosquitoes. A.L.L.** has sufficient field life to be effective at appropriate rates when applied to larval stages under varying field conditions. For further information, see **Guide to Product Application.**

METHODS OF APPLICATION

Aerial: **A.L.L.** may be applied by aircraft to terrestrial locations where mosquito breeding occurs. Use the prescribed amount of **A.L.L.** listed below in sufficient water to give complete coverage. One-half to 5 gallons of spray solution per acre is usually satisfactory. Do not apply when

weather conditions favor drift from areas treated.

Ground: Determine the average spray volume used per acre by individual operators and/or specific equipment. Mix **A.L.L.** in the appropriate volume of water to give the rate per acre as indicated below.

For Control of Mosquito Larvae Using ULV Application: For ground and aerial application to terrestrial sites, apply at the rate of 3-4 fluid ounces of product per acre to water-holding containers and other small bodies of water that breed mosquitoes. Use equipment capable of applying a fine mist or ULV. Follow equipment manufacturer's recommendations when making applications. Direct spray applications to sites where mosquitoes breed. These sites include: tires and tire piles, potted plants, tree holes, garbage bins, cans, birdbaths, rain barrels, and other water-holding containers and small bodies of water.

For aerial application to terrestrial sites, apply by fixed wing or rotary aircraft. Apply at the rate of 3 – 4 fluid ounces of product to acre diluted with water at a minium of a 1:1 mix ratio with water. Apply using ULV equipped and capable aircraft. Unlike ULV sprays targeting flying mosquitoes, it is important that spray droplets deposit in targeted areas. Target terrestrial areas where mosquitoes breed. These sites include tires, open containers, garbage bins, birdbaths, and gutters, which hold small amounts of water. Spray equipment must be adjusted so that the volume median diameter (VMD) produced ranges from 60 microns ($Dv_{0.5}$ < 60µ) to 100 microns ($Dv_{0.5}$ < 100µ), and that 90% of the spray is contained in droplets smaller than 200 microns ($Dv_{0.9}$ < 200µ). Directions from the equipment manufacturer or vendor, pesticide registrant, or 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 calibrated annually to confirm that nozzle flow rate(s) are accurate. Do not apply at altitudes below 100 feet unless using unmanned aircraft designed for low application heights. Apply when wind speed on the ground is ≥ 1 mph and ≤ 10 mph. Apply when wind factors promoting drift are low. For best results, use Global Positioning System (GPS) equipped aircraft.

APPLICATION RATE

Apply 3 to 4 fl oz of **A.L.L.** per acre (219 to 293 ml/ hectare) in water as directed.

For Control of Mosquito Larvae Using ULV Application: Apply at 3-4 ounces per acre. Reapply as breeding sites become reinfested or when monitoring indicates an increase in adult populations.

APPLICATION SITES

Pastures: **A.L.L.** may be applied after each flooding without removal of grazing livestock.

Rice: **A.L.L.** must be applied to 2nd, 3rd, and/or 4th instar larvae of mosquitoes found in rice, usually within 4 days after flooding. **A.L.L.** treatment may be repeated with each flooding.

Intermittently Flooded Noncrop Areas: **A.L.L.** may be applied as directed above when flooding may result in floodwater mosquito hatch.

Typical sites include: freshwater swamps and marshes, salt marshes, woodland pools and meadows, dredging spoil sites, drainage areas, waste treatment and settling ponds, ditches and other natural and manmade depressions.

Crop Areas: **A.L.L.** may be applied to irrigated croplands after flooding to control mosquito emergence. Examples of such sites are: vineyards, rice fields (including wild rice), date palm orchards, fruit and nut orchards, and berry fields and bogs. Irrigated pastures may be treated after each flooding **without** the removal of grazing livestock.

In dense vegetation or canopy areas: Apply an **A.L.L.** sand or BIODAC® mixture using standard granular dispersal equipment. For detailed preparation instructions, refer to **Guide to Product Application**.

TANK MIXING INSTRUCTIONS

The user, at his discretion, can tank-mix **A.L.L.** with registered adulticides or other larvicides such as *Bacillus thuringiensis* variety *israeliensis (B.t.i.)* or *Bacillus sphaericus (B.s.)* unless the tank-mix product label prohibits such mixing. Use the resulting tank mixture in accordance with the more restrictive label limitations and precautions.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **Pesticide Storage:** Store in cool place. Store product away from other pesticides, food, and feed. In case of leakage or spill, soak up with sand or another absorbent material. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Handling:** Nonrefillable container. Do not reuse or refill this container. Clean container 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. 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.

For information, call **1-800-248-7763** or visit our Web site: **www.centralmosquitocontrol.com**

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

ZOËCON® Professional Products

VEC 17-013

February 2017
Schaumburg, IL

CENTRAL
Garden & Pet

10

For information, call **1-800-248-7763** or visit
our Web site: **www.altosid.com**

EPA Reg. No. 2724-392
EPA Est. No. 2724-TX-1

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

Prod. No. 37240E 300509085

Altosid®

ZOËCON.

LIQUID LARVICIDE

MOSQUITO GROWTH REGULATOR

PREVENTS EMERGENCE OF ADULT FLOODWATER MOSQUITOES

GUIDE TO PRODUCT APPLICATION

FOR THE FIRST TIME USER

Zoëcon® Altosid® Liquid Larvicide Mosquito Growth Regulator (A.L.L.) is the result of extensive research into the intricacies of natural biochemical and physiological development of insects. New chemical technology and biological findings were combined to develop a unique mosquito larvicide.

A.L.L., an insect growth regulator (IGR), acts by inducing morphological changes which interfere with normal development. These effects, not immediately apparent, result in the failure of adult mosquitoes to emerge from pupae. **A.L.L. is not** a conventional pesticide. It does not produce the nondiscriminatory rapid, directly toxic effects that are associated with traditional larvicides. **A.L.L.** differs from other larvicides you may have used only in the manner and time course of its action **after** application.

A.L.L. is applied to second, third, or fourth instar larvae using standard larviciding equipment in a manner similar to other larvicides. After application to second, third, or fourth instar larvae at the appropriate rates, absolutely no effects on larvae will be observed. They will continue developing normally and will pupate. Pupae will appear unaffected, but will eventually die. **Adults will not emerge.** Infrequently, a few adults may be seen at the water surface but they will have abnormalities preventing flight and will not survive. Because the effect of **A.L.L.** is neither larval death nor widespread mortality immediately following pupation, the **number of adults which emerge is the only criterion for accurately assessing control.** Checks by dip counts during larval and pupal stages will give no measure of effectiveness.

Refer to the following diagram and checklist, in addition to label instructions for guidance in timing of application and performance evaluation. They will assist you in obtaining the best possible results with this unique product.

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

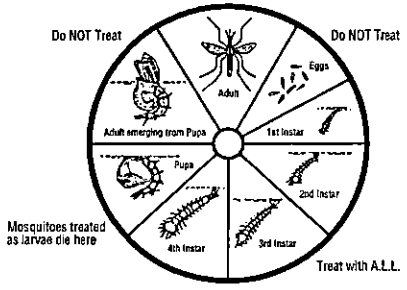
CHECKLIST
Things to remember when using **A.L.L.**
DO the following:

1. **DO** treat second, third, and/or fourth instar larvae, not pupae or adults. (First instar larvae are so small they are not readily detectable.)
2. **DO** wait until treated larvae have pupated. Then **collect pupae** and transfer to laboratory to observe for emergence of adults.
3. **DO** observe pupae for several days, since death of IGR treated mosquitoes occurs when pupae would normally emerge as adults. (Careful observation is necessary since dead pupae decompose rapidly and thus are not easily seen.)
4. **DO** monitor emerging adults at the treatment site.This absolutely requires that emergence traps be placed in treatment areas to capture adult mosquitoes as they emerge.

DO NOT do the following:

1. **DO NOT** take dip counts of larvae after treatment for the purpose of performance evaluation. **Normal looking larvae** will be present.
2. **DO NOT** take dip counts of pupae after treatment for the purpose of performance evaluation. **Normal looking pupae** will be seen but these will not develop into normal adults.
3. **DO NOT** think **A.L.L.** has failed if some adult mosquitoes are flying in treated areas; they probably have flown in from nearby untreated areas. Numbers 2 and 4 of the "**DO**" checklist are the only methods of accurately assessing effectiveness.
4. **DO NOT** spray again, either with **A.L.L.** or a conventional insecticide, because larvae or pupae are present after application. This is normal. The effectiveness of **A.L.L.** can only be measured by lack of adult emergence.

LIFE CYCLE OF MOSQUITO
When to Apply A.L.L.



Preparation of ALTOSAND®
Granular Formulation
An "On-Site" Method of Preparing a Granular Formulation of A.L.L.

INTRODUCTION

A method of application of **A.L.L.**, using sand as a carrier, has been developed for use in floodwater mosquito breeding areas with dense vegetation or canopy. The characteristics of **ALTOSAND®** provide excellent foliage penetration, ensuring that the active ingredient reaches the water where it is released from the sand.

ALTOSAND® will prevent the emergence of species of the floodwater mosquito complex when applied to second, third, or fourth larval instars at a rate of 10 to 13 pounds per acre.

PREPARATION INSTRUCTIONS

The following materials are required to prepare a 100 lb batch of **ALTOSAND®**:

96 lb washed, dry sand (20 to 45 mesh)
2 lb **A.L.L.** (15 fl oz/lb)
2 lb HiSil 233 (silicon dioxide)
Small Funnel
Cement Mixer

1. Measure the time required for a level funnel full of sand to empty.
2. Into a rotating-type mixer, place 96 lb of dry (20 to 45 mesh) sand. While the mixer is rotating, slowly pour 2 lb (30 fl oz) of **A.L.L.** onto the sand. (If better wetting is required, **A.L.L.** may be diluted in up to an equal volume of water.)
3. Mix until the sand is uniformly coated with **A.L.L.** (usually 5 to 10 minutes).
4. Stop the mixer and add 2 lb of HiSil 233. Cover the mixer to reduce dust. Start the mixer and run for approximately 5 minutes. (The quantity of HiSil 233 necessary to achieve a dry, free-flowing mixture will vary depending on the particle size distribution and moisture of the sand.)
5. Compare the flow rate of the **ALTOSAND®** mixture with that of untreated sand in Step No. 1. Add more HiSil if it flows significantly slower and reduce the amount of HiSil in subsequent batches if the mixture flows at the same or a faster rate and is excessively dusty.

APPLICATION RATE AND METHODS

Apply at a rate of 10 to 13 lb of the final mixture per acre, using standard granular dispersal equipment.

Preparation of Altodac™
Granular Formulation
An "On-Site" Method of Preparing a Granular Formulation of A.L.L.

INTRODUCTION

A method of application, using **BIODAC®** as carrier, has been developed for use in mosquito breeding areas in floodwater and intermittently flooded noncrop areas including freshwater and saltwater marshes. The characteristics of **A.L.L.** using **BIODAC®** carrier provide excellent coverage, ensuring that the active ingredient reaches the water and is released from the **BIODAC®**.

A.L.L. will prevent the emergence of adult mosquitos when applied to second, third, or fourth larval instars at a rate of 10 to 13 pounds per acre.

PREPARATION INSTRUCTIONS

The following materials are required to prepare a 100 lb batch of **ALTODAC™** using **BIODAC®** carrier:

96 lb **BIODAC®** 12/20
30 oz **A.L.L.**
32 oz water

1. Weigh the required amounts of **A.L.L.** into a tared container suitable for mixing.
2. Weigh the water into the vessel containing the **A.L.L.** Stir the contents in the vessel until a uniform mixture is achieved.
3. Add the appropriate amount of **BIODAC®** 12/20 to a blending device, e.g., a cement mixer with lifters, a munson blender, or any other device that will allow the granules to tumble through a spray.
4. Add the water/**A.L.L.** mixture to a spray unit or any pressurized device capable of delivering a cone-shaped, fine particle size spray to the contents in the blender.
5. Spray the mixture of **A.L.L.** and water onto the **BIODAC®** while the blender is tumbling the granules. Once the mixture has been applied to the **BIODAC®**, continue to blend until the granules appear to be dry (usually 5 to 10 minutes).
6. Remove the granules and screen over a 12 mesh screen to remove agglomerates.

APPLICATION RATE AND METHODS

Apply at a rate of 10 to 13 lb of the final mixture per acre using granular dispersal equipment.

Chemigation: Apply this product only through flood (basin), furrow, or border irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Flood (Basin), Furrow, and Border Chemigation: Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where the pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

A pesticide supply tank is recommended for the application of **A.L.L.** by chemigation.

Altosid® PELLETS
MOSQUITO GROWTH REGULATOR

ZOËCON®

A GRANULAR PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE *(INCLUDING THOSE WHICH MAY TRANSMIT WEST NILE VIRUS)*

SPECIMEN LABEL

ACTIVE INGREDIENT:	
(S)-Methoprene (CAS #65733-16-6)	4.25%
OTHER INGREDIENTS:	95.75%
Total	100.00%

EPA Reg No. 2724-448 EPA Est. No. 39578-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

FIRST AID	
Call a poison control center or doctor for treatment advice.	
If in eyes	• 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 eye.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.	

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of rinsate or equipment washwaters.

DIRECTIONS FOR USE

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

INTRODUCTION

ZOËCON® ALTOSID® Pellets (ALTOSID® Pellets) release **ALTOSID®** Insect Growth Regulator as they erode. **ALTOSID® Pellets** prevent the emergence of adult standing water mosquitoes, including *Anopheles, Culex, Culiseta, Coquillettidia,* and *Mansonia* spp., as well as adults of the floodwater mosquitoes such as *Aedes, Ochlerotatus,* and *Psorophora* spp. from treated sites.

GENERAL DIRECTIONS

ALTOSID® Pellets release effective levels of **ALTOSID®** Insect Growth Regulator for up to 30 days under typical environmental conditions. Continue treatment through the last brood of the season. Treated larvae continue to develop normally to the pupal stage where they die. **NOTE:** This insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

APPLICATION SITES AND RATES

Use lower application rates when water is shallow, vegetation and/or pollution are minimal, and insect populations are low. Use higher rates when water is deep (>2 ft), vegetation, pollution, and/or organic debris or water flow are high, and insect populations are high. In instances of high organic debris and water flow, residual activity may be diminished.

MOSQUITO HABITAT	RATE (LB/ACRE)
Floodwater sites	
Pastures, meadows, rice fields, freshwater swamps and marshes, salt and tidal marshes, cattail marshes, woodland pools, floodplains, tires, other artificial water-holding containers	2.5–5
Dredging spoil sites, waste treatment and settling ponds, ditches and other manmade depressions	5–10
Permanent water sites	
Ornamental ponds and fountains, fish ponds, cattail marshes, water hyacinth beds, flooded crypts, transformer vaults, abandoned swimming pools, construction and other manmade depressions, treeholes, other artificial water-holding containers	2.5–5
Storm drains, catch basins, roadside ditches, cesspools, septic tanks, waste settling ponds, vegetation-choked phosphate pits	5–10

APPLICATION METHODS

Mosquitoes: Apply **ALTOSID® Pellets** up to 15 days prior to flooding, or at any stage of larval development after flooding or in permanent water sites. Fixed wing aircraft or helicopters equipped with granular spreaders capable of applying rates from 2.5 to 10 lb/acre may be used to apply **ALTOSID® Pellets**. The pellets may also be applied using ground equipment which will achieve good, even coverage at the above rates. Apply **ALTOSID® Pellets** to artificial containers such as tires and catch basins, etc.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Store closed containers of **ALTOSID® Pellets** in a cool, dry place.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may 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). 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.

WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information or in case of an emergency, call **1-800-248-7763**.

www.altosid.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

ZOECON® Professional Products

300506948

Made in the U.S.A.

May, 2010
Schaumburg, IL

Altosid® PELLETS WSP

ZOËCON®

MOSQUITO GROWTH REGULATOR

- **A GRANULAR PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE *(including those which may transmit West Nile virus)***
- **IDEAL WHEN TREATING HARD-TO-REACH STORMWATER SITES**
- **READY-TO-USE WATER SOLUBLE POUCHES (WSP)**
- **A SINGLE WSP COVERS UP TO 135 FT² OF WATER SURFACE AREA**

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (CAS# 65733-16-6)	4.25%
OTHER INGREDIENTS:	95.75%
TOTAL	100.00%

EPA Reg. No. 2724-448 EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional Precautions

PRECAUTIONARY STATEMENTS – HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

FIRST AID
Call a poison control center or doctor for treatment advice.
IF IN EYES • 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 eye.
IF ON SKIN • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of rinsate or equipment washwaters.

DIRECTIONS FOR USE

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

INTRODUCTION

ZOECON® ALTOSID® Pellets WSP (ALTOSID® Pellets WSP) release ALTOSID®, an Insect Growth Regulator as they erode. **ALTOSID® Pellets WSP** prevent the emergence of adult standing water mosquitoes, including *Anopheles, Culex, Culiseta, Coquillettidia,* and *Mansonia* spp., as well as adults of the floodwater mosquitoes, such as *Aedes, Ochlerotatus,* and *Psorophora* spp. from treated sites.

GENERAL DIRECTIONS

ALTOSID® Pellets WSP release effective levels of ALTOSID® Insect Growth Regulator for up to 30 days under typical environmental conditions. Continue treatment through the last brood of the season. Treated larvae continue to develop normally to the pupal stage where they die.

NOTE: This insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

ALTOSID® Pellets WSP are convenient ready-to-use pouches for treating mosquito breeding sites. The pouches are water-sensitive and when in contact with water, the pouches dissolve, releasing the pellets. Use care when handling unused pouches so that moisture does not collect on the pouches. Keep pouches sealed in the original package until ready for use. Once outer foil bag containing water soluble pouches is opened, use pouches within one day.

APPLICATION SITES

ALTOSID® Pellets WSP are effective against *Anopheles, Culex, Culiseta, Aedes, Ochlerotatus, Coquillettida, Mansonia* and *Psorophora* mosquito species. Use pouches to treat small bodies of water such as: catch basins, storm drains, roadside ditches, tree holes, flooded crypts, transformer pits, fish ponds, woodland pools, fountains, septic tanks, ornamental ponds, manmade depressions, animal watering troughs, ditches, and other natural or artificial water-holding containers.

APPLICATION RATE

Place one pouch into each catch basin. For other mosquito breeding sites, one pouch will treat up to 135 ft^2 of surface area. **ALTOSID® Pellets WSP** will provide up to 30 days control of emerging adult mosquitoes.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Store closed containers of Altosid® Pellets WSP in a cool, dry place. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or dispose of empty outer foil pouch in the trash as long as Water Soluble Pouch (WSP) is unbroken.

WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information or in case of an emergency, call 1-800-248-7763.

www.altosid.com

Produced for:

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

300512279

February, 2012
Schaumburg, IL

Altosid® XR
EXTENDED RESIDUAL BRIQUETS

ZOËCON®

A SUSTAINED RELEASE PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE
(INCLUDING THOSE WHICH MAY TRANSMIT WEST NILE VIRUS)

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6)) (Dry Weight Basis):	2.1%
OTHER INGREDIENTS:	97.9%
Total	100.0%

EPA Reg. No. 2724-421
EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN
CAUTION
SEE ADDITIONAL PRECAUTIONARY STATEMENTS

INTRODUCTION

ALTOSID® XR BRIQUETS are designed to release effective levels of (S)-Methoprene insect growth regulator over a period up to 150 days in mosquito breeding sites. Release of (S)-Methoprene insect growth regulator occurs by dissolution of the briquet. Soft mud and loose sediment can cover the briquets and inhibit normal dispersion of the active ingredient. The product may not be effective in those situations where the briquet can be removed from the site by flushing action.

ALTOSID® XR BRIQUETS prevent the emergence of adult mosquitoes including: *Anopheles, Culex, Culiseta, Coquillettidia,* and *Mansonia* spp., as well as those of the floodwater mosquito complex (*Aedes, Ochlerotatus,* and *Psorophora* spp.) from treated water. Treated larvae continue to develop normally to the pupal stage where they die.

NOTE: (S)-Methoprene insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

FIRST AID	
Call a poison control center or doctor for treatment advice.	
If in eyes	•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 eye.
If on skin or clothing	•Take off contaminated clothing. •Rinse skin immediately with plenty of water for 15-20 minutes.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.	

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of unused product.

DIRECTIONS FOR USE

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

APPLICATION TIME

Place **ALTOSID® XR BRIQUETS** at or before the beginning of the mosquito season. Apply **ALTOSID® XR BRIQUETS** prior to flooding when sites are dry, or on snow and ice in breeding sites prior to spring thaw. Under normal conditions, one application will last the entire mosquito season, or up to 150 days, whichever is shorter. Alternate wetting and drying will not reduce their effectiveness.

APPLICATION RATES

***Aedes, Ochlerotatus,* and *Psorophora* spp.:** For control in non-(or low-) flow shallow depressions (≤ 2 feet in depth), treat on the basis of surface area, placing one **ALTOSID® XR BRIQUET** per 200 ft². Place briquets in the lowest areas of mosquito breeding sites to maintain continuous control as the site alternately floods and dries up.

***Culex, Culiseta* and *Anopheles* spp.:** Place one **ALTOSID® XR BRIQUET** per 100 ft².

Coquillettidia and *Mansonia* spp.: For application to cattail marshes and water hyacinth beds. For control of these mosquitoes, place one **ALTOSID® XR BRIQUET** per 100 ft².

***Culex* sp. in storm water drainage areas, sewers, and catch basins:** For catch basins, place one **ALTOSID® XR BRIQUET** into each basin. In cases of large catch basins, follow the chart below to determine the number of briquets to use. For storm water drainage areas, place one briquet per 100 ft² of surface area up to two ft deep. In areas that are deeper than two feet, use one additional briquet per two feet of water depth.

Water flow pressure increases the potential dissolution of the briquet. Conduct regular inspections (visual or biological) in areas of water flow to determine if the briquet is still present. Adjust the retreatment interval based on the results of an inspection.

ALTOSID® XR BRIQUETS Application Chart

Number of Briquets	Catch Basin Size (Gallons)	Surface Area/ Water Depth (ft)
1	0 – 1500	0 – 2
2	1500 – 3000	2 – 4
3	3000 – 4500	4 – 6
4	4500 – 6000	6 – 8

APPLICATION SITES

ALTOSID® XR BRIQUETS are designed to control mosquitoes in treated areas. Examples of application sites are: storm drains, catch basins, roadside ditches, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, animal watering troughs, cesspools and septic tanks, waste treatment and settling ponds, flooded crypts, transformer vaults, abandoned swimming pools, tires, construction and other manmade depressions, cattail marshes, water hyacinth beds, vegetation-choked phosphate pits, pastures, meadows, rice fields, freshwater swamps and marshes, salt and tidal marshes, treeholes, woodland pools, floodplains, and dredging spoil sites. For application sites connected by a water system, i.e., storm drains or catch basins, treat all of the water-holding sites in the system to maximize the efficiency of the treatment program.

STORAGE AND DISPOSAL

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

STORAGE: Store in a cool place. Do not reuse empty container.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty container in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. To the extent permitted by law, Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information, or in case of an emergency, call 1-800-248-7763.

www.altosid.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

ZOËCON® Professional Products

300507286

May, 2010
Schaumburg, IL

Altosid XR-G®

ZOËCON®

LARVICIDE PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE (Including *Aedes* sp. and those which may transmit West Nile virus, Zika, dengue, chikungunya and other mosquito-borne diseases)

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6)	1.5%
OTHER INGREDIENTS:	98.5%
Total	100.0%

EPA Reg. No. 2724-451
EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes or skin. Due to the size and abrasiveness of the granule, use protective eyewear and clothing to minimize exposure during loading and handling. Wash thoroughly with soap and water after handling.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of rinsate or equipment washwaters.

FIRST AID
If in eyes • 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 eye.
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. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

DIRECTIONS FOR USE

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

GENERAL DIRECTIONS

ALTOSID XR-G® releases effective levels of **ALTOSID®** insect growth regulator for up to 21 days after application. Applications should be continued throughout the entire season to maintain adequate control. Treated larvae continue to develop normally to the pupal stage where they die. Rotary and fixed-wing aircraft equipped with granular spreaders capable of applying rates listed below may be used to apply **ALTOSID XR-G®**. Ground equipment which will achieve even coverage at these rates may also be used. Apply **ALTOSID XR-G®** uniformly and repeat application as necessary.

NOTE: ALTOSID® insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

APPLICATION TIME

Apply **ALTOSID XR-G®** at any stage of larval mosquito development. Granules may be applied prior to flooding (i.e., "pre-hatch" or "pre-flood") in areas which flood intermittently. In such areas, 1 application of **ALTOSID XR-G®** can prevent adult mosquito emergence from several subsequent floodings. The actual length of control depends on the duration and frequency of flooding events.

APPLICATION RATES

Aedes, Anopheles, and *Psorophora* spp.: Apply **ALTOSID XR-G®** at 5 - 10 lb/acre (5.6-11.2 kg/ha). *Culex, Culiseta, Coquillettidia,* and *Mansonia* spp.: Apply **ALTOSID XR-G®** at 10-20 lb/acre (11.2-22.4 kg/ha). Within these ranges, use lower rates when water is shallow [< 2 feet (60 cm)] and vegetation and/or pollution are minimal. Use higher rates when water is deep [≥ 2 feet (60 cm)] and vegetation and/or pollution are heavy.

APPLICATION SITES

Non-Crop Areas: ALTOSID XR-G® may be applied as directed above to temporary and permanent sites which support mosquito larval development. Examples of such sites include: snow pools, salt and tidal marshes, freshwater swamps and marshes (cattail, red cedar, white maple marshes), woodland pools and meadows, dredging spoil sites, drainage areas, ditches, wastewater treatment facilities, livestock runoff lagoons, retention ponds, harvested timber stacks, swales, storm water drainage areas, sewers, catch basins, tree holes, animal watering troughs, water-holding receptacles (e.g., tires, urns, flower pots, cans, and other containers), and other natural and manmade water-holding depressions.

Crop Areas: ALTOSID XR-G® may be applied as directed above to temporary and permanent sites which support mosquito larval development. Examples of such sites include: irrigated croplands, pastures, rangeland, vineyards, rice fields (domestic and wild), date palm, citrus, fruit, nut orchards, berry fields and bogs.

NOTE: Application of **ALTOSID XR-G®** to sites subject to water flow or exchange will diminish the product's effectiveness and may require higher application rates and/or more frequent applications.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

Store closed containers of **ALTOSID XR-G®** in a cool, dry place.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

PESTICIDE CONTAINER DISPOSAL

Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent). 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.

WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information call **1-800-248-7763**.

www.centralmosquitocontrol.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

ZOËCON®

VEC 17-005

January, 2017
Schaumburg, IL

COCOBEAR™
Mosquito Larvicide Oil

Kills larvae and pupa stages of mosquitoes. Physical control of mosquito broods: kills by suffocation - mosquitoes do not develop resistance. Prevents mosquito emergence.

Standing water treatment. Use on: ponds, pools, ditches, standing water within irrigated croplands and pastures, flood waters, and other listed areas where mosquitoes develop.

ACTIVE INGREDIENT	
Mineral Oil*	10.0%
OTHER INGREDIENTS	90.0%
TOTAL	100.0%

* Contains petroleum distillate

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.	
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. 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.
NOTICE TO PHYSICIANS: This product contains petroleum distillate and may pose an aspiration pneumonia hazard.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE): Mixers, loaders, applicators, and other handlers must wear long-sleeved shirt and long pants, and shoes plus socks.

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 this 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.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, except as directed for use on this label. Aquatic organisms may be killed in waters where this pesticide is used. Consult with the State or tribal agency with primary authority for regulating pesticides before applying this product to public waters to determine if a permit is needed.

DIRECTIONS FOR USE

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

This product may cause injury to plants in the treatment area. Stressed plants may be more susceptible.

COCOBEAR may only be used to control mosquito larvae and pupae. COCOBEAR leaves a thin film on the surface of treated, non-flowing water and kills mosquito larvae and pupae by suffocation. COCOBEAR kills immature mosquitoes where they develop.

This product may be used for surface applications to standing water within irrigated croplands and pastures, drainage areas, ditches, stagnant pools, swamps, marshes, temporary rain pools, sloughs, log ponds, open sewage basins, settling ponds, catch basins, waste tires and intermittently flooded areas.

Apply at uniform rates of 3 gallons per surface acre (for smaller areas, treat at 10 ounces per 1,000 sq. ft. or 1 1/2 quart per 5,000 sq. ft.). Where there is extremely dense vegetation or if the water to be treated is high in organic content, up to 5 gallons per acre (15 ounces per 1,000 sq. ft. or 2 quarts per 5,000 sq. ft.) may be used.

When applying by aerial application, adjust spray volume up to 5 gallons per acre dependent on vegetation and surface conditions. 3 gallons per acre (36 gallons per 100 ft swath mile) is likely to be sufficient for most conditions.

<u>Spray Drift Management</u>

A variety of factors including weather conditions (e.g. wind direction, wind speed, temperature, and 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.

Wind Speed: Do not apply this product at wind speeds greater than 15 mph at the application site.

Droplet Size: Apply as a medium or coarser spray (ASABE Standard

572), and the minimum mean volume diameter (VMD) for spinning atomizer nozzles.

Temperature Inversions: Application is allowed under stable and/or temperature inversion conditions as long as application is done below the point in the atmosphere where the inversion begins and the droplet size meets the dimensions of very coarse or extremely coarse as defined in ASABE Standard 572 (VMD of 400-500 microns).

Release Height for Ground Applications: Apply using a nozzle height of no more than 4 feet above the surface.

Aerial Applications: Applications must conform to the requirements indicated above regarding wind speed, droplet size, and temperature inversions and to the additional requirements listed below.

Release Height: Aircraft altitude should be maintained at the lowest altitude necessary for aircraft safety in order to reduce the exposure of droplets to evaporation and wind.

Boom Length: The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Nozzle placement may be extended to 100% of rotor blade diameter when very coarse droplets of VMD 400-500 microns (ASABE Standard 572) are used. Orient nozzles to spray backward and parallel to the air stream.

Swath Adjustment: When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the upwind and downwind edges of the application area by adjusting the path of the aircraft upwind.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store upright at room temperature. In case of spill or leakage, soak up with absorbent material such as sand, sawdust, earth, fuller's earth, etc.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL:

(REFILLABLE DRUMS & TOTES): 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 the container before refilling is the responsibility of the refiller. To clean the container before disposal, drain the container until it is empty. Add a minimum amount of clean water to allow recirculation through the pump, meter and hoses. A commercial tank-cleaning detergent may be used, if desired. Thoroughly drench the interior sides, ceiling, and floor of the container. Using a steam-cleaning process or a high-pressure/low-water process, clean sides, ceiling, and floor of container. Recirculate wash water through the pump, meter and hoses. Drain the tank. Dispose of wash water or rinsate with pesticide waste. Offer cleaned container for recycling, if available, or puncture and dispose of it in a sanitary landfill, or by other procedures approved by State and local authorities.

(2.5 GALLON JUGS): Nonrefillable container. Do not reuse or refill this container. When container is empty, drain it completely, then puncture and dispose of it in a sanitary landfill or by other procedures approved by State and local authorities.

MANUFACTURED FOR:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172
For more information call: 1-800-323-5727

EPA REG. NO. 8329-93

EPA EST. NO._____

Available Packaging: 2.5 GAL, 30 GAL, 55 GAL, 275 GAL, BULK

LOT NO: Marked on Container Label

NOTICE: 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. 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.

AL0337

Duplex™-G

ZOËCON®

A DUAL ACTION extended residual BIOLOGICAL LARVICIDE AND INSECT GROWTH REGULATOR GRANULAR PRODUCT TO KILL MOSQUITO LARVAE AND PREVENT ADULT MOSQUITO EMERGENCE
(including those mosquitoes that may transmit diseases, including West Nile virus, Dengue, Chikungunya, and Zika virus)

SPECIMEN LABEL

ACTIVE INGREDIENT:

Bacillus thuringiensis subspecies *israelensis* Strain BMP 144 solids, spores,and insecticidal toxins*	5.35%
(S)-Methoprene (CAS # 65733-16-6)	1.60%
OTHER INGREDIENTS:	93.05%
TOTAL:	100.00%

*Equivalent to 375 International Toxic Units (ITU/mg).
NOTE: The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA REG. NO. 89459-93 EPA EST. NO. 39578-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

If in eyes • 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 eye. • Call a poison control center or doctor for treatment advice.

HOTLINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Due to the size and abrasiveness of the granule, use protective eyewear and clothing (e.g., waterproof gloves) to minimize exposure during loading and handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs must wear a NIOSH-approved particulate respirator with any N, P or R filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwater or rinsate.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply directly to treated, finished drinking water reservoirs or animal watering troughs.

Zoëcon® Duplex™-G (Duplex™-G) is a unique combination of a *Bacillus thuringiensis v. israelensis (Bti)* biological larvicide and S-Methoprene Insect Growth Regulator (IGR) that provides dual action control. **Duplex™-G** provides quick kill of existing mosquito larvae and residual control of subsequent broods. This dual combination larvicide is highly effective against multiple broods of mosquitoes in a variety of habitats. **Duplex™-G**, when applied to the water column, releases effective levels of *Bti* to begin killing larvae within 24 hrs. after application. Once the *Bti* has killed existing larvae, the IGR in **Duplex™-G** provides residual control and prevents adult mosquito emergence for up to 28 days when applied at rates of 5 – 20 pounds per acre.

Duplex™-G releases effective levels of the *Bti* biological larvicide for up to 72 hours after application and S-Methoprene insect growth regulator prevents the emergence of adult mosquitoes. Continue applications throughout the entire season to maintain control. IGR treated larvae continue to develop normally to the pupal stage where they die.

Rotary and fixed-wing aircraft equipped with granular spreaders capable of applying rates listed below may be used to apply **Duplex™-G**. Ground equipment that will achieve even coverage at these rates may also be used.

Apply **Duplex™-G** uniformly and repeat at intervals of 14 to 28 days.

NOTE: Duplex™-G has no effect on mosquitoes that have reached the pupal or adult stage prior to treatment.

APPLICATION TIMING: Apply **Duplex™-G** at any stage of larval mosquito development. Granules may be applied 7 to 14 days prior to flooding (i.e., "pre-hatch" or "pre-flood") in areas which flood. In such areas, one application of **Duplex™-G** can prevent adult mosquito emergence from several subsequent floodings. The actual length of control depends on the duration and frequency of flooding events.

APPLICATION RATES: Duplex™-G controls the major species of mosquitoes including: *Aedes, Anopheles, Culex,* and *Culiseta*. Apply **Duplex™-G** at 2.5 - 20 lb/acre (5.6 - 11.2 kg/ha). Within these ranges, use lower rates when water is shallow [<6"-12"] and vegetation and/or organic matter are minimal, and use higher rates when water is deep [>1 foot] and vegetation and/or organic matter are heavy. In water depths greater than 2 feet, double the highest application rate for each subsequent foot of water. Depending on water depth and degree of organic matter, lower use rates may provide less IGR residual. Application of **Duplex™-G** to sites subject to water flow or exchange will diminish the product's effectiveness and may require higher application rates and/or more frequent applications. Lower residual activity may be seen at rates used at 5 pounds per acre or less; for consistent 28-day control, use rates at 7.5 pounds per acre or higher.

APPLICATION SITES: Duplex™-G may be applied to both crop and non-crop areas as directed above to temporary and permanent sites that support mosquito larval development. Examples of such sites include: snow pools, salt and tidal marshes, freshwater swamps and marshes (cattail, red cedar, and white maple marshes), woodland pools and meadows, dredging spoil sites, drainage areas, ditches, wastewater treatment facilities, livestock runoff lagoons, retention ponds, harvested timber stacks, swales, storm water drainage areas, sewers, catch basins, tree holes, water-holding receptacles (e.g., tires, urns, flower pots, cans, and other containers), irrigated and non-irrigated pastures, hoof prints and other natural and manmade water-holding sites, containers and depressions. Examples of crop areas include: irrigated croplands; pastures; rangeland; vineyards; rice fields (domestic and wild); date palm, citrus, fruit, and nut orchards; berry fields; bogs and row crops.

STORAGE AND DISPOSAL: Do not contaminate water, food or feed by storage or disposal. **Pesticide Storage:** Store closed containers in a cool, dry place. **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: Plastic Bags:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refillable Totes (2000 lbs): Refillable container. Refill this container with this product only. Do not reuse this container for any other purpose. Return empty totes to Central Garden & Pet Company for cleaning and recycling. 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. If the container is not returned, to clean the container before final disposal, completely empty container by tapping sides and bottom to loosen clinging material. Then offer for recycling if available or dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

For information, call 1-800-248-7763 or visit our Web site: www.centralmosquitocontrol.com

WARRANTY: IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The Directions for Use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Central Garden & Pet Company. All such risks shall be assumed by the user or buyer. **DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Central Garden & Pet Company 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. No agent of Central Garden & Pet Company is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Central Garden & Pet Company disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries, or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Central Garden & Pet Company's election, the replacement of product.

Manufactured for:
Central Garden & Pet Company
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

ZOËCON

April, 2017
Schaumburg, IL

VEC 16-023

FOURSTAR®

Briquets

Specimen Label

Sustained Release 180 Day Microbial Briquets

ACTIVE INGREDIENTS:

**Bacillus sphaericus* 2362, Serotype H5a5b, Strain AML614	6.00%
fermentation solids, spores and insecticidal toxins	
***Bacillus thuringiensis* subspecies *israelensis* Strain BMP 144	1.00%
fermentation solids, spores and insecticidal toxins	
OTHER INGREDIENTS:	93.00%
TOTAL:	100.00%

* Equivalent to *60 Bs ITU/mg and **70 ITU/mg respectively. The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS – CAUTION:

Harmful if inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS:

Do not apply to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

FIRST AID	
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible. • Call poison control center or doctor for treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing eyes. • Call poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.	

DIRECTIONS FOR USE

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

APPLICATION DIRECTIONS

FourStar® Briquets are a highly selective microbial insecticide effective against mosquitoes in a variety of habitats for up to 180 days or more. **FourStar® Briquets** release effective levels of ***Bacillus sphaericus*** and ***Bacillus thuringiensis*** subspecies ***israelensis*** to the water surface over time as the briquet dissolves.

APPLICATION SITES

FourStar® Briquets can be applied to areas that contain aquatic life, fish and plants, as well as areas used by or in contact with humans, animals, horses, livestock, pets, birds or wildlife. Examples of application sites include, but are not limited to: storm drains, catch basins, underground drainage systems, storm water retention areas, retention ponds, abandoned swimming pools, ornamental fountains and ponds, fish ponds, water gardens, animal drinking troughs, standing water, water holding receptacles, man-made and natural sites where mosquitoes may develop.

APPLICATION RATES

For control of mosquito larvae, place one (1) briquet in sites up to 100 square feet of surface area. For large sites, apply 1 additional briquet for each additional 100 square feet of water surface, regardless of water depth. When mosquito populations are high, water is heavily polluted, and/or algae are abundant, double the above application rate.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill empty carton or packaging material. Offer for recycling if available or crush and discard carton in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

NOTICE TO USER

Seller makes no warranty express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with label instructions.

Always read the label before using this product. For product information, call 1-800-248-7763 or visit our web site: **www.fourstarmicrobials.com**

DUAL ACTION

Manufactured for: B2E Microbials LLC
DBA FourStar Microbials LLC
1501 East Woodfield Road, #200W
Schaumburg, Illinois, 60173 U.S.A.

EPA Reg. No. 83362-3 | EPA Est. No. 86884-OR-1

300514172

FOURSTAR®

Bti Briquets

Specimen Label

Sustained Release 150 Day Microbial Briquets

ACTIVE INGREDIENTS:

Bacillus thuringiensis subspecies ***israelensis*** Strain BMP 144 solids, spores and insecticidal toxins*	7%
OTHER INGREDIENTS:	93%
TOTAL:	100%

* Equivalent to 490 International Toxic Units (ITU/mg). Potency units should not be used to adjust rates beyond those specified in the Directions for Use Section. NOTE: The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS – CAUTION:

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

ENVIRONMENTAL HAZARDS:

Do not contaminate water when disposing of equipment washwaters. Do not apply to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

FIRST AID	
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. • Call poison control center or doctor for treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing eyes. • Call poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.	

DIRECTIONS FOR USE

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

INTRODUCTION

FourStar® ***Bti*** **Briquets** are a highly selective microbial insecticide effective against mosquitoes in a variety of habitats for up to 150 days or more. **FourStar®** ***Bti*** **Briquets** release effective levels of ***Bacillus thuringiensis*** subspecies ***israelensis*** *(Bti)* to the water surface over time as the briquet dissolves.

FourStar® ***Bti*** **Briquets** can be applied to areas that contain aquatic life, fish and plants. **FourStar®** ***Bti*** **Briquets** can be applied to areas used by or in contact with humans, animals, horses, livestock, pets, birds or wildlife. Apply **FourStar®** ***Bti*** **Briquets** to any water sites except treated, finished water reservoirs or drinking water receptacles.

APPLICATION SITES

Examples of application sites include: flood water, roadside ditches, irrigation ditches, rice fields, pastures, woodland pools, snowmelt pools, tidal water, salt marshes, catch basins, storm drains, storm water retention areas, detention ponds, lakes, golf course ponds, irrigation ponds, ornamental zoo ponds, abandoned swimming pools, ornamental ponds, fish ponds, water gardens, greenhouses, nurseries, tree holes, animal drinking troughs, standing water, water holding receptacles (old tires, urns, flower pots, cans and other containers), manmade and natural sites where mosquitoes may develop.

APPLICATION TIME

Apply **FourStar®** ***Bti*** **Briquets** to known mosquito breeding sites before, or at any time during the mosquito season. Apply **FourStar®** ***Bti*** **Briquets** to known breeding sites when the sites are wet or dry and briquets will begin releasing *Bti* when flooding occurs. Under typical environmental conditions, one application will control for 150 days or more. Alternate wetting and drying will not reduce briquet effectiveness. **FourStar®** ***Bti*** **Briquets** perform optimally under shaded conditions.

The active ingredient, *Bti*, has no effect on mosquitoes that have reached the pupal or adult stage prior to treatment. Allow a minimum of 48 hours for control.

APPLICATION RATES

For control of mosquito larvae, place one briquet in sites up to 100 square feet of surface area. For large sites, apply one additional briquet for each additional 100 square feet of water surface, regardless of water depth. When mosquito populations are high, water is heavily polluted, and/or algae are abundant, double the above application rate.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all materials in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Perforate or crush and discard carton in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in strict accordance with label instructions.

Always read the label before using this product.

For product information, call 1-800-248-7763

DUAL ACTION

Manufactured for: Central Garden & Pet Company
1501 East Woodfield Road, #200W
Schaumburg, Illinois, 60173 U.S.A.

EPA Reg. No. 83362-2-89459 | EPA Est. No. 2724-TX-1

VEC 15-010

FOURSTAR®

Briquets

Specimen Label

Sustained Release 90 Day Microbial Briquets

ACTIVE INGREDIENTS:

**Bacillus sphaericus* 2362, Serotype H5a5b, Strain AML614	6.00%
fermentation solids, spores and insecticidal toxins	
***Bacillus thuringiensis* subspecies *israelensis* Strain BMP 144	1.00%
fermentation solids, spores and insecticidal toxins	
OTHER INGREDIENTS:	93.00%
TOTAL:	100.00%

* Equivalent to *60 Bs ITU/mg and **70 ITU/mg respectively. The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS – CAUTION:

Harmful if inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS:

Do not apply to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

FIRST AID	
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible. • Call poison control center or doctor for treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing eyes. • Call poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.	

DIRECTIONS FOR USE

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

APPLICATION DIRECTIONS

FourStar® Briquets are a highly selective microbial insecticide effective against mosquitoes in a variety of habitats for up to 90 days or more. **FourStar® Briquets** release effective levels of ***Bacillus sphaericus*** and ***Bacillus thuringiensis*** subspecies ***israelensis*** to the water surface over time as the briquet dissolves.

APPLICATION SITES

FourStar® Briquets can be applied to areas that contain aquatic life, fish and plants, as well as areas used by or in contact with humans, animals, horses, livestock, pets, birds or wildlife. Examples of application sites include, but are not limited to: storm drains, catch basins, underground drainage systems, storm water retention areas, retention ponds, abandoned swimming pools, ornamental fountains and ponds, fish ponds, water gardens, animal drinking troughs, standing water, water holding receptacles, man-made and natural sites where mosquitoes may develop.

APPLICATION RATES

For control of mosquito larvae, place one (1) briquet in sites up to 100 square feet of surface area. For large sites, apply 1 additional briquet for each additional 100 square feet of water surface, regardless of water depth. When mosquito populations are high, water is heavily polluted, and/or algae are abundant, double the above application rate.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill empty carton or packaging material. Offer for recycling if available or crush and discard carton in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

NOTICE TO USER

Seller makes no warranty express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with label instructions.

Always read the label before using this product. For product information, call 1-800-248-7763 or visit our web site: **www.fourstarmicrobials.com**

DUAL ACTION

Manufactured for: B2E Microbials LLC
DBA FourStar Microbials LLC
1501 East Woodfield Road, #200W
Schaumburg, Illinois, 60173 U.S.A.

EPA Reg. No. 83362-3 | EPA Est. No. 86884-OR-1

VEC 13-009

FOURSTAR®

Briquets

Specimen Label

Sustained Release 45 Day Microbial Briquets

ACTIVE INGREDIENTS:

**Bacillus sphaericus* 2362, Serotype H5a5b, Strain AML614	6.00%
fermentation solids, spores and insecticidal toxins	
***Bacillus thuringiensis* subspecies *israelensis* Strain BMP 144	1.00%
fermentation solids, spores and insecticidal toxins	
OTHER INGREDIENTS:	93.00%
TOTAL:	100.00%

* Equivalent to *60 Bs ITU/mg and **70 ITU/mg respectively. The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS – CAUTION:

Harmful if inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS:

Do not apply to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

FIRST AID	
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible. • Call poison control center or doctor for treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing eyes. • Call poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.	

DIRECTIONS FOR USE

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

APPLICATION DIRECTIONS

FourStar® Briquets are a highly selective microbial insecticide effective against mosquitoes in a variety of habitats for up to 45 days or more. **FourStar® Briquets** release effective levels of ***Bacillus sphaericus*** and ***Bacillus thuringiensis*** subspecies ***israelensis*** to the water surface over time as the briquet dissolves.

APPLICATION SITES

FourStar® Briquets can be applied to areas that contain aquatic life, fish and plants, as well as areas used by or in contact with humans, animals, horses, livestock, pets, birds or wildlife. Examples of application sites include, but are not limited to: storm drains, catch basins, underground drainage systems, storm water retention areas, retention ponds, abandoned swimming pools, ornamental fountains and ponds, fish ponds, water gardens, animal drinking troughs, standing water, water holding receptacles, man-made and natural sites where mosquitoes may develop.

APPLICATION RATES

For control of mosquito larvae, place one (1) briquet in sites up to 100 square feet of surface area. For large sites, apply 1 additional briquet for each additional 100 square feet of water surface, regardless of water depth. When mosquito populations are high, water is heavily polluted, and/or algae are abundant, double the above application rate.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill empty carton or packaging material. Offer for recycling if available or crush and discard carton in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

NOTICE TO USER

Seller makes no warranty express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with label instructions.

Always read the label before using this product. For product information, call 1-800-248-7763 or visit our web site: www.fourstarmicrobials.com

DUAL ACTION

Manufactured for: B2E Microbials LLC
DBA FourStar Microbials LLC
1501 East Woodfield Road, #200W
Schaumburg, Illinois, 60173 U.S.A.

EPA Reg. No. 83362-3 | EPA Est. No. 86684-OR-1

VEC 13-008

NATULAR® XRT
Mosquito Larvicide / Extended Release Tablet

Controls larvae of mosquitoes which may carry Dengue, Chikungunya, and Zika.

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

Active Ingredient (dry weight basis):	
Spinosad (a mixture of spinosyn A and spinosyn D)	6.25%
Other Ingredients	93.75%
Total	100.00%

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

Natular XRT is a 6.25% tablet. This product may absorb moisture; therefore, the weight of the tablet and percent by weight of active ingredient will vary with hydration.

SPINOSAD	GROUP	5	INSECTICIDE

KEEP OUT OF REACH OF CHILDREN

For medical treatment information or emergency: Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

Environmental Hazards

This product is toxic to aquatic organisms. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

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 XRT is a 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 XRT tablets release effective levels of spinosad over a period up to 180 days in mosquito breeding sites. The tablet is designed for easy application to catch basins.

Release of spinosad is affected by the dissolution of the Natular XRT tablet. If tablets become covered by obstructions such as debris, vegetation, or loose sediment as a result of high rainfall or flow, normal dispersion of the active ingredient can be inhibited. Water flow may increase the dissolution of the tablet, thus reducing the residual life of the tablet. Inspect areas of water flow to determine appropriate re-treatment intervals. To assure positive results, place Natular XRT tablets where they will not be swept away by flushing action.

Use Precautions

Integrated Pest Management (IPM) Programs

Natular XRT 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 XRT 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 insecticides 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 3 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 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 representative by calling 800-323-5727.

APPLICATION

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. Natular XRT tablets can be applied prior to flooding, on snow and ice in breeding sites prior to spring thaw, or at any time after flooding in listed sites. Under normal conditions, one application will last the entire mosquito season, or up to 180 days, whichever is shorter. Natular XRT tablets will be unaffected in dry down situations and will begin working again during subsequent wetting events until the tablet is exhausted. Note: Natular XRT has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

Application Sites and Rates

Natular XRT tablets are designed to kill mosquitoes in natural and manmade depressions that hold water. Do not apply to water intended for irrigation. Examples of application sites are:

Storm water drainage areas, sewers and catch basins, woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks, rock holes, pot holes and similar areas subject to holding water.

Natural and manmade aquatic sites, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, flooded crypts, transformer vaults, abandoned swimming pools, construction and other natural or manmade depressions.

Stream eddies, creek edges, detention ponds.

AL0684

Freshwater swamps and marshes including mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation.

Brackish water swamps and marshes, intertidal areas.

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.

Also for use in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle) and in standing water within agricultural areas where mosquito breeding occurs: pastures/hay fields, rangeland, orchards, vineyards, and citrus groves. Do not apply to waters intended for irrigation.

For mosquito kill in non- or low-flow, shallow depressions (up to 2 feet in depth), treat on the basis of surface area placing 1 Natular XRT tablet per 100 sq ft. Place tablets in the lowest areas of mosquito breeding sites to maintain continuous kill as the site alternately floods and dries up.

Natular XRT Application Chart

Number of Tablets per 100 sq. ft.	Water Depth (ft)
1	0 - 2
2	2 - 4
3	4 - 6
4	6 - 8

For applications in storm water drainage areas, sewers and catch basins, place 1 Natular XRT tablet into each catch basin.

For application sites connected by a water system, i.e., storm drains or catch basins, treat all of the water holding sites in the system to maximize the efficiency of the treatment program.

For application to small contained sites which may not be amenable to a rate of a single tablet per 100 sq ft, use 1 tablet per contained site (e.g., cesspools and septic tanks, transformer vaults, abandoned pools, and other small artificial water-holding containers).

Restriction: Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool dry place in original container only.

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 Refillable Container: Refillable container. Refill this container with spinosad pesticide formulation 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 pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

For Nonrefillable Container: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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.

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

Manufactured For:
Clarke Mosquito Control Products, Inc.
North Garden Avenue
Roselle, IL 60172

EPA Reg. No.: 8329-84

Net Contents: _____

Lot No.:_____

Available Container Size: 19.4 lbs / 220 Tablets

AL0684

NATULAR® G

Mosquito Larvicide Granule

Controls larvae of mosquitoes that may transmit West Nile Virus, Eastern Equine Encephalitis, St. Louis Encephalitis, Zika, Dengue, or Chikungunya.

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)	0.5%
Other Ingredients	99.5%
Total	100.0%

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. Apply this product only as specified on the label.

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® G is a 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® G may be applied with suitable ground or aerial application equipment.

Use Precautions

Integrated Pest Management (IPM) Programs

NATULAR® G 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® G 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 Clarke 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 Clarke 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 representative by calling 800-323-5727.

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 determines the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they should be observed.

Application

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. Apply NATULAR® G prior to flooding as a prehatch application to areas that breed mosquitoes, or at any stage of larval development after flooding in listed sites. The following recommendations are provided for ground and aerial application of NATULAR® G.

Ground Application

Use conventional ground application equipment and apply NATULAR® G at the designated rate for the targeted site.

Spot Treatment

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

Aerial Application

Equipment used in the application of NATULAR® G should be carefully calibrated before use and checked frequently during application to be sure it is working properly and delivering a uniform distribution pattern. Avoid overlaps that will increase NATULAR® G dosage above recommended limits.

Application Sites and Rates

The rates listed are typical for efficaciously killing mosquito and midge 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 minimum rate. NATULAR® G may be applied at rates up to 20 lb 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® G lb/acre (lb ai/acre)
Temporary Standing Water: 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 **Other Freshwater Sites:** Natural and manmade aquatic sites, edges of lakes, ponds, canals, stream eddies, creek edges, detention ponds	3.5 - 6.5 (0.018 - 0.033)
Freshwater Swamps and Marshes: Mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation **Marine/Coastal Areas:** Intertidal areas above the mean high water mark, mangroves, brackish water swamps and marshes, coastal impoundments and similar areas	9 (0.045)
Stormwater/Drainage Systems: Storm sewers, catch basins, drainage ditches, and similar areas **Wastewater:** 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	6.5 - 9 (0.033 - 0.045)
Dormant Rice Fields: Impounded water in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle)	3.5 - 6.5 (0.0180 - 0.033)
Natural and Artificial Containers: 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 Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.	3.5 - 9 (0.018 - 0.045) For small to medium size containers, apply 1/8 teaspoon (about 0.37 g) of Natular G per 10-20 gallons of water. For very small containers, apply a pinch of Natular G (0.02 g) per ½ - 1 gallon of water. This is approximately 7 - 9 granules per ½ - 1 gallon of water.

Agricultural/Crop Sites Where Mosquito Breeding Occurs:

Apply NATULAR® G at the rate of 3.5 to 9 lb per acre (0.018 - 0.045 lb ai/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 a cool dry place in original container only. Keep away from moisture.

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 Handling for Non-Refillable Bag: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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.

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

IN CASE OF MEDICAL EMERGENCY, CALL THE INTERNATIONAL POISON CONTROL CENTER 1-800-214-7753

Manufactured By:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 North Garden Avenue
Roselle, IL 60172, U.S.A.
1-800-323-5727

EPA Reg. No.: 8329-80

EPA Est. No.: 8329-IL-03

Net Weight: _____

Lot: _____

AL0772

clarke

NATULAR® G30

Mosquito Larvicide / Extended Release Granule

Controls larvae of mosquitoes which may transmit Dengue, Chikungunya, or Zika.

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

Active Ingredient (dry weight basis):	
Spinosad (a mixture of Spinosyn A and Spinosyn D)	2.5%
Other Ingredients	97.5%
Total	100.0%

U.S. Patent No. 5,362,634 and 5,496,931
Natular® G30 is a 2.5% extended release granule.

KEEP OUT OF REACH OF CHILDREN

CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes or clothing. Wear protective eyewear (such as goggles, face shield, or safety glasses).

First Aid	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.
If in eyes:	• Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.	

Environmental Hazards

This product is toxic to aquatic organisms. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

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® G30 is a 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® G30 releases effective levels of spinosad for up to 30 days under typical environmental conditions. Natular® G30 may be applied with ground or aerial equipment.

Use Precautions

Integrated Pest Management (IPM) Programs

Natular® G30 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® G30 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 insecticides 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 Clarke 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 5 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 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 representative by calling 800-323-5727.

Application

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. Apply Natular® G30 prior to flooding as a prehatch application to areas that breed mosquitoes, or at any stage of larval development after flooding in listed sites. Do not allow this product to drift onto neighboring crops or non-crop areas or use in a manner or at a time other than in accordance with label directions.

Ground Application

Use conventional ground application equipment that provides even coverage at labeled rates.

Aerial Application

Fixed wing aircraft or helicopters equipped with granular spreaders capable of applying rates from 5 to 20 lb per acre may be used to apply Natular® G30. Aerial application equipment should be carefully calibrated before use to be sure it is working properly and delivering a uniform distribution pattern. Avoid flight path overlaps while dispensing granules. Do not exceed labeled limits.

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 and the treatment coordinator are responsible for considering all these factors when making application decisions.

Application Sites and Rates

Apply Natular® G30 at rates (see table) for the targeted treatment site. Within these rate ranges apply at a rate appropriate to site habitat and conditions at the time of application. Use lower labeled rate when water is shallow, vegetation and/or pollution are minimal, and mosquito populations are low. Do not use less than labeled minimum rate. Within the labeled rate range, use higher rates when water is deep, vegetation and/or pollution are high, and mosquito populations are high in number.

Natular® G30 may be applied at rates up to 20 lb per acre in waters high in organic content, deep-water mosquito habitats or those with dense surface cover, and where monitoring indicates a lack of kill at typical rates.

Reapply after 30 days, if needed for extended control in continuously flooded habitat. More frequent applications may be made if monitoring indicates that larval populations have reestablished or weather conditions have rendered initial treatments ineffective.

AL0697

Treatment Area	Natular® G30
Temporary Standing Water: 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. **Other Freshwater Sites:** Natural and manmade aquatic sites; edges of lakes, ponds, canals, stream eddies, creek edges, and detention ponds. **Dormant Rice Fields:** Impounded water in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle). **Freshwater Swamps and Marshes:** Mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation. **Marine/Coastal Areas:** Intertidal areas above the mean high water mark, mangroves, brackish water swamps and marshes, coastal impoundments and similar areas.	Apply 5 to 12 lbs per acre (5.6 to 13.5 kg per hectare). Rate is equivalent to 5 to 12 g per 100 sq. ft. of water.
Stormwater/Drainage Systems: Storm sewers, catch basins, drainage ditches, and similar areas. **Wastewater:** 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.	Apply 5 to 20 lbs per acre (5.6 to 22.4 kg per hectare). Rate is equivalent to 5 to 20 g per 100 sq. ft. of water.
Natural and Artificial Containers: 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. Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.	Apply 5 to 20 lbs per acre (5.6 to 22.4 kg per hectare). Rate is equivalent to 5 to 20 g per 100 sq. ft. of water. For small to medium size containers, apply 0.15 g of Natular G30 per 10-25 gallons of water. For very small containers, apply a pinch of Natular G30 (about 0.02 g) per 5 liters (1.3 gallons) of water. This is approximately 8-10 granules per 5 liters of water.
Agricultural/Crop Sites Where Mosquito Breeding Occurs Apply Natular® G30 to standing water within agricultural/crop sites where mosquito breeding occurs to kill mosquito larvae species, including: pastures/hay fields, rangeland, orchards, vineyards, and citrus groves. **Do not apply to waters intended for irrigation.**	Apply 5 to 20 lbs per acre (5.6 to 22.4 kg per hectare). Rate is equivalent to 5 to 20 g per 100 sq. ft. of water.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool dry place in original container only. Keep away from moisture.

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 Non-Refillable Bag: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by state and local authorities.

Container Handling for Rigid Refillable Tote: Refillable container. Refill this container with granular spinosad pesticide formulation 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 re-filler. To clean the container before final disposal, empty the remaining contents from this container into application equipment. Use a sprayer with water to quickly and completely rinse the interior of the container. Ensure the top, bottom, and all sides are rinsed. A high pressure sprayer with a rinsing nozzle could provide a thorough rinse of the interior. Drain and collect rinsate from the container into a collection system for later disposal. Drain the container dry so no water remains. Return to point of sale. 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.

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.

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

Manufactured For:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 North Garden Avenue
Roselle, IL 60172 U.S.A.
1-800-323-5727

EPA Reg. No.: 8329-83
EPA Est. No.: 8329-IL-03
Net Contents: _____
Lot: _____

AL0697

NATULAR® DT

Controls larvae of mosquitoes which may transmit Dengue, Chikungunya, or Zika.

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

Active Ingredient:	
Spinosad (a mixture of Spinosyn A and Spinosyn D)	7.48%
Other Ingredients	92.52%
Total	100.00%

Contains 0.1 gram Spinosad per extended-release tablet. This product may absorb moisture; therefore, the weight of the tablet and percent by weight of active ingredient will vary with hydration.

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

Group	5	INSECTICIDE

Keep Out Of Reach Of Children
CAUTION

First Aid	
If in eyes:	•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. •Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.	

Precautionary Statements

Hazards to Humans and Domestic Animals

Caution: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear (such as goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Environmental Hazards

This product is toxic to aquatic invertebrates. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

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.

NATULAR® DT is a Naturalyte® insect 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.

Product Use Precautions

Integrated Pest Management (IPM) Programs

NATULAR® DT 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® DT 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 with different modes of action.
- 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 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 representative by calling 800-323-5727.

Application Directions

NATULAR® DT is for use in artificial containers used for water collection to control the mosquito larvae of container breeding mosquitoes.

Artificial water containers may include drums, storage tanks, jars, roof top catchments, ornamental fish ponds, ornamental pools or fountains, unused swimming pools, bird baths, old tires, flower pots and urns, water gardens, floor drains, roof gutters and other water-holding receptacles.

Draining or discarding small containers that hold water is the most effective method for preventing mosquito breeding. To treat artificial water containers that cannot be drained or discarded, use 1 tablet to treat up to 192 liters (50 gallons).

Reapply after 60 days as needed.

Restrictions: Do not apply directly to treated, finished drinking water supply systems. Do not apply to waters that drain into public waterways.

Storage and Disposal

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

Pesticide Storage: Store in a cool dry place in original container only.

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

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or dispose of empty container in a sanitary landfill or by incineration.

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.

Produced by:
Clarke Mosquito Control Products, Inc.
159 N. Garden Ave
Roselle, IL 60172 USA
1-800-323-5727

EPA Reg. No.: 8329-602
EPA Est. No. Marked on Container
Lot No.: Marked on Container

Net Weight: 7.44 lbs
Net Contents: 2500 Tablets
Tablet Weight: 1.35g

AL0450

NATULAR® 2EC

Mosquito Larvicide

Liquid Emulsifiable Concentrate. 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

Contains 2 lb of active ingredient per gallon.

Group	5	INSECTICIDE

KEEP OUT OF REACH OF CHILDREN

CAUTION

First Aid	
If in eyes:	• Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.	

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.

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, 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.

Read all Directions for Use carefully before applying.

General Information

NATULAR 2EC is a 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.
- 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 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 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 fl oz of NATULAR 2EC per acre x Z acres to be treated = W total fl oz of NATULAR 2EC required

Y gallons per acre x Z acres to be treated = V total volume of water required

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 aerial applications.

1. The boom width must not exceed 75% of the wingspan or 90% of the rotor blade. Nozzle placement may be extended to 100% of rotor blade diameter when very coarse droplets of VMD 400-500 microns (ASABE Standard 572) are used.
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. AL0595

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. 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 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 this product to commercial fish farm ponds, fisheries or other waters used for aquaculture operations.

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

Non-Crop Site	NATULAR 2EC fl oz/acre (lb ai/acre)
Temporary Standing Water 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 **Other Freshwater Sites** Natural and manmade aquatic sites, edges of lakes, ponds, canals, stream eddies, creek edges, detention ponds	1.1 - 2 (0.018 - 0.033)
Freshwater Swamps and Marshes Mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation **Marine/Coastal Areas** Intertidal areas above the mean high water mark, mangroves, brackish water swamps and marshes, coastal impoundments and similar areas	2.8 (0.045)
Stormwater/Drainage Systems Storm sewers, catch basins, drainage ditches, and similar areas **Wastewater** 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)
Dormant Rice Fields 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)
Natural and Artificial Containers 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 Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.	1.1 - 2.8 (0.018 - 0.045)

Agricultural/Crop sites where mosquito breeding occurs:

Apply NATULAR 2EC at the rate of 1.1 to 2.8 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.

Blending Instructions and Directions for Use as a Custom Blend on Sand and application by standard ground and aerial granular dispersal equipment. NATULAR 2EC may be blended on site following the preparation instructions below and applied as a sand mixture using standard granular dispersal equipment. Apply at a rate of 8.5 to 12 pounds of the blended sand per acre to areas with dense vegetation or heavy canopy or to other areas where a granular formulation will aid in ensuring the active ingredient reaches the target water and is released from the sand.

Blending Instructions The following materials are required to prepare a 100-lb batch of NATULAR 2EC blended sand:

96.5 lbs	Washed, dry sand (20-45 mesh)	Tumbling mixer
23.8 fl.oz.	Natular 2EC	Spray apparatus (such as a
12.3 fl.oz.	Water	hand pump or other low
0.9 lbs	HiSil 233 (silicon dioxide)	pressure sprayer)

HiSil 233 is added to achieve a dry, free-flowing mixture. The amount required for on-site blending may vary depending on the particle size distribution and moisture content on the sand.

1. Measure the time required for a level funnel of (unblended) sand to empty
2. Load the sand into a tumbling mixer such as a cement mixer
3. Shake or agitate NATULAR 2EC well
4. In a separate mix tank, add NATULAR 2EC to water and blend well
5. While the mixer is rotating, spray the mixed NATULAR 2EC solution onto the tumbling sand until all liquid is used
6. Mix (tumble) the sand until sand is uniformly wet (usually five to ten minutes). Turn off mixer.
7. Dig a hole in the center of the sand, and add HiSil. Cover the mixture with sand from the tumbler to minimize dusting. Start the mixer and tumble until free flowing (approximately 5 minutes).
8. Measure the time required for a level funnel of NATULAR 2EC blended sand to empty. If the flow rate is significantly slower than measured in Step No. 1, repeat step 6, adding incrementally more HiSil. If it flows at a faster rate or is excessively dusty, reduce the amount of HiSil in subsequent batches.

Do not allow NATULAR 2EC blended granules to drift.

Store unused NATULAR 2EC blended sand in a covered, secure, dry storage area away from wind and precipitation. Store in containers only (e.g., tumbler, hopper, tote, drum). Do not store for long periods. Avoid blending more material than may be used in 72 hours.

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.

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.

MANUFACTURED BY:
Clarke Mosquito Control Products, Inc.
159 North Garden Avenue
Roselle, Illinois 60172
U.S.A.

For more information call 1-800-323-5727

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

EPA Reg. No.: 8329-82 EPA Est. No.:_____

Lot No.:

Available Container Size: 2.5 gal

AL0595

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION.
Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Mixers / loaders and applicators not in enclosed cabs or aircraft must wear a dust / mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS: Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

DIRECTIONS FOR USE

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

SPHERATAX SPH (50 G) is a highly selective microbial insecticide effective against mosquitoes in a variety of habitats. Apply SPHERATAX SPH (50 G) to any water sites except treated, finished water reservoirs or drinking water receptacles when the water is intended for human consumption. SPHERATAX SPH (50 G) can be applied to areas that contain aquatic life, fish and plants. SPHERATAX SPH (50 G) can be applied to areas used by or in contact with humans, animals, horses, livestock, pets, birds or wildlife.

APPLICATION DIRECTIONS

Mosquito species effectively controlled by SPHERATAX SPH (50 G).
Aedes vexans
Anopheles quadrimaculatus
CoquilLettidia perturbans
Culex spp.
Ochlerotatus melanimon (Aedes melanimon)
Ochlerotatus nigromaculis (Aedes nigromaculis)
Ochlerotatus sollicitans (Aedes sollicitans)
Ochlerotatus stimulans (Aedes stimulans)
Ochlerotatus triseriatus (Aedes triseriatus)
Psorophora columbiae
Psorophora ferox

For control of mosquito larvae from the list of affected species above in agricultural/non-crop sites where mosquito breeding occurs.

SPHERATAX SPH (50 G)

ACTIVE INGREDIENT:

Bacillus sphaericus, Serotype H5a5b, strain 2362*	5.00%
OTHER INGREDIENTS:	95.00%
TOTAL:	100.00%

* Equivalent to 50 Bacillus Sphaericus International Toxic Units (BS ITU) per mg of product (0.023 billion BS ITU per lb of product). Potency units should not be used to adjust rates beyond those specified in the Directions for Use Section. Note: The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID

If in eyes	• 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 eye. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.

EPA Reg. No.: 84268-2
EPA Establishment No.: 9198-OH-1

Manufactured for:
ADVANCED MICROBIOLOGICS, LLC
1801 North Gale Road
Mitchell, SD 57301

Net Contents: 40 Lbs. / 18.14 Kgs
Batch Code:

Habitats	Rate/Acre
Wastewater: Sewage effluent, sewage lagoons, oxidation ponds, septic ditches, animal waste lagoons, impounded wastewater associated with fruit and vegetable processing.	5.0 - 20lbs
Storm Water/Drainage Systems: Storm sewers, catch basins, drainage ditches, retention, detention, and seepage ponds.	5.0 - 20 lbs
Marine/Coastal Areas: Salt marshes, mangroves, estuaries.	5.0 -20 lbs
Water Bodies: Natural and man-made aquatic sites such as lakes, ponds rivers, canals, and streams.	5.0 -20 lbs
Dormant Rice Fields: Impounded water in dormant rice fields. (For application only during the interval between harvest and preparation of the field for the next cropping cycle.)	5.0-20lbs

Use higher rates (10 - 20 lbs / acre) in areas where extended residual control is necessary, or in habitats having deep water or dense surface cover. Apply uniformly by aerial and conventional ground equipment. Reapply as needed after 1-4 weeks. 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 spray drift. The applicator and treatment coordinator are responsible for considering all these factors when making decisions.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments of by industry).

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances. If outside container is contaminated, dispose of in the same manner as the bag.

NOTICE TO USER
To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use; storage or handling not in strict accordance with label instructions.

PYRIPROXYFEN	GROUP	7C	INSECTICIDE

Sumilarv® 0.5G

Sachets (WSP)

Specimen Label

- Provides up to 150 days residual control of mosquitoes with an application of (3 WSPs) in storm water catch basins
- Prevents mosquitoes from becoming breeding, biting adults
- Works well even in areas that dry out and rewet
- Easy to apply WSP
- Non-flushing formulation
- Remains active after large rain events

ACTIVE INGREDIENTS:	
2-[1-Methyl-2-(4-phenoxyphenoxy) ethoxy] pyridine.....	0.50%
OTHER INGREDIENTS	99.50%
	100.00%

KEEP OUT OF REACH OF CHILDREN

CAUTION

See inside for First Aid and Precautionary Statements

Sumilarv® 0.5G Sachets (WSP):

Each Sumilarv® 0.5G Sachets (WSP) contains 0.5% w/w of the active ingredient pyriproxyfen. Sumilarv 0.5G Sachets (WSP) come packaged in 25g pouches or sachets. Each contains pyriproxyfen granules packed in a water soluble and biodegradable PVA (Poly Vinyl Alcohol) film.

Pyriproxyfen is an insect growth regulator which is similar to a naturally-occurring insect growth regulator (Juvenile Hormone) and acts on the immature life stages of mosquitoes. When mosquito larvae are exposed to pyriproxyfen, it inhibits the emergence of adult mosquitoes. In treated water, larvae do not develop into normal pupae, and these are unable to emerge as adults.

These granules are specifically designed to release sufficient dose of pyriproxyfen in standing (polluted/unpolluted) water to prevent emergence of adult mosquitoes. At the labeled dose, effective levels of pyriproxyfen (approx. 1 part per billion or greater) are reached in a given volume of water within a day of placement or after an exchange of water in the receptacle after treatment.

DIRECTIONS FOR USE

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

READ ALL DIRECTIONS COMPLETELY BEFORE USE

USE RESTRICTIONS:

- Apply this product only as specified on the EPA approved label and any supplemental labeling.
- Do not apply more than 0.1 lbs. pyriproxyfen per acre per year or 20 lbs. of Sumilarv 0.5G Sachets (WSP) per year.
- In the treatment of corral lots, feedlots, swine lots and zoos, cover any exposed drinking water, drinking water fountains, and animal feed before application.
- For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

PESTICIDE RESISTANCE MANAGEMENT

For resistance-management, Sumilarv 0.5G Sachets (WSP) contains a Group 7 insecticide. Any insect population may contain individuals naturally resistant to Sumilarv 0.5G Sachets (WSP) and other Group 7 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same use sites. Appropriate resistance-management strategies should be followed. To reduce the potential for developing insect resistance, rotate to an insecticide with a different mode of action. Monitor treated pest populations for resistance development. Read product label before applying any insecticide and follow label directions.

To delay insecticide resistance, take the following steps:

- Rotate the use of Sumilarv 0.5G Sachets (WSP) or other Group 7 insecticides with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate Sumilarv 0.5G Sachets (WSP).
- Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance-management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance-management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.

- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, record keeping, and which considers cultural, biological and other chemical control practices.

Monitor after application for unexpected target pest survival. The Sumilarv 0.5G Sachets (WSP) only targets juvenile insects. If the level of pest emergence suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.

- Contact your local extension specialist for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

For further information or to report suspected resistance contact MGK Company representatives at 1-888-740-8712.

Sumilarv 0.5G Sachets (WSP) contain a Group 7 insecticide. Insect biotypes with acquired resistance to Group 7 may eventually dominate the insect population if Group 7 insecticides are used repeatedly or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Sumilarv 0.5G Sachets (WSP) or other Group 7 insecticides.

To delay insecticide resistance consider:

- Avoiding the consecutive use of Sumilarv 0.5G Sachets (WSP) or other Group 7 insecticides that have a similar target site of action, on the same insect species.
- Basing insecticide use on a comprehensive IPM program.
- Monitoring treated insect population for loss of field efficacy.

MOSQUITO GENERA CONTROLLED:

Pyriproxyfen effectively controls several mosquito species which can vector West Nile disease, Eastern equine encephalitis (EEE), Western equine encephalitis (WEE), St. Louis encephalitis (SLE), La Crosse encephalitis, Yellow Fever, Chikungunya, and dog heartworm in the USA. Including mosquitoes in the following genera:

Aedes

Culex

Anopheles

Introduction of Sumilarv 0.5G Sachets (WSP) into larval habitats where mosquitoes breed and develop will prevent adult mosquito emergence and affects reproductive viability of exposed mosquito eggs and adult female mosquitoes. Frequency of application will depend on three factors: dose rate, water quality (e.g. pollution) and dilution caused by rainfall or removal and replenishment of water within the treatment site. Note: presence of actively swimming larvae after a Sumilarv 0.5G Sachets (WSP) treatment is normal. Sumilarv 0.5G Sachets (WSP) does not act until the pupal stage of a mosquito.

APPLICATION TO CATCH BASINS

Individual catch basins are one of the main breeding sites for mosquitoes that can transmit West Nile virus and cause biting nuisance in urban, suburban and rural environments. Sumilarv 0.5G Sachets (WSP) can be applied to catch basins by dropping them in at the rate specified on this label.

The granules may be applied as a pre-treatment to mosquito breeding catch basins or during the season to catch basins containing mosquito larvae. Once applied, Sumilarv 0.5G Sachets (WSP) will be unaffected by dry, hot, cold or sunny conditions and will begin working when the catch basin is flooded during rain events until the active ingredient degrades below effective levels.

For urban or suburban catch basin applications, Sumilarv 0.5G Sachets (WSP) provides up to 21 weeks or 150 days of continuous control with a 3 WSP (packet) (75g) application (or up to 4 weeks or 28 days with a 1 WSP (packet) (25 gm) application). Sumilarv 0.5G Sachets (WSP) non-flushing sand granule evenly distributes within the catch basin and slowly releases active ingredient (AI) to an elution point. During dry periods, Sumilarv 0.5G Sachets (WSP) remains active and will continue to deliver results once water returns to the catch basin. This non-flushing formulation stays in the catch basin while providing slow and consistent release of the active ingredient (AI). Sumilarv 0.5G Sachets (WSP) is a novel mode of action in Vector control and enhances vector control treatment protocols while providing additional resistance management solutions to their integrated mosquito management programs.

A 3 WSP (packet) (75g) application of Sumilarv 0.5G Sachets (WSP) will provide up to 150 days of continuous control, even when exposed to significant rain events. Simply drop 3 WSP packets through the grate of the catch basin. Application rates can be adjusted for desired duration of mosquito control according to the table below:

Recommended Application per Catch Basin	Residual Performance Expectations
1 WSP (25 grams)	Up to 28 days of control
3 WSP (75 grams)	Up to 150 days of control

APPLICATION TO WATER RETENTION or WATER DETENTION PONDS

Typical Water Retention Pond or Storm Water Detention Pond/Basin

To determine the volume of water in gallons for a specific treatment site, use the following formulation and calculation method:

Total cu. ft. of target treatment site (ft. ^{3}) = surface area (ft. ^{2}) x average depth (ft.)

Note: 7.5 gallons per cu. ft.

Total water volume = Total cu. ft. of treatment site x 7.5 gallons

Application Rates to Use for the Control of Mosquito Larvae

Treatment site (Volume of Water in Gallons)	Water Depth Less than or Equal to (ft.)	Number of Sachets Sumilarv WSP	Lb. AI
0 – 500	1	1	0.00028
500 – 1500	2	2	0.00056
1500 – 3000	4	3	0.00083
3000 – 4500	6	4	0.0011
4500 – 6000	8	5	0.00138

Treatments should be made every 4-5 weeks for water retention or water detention ponds depending on the volume water or frequency of rain events. Apply at the rate specified in the application rate table above to the following sites:

TEMPORARY OR PERMANENT WATER HOLDING SITES:

Ornamental ponds, fountains, cesspools, abandoned swimming pools, gutters, construction site depressions, septic tanks, flooded basements, gutters, animal waste lagoons, livestock runoff lagoons, sewers, waste water impoundments associated with organic pollutants & industrial runoffs, waste settling ponds, tire tracks, landfills, salvage yards, tire dumps, vehicle impounds, junk yards, manmade depressions and vegetation-choked phosphate pits.

NATURAL AND ARTIFICIAL WATER HOLDING CONTAINERS:

Tires, hollow trees and tree holes, potted plants, bird baths, rain barrels, flooded roof tops, flower pots, buckets, and abandoned vehicles.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption. Do not apply to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

FIRST AID

IF IN EYES:

- 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.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE:

Keep this product in its tightly closed original container. Store in a cool dry (preferably locked) area that is away from water, other pesticides fertilizers, veterinary supplies, food or feed, in a place that is inaccessible to children and animals.

PESTICIDE DISPOSAL:

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program.

CONTAINER HANDLING:

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of empty container in a sanitary landfill, or by other procedures approved by state and local authorities.

Sumilarv® 0.5G

Sachets (WSP)

EPA Reg. No. 1021-2818
EPA Est. No. 1021-MN-2
Rev. 0823-1023

MGK®

SAFETY DATA SHEET

Issue Date: 10-Feb-2020 **Revision Date:** 10-Feb-2020 **Version:** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Product Name: Sumilarv® 0.5G Sachets (WSP)

EPA Registration Number: 1021-2818

Other means of identification
Part Code: 29361

Recommended use of the chemical and restrictions on use
Recommended Use: Insecticide.

Details of the supplier of the safety data sheet

Manufacturer Address:
McLaughlin Gormley King Company
7325 Aspen Lane North
Minneapolis, MN 55428
USA
Telephone Number: (800) 645-6466, or (763) 544-0341
e-Mail Address: mgk-sds@mgk.com

FAX #:
(763) 544-6437

Emergency telephone number
24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800) 424-9300
International: (703) 527-3887

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712, or (952) 852-9509

Comments: MGK® Hours of operation are 8:00 a.m. to 4:30 p.m. CST, 14:00 to 22:30 GMT. For MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call 24 hours a day to (888) 740-8712, or (952) 852-9509.

2. HAZARDS IDENTIFICATION

Classification:

OSHA Regulatory Status:
This chemical is **not** considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label elements

Emergency Overview

Appearance: Yellow **Physical state:** Solid **Odor** Slight

Precautionary Statements - Prevention:

P270 - Do not eat, drink or smoke when using this product

Precautionary Statements - Response:
P321 - Specific treatment (see Section 4/ First Aid).

Precautionary Statements - Storage:
P404 - Store in a closed container

Precautionary Statements - Disposal:
P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC):
Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Pyriproxyfen (NYLAR®)	95737-68-1	0.50

*The exact percentage (concentration) of composition has been withheld as a trade secret

Comments: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Aspiration pneumonia hazard: • Not applicable

Description of first aid measures

Eye contact: 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 eye. Call a poison control center or doctor for treatment advice.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centeror doctor for treatment advice.

Ingestion: If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or a doctor. Never give anything by mouth to an unconscious person.

Inhalation: Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Note to physicians:
For skin effects, a highly efficient therapeutic agent for Pyrethrin/ Pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media:
Caution: Use of water spray when fighting fire may be inefficient.

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO2).

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact: None.
Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters:
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Ensure adequate ventilation, especially in confined areas.

Environmental precautions: See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Controls: Safety showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection:	Protective eyewear is recommended, but is not required.
Skin and body protection:	Protective gloves are recommended, but are not required.
Respiratory protection:	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General Hygiene Considerations:	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state:	Solid
Appearance:	Yellow
Odor	Slight
Odor threshold:	No information available
Color (Gardner Scale):	No information available

Property:	**Values:**	**Comment: • Method**
pH:	No information available	
Melting point / freezing point:	No information available	
Boiling point / boiling range:	No information available	
Flash point:	No information available	
Evaporation rate:	No information available	
Flammability (solid, gas):	No information available	
Upper flammability limit (UEL):	No information available	
Lower flammability limit (LEL):	No information available	
Vapor pressure:	No information available	
Vapor density:	No information available	
Specific Gravity:	No information available	
Water solubility:	No information available	
Partition coefficient; n-Octanol/ Water:	No information available	
Autoignition temperature:	No information available	
Decomposition temperature:	No information available	
Kinematic viscosity:	No information available	
Dynamic viscosity:	No information available	
Refractive Index:	No information available	

Other Information:

Bulk density	Relative Density = 2.06 @ 22° C
VOC Content (%):	1

Miscibility/ Solubility:

Water:	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization: Hazardous polymerization does not occur.

Conditions to avoid
Extremes of temperature and direct sunlight.

Incompatible materials:
Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products
Carbon monoxide, Carbon dioxide (CO2).

11. TOXICOLOGICAL INFORMATION

Numerical measures of toxicity - Product Information

Oral LD_{50}	>5,000 mg/kg (rat)
Dermal LD_{50}	>2,000 mg/kg (rat)
Inhalation LC_{50}	No data available.
Eye contact:	Minimal eye irritation. (rabbit).
Skin Contact:	Minimal skin irritation. (rabbit).
Sensitization:	Negative. (guinea pig).
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP
Reproductive toxicity:	No information available.
Developmental Toxicity	No information available.
Teratogenicity:	No information available.
STOT - single exposure:	No information available.
STOT - repeated exposure:	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects: No information available

Environmental hazards (EPA):
Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations. For more information, see product label.

Contaminated packaging: For more information, see product label.

14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Solid
Hazard Class: This material is not hazardous.

Air (IATA/ ICAO)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Solid
Hazard Class: This material is not hazardous.

Vessel (IMO/ IMDG)

UN/ID Number: UN3077
Proper Shipping Name: Environmentally Hazardous Substance, solid, n.o.s.,(Pyriproxyfen mixture)
Hazard Class: 9
Packing Group: III
Marine Pollutant: Yes

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the

Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations:

California Proposition 65:
This product does not contain any intentionally added Proposition 65 chemicals

U.S. EPA Label Information:

EPA Registration Number: 1021-2818

Difference between SDS and EPA (FIFRA) Pesticide label:
This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for Safety Data Sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use. The hazard information required on the pesticide label is reproduced below:

Signal word: **CAUTION**

Precautionary Statements:
• Causes moderate eye irritation

International Inventories:

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	**Health hazards** 0	**Flammability** 1	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 0	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

Chronic Hazard Star Legend * = *Chronic Health Hazard*

Issue Date:	**Revision Date:**	**Revision Note:**
10-Feb-2020	10-Feb-2020	- New SDS.

SDS Prepared By:
e-Mail Address:

Troy Azzivitto, MGK® Chemistry Department.
mgk-sds@mgk.com

Disclaimer:

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, MGK® and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither MGK® nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact MGK® to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

End of Safety Data Sheet

PYRIPROXYFEN	GROUP	7C	INSECTICIDE

Sumilarv® 0.5G

Specimen Label

- Controlled release insect growth regulator formulation to break mosquito life-cycle
- Prevents adult mosquito emergence (*including those which may transmit West Nile Virus*)
- Prevents mosquitoes from becoming breeding, biting adults
- Easy to apply sand granule

ACTIVE INGREDIENTS:	
2-[1-Methyl-2-(4-phenoxyphenoxy) ethoxy] pyridine	0.50%
OTHER INGREDIENTS	99.50%
	100.00%

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Inside for First Aid and Precautionary Statements

DIRECTIONS FOR USE

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

READ ALL DIRECTIONS COMPLETELY BEFORE USE.

USE RESTRICTIONS:

- Apply this product only as specified the EPA approved label and any supplemental labeling.
- Do not apply more than 0.1 lbs. pyriproxyfen per acre per year or (20 lbs. of Sumilarv® 0.5G/acre/year).
- Do not apply or allow drift onto pastureland or potable water supplies.
- In the treatment of corral lots, feedlots, swine lots and zoos, cover any exposed drinking water, drinking water fountains, and animal feed before application.
- For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

PESTICIDE RESISTANCE MANAGEMENT

For resistance-management, Sumilarv 0.5G contains a Group 7 insecticide. Any insect population may contain individuals naturally resistant to Sumilarv 0.5G and other Group 7 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed. To reduce the potential for developing insect resistance, rotate to an insecticide with a different mode of action. Monitor treated pest populations for resistance development. Read product label before applying any insecticide and follow label directions.

To delay insecticide resistance, take the following steps:

- Rotate the use of Sumilarv 0.5G or other Group 7 insecticides with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate Sumilarv 0.5G.
- Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - o Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - o Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance-management.
  - o When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - o Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - o The insect resistance-management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, record keeping, and which considers cultural, biological and other chemical control practices.

Monitor after application for unexpected target pest survival. Sumilarv 0.5G only targets juvenile insects. If the level of pest emergence suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.

- Contact your local extension specialist for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

For further information or to report suspected resistance contact MGK Company representatives at 1-888-740-8712.

MOSQUITO GENERA CONTROLLED:

Pyriproxyfen effectively controls several mosquito species which can vector Zika virus, West Nile virus, Yellow Fever, Dengue, Eastern equine encephalitis (EEE), Western equine encephalitis (WEE), St. Louis encephalitis (SLE), and dog heartworm in the USA. These include mosquitoes in the following genera:

Aedes
Culex
Anopheles

Introduction of Sumilarv 0.5G into larval habitats where mosquitoes breed and develop will prevent adult mosquito emergence and affects reproductive viability of exposed mosquito eggs and adult female mosquitoes. Frequency of application will depend on three factors: dose rate, water quality (e.g. pollution) and dilution caused by rainfall or removal and replenishment of water within the treatment site. Note: presence of actively swimming larvae after a Sumilarv 0.5G treatment is normal. Sumilarv 0.5G does not act until the pupal stage of a mosquito.

APPLICATION TO CATCH BASINS

Individual catch basins are one of the main breeding sites for mosquitoes that can transmit West Nile virus and cause biting nuisance in urban, suburban and rural environments. Sumilarv 0.5G can be applied to catch basins by dropping them in at the rate specified on this label.

The granules may be applied as a pre-treatment to mosquito breeding catch basins or during the season to catch basins containing mosquito larvae. Once applied, Sumilarv 0.5G will be unaffected by dry, hot, cold or sunny conditions and will begin working when the catch basin is flooded during rain events until the active ingredient degrades below effective levels.

For urban or suburban catch basin applications, Sumilarv 0.5G provides up to 21 weeks or 150 days of continuous control with a 75g (2.64 oz.) application, (or up to 4 weeks or 28 days with a 25 gm (0.88 oz.) application). Sumilarv 0.5G's non-flushing sand granule evenly distributes within the catch basin and slowly releases active ingredient (AI) to an elution point. During dry periods, Sumilarv 0.5G remains active and will continue to deliver results once water returns to the catch basin. This non-flushing formulation stays in the catch basin while providing slow and consistent release of the active ingredient (AI). Sumilarv 0.5G is a novel mode of action in Vector control and enhances vector control treatment protocols while providing additional resistance management solutions to their integrated mosquito management programs.

A 75 gm application of Sumilarv 0.5G will provide up to 150 days of continuous control, even when exposed to significant rain events. Simply apply 75 gm of Sumilarv 0.5G through the grate of the catch basin. Application rates can be adjusted for desired duration of mosquito control according to the table below:

Recommended Application per Catch Basin	Residual Performance Expectations
25 grams (0.88 oz.)	Up to 28 days of control
75 grams (2.64 oz.)	Up to 150 days of control

APPLICATION TO WATER RETENTION or WATER DETENTION PONDS

To determine the volume of water in gallons for a specific treatment site, use the following formulation and calculation method:

Total cu. ft. of target treatment site ($ft.^3$) = surface area ($ft.^2$) x average depth (ft.)

Note: 7.5 gallons per cu. ft.

Total water volume = Total cu. ft. of treatment site x 7.5 gallons

Application Rates to Use for the Control of Mosquito Larvae

Treatment site (Volume of Water in Gallons)	Water Depth Less than or Equal to (ft.)	Amount of Sumilarv 0.5G (grams)	Amount of Sumilarv 0.5G wt. ounces	Lb. AI
0 – 500	1	25	0.88 oz.	0.00028
500 – 1500	2	50	1.75 oz.	0.00056
1500 – 3000	4	75	2.65 oz.	0.00083
3000 – 4500	6	100	3.53 oz.	0.0011
4500 – 6000	8	125	4.41 oz.	0.00138

Treatments should be made every 4-5 weeks for water retention or water detention ponds depending on the volume of water or frequency of rain events.

TEMPORARY OR PERMANENT WATER HOLDING SITES:

Ornamental ponds, fountains, cesspools, abandoned swimming pools, gutters, construction site depressions, septic tanks, flooded basements, gutters, animal waste lagoons, livestock runoff lagoons, sewers, waste water impoundments associated with organic pollutants & industrial runoffs, waste settling ponds, tire tracks, landfills, salvage yards, tire dumps, vehicle impounds, junk yards, manmade depressions and vegetation-choked phosphate pits.

NATURAL AND ARTIFICIAL WATER HOLDING CONTAINERS:

Tires, hollow trees and tree holes, potted plants, bird baths, rain barrels, flooded roof tops, flower pots, buckets, and abandoned vehicles.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption. Do not apply to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

FIRST AID

IF IN EYES:

- 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.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE:

Keep this product in its tightly closed original container. Store in a cool dry (preferably locked) area that is away from water, other pesticides fertilizers, veterinary supplies, food or feed, in a place that is inaccessible to children and animals.

PESTICIDE DISPOSAL:

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program.

CONTAINER HANDLING:

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of empty container in a sanitary landfill, or by other procedures approved by state and local authorities.

Sumilarv® 0.5G

EPA Reg. No. 1021-2819
EPA Est. No. 1021-MN-2
Rev. 0823-1023

MGK®

SAFETY DATA SHEET

Issue Date: 12-Aug-2019 **Revision Date:** 12-Aug-2019 **Version:** 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Product Name: Sumilarv® 0.5G

EPA Registration Number: 1021-2819

Other means of identification
Part Code: 2936

Recommended use of the chemical and restrictions on use:
Recommended Use: Insecticide.

Details of the supplier of the safety data sheet

Manufacturer Address:
McLaughlin Gormley King Company
7325 Aspen Lane North
Minneapolis, MN 55428
Telephone Number: (800) 645-6466, or (763) 544-0341
e-Mail Address: mgk-sds@mgk.com

FAX #:
(763) 544-6437

Emergency telephone numbers:
24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800) 424-9300
International: (703) 527-3887

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712, or (952) 852-9509

Comments: MGK® Hours of operation are 8:00 a.m. to 4:30 p.m. CST, 14:00 to 22:30 GMT. For MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call 24 hours a day to (888) 740-8712, or (952) 852-9509.

2. HAZARDS IDENTIFICATION

Classification:

OSHA Regulatory Status:
This chemical is **not** considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label elements

Emergency Overview

Appearance: Yellow **Physical state:** Solid **Odor** Slight

Precautionary Statements - Prevention:
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response:
P321 - Specific treatment (see Section 4/ First Aid).

Precautionary Statements - Storage:
P404 - Store in a closed container

Precautionary Statements - Disposal:
P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC):
Not applicable

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
Pyriproxyfen (NYLAR®)	95737-68-1	0.50

*The exact percentage (concentration) of composition has been withheld as a trade secret

Comments: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Aspiration pneumonia hazard: • Not applicable

Description of first aid measures:

Eye contact: 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 eye. Call a poison control center or doctor for treatment advice.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centeror doctor for treatment advice.

Ingestion: If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or a doctor. Never give anything by mouth to an unconscious person.

Inhalation: Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Note to physicians:
For skin effects, a highly efficient therapeutic agent for Pyrethrin/ Pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media:

Caution: Use of water spray when fighting fire may be inefficient.

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO2).

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact: None.
Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters:
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Ensure adequate ventilation, especially in confined areas.

Environmental precautions: See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Controls: Safety showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection:	Protective eyewear is recommended, but is not required.
Skin and body protection:	Protective gloves are recommended, but are not required.
Respiratory protection:	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General Hygiene Considerations:	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state:	Solid
Appearance:	Yellow
Odor	Slight
Odor threshold:	No information available
Color (Gardner Scale):	No information available

Property:	**Values:**	**Comment: • Method**
pH:	No information available	
Melting point / freezing point:	No information available	
Boiling point / boiling range:	No information available	
Flash point:	No information available	
Evaporation rate:	No information available	
Flammability (solid, gas):	No information available	
Upper flammability limit (UEL):	No information available	
Lower flammability limit (LEL):	No information available	
Vapor pressure:	No information available	
Vapor density:	No information available	
Specific Gravity:	No information available	
Water solubility:	No information available	
Partition coefficient; n-Octanol/ Water:	No information available	
Autoignition temperature:	No information available	
Decomposition temperature:	No information available	
Kinematic viscosity:	No information available	
Dynamic viscosity:	No information available	
Refractive Index:	No information available	

Other Information:

Bulk Density:	Relative Density = 2.06 @ 22° C
VOC Content (%):	1

Miscibility/ Solubility:

Water:	No information available

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization: Hazardous polymerization does not occur.

Conditions to avoid
Extremes of temperature and direct sunlight.

Incompatible materials:
Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products
Carbon monoxide, Carbon dioxide (CO2).

11. TOXICOLOGICAL INFORMATION

Numerical measures of toxicity - Product Information

Oral LD_{50}	>5,000 mg/kg (rat)
Dermal LD_{50}	>2,000 mg/kg (rat)
Inhalation LC_{50}	No data available.
Eye contact:	Minimal eye irritation. (rabbit).
Skin Contact:	Minimal skin irritation. (rabbit).
Sensitization:	Negative. (guinea pig).
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Reproductive toxicity:	No information available.
Developmental Toxicity	No information available.
Teratogenicity:	No information available.
STOT - single exposure:	No information available.
STOT - repeated exposure:	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects: No information available

Environmental hazards (EPA):
Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations. For more information, see product label.

Contaminated packaging: For more information, see product label.

14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Solid
Hazard Class: This material is not hazardous.

Air (IATA/ ICAO)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Solid
Hazard Class: This material is not hazardous.

Vessel (IMO/ IMDG)

UN/ID Number: UN3077
Proper Shipping Name: Environmentally Hazardous Substance, solid, n.o.s.,(Pyriproxyfen mixture)
Hazard Class: 9
Packing Group: III
Marine Pollutant: Yes

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund

Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations:

California Proposition 65:
This product does not contain any intentionally added Proposition 65 chemicals

U.S. EPA Label Information:

EPA Registration Number: 1021-2819

Difference between SDS and EPA (FIFRA) Pesticide label:
This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for Safety Data Sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use. The hazard information required on the pesticide label is reproduced below:

Signal word: **CAUTION**

Precautionary Statements:
• Causes moderate eye irritation.

International Inventories:

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION.

NFPA	**Health hazards** 0	**Flammability** 1	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 0	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

Chronic Hazard Star Legend *** = Chronic Health Hazard***

Issue Date:	Revision Date:	Revision Note:
12-Aug-2019	12-Aug-2019	- SDS sections updated - 8 - 14

SDS Prepared By:
e-Mail Address:

Troy Azzivitto, MGK® Chemistry Department.
mgk-sds@mgk.com

Disclaimer:

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, MGK® and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither MGK® nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact MGK® to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

End of Safety Data Sheet.

Teknar® G

BIOLOGICAL LARVICIDE

GRANULE

HIGH POTENCY LARVICIDE FOR MOSQUITOES

ACTIVE INGREDIENT:

Bacillus thuringiensis subspecies *israelensis*, strain SA3A, solids, spores, and insecticidal toxins	1.70%
OTHER INGREDIENTS	98.30%
TOTAL	100.00%

Potency: 200 International Toxic Units (ITU) per mg (Equivalent to 0.091 billion potency: ITU per pound)

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No.73049-403
EPA Est. No. 33762-IA-001 List No. 13600

INDEX:

KEEP OUT OF REACH OF CHILDREN

CAUTION

1.0 FIRST AID

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.
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 if possible. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-892-0099 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0 PRECAUTIONARY STATEMENTS

2.1 Hazard to Humans and Domestic Animals

CAUTION

Harmful if inhaled and absorbed through the skin. Avoid breathing dust. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Mixer/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 Environmental Hazards

Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

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

4.0 APPLICATION DIRECTIONS

Teknar G is a highly selective microbial insecticide effective against mosquitoes in a variety of habitats.

MOSQUITOES: Habitat	Rate Required for Control*
Aquatic/Wetland areas including: Ponds, Small Lakes, Irrigation Ditches, Rice Fields, Pastures, Woodland Pools, Woodland Ponds, Snow Melt Pools, Livestock Watering Ponds and Troughs,Tidal Water, Salt Marshes, Catch Basins, and Storm Water Retention Areas	2.5 - 10.0 lbs/acre
All Wastewater(s): Sewage Treatment areas such as: Sewage Effluent, Sewage Lagoons, Oxidation Ponds, Septic Ditches, Sewage Pipes, and Animal Waste Lagoons	2.5 - 20.0 lbs/acre

*Use higher rates (10 lbs/A for aquatic/wetland uses and 20 lbs/A for wastewater uses) when late 3rd and early 4th instar larvae predominate, larval populations are high, or water is heavily polluted, and/or algae are abundant.

5.0 SPECIFIC APPLICATION INSTRUCTIONS

Teknar G should be applied uniformly through conventional aerial and ground equipment. A 7-14 day interval between applications should be employed. Longer periods of mosquito population suppression may result where sufficient numbers of non-target aquatic invertebrates, parasites, and predators are present, since these are not affected by Teknar G and contribute to mosquito population reduction.

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 and the treatment coordinator are responsible for considering all of these factors when making decisions.

6.0 STORAGE AND DISPOSAL

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

Storage: Store in a cool, dry place.

Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available. If recycling is not available, dispose of empty bag in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

7.0 WARRANTY AND DISCLAIMER STATEMENT

To the fullest extent permitted by law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. To the fullest extent permitted by law, user assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VALENT BIOSCIENCES. CORPORATION
870 TECHNOLOGY WAY
LIBERTYVILLE, IL 60048 USA
PH: 800-323-9597

VectoPrime® FG

BIOLOGICAL LARVICIDE

FINE GRANULE

MADE WITH BioFuse™ TECHNOLOGY

ACTIVE INGREDIENT:

Bacillus thuringiensis, subsp. *israelensis*, strain AM 65-52 fermentation solids, spores, and insecticidal toxins	6.07%
(S)-methoprene	0.10%
OTHER INGREDIENTS	93.83%
TOTAL	100.00%

Potency: 400 International Toxic Units (ITU) per mg or 0.182 billion ITU per pound

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No.73049-501
EPA Est. No. 33762-IA-001 List No. 05725

INDEX:

KEEP OUT OF REACH OF CHILDREN
CAUTION

1.0 FIRST AID

If in eyes	• Hold eyes 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 eyes. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0 PRECAUTIONARY STATEMENTS

2.1 Hazards To Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 Environmental Hazards

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

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

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 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.

4.0 APPLICATION DIRECTIONS

VectoPrime® FG Biological Larvicide is an insecticide for use against mosquito larvae.

Mosquito Habitats	Application Rate Range*
(Such as the following examples):	
Irrigation ditches, roadside ditches, flood water, standing ponds, livestock watering ponds and troughs, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields	1.25 - 20.0 lbs/acre*

In addition, standing water containing mosquito larvae, in fields growing crops such as (but not limited to) alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches, sugar cane and walnuts may be treated at the recommended rates.

*** Post-flood Applications**

Use 1.25-4.0 lbs/acre against 1st-4th instar mosquito larvae. Use 4.0-10.0 lbs/acre when water is heavily polluted (e.g. sewage lagoons, animal waste lagoons), algae are abundant, and/or local experience suggests the need for higher rates. Re-treat as needed based on local conditions.

*** Pre-flood Applications**

VectoPrime FG can be applied prior to flooding of mosquito larval habitats. Use 10-20 lbs/acre when up to 7 days pre-flood capacity is needed. Use 20 lbs/acre when a 7-14 day pre-flood application is needed. Retreat as needed. Consult your local Valent BioSciences representative for further advice on pre-flood applications with VectoPrime FG.

4.0 APPLICATION DIRECTIONS (Cont'd)

Apply uniformly by aerial or ground conventional equipment. Avoiding drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

5.0 STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by State and local ordinances. If burned, stay out of smoke.

6.0 NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in strict accordance with the accompanying directions.

VALENT BIOSCIENCES CORPORATION
870 TECHNOLOGY WAY
LIBERTYVILLE, IL 60048 USA
PH: 800-323-9597

VectoBac® G

BIOLOGICAL LARVICIDE

GRANULE

ACTIVE INGREDIENT:

Bacillus thuringiensis, subspecies *israelensis*, strain AM 65-52, fermentation solids, spores, and insecticidal toxins	2.80%
OTHER INGREDIENTS	97.20%
TOTAL	100.00%

Potency: 200 International Toxic Units (ITU) per mg
(Equivalent to 0.091 billion potency: ITU per pound)

The percent active ingredient does not indicate product performance and potency measurements are not Federally standardized.

EPA Reg. No. 73049-10
EPA Est. No. 33762-IA-001 List No. 05108

INDEX:

KEEP OUT OF REACH OF CHILDREN
CAUTION

1.0 FIRST AID

If in Eyes	• Hold eyes 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 eyes. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS)

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

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

4.0 APPLICATION DIRECTIONS

VectoBac G is an insecticide for use against mosquito larvae.

Mosquitoes **Habitat** (Such as the following examples):	**Suggested Range Rate***
Irrigation ditches, roadside ditches, flood water, standing ponds, livestock watering ponds and troughs, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields	2.5 - 10 lbs. / acre

In addition, standing water containing mosquito larvae, in fields growing crops such as alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches, sugar cane and walnuts may be treated at the recommended rates.

* Use 10-20 lbs. / acre when late 3rd and early 4th instar larvae predominate, mosquito populations are high, water is heavily polluted (sewage lagoons, animal waste lagoons), and/or algae are abundant.

Apply uniformly by aerial or ground conventional equipment.

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 and the treatment coordinator are responsible for considering all of these factors when making decisions.

A 7 to 14 day interval between applications should be employed.

5.0 STORAGE AND DISPOSAL

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

Storage: Store in a cool [59-86°F (15-30°C)], dry place.

Pesticide Disposal: Completely empty bag into application equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or www.acrecycle.org. If recycling is not available 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.

6.0 NOTICE TO USER

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VectoBac is a registered trademark of Valent BioSciences Corporation.

VALENT BIOSCIENCES CORPORATION
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PH: 800-323-9597

VectoLex® FG

BIOLOGICAL LARVICIDE

FINE GRANULE

ACTIVE INGREDIENT:

Bacillus sphaericus 2362, Serotype H5a5b, strain ABTS 1743 fermentation solids, spores, and insecticidal toxins ...	7.5%
OTHER INGREDIENTS	92.5%
TOTAL	100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.
Expiration Date: (Two years from the date of manufacture).

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No.73049-20
EPA Est. No. 33762-IA-001 List No. 05722

INDEX:

KEEP OUT OF REACH OF CHILDREN
CAUTION

1.0 FIRST AID

If in eyes	• 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 eye. • Call a poison control center for 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.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes or clothing. Wear protective eyewear. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft, must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitizations.

2.2 Environmental Hazards

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

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

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 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.

4.0 STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not contaminate water when disposing of equipment washwaters.

Pesticide Storage: Store in a cool, dry place.

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. Completely empty bag into application equipment, then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

5.0 DIRECTIONS FOR USE - VECTOLEX FG

5.1 Application Directions

MOSQUITO CONTROL

VectoLex® FG Biological Larvicide Fine Granule (hereafter referred to as VectoLex FG) is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoLex FG can be applied to areas that contain fish, other aquatic life, and plants. VectoLex FG can be applied to areas used by or in contact with humans, pets, horses, livestock, birds, or wildlife.

I. For control of mosquito larvae species* in the following non-crop sites:

Habitat	Rate Range
Wastewater: Sewage effluent, sewage lagoons, oxidation ponds, septic ditches, animal waste lagoons, impounded wastewater associated with fruit and vegetable processing.	5-20 lbs/acre**
Stormwater/Drainage Systems: Storm sewers, catch basins, drainage ditches, retention ponds, detention ponds and seepage ponds.	5-20 lbs/acre**
Marine/Coastal Areas: Salt marshes, mangroves, estuaries.	5-20 lbs/acre**
Water Bodies: Natural and manmade aquatic sites such as lakes, ponds, rivers, canals, streams and livestock watering ponds and troughs.	5-20 lbs/acre**
Dormant Rice Fields: Impounded water in dormant rice fields. (For application only during the interval between harvest and preparation of the field for the next cropping cycle.)	5-20 lbs/acre**
Waste Tires: Tires stockpiled in dumps, landfills, recycling plants, and other similar sites.	0.5-2 lbs/ 1000 sq. ft.

II. For the control of mosquito larvae species* in the following agricultural/crop sites where mosquito breeding occurs:

Habitats:	Rate Range
Rice, pastures/hay fields, orchards, citrus groves, irrigated crops.	5-20 lbs/acre**

Apply VectoLex FG uniformly by aerial or conventional ground equipment. Reapply VectoLex FG as needed after 1 to 4 weeks.

* Mosquito species effectively controlled by VectoLex FG, including many of those known to carry/transmit West Nile virus:

Culex spp.	
Aedes vexans	
Ochlerotatus melanimon	*(Aedes melanimon)*
Ochlerotatus stimulans	*(Aedes stimulans)*
Ochlerotatus nigromaculis	*(Aedes nigromaculis)*
Psorophora columbiae	
Psorophora ferox	
Ochlerotatus triseriatus	*(Aedes triseriatus)*
Ochlerotatus sollicitans	*(Aedes sollicitans)*
Anopheles quadrimaculatus	
Coquillettidia perturbans	

**Use higher rates (10 to 20 lbs/acre) in areas where extended residual control is necessary, or in habitats having deep water or dense surface cover.

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 and the treatment coordinator are responsible for considering all these factors when making decisions.

6.0 NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on this label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in accordance with accompanying directions.

VALENT BIOSCIENCES CORPORATION
870 TECHNOLOGY WAY
LIBERTYVILLE, IL 60048 USA
PH: 800-323-9597

VectoLex® WSP

BIOLOGICAL LARVICIDE

WATER SOLUBLE POUCH

ACTIVE INGREDIENT:

Bacillus sphaericus 2362, Serotype H5a5b, strain ABTS 1743 Technical Powder (670 BsITU/mg)	7.5%
OTHER INGREDIENTS	92.5%
TOTAL	100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.

Expiration Date: (Two years from the date of manufacture).

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No. 73049-20 List No. 05722
EPA Est. No. 33762-IA-001 (Lot No. Suffix 'N8')
EPA Est. No. 33967-NJ-1 (Lot No. Suffix 'Q5')

INDEX:

KEEP OUT OF REACH OF CHILDREN
CAUTION

1.0 FIRST AID

If in eyes	• 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 eye. • Call a poison control center for 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.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

2.2 ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

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

4.0 STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not contaminate water when disposing of equipment washwaters.

Pesticide Storage: Store in a cool, dry place.

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

Container Disposal: Non refillable container. Do not reuse or refill this container. Offer for recycling if available. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. For Water Soluble Pouches, dispose of empty outer foil bag in trash.

5.0 DIRECTIONS FOR USE - VECTOLEX WATER SOLUBLE POUCHES (WSP)

Once the foil bag containing Water Soluble Pouches is opened, use pouches within one day.

5.1 APPLICATION DIRECTIONS

MOSQUITO CONTROL

VectoLex WSP is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoLex WSP can be applied to areas that contain fish, other aquatic life, and plants. VectoLex WSP can be applied to areas used by or in contact with humans, pets, horses, livestock, birds or wildlife.

I. For control of mosquito larvae species* in the following non-crop sites:

Habitat	Rate Range
Drainage/Drainage Systems: Storm drains, catch basins, retention, detention and seepage ponds.	1 pouch/50 sq.ft.(1)

Treatment Areas (For Use In)(1):

Ponds	Standing water	Unused swimming
Lagoons	Storm water	pools or spas
Water gardens	retention areas	Flooded basements
Hollow trees and	Catch basins	Pool covers
tree holes	Birdbaths	Gutters and drains
Urns	Fountains	Wheelbarrows
Rain barrels	Flowerpots	Garbage cans
Livestock watering	and planters	and covers
troughs/ponds/tanks	Snowmelt pools	Discarded tires
Irrigation ditches	Abandoned	
Roadside ditches	swimming pools	
Flood water		

Any location where water accumulates and remains standing for periods of time, except treated, finished drinking water for human consumption.

(1)Treat on basis of surface area of potential mosquito breeding sites by placing one (1) VectoLex Soluble Pouch for up to 50 square feet of treatment area. Re-apply as needed after 1 to 4 weeks.

5.1 APPLICATION DIRECTIONS (cont'd)

Longer periods of mosquito population suppression may result where sufficient numbers of non-target aquatic invertebrate parasites and predators are present since these are not affected by the product and contribute to mosquito population reduction.

* Mosquito species effectively controlled by VectoLex WSP, including many of those known to carry/transmit West Nile Virus:

Culex spp.	
Aedes vexans	
Ochlerotatus melanimon	*(Aedes melanimon)*
Ochlerotatus stimulans	*(Aedes stimulans)*
Ochlerotatus nigromaculis	*(Aedes nigromaculis)*
Psorophora columbiae	
Psorophora ferox	
Ochlerotatus triseriatus	*(Aedes triseriatus)*
Ochlerotatus sollicitans	*(Aedes sollicitans)*
Anopheles quadrimaculatus	
Coquillettidia perturbans	

6.0 NOTICE TO USER

To the fullest extent permitted by law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VALENT BIOSCIENCES CORPORATION
870 TECHNOLOGY WAY
LIBERTYVILLE, IL 60048 USA
PH: 800-323-9597

VectoMax® FG

BIOLOGICAL LARVICIDE

FINE GRANULE

FOR ORGANIC PRODUCTION

MADE WITH BFUSE™ TECHNOLOGY

ACTIVE INGREDIENTS:

Bacillus sphaericus 2362, Serotype H5a5b, Strain ABTS 1743 Fermentation Solids, Spores, and Insecticidal Toxins	2.7%
Bacillus thuringiensis subsp. *israelensis* Serotype H-14, Strain AM65-52 Fermentation Solids, Spores, and Insecticidal Toxins	4.5%
OTHER INGREDIENTS	92.8%
TOTAL	100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.

Expiration Date: (Two years from date of manufacture)

The percent active ingredient does not indicate product performance and potency measurements are not Federally standardized.

EPA Reg. No.73049-429
EPA Est. No. 33762-IA-001 List No. 05750
US Patent No. 7,989,180, US Patent No. 8,454,983

INDEX:

KEEP OUT OF REACH OF CHILDREN
CAUTION

1.0

FIRST AID	
If in eyes	• 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 eye. • Call a poison control center or doctor for 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.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.	

2.0 PRECAUTIONARY STATEMENTS

2.1 Hazards To Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft, must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 Environmental Hazards

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

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

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 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.

4.0 APPLICATION DIRECTIONS

MOSQUITO CONTROL

VectoMax® FG Biological Larvicide Fine Granule (hereafter referred to as VectoMax FG) is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoMax FG can be applied to areas that contain fish, other aquatic life, and plants. VectoMax FG can be applied to areas used by or in contact with humans, pets, horses, livestock, birds, or wildlife.

I. For control of mosquito larvae in the following non-crop sites:

Habitat	Application Rate Range
Wastewater: Sewage effluent, sewage lagoons, oxidation ponds, septic ditches, animal waste lagoons, and impound wastewater associated with fruit and vegetable processing.	5-20 lbs/acre*
Storm Water/Drainage Systems: Drainage ditches, roadside ditches, retention ponds, detention ponds, and seepage ponds.	5-20 lbs/acre*
Marine/Coastal Areas: Tidal water, salt marshes, mangroves, and estuaries.	5-20 lbs/acre*
Water Bodies: Natural and manmade aquatic sites such as lakes, ponds, canals, rivers and streams (including river & stream edges), floodplains, swamps, marshes, irrigation ditches, flood water, woodland pools, snow melt pools and livestock watering ponds and troughs.	5-20 lbs/acre*
Waste Tires: Tires stockpiled in dumps, landfills, recycling plants, and other similar sites.	0.5-2 lbs/ 1000 sq. ft.

II. For control of mosquito larvae in agricultural/crop sites where mosquito breeding occurs.

Habitat	Application Rate Range
Rice fields, pastures/hay fields, orchards (including citrus groves, peaches, almonds, dates, and walnuts), asparagus fields, corn fields, cotton fields, alfalfa fields, and vineyards.	5-20 lbs/acre*

Apply VectoMax FG uniformly by aerial or conventional ground equipment. Reapply VectoMax FG as needed (after 1-4 weeks under typical environmental conditions).

*Use higher application rates (10-20 lbs/acre) in areas where 4th instar *Aedes* or *Ochlerotatus* spp. larvae predominate, or in areas where very high densities of late instar mosquito larvae are present, or under conditions where local experience indicates the need for higher application rates to achieve extended residual control.

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 and the treatment coordinator are responsible for considering all these factors when making desicions.

5.0 STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by State and local ordinances. If burned, stay out of smoke.

6.0 WARRANTY AND DISCLAIMER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on this label. To the extent consistent with applicable law, user assumes all risks of use, storage, or handling not in accordance with the accompanying directions.

VALENT BIOSCIENCES CORPORATION
870 TECHNOLOGY WAY
LIBERTYVILLE, IL 60048 USA
PH: 800-323-9597

04-8648/R2

VectoMax® WSP

BIOLOGICAL LARVICIDE

WATER SOLUBLE POUCH

FOR ORGANIC PRODUCTION

MADE WITH BioFuse™ TECHNOLOGY

ACTIVE INGREDIENTS:

Bacillus sphaericus 2362, Serotype H5a5b, Strain ABTS 1743 Fermentation Solids, Spores, and Insecticidal Toxins	2.7%
Bacillus thuringiensis subsp. *israelensis* Serotype H-14, Strain AM65-52 Fermentation Solids, Spores, and Insecticidal Toxins	4.5%
OTHER INGREDIENTS	92.8%
TOTAL	100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.

Expiration Date: (Two years from date of manufacture)

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No. 73049-429 List No. 05750
EPA Est. No. 33762-IA-001
US Patent No. 7,989,180, US Patent No. 8,454,983

INDEX:

KEEP OUT OF REACH OF CHILDREN

CAUTION

1.0

FIRST AID	
If in eyes	• 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 eye. • Call a poison control center or doctor for 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.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Harmful if absorbed through the skin. Prolonged or frequent skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

2.2 ENVIRONMENTAL HAZARDS

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

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

Once the foil bag containing VectoMax® WSP Biological Larvicide Fine Granule is opened, use pouches within one day.

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 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.

4.0 APPLICATION DIRECTIONS

MOSQUITO CONTROL

VectoMax WSP Biological Larvicide Fine Granule (hereafter referred to as VectoMax WSP) is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoMax WSP can be applied to areas that contain fish, other aquatic life, and plants. VectoMax WSP can be applied to areas used by or in contact with humans, pets, horses, livestock, birds, or wildlife.

For control of mosquito larvae in the following sites:

Habitat	Application Rate
Drainage/Drainage Systems[1]:	
Catch basins and storm drains.	1 water soluble pouch/for up to 50 sq ft

Treatment Areas (For Use In)[2]:

Ponds	Retention, detention and seepage ponds	Abandoned swimming pools
Lagoons	Animal waste lagoons	Unused swimming pools or spas
Hollow trees and tree holes	Flood water	Flooded basements
Urns	Standing water	Pool covers
Rain barrels	Storm water retention areas	Gutters and drains
Livestock watering troughs/ponds/tanks	Birdbaths	Wheelbarrows
Irrigation ditches	Fountains	Garbage cans and covers
Roadside ditches	Flowerpots and planters	Discarded tires
Water gardens		
Impounded wastewater associated with fruit and vegetable processing	Snowmelt pools	
	Septic tanks	

Any location where water accumulates and remains standing for periods of time, except treated, finished water reservoirs or drinking water receptacles when the water is intended for human consumption

[1] Treat on basis of surface area of potential mosquito breeding sites by placing one (1) VectoMax Water Soluble Pouch for up to 50 square feet of treatment area. Re-apply VectoMax WSP as needed (after 6-8 weeks under typical environmental conditions).

[2] Treat on basis of surface area of potential mosquito breeding sites by placing one (1) VectoMax Water Soluble Pouch for up to 50 square feet of treatment area. Re-apply VectoMax WSP as needed (after 1-4 weeks under typical environmental conditions).

Longer periods of mosquito population suppression may result where sufficient numbers of non-target aquatic invertebrate parasites and predators are present since these are not affected by the product and contribute to mosquito population reduction.

5.0 STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry.)

Container Handling: Offer foil pouch for recycling if available or dispose of empty pouch in the trash as long as the water soluble pouch is unbroken.

6.0 WARRANTY AND DISCLAIMER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VectoMax is a registered trademark of Valent BioSciences Corporation.

VALENT BIOSCIENCES CORPORATION
870 TECHNOLOGY WAY
LIBERTYVILLE, IL 60048 USA
PH: 800-323-9597

DUET® HD

Dual-Action Adulticide

For Aerial Application. Dual-Action Adulticide containing Prallethrin which provides Quick Knockdown, and Synergized Sumithrin® which provides effective kill of Adult MOSQUITOES, GNATS, BITING AND NON-BITING MIDGES and BLACK FLIES in Outdoor 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:	
Prallethrin: (RS)-2-methyl-4-oxo-3-(2-propynyl) cyclopent-2-enyl-(1RS)-cis, trans-chrysanthemate	1.00%
Sumithrin®: 3-Phenoxybenzyl-(1RS, 3RS, 1RS, 3SR)-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate	5.00%
* **Piperonyl Butoxide**	5.00%
Other Ingredients	89.00%
	100.00%

Contains 0.093 pounds of Prallethrin/Gallon, 0.467 pounds of Sumithrin®/Gallon and 0.467 pounds of PBO/Gallon

*(butylcarbityl) (6-propylpiperonyl) ether and related compounds

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Personal Protective Equipment (PPE): Mixers, loaders, applicators, and other handlers must wear long-sleeved shirt, long pants, shoes and socks. 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 material 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, using 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. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change clothing.

Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial applications is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

This pesticide is highly 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. 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. 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 to or allow drift onto blooming crops or weeds when bees are foraging 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.

PHYSICAL OR CHEMICAL HAZARDS

Do not use 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.

USE RESTRICTIONS

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 only.

IN FLORIDA: Aerial applications of this product require trained personnel to perform industry accepted assays to monitor resistance formation in targeted mosquitoes.

Do not treat a site with more than 0.0036 lb. of each a.i., Sumithrin and piperonyl butoxide and 0.00072 lbs. prallethrin per acre in a single application or in any 24-hour period. Do not apply more than 0.0108 lb. each of Sumithrin and piperonyl butoxide and 0.0022 lb. prallethrin to the same treatment area in a 7 day period. Do not apply more than 0.0216 lb. each of Sumithrin and piperonyl butoxide and 0.0043 lb. prallethrin to the same treatment area in 1 month. Do not exceed 0.1 lb. of Sumithrin or piperonyl butoxide or 0.02 lb. prallethrin per acre in any site in one 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.

NOTE: When rotating products with other insecticides containing piperonyl butoxide, do not exceed 2 lbs PBO per acre per year.

Not for use in outdoor residential misting systems. Not for use in metered release systems. Do not dilute this product. Do not use this product in thermal fogging equipment.

USE INFORMATION

DUET® HD Dual-Action Adulticide is approved for application as an Ultra Low Volume (ULV) nonthermal aerosol (cold fog) in mosquito adulticiding programs

AL0546

involving outdoor residential and recreational areas where adult mosquitoes are present in annoying numbers, and in vegetation surrounding parks, woodlands, swamps, marshes, overgrown areas and golf courses.

DUET® HD Dual-Action Adulticide may be applied over crops or to areas favoring drift over crops, including row, tree, fruit, citrus, pasture and other areas where agricultural enterprises take place.

SPRAY DROPLET SIZE DETERMINATION

Aerial Equipment, 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 um) and that 90% of the spray is contained in droplets smaller than 115 microns (Dv 0.9 < 115 um). The effects of flight speed and, for non-rotary atomizers, 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.

AERIAL APPLICATION

DUET® HD Dual-Action Adulticide may be applied at rates of 0.33 to 0.99 fluid ounces of DUET® HD Dual-Action Adulticide per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. Appropriate spray systems include rotary atomizers, flat fan, high pressure, and high pressure impaction nozzles characterized and oriented to achieve the droplet characteristics specified in this label.

Do not apply by fixed wing aircraft at a height less than 100 feet above the ground or canopy, or by helicopter at a height less than 75 feet above the ground or canopy unless specifically approved by the state or tribe based on public health needs. When making aerial application at an altitude of less than 100 feet, apply only when wind speed at altitude is greater than or equal to 5 mph. When making application at an altitude of 100 feet or greater, apply only when wind speed at altitude is greater than or equal to 3 mph.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry place. Keep container closed.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: [*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. 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.

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.

NOTICE: To the extent consistent with applicable law, Seller 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.

FOR MORE INFORMATION CALL: 1-800-323-5727

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

Sumithrin® - Trademark of Sumitomo Company, Ltd.
Duet® -Registered Trademark of Clarke Mosquito Control Products, Inc.

Manufactured By:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172 U.S.A.

EPA Reg. No.: 8329-105

EPA Est. No:

NET CONTENTS:_____

LOT NO.:_____

AL0546

Essentria® All Purpose

Insect Concentrate

KILLS: Crawling and Flying Insect Pests

FOR USE: Indoors, Outdoors, Fogging, Turf and Ornamental, On Animal and Mosquito Misting Applications, Golf Courses, Vegetables, Fruit Trees (Both Bearing and Non-Bearing), Pasture and Range, Nursery and Greenhouse

SPECIMEN LABEL

ACTIVE INGREDIENTS:

Rosemary Oil	10%
Peppermint Oil	2%
OTHER INGREDIENTS*:	88%
TOTAL:	100%

*Isopropyl Myristate, Isopropyl Alcohol, Polyglyceryl Oleate, Butyl Lactate and Vanillin

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Additional Precautionary Statements and Directions for Use

FIFRA 25(b) Exemption

PRECAUTIONARY STATEMENTS

CAUTION – May cause eye and skin irritation. Avoid contact with eyes, skin and clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Persons handling concentrate are recommended to wear:

- Protective eyewear
- Chemical resistant gloves made of neoprene, nitrile or natural rubber

USER SAFETY RECOMMENDATIONS: User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if the product gets inside. Wash thoroughly and put on clean clothing. Remove PPE after handling this product. Wash the outside of the gloves before removing.

PHYSICAL AND CHEMICAL HAZARDS: Do not use, pour, spill or store near heat or open flame. Store only in original container.

FIRST AID	
IF IN EYES	• 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 eye. • Call a physician if irritation persists.
IF ON SKIN	• Wash exposed area thoroughly with soap and water.
IF INHALED	• Move exposed person to fresh air. • If breathing problems persist, get medical attention.
IF INGESTED	• Rinse mouth out with water. • Do not induce vomiting. • Obtain medical attention if feeling sick or nauseous.
Seek medical attention if necessary.	

FOR CHEMICAL SPILL, LEAK, FIRE, OR EXPOSURE CALL:
CHEMTREC 1-800-424-9300

FOR MEDICAL EMERGENCIES ONLY, CALL: 1-800-248-7763

KEEP ALL INSECTICIDES OUT OF REACH OF CHILDREN

DIRECTIONS FOR USE

READ ENTIRE LABEL — USE IN ACCORDANCE WITH LABEL INSTRUCTIONS

Food processing operations may continue when this product is applied as a surface spray with care and in accordance with the directions and precautions given below.

SHAKE WELL BEFORE USING

Maintain agitation in all spray systems. Essentria® All Purpose Insect Concentrate is intended for use in and around buildings and structures as well as modes of transport.

INDOOR USE AREAS: Includes, but is not limited to, apartment buildings, bakeries, beverage plants, bottling facilities, breweries, cafeterias, candy plants, canneries, cereal processing and manufacturing plants, dairy barns, poultry facilities, flour mills, food processing plants, frozen food plants, homes, hospitals, hotels, houses, industrial buildings, kennels, kitchens, laboratories, manufacturing facilities, mausoleums, meat processing and packaging plants, meat and vegetable canneries, motels, nursing homes, office buildings, restaurants, schools, stores, supermarkets, warehouses and similar structures.

OUTDOOR AREAS: Includes, but is not limited to, building foundations, dairy facilities, drive-in restaurants, drive-in theaters, golf courses, parks, playgrounds, poultry houses, recreational areas, schools, urban areas, lawns, landscape areas, trees, turf and zoos.

MODES OF TRANSPORT: Aircraft, buses, trucks, trailers, rail cars and marine vessels.

NOTE: For sensitive indoor/outdoor surfaces such as vinyl, plastic, fabric, wood floors, etc., test a small non-visible area first before spraying. This includes vinyl siding, outdoor furniture, storm doors and windows, etc. It is possible that Essentria® All Purpose Insect Concentrate may mar some sensitive surfaces. If spray gets on any sensitive surface that is listed, simply rinse with water and wipe off with clean cloth. Essentria® All Purpose Insect

Concentrate may be diluted with water or oil and applied with conventional application equipment including, but not limited to, compressed air sprayers and power sprayers. When diluting with water, prepare only the amount needed for immediate use and maintain agitation during use. Do Not Store Spray Solution Overnight. For oil dilutions that are applied in food handling establishments, a deodorized petroleum oil which conforms to CFR 21 (especially section 172.884) is required (such as Exxon® Isopar® M, Ashland® Low Odor Base Solvent or the equivalents). Tank mix applications must be made in accordance with the more restrictive of label limitations and precautions. No label dosages may be exceeded. This product cannot be tank mixed with any product with label prohibitions against such mixing.

Most effective results are achieved when used as part of a treatment protocol that includes physical, environmental and other chemical pest control measures.

INDOOR USE

Before applying to house plants, test for phytotoxicity. Cover any aquaria prior to spraying.

GENERAL PEST CONTROL: To control accessible, exposed stages of crawling insects including, but not limited to, ants, bed bugs, cockroaches, cadelles, cigarette beetles, dark mealworms, dried fruit beetles, drugstore beetles, confused flour beetles, fleas, grain mites, fowl mites, mites, nuisance beetles (such as lady beetles), red flour beetles, rice weevils, saw-toothed grain beetles, scorpions, spiders, spider beetles, yellow mealworms in sites that include, but are not limited to, apartments, homes, restaurants, food processing plants, industrial installations and warehouses, dilute at the rate of up to 0.5 to 6 fluid ounces of Essentria® All Purpose Insect Concentrate per gallon of water (use lower rate for maintenance service and higher rates for active infestations). Thoroughly spray non-visible areas where these insects are usually found with special attention to cracks and crevices, niches, dark corners, drains and other harborage sites. Mix Essentria® All Purpose Insect Concentrate at a rate of 1 to 6 fluid ounces per gallon of water, when treating for fleas. Thoroughly apply as a fine particle broadcast spray to infested rugs, carpets, furniture, and other pet resting areas. Remove old pet bedding and replace with clean, fresh bedding after treatment. When treating for bed bugs, thoroughly clean and vacuum all mattresses and springs prior to treatment. When treating for bed bugs, mix Essentria® All Purpose Insect Concentrate at a rate of 1 to 6 fluid ounces per gallon of water. Thoroughly clean, vacuum, and sanitize mattress and bedding. Thoroughly apply as a fine particle broadcast spray, paying special attention to cracks and crevices, around baseboards, floorboards, headboards, nightstands, walls, and other harborage areas. On mattresses, you may apply a broadcast treatment, concentrating on the tufts, seams, folds, and creases. Repeat as necessary.

FOGGING: To control crawling and flying insects (moths and flies, including house flies, horse flies, stable flies, horn flies, mosquitoes, gnats, fruit flies, phorid flies, granary weevils, rice weevils, confused flour beetles, saw-toothed grain beetles, spider beetles, cigarette beetles, drugstore beetles, angoumois grain moths, Mediterranean flour moths, Indian meal moths, tobacco moths, yellow mealworms, dark mealworms, grain mites, cadelles, red flour beetles, etc.) in sites that include, but are not limited to, food processing plants, (INCLUDING USDA INSPECTED FACILITIES), industrial installations, animal quarters (cattle barns, horse barns, poultry barns, swine houses, zoos and warehouses), Essentria® All Purpose Insect Concentrate may be applied as a space spray through conventional fogging equipment misting systems (including mist sprayers and mist blowers), automated spray systems, and/or related application technologies. Cover sensitive surfaces (plastics, etc). Close and shut off air conditioning or ventilating equipment. Mix 4 to 10 fluid ounces of Essentria® All Purpose Insect Concentrate insecticide with sufficient oil to equal 1 gallon of diluted spray. (It is recommended to use lower rates in most food facility applications). Apply at a rate of 1 to 3 fluid ounces per 1,000 cubic feet, filling the room with mist (or fog, if thermal equipment is used). Keep area closed for at least 15 minutes. Vacate treated area. Ventilate before reoccupying. Fogging may create slippery conditions on painted floor surfaces. Retreat if reinfestation occurs.

The product does contain plant oils that are inherently fragrant. When used in confined spaces, prolonged exposure to the fragrance may be objectionable to some individuals.

OUTDOOR USE

PERIMETER TREATMENTS AND RECREATIONAL AREAS: To control aphids, ants, bees, boxelder bugs, centipedes, cockroaches, crickets, darkling beetles, firebrats, fleas, ground beetles, fowl mites, mites, millipedes, pillbugs, scorpions, silverfish, sowbugs, spiders, ticks and wasps, in compressed air sprayers, dilute 1 to 8 fluid ounces of Essentria® All Purpose Insect Concentrate per gallon of water (use lower rate for maintenance service and higher rates for active infestations) and apply at the rate of 2 gallons per 1,000 square feet or until area is thoroughly wet. Also apply to a band of soil and vegetation 6 to 10 feet wide around and adjacent to buildings. Treat the building foundation to a minimum height of 2 to 3 feet with sufficient water for coverage. Make special efforts to spray areas where pest species congregate such as, but not limited to, waste receptacles, dumpsters, unoccupied picnic tables, the exterior of food handling establishments, and food pavilions. Additionally, apply around potential entry areas such as, but not limited to, eaves, windows, doorways, porches, porch lights, and around utility boxes. For power sprayers, mix approximately 1 to 6 fluid ounces of Essentria® All Purpose Insect Concentrate per gallon of water (use lower rate for maintenance service and higher rates for active infestations) and apply until area is sufficiently covered (usually min. 4 gallons per 1,000 square feet). When power spraying, it may be possible to batch mix 8 to 12 fluid ounces of Essentria® All Purpose Insect Concentrate into 50 gallons of water. When using this method, monitor application for desired performance. Maintain agitation. Repeat as necessary.

MOUND DRENCH METHOD - FOR CONTROL OF FIRE ANTS AND OTHER MOUNDING ANTS: Dilute 2 to 4 fluid ounces of Essentria® All Purpose Insect Concentrate per gallon of water. Apply 1 to 2 gallons of emulsion to each mound area by sprinkling the mound until it is wet and treat a 4 foot diameter circle around the mound. Use the higher volume for mounds larger than 12 inches. For best results, apply in cool weather, such as the early morning or late evening hours, but not in the heat of the day.

MOSQUITO CONTROL AND OTHER BITING FLIES - OUTDOOR YARD OR BARRIER TREATMENT: To control adult mosquitoes and other biting flies using ground application, dilute 1 to 3 fluid ounces of Essentria® All Purpose Insect Concentrate per gallon of water. Treat harborage areas such as shrubbery and vegetation where mosquitoes/flies may rest. Shrubbery and vegetation around stagnant pools, marshy areas, ponds and shorelines may be treated. Repeat as necessary.

MOSQUITO CONTROL AND OTHER BITING INSECTS - AUTOMATIC SPRAYING SYSTEMS: Automatic spraying systems must not be programmed to release pesticides where food or feed is directly exposed. To control flies, house flies, horn flies, stable flies, horse flies, mosquitoes and gnats, add concentrate to tank and add water to obtain desired dilution. Agitate well while adding water and maintain thorough agitation while system is in use. In automatic spraying systems like, but not limited to, misting systems used for mosquito and other biting insect control, solutions of Essentria® All Purpose Insect Concentrate may be stored for extended periods of time, as long as the system has agitation and the appropriate quantity of adjuvant is used.

Dispense diluted concentrate through automatic spraying system. Set nozzles to deliver one fluid ounce of liquid per minute. Locate nozzles to cover a maximum of 2,000 cubic feet of space per nozzle. Set timer to operate in accordance with equipment directions. Dilute Essentria® All Purpose Insect Concentrate just prior to use at 0.5 to 3 fluid ounces per gallon of water (Use lower dilution rates for preventative applications).

TO CONTROL SPIDERS, FLYING INSECTS, AND OTHER NUISANCE PESTS ON AND AROUND BOAT DOCKS: As an aid in the elimination of their harborage areas, dilute 2 to 8 fluid ounces of Essentria® All Purpose Insect

Concentrate per gallon of water and apply at the rate of 2 gallons per 1,000 square feet or until area is thoroughly wet. Since flying insects can migrate in and out of the treatment area, it is recommended to use this product as part of an Integrated Pest Management (IPM) program. This includes, but is not limited to, eliminating breeding and harborage sites.

USE ON TURF AND GRASS: Use alone as a contact spray. To control ants, armyworms, billbugs, chinch bugs, chiggers, crickets, cutworms, earwigs, fleas, grasshoppers, hyperodes weevils (adults), Japanese beetles (adults), mole crickets, sod webworms and ticks, dilute in a compressed air sprayer (or backpack), 2 to 4 fluid ounces of Essentria® All Purpose Insect Concentrate per gallon of water and apply at the rate of 2 to 4 gallons per 1,000 square feet or until area is thoroughly wet. For power sprayers, apply approximately 1 to 6 fluid ounces of Essentria® All Purpose Insect Concentrate per 1,000 square feet in 2 to 4 gallons of water. Apply until area is sufficiently covered. Exceeding rates may create potential phytotoxicity of turf surfaces.

USE ON NON-BEARING TREES AND SHRUBS: To control mites, scale insects, mealybugs, aphids, lace bugs, whiteflies, tent caterpillars, bagworms and beetles, dilute up to 1 to 6 fluid ounces of Essentria® All Purpose Insect Concentrate per gallon of water and apply using a compressed air sprayer or power sprayer until foliage is thoroughly wet. Maintain agitation.

Exceeding rates may create potential phytotoxicity on plant surfaces. Dilute with enough water to obtain thorough coverage.

DIRECTIONS FOR USE IN OUTDOOR RESIDENTIAL MISTING SYSTEMS:

Use to control or temporarily reduce annoyance from accessible stages of: mosquitoes, flies, house flies, gnats, deer flies, horse flies, hornets, wasps, yellow jackets, firebrats, small flying moths, earwigs, fleas, ticks, crickets, cockroaches, silverfish, spiders and other nuisance insects.

If used in a system with a reservoir tank for the end use dilution, the system reservoir tank must be locked. Securely attach the end-use pesticide label and a dilution statement to the system reservoir tank in a weather protected area or plastic sleeve. The dilution statement must be phrased as follows: This container holds__ parts Essentria® All Purpose Insect Concentrate to__ parts water.

If used in a direct injection system, the pesticide container must be locked. Securely attach the end-use label to the pesticide container in a weather protected area or plastic sleeve.

Only use this product in residential misting systems that have been calibrated to apply no more than the maximum application rate of 9.5 fluid ounces solution per 1,000 cubic feet per day. Mix ½ gallon to 2 gallons (64 fluid ounces to 256 fluid ounces) of Essentria® All Purpose Insect Concentrate in 55 gallons of water.

In automatic spraying systems like, but not limited to, misting systems used for mosquito and other biting insect control, solutions of Essentria® All Purpose Insect Concentrate may be stored for extended periods of time, as long as the system has agitation and the appropriate quantity of adjuvant is used.

For high populations of insects or when treating species that are difficult to control, mix up to 2 gallons of concentrate in 55 gallons of water. When filling tank, partially fill the system reservoir tank with water, add concentrate to tank, then add water to obtain desired dilution. System nozzles should deliver fine particle size droplets (aerosol or mist). Direct nozzles to spray towards the target area and away from swimming pools, water bodies, or eating and cooking areas. Set system timer to operate in accordance with equipment directions.

LIVESTOCK USE DIRECTIONS

USE	INSECTS	DILUTION Essentria® All Purpose Insect Concentrate	REMARKS
Livestock Spray (Beef Cattle, Swine, Goats and Sheep)	To control flying insects, including, but not limited to: Flies, House Flies, Deer Flies, Stable Flies and aids in the control of Face Flies	1 to 3 fl oz per gal of water or mineral oil USP	Dilute as indicated and spray directly on the animal in sufficient amounts for proper coverage. There is no withholding period from last application to slaughter.
	Ticks and Lice	1 to 3 fl oz per gal of water or mineral oil USP	Apply as above
Livestock Spray (Lactating Dairy Cattle)	To control flying insects, including, but not limited to: Flies, House Flies, Deer Flies, Stable Flies and aids in the control of Face Flies	1 to 3 fl oz per gal of water or mineral oil USP	Dilute as indicated. Direct spray to cover thoroughly. Repeat as necessary. No milk discard is required. Take care that the spray does not come in direct contact with the lactating cow's teats unless they are washed with an approved cleansing solution and dried before milking. Apply the spray at least 20 minutes prior to milking or after milking has been completed.
	Ticks and Lice	1 to 3 fl oz per gal of water or mineral oil USP	Apply as above
Horses	To control flying insects, including, but not limited to: Flies, House Flies, Deer Flies, Stable Flies and aids in the control of Face Flies	1 to 3 fl oz per gal of water or mineral oil USP	Dilute as indicated and spray directly on the animal in sufficient amounts for proper coverage.
Poultry	Bed Bugs, Lice, Fleas, All Mites including Northern Fowl Mites	1 to 3 fl oz per gal of water or mineral oil USP	Thoroughly spray roosts, roost poles, walls (especially cracks in walls), and nests or cages. It is not necessary to remove poultry from the housing unit during treatment. This should be followed by spraying over the birds with a fine mist in sufficient amounts for proper coverage.

PREMISE USE DIRECTIONS FOR LIVESTOCK FACILITIES

USE	INSECTS	DILUTION Essentria® All Purpose Insect Concentrate	REMARKS
Residual Surface Spray	Flies, Gnats, Litter Beetles, Darkling Beetles (Lesser Mealworms) Mosquitoes, Spiders, Wasps	3 to 6 fl oz per gal of water or mineral oil USP	Apply 1 gallon of dilution per 500 - 1,000 sq ft. Thoroughly cover walls, ceilings or other areas where pests rest or congregate in dairy barns, horse barns, poultry houses, swine buildings, livestock sheds, and other farm buildings.
Larvicide	Maggots (Fly Larvae)	4 to 8 fl oz per gal of water or mineral oil USP	Apply 1 gallon of dilution per 100 sq ft of droppings as a coarse spray. Repeat at 7 - 10 day intervals until droppings begin to cone up, then treat only "hot spots" (small areas found to have large number of maggots).

DIRECTIONS FOR USE IN AUTOMATIC MISTING AND ULV SPRAYING SYSTEMS:
In areas such as animal quarters, dairy and beef barns, poultry houses, swine housing, warehouses, zoos and other listed livestock or animal housing areas, **to kill flies, house flies, horn flies, stable flies, deer flies, horse flies, mosquitoes, gnats, hornets, wasps, yellow jackets, firebrats, small flying moths, earwigs, fleas, ticks, crickets, cockroaches, silverfish, spiders and other listed insects:** Mix ½ gallon (64 fluid ounces) of concentrate into 55 gallons of water. For high populations of insects or when treating species that are difficult to control, mix up to 2 gallons (256 fluid ounces) of concentrate in 55 gallons of water.

When filling tank, partially fill the system reservoir tank with water, add concentrate to tank, then add water to obtain desired dilution. System nozzles should deliver fine particle size droplets (aerosol or mist). Nozzles should be rated for a delivery rate not to exceed 1.25 fluid ounces (37 ml) of solution per minute, with one nozzle covering 100 square feet (9.3 m^2). Set system timer to operate in accordance with equipment directions.

In automatic spraying systems like, but not limited to, misting systems used for mosquito and other biting insect control, solution of Essentria® All Purpose Insect Concentrate may be stored for extended periods of time as long as the system has agitation and the appropriate quantity of adjuvant is used.

Personnel should vacate containment treatment areas while treatment is in progress. Thoroughly ventilate treated areas prior to re-entry by personnel.

AGRICULTURE APPLICATION RATES

Spray when pests first appear. Repeat application every 7-21 days.

CROPS INCLUDING, BUT NOT LIMITED TO	INSECTS/MITES INCLUDING, BUT NOT LIMITED TO	APPLICATION RATE IN 100 GALLONS PER ACRE FOR GROUND APPLICATIONS
Legume and Fruiting Vegetables Beans, Eggplants, Lentils, Peas, Peanuts, Peppers, Tomatoes	Aphids, Whiteflies, Beetles, Two-Spotted Spider Mites, Plant Bugs, Thrips and Early Stages of Caterpillars	1 - 4 Pints
Bulb, Cole and Leafy Vegetables Broccoli, Cabbage, Cauliflower, Celery, Garlic, Lettuce, Onions, Spinach	Aphids, Whiteflies, Beetles, Two-Spotted Spider Mites, Plant Bugs, Thrips and Early Stages of Caterpillars	1 - 4 Pints For onions: Use 1 - 5 pints
Cucurbits Cantaloupes, Cucumbers, Melons, Squashes, Watermelons	Aphids, Whiteflies, Beetles, Two-Spotted Spider Mites, Plant Bugs, Thrips and Early Stages of Caterpillars	1 - 4 Pints
Root and Tuber Vegetables Carrots, Potatoes, Radishes, Sweet Potatoes, Turnips	Aphids, Plant Bugs, Potato Leafhoppers, Two-Spotted Spider Mites and Thrips	1 - 4 Pints
Alfalfa	Aphids, Leafhoppers, Plant Bugs, Thrips and Early Stages of Caterpillars	1.5 - 4 Pints
Herbs and Spices Anise, Basil, Dill, Mint, Peppermint, Spearmint, Thyme, Wintergreen	Aphids, Leafhoppers, Plant Bugs, Thrips and Early Stages of Caterpillars	1 - 3 Pints
Small Fruits and Berries Blackberries, Blueberries, Cranberries, Raspberries, Strawberries	Aphids, Leafhoppers, Mealybugs, Whiteflies, Lygus Bugs, Thrips, Two- Spotted Spider Mites, Pacific Spider Mites, McDaniel Mites, European Red Mites and Early Stages of Leafrollers and Caterpillars	1 - 4 Pints
Grapes and Hops Grapes (Raisin, Table, Wine)	Leafhoppers, Sharpshooters, Two- Spotted Spider Mites, Pacific Spider Mites, Willamette Mites, Thrips, Mealybugs and Early Stages of Leafrollers and Caterpillars	1 - 4 Pints
Stone Fruits, Pome Fruits Apples, Apricots, Cherries, Peaches, Nectarines, Olives, Pears, Plums, Prunes, Pomegranates and Persimmons	Aphids, Thrips, Leafhoppers, Psylla, Scales, Two-Spotted Spider Mites, Pacific Mites, McDaniel Mites, European Red Mites, Early Stages of Leafrollers and Caterpillars	1 - 4 Pints
Citrus and Sub Tropicals Avocados, Lemons, Grapefruits, Oranges, Papayas, Bananas, Plantains, Mangos	Aphids, Thrips, Scales, Two-Spotted Spider Mites, Pacific Mites, Citrus Red Mites, Citrus Rust Mites, European Red Mites, Early Stages of Leafrollers and Caterpillars	2 - 5 Pints
CONTINUED FROM PREVIOUS PAGE		
Nuts Almonds, Cashews, Pecans, Pistachios, Walnuts	Aphids, Thrips, Two-Spotted Spider Mites, Pacific Mites, McDaniel Mites and European Red Mites	1 - 4 Pints
Field Crops Corn, Cotton, Sorghum, Soybeans, Sweet Corn, Tobacco	Aphids, Soybean Aphids, Beetles, Whiteflies, Two-Spotted Spider Mites, Plant Bugs, Thrips, and Early Stages of Caterpillars	2 - 4 Pints
Christmas Trees Caution: Certain adjuvants may affect coloration of Blue Spruce	Mites and Aphids	1 - 4 Pints
Backyard Fruit and Nut Trees	Mites and Aphids	12 - 48 fl oz Use sufficient water to get thorough coverage.
Mushroom Houses	Mushroom Flies (Phorids and Sciarids)	4 – 8 fl oz per gallon - Spray dilution on outside and inside walls, floors, and sideboards of mushroom houses after compost has been pasteurized by heating. Also spray over the plastic covering the beds and trays after spawning. Retreat as needed.

For aerial applications, use a minimum of 15 gallons of spray volume per acre. Complete coverage of foliage is essential to achieve control. The foliage should be completely WET, but avoid runoff. The use of a spreader and/or penetrant adjuvant improves product performance.

PESTS CONTROLLED THROUGH DRIP IRRIGATION SYSTEMS (including but not limited to): cutworms, wireworms, root maggots, symphylans, and crickets.

CROPS TREATED BY DRIP IRRIGATION (including but not limited to): Beets, Brussel Sprouts, Cabbage, Chinese Broccoli, Broccoli, Chinese Cabbage, Chinese Mustard, Cauliflower, Collards, Endive, Garlic, Ginseng, Kale, Melons (Cantaloupes, Casabas, Honeydew, Muskmelons, Persians, and Watermelons), Onions (Bulb and Green), Parsnips, Potatoes, Sweet Potatoes, Spinach, Strawberries, Sugar Beets, Sweet Corn, Tomatoes.

Apply Essentria® All Purpose Insect Concentrate through the drip irrigation systems at a rate of 2 pints per acre of plant bed as a preventative treatment or when pest infestation is low to moderate and 4 pints per acre of plant bed when pest infestation is high. Apply 2 to 3 applications of Essentria® All Purpose Insect Concentrate over a 7 to 14 day schedule. Refer to local extension recommendations for additional information regarding pest populations and thresholds.

Essentria® All Purpose Insect Concentrate can be applied at any time during the crop cycle, from the time of planting to the harvest and there are no restrictions on the number of applications per season. For drip irrigation systems, set the emitter spacing and the line pressure to give the best bed coverage and reduce loss of chemigation products through leaching.

BED WIDTH	LINEAR FEET OF BED TO EQUAL ONE ACRE	ESSENTRIA®, 2 PTS/ACRE RATE/1000 ROW FEET	ESSENTRIA®, 4 PTS/ACRE RATE/1000 ROW FEET
36 inches	14,520 ft	2.2 fl oz	4.4 fl oz
48 inches	10,890 ft	2.9 fl oz	5.9 fl oz
60 inches	8,712 ft	3.7 fl oz	7.3 fl oz
72 inches	7,260 ft	4.4 fl oz	8.8 fl oz

USE RATES FOR ANY PLANTS GROWN INDOORS OR IN GREENHOUSES, SHADEHOUSES, INTERIORSCAPES, AND NURSERIES

Spray when pests first appear. Repeat application every 7-21 days.

PLANT TOLERANCE

Essentria® All Purpose Insect Concentrate has been evaluated for phytotoxicity on a wide range of ornamental plants. However, due to the large number of species and varieties of ornamental plants, it is impossible to test every one for tolerance to Essentria® All Purpose Insect Concentrate. The professional user should determine if Essentria® All Purpose Insect Concentrate could be used safely prior to commercial use. In a small area, test the recommended rates on a small number of plants for phytotoxicity prior to widespread use. Before using Essentria® All Purpose Insect Concentrate in tank mixture with other products and adjuvants, test the mixture on a small number of plants for phytotoxicity prior to widespread use.

PESTS INCLUDING, BUT NOT LIMITED TO	FL OZ/10 GAL SPRAY SOLUTION	FL OZ/100 GAL SPRAY SOLUTION
APHIDS: Green Peach Aphids, Pea Aphids, Cotton Aphids, Rose Aphids	2 - 4	20 - 40
BEETLES: Flea Beetles, Leaf Beetles	2.0 - 4.8	20 - 48
Early Stages of Caterpillars: Armyworms, Leafrollers, Loopers, Webworms	1.6 - 3.2	16 - 32
FLIES: Fungus Gnats, Shore Flies	1.6 - 3.2	16 - 32
LEAFHOPPERS: Grape Leafhoppers, Potato Leafhoppers	1.6 - 3.2	16 - 32
LEAFMINERS: Azalea Leafminers, Citrus Leafminers, Blotch Leafminers, Boxwood Leafminers	1.6 - 3.2	16 - 32
MEALYBUGS: Citrus Mealybugs, Long-tailed Mealybugs	1.6 - 3.2	16 - 32
MITES: Two-Spotted Spider Mites, Broad Mites, Citrus Budmites, Cyclamen Mites, Rust Mites	1.6 - 4.8	16 - 48
SOFT SCALES (Crawler Stages)	1.6 - 4.8	16 - 48
THRIPS: Western Flower Thrips	3.2 - 6.4	32 - 64
WHITEFLIES: Greenhouse Whiteflies, Silverleaf Whiteflies	1.6 - 3.2	16 - 32

Complete coverage of foliage is essential to achieve control. The foliage should be completely WET, but avoid runoff. The use of a spreader and/or penetrant adjuvant improves product performance.

USE RATES FOR OUTDOOR PLANTS INCLUDING TREES, LANDSCAPES, NURSERY, AND ALL OUTDOOR ORNAMENTAL PLANTS

Spray when pests first appear. Repeat application every 7-21 days.

PESTS INCLUDING, BUT NOT LIMITED TO	FL OZ/10 GAL SPRAY SOLUTION	FL OZ/100 GAL SPRAY SOLUTION
APHIDS: Green Peach Aphids, Pea Aphids, Cotton Aphids, Rose Aphids	2 - 4	20 - 40
BEETLES: Colorado Potato Flea Beetles, Japanese Beetles, Leaf Beetles, Mexican Bean Beetles, Rose Chafers, Twig Girders	3.2 - 6.4	32 - 64
BUGS: Boxelder Bugs, Chinch Bugs, Lygus Bugs, Spittle Bugs	1.6 - 4.8	16 - 48
Early Stages of Caterpillars: Armyworms, Cutworms, Fruitworms, Gypsy Moths, Hornworms, Leafrollers, Navel Orange Worms, Pine Tip Moths, Sod Webworms, Tent Caterpillars, Tobacco Budworms, Tussock Moths	1.6 - 3.2	16 - 32
FLIES: Cherry Maggots, Crane Flies, Midges	2.0 - 4.0	20 - 40
LEAFHOPPERS: Variegated Leafhoppers and Sharpshooters	3.2 - 6.4	32 - 64
LEAFMINERS: Azalea Leafminers, Citrus Leafminers, Blotch Leafminers, Boxwood Leafminers	1.6 - 4.8	16 - 48
MEALYBUGS: Apple Mealybugs, Citrus Mealybugs, Grape Mealybugs	1.6 - 4.8	16 - 48
MITES: Two-Spotted Spider Mites, Broad Mites, Citrus Bud Mites, Cyclamen Mites, Rust Mites	1.6 - 4.8	16 - 48
PSYLLIDS: Pear psylla	1.6 - 4.8	16 - 48
SAWFLIES: European Pine Sawflies, Pear Sawflies, Red-headed Pine Sawflies, Yellow-headed Pine Sawflies.	1.6 - 3.2	16 - 32
Crawler stages of SCALES: Black Scales, Brown Soft Scales, California Red Scales, Coffee Scales, Olive Scales, San Jose Scales	1.6 - 4.8	16 - 48
THRIPS: Citrus Thrips, Onion Thrips, Western Flower Thrips	3.2 - 6.4	32 - 64
WHITEFLIES: Greenhouse Whiteflies, Silverleaf Whiteflies, Woolly Whiteflies	1.6 - 3.2	16 - 32

Complete coverage of foliage is essential to achieve control. The foliage should be completely WET, but avoid runoff. The use of a spreader and/or penetrant adjuvant improves product performance.

STORAGE AND DISPOSAL

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

STORAGE: Store in original container in a dry, cool place inaccessible to children and pets.

DISPOSAL: Do not reuse container. Discard in trash.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The Directions for Use of this product are believed to be adequate and must be followed carefully. However, because of manner of use and other factors beyond Central Garden & Pet Company's control, it is impossible for Central Garden & Pet Company to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CENTRAL GARDEN & PET COMPANY MAKES NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Central Garden & Pet Company is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. Central Garden & Pet Company disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT CENTRAL GARDEN & PET COMPANY'S ELECTION, THE REPLACEMENT OF PRODUCT.

ZOËCON® Professional Products

Central Garden & Pet Company, 1501 East Woodfield Road, 200W, Schaumburg, Illinois 60173

NOTE: This specimen label is for informational purposes only. All uses may not be approved in all states. See product labeling for use directions.

PCO 15-064 Rev. 12/2016

Fyfanon® ULV

Mosquito Insecticide

ULTRA LOW VOLUME CONCENTRATE INSECTICIDE

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.

EPA Reg. No. 279-3539 **EPA Est. 39578-TX-1**

ACTIVE INGREDIENT:	By Wt.
Malathion*	96.5%
OTHER INGREDIENTS:	3.5%
TOTAL:	100.0%

* 0,0-dimethyl phosphorodithioate of diethyl mercaptosuccinate.
Contains 9.9 lbs. malathion per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND USE DIRECTIONS

IN CASE OF A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL TOLL FREE, DAY OR NIGHT, 1-800-331-3148

Product of Denmark

Sold By

FMC

FMC Corporation
2929 Walnut Street
Philadelphia PA 19104

NET CONTENTS: 5 Gallons

08-20-20

FIRST AID

This product is an organophosphate and is a cholinesterase inhibitor.

IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • 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 by mouth-to-mouth if possible. • 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.
IF IN EYES:	• 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 eye. • Call a poison control center or doctor for treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

NOTE TO PHYSICIAN

This product is a cholinesterase inhibitor. Treat symptomatically. Atropine is antidotal.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful by swallowing, inhalation or skin contact. Avoid contact with skin. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, Loaders and Flaggers must wear:

- Long sleeved shirt and long pants;
- Shoes plus socks
- Chemical-resistant gloves made of barrier laminate, butyl-rubber ≥14 mils, nitrile rubber ≥14 mils, or viton ≥ 14 mils

Aerial applications, pilots must wear:

- Long sleeved shirt and long pants;
- Shoes plus socks
- Chemical-resistant gloves made of barrier laminate, butyl-rubber ≥14 mLs, nitrile rubber ≥14 mLs, or viton ≥ 14 mLs must be worn when a pilot comes into contact with, adjusts, or makes repairs to contaminated equipment after applications but prior to routine decontamination procedures. Gloves are not required while inside the aircraft.

Ground applications must be made using enclosed cabs only. Drivers must wear:

- Long sleeved shirt and long pants;
- Shoes plus socks

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and invertebrates. Use care when applying in or to an area which is adjacent to any body of water, and do not apply when weather conditions favor drift from target area. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

When applying as a wide area mosquito adulticide, before making the first application in a season, it is advisable to consult with the state or tribal agency charged 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 or allow to drift onto 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 public 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. When applying as a wide area mosquito adulticide, 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 discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Fyfanon® ULV mosquito insecticide should be stored in the original unopened container in a secure, dry place. Do not contaminate with other pesticides or fertilizers. Fyfanon® ULV mosquito insecticide should never be heated above 55°C (131°F), and should not be stored for long periods of time at a temperature in excess of 25°C (77°F).

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER HANDLING:

Containers equal to or less than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container 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. Offer for recycling if available or dispose of empty container in a sanitary landfill or by other procedures approved by state or local authorities.

Containers greater than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container 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. 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. Pressure Rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain fo 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate for late 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. Offer for recycling if available or dispose of empty container in a sanitary landfill or by other procedures approved by state or local authorities.

Containers greater than 250 gallons: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Return container to point of sale. Empty containers may be returned to FMC by calling customer service at 1-800-311-3148 or disposed of by other procedures approved by state and local authorities.

DIRECTIONS FOR USE

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

MOSQUITO CONTROL IN POPULATED AND RURAL AREAS

PRECAUTIONS AND RESTRICTIONS

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.

RESTRICTIONS

- Do not apply more than 0.23 lb ai /Acre/day.
- Only treat when mosquitoes are swarming or biting. Do not re-treat a site more than 3 times in any one week. However, 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 diseases in animal or human populations, or if specifically approved by the state or tribe during a natural disaster effort.
- Apply when wind speed is greater than or equal to 1 mph.
- Do not apply by fixed wing aircraft at height less than 100 feet, or by helicopter at a height less than 75 feet unless specifically approved by the state or tribe based on public health needs.
- Ground applications must be made using enclosed cabs only.

PRECAUTIONS

- **IMPORTANT:** IN AREAS WHERE AUTOMOBILES, TRAILERS, TRUCKS AND PLEASURE BOATS ARE PRESENT, undiluted spray droplets of Fyfanon® ULV mosquito insecticide will permanently damage vehicle paint finishes unless the aircraft used for the ultra low volume application meets all of the specifications listed under **AERIAL APPLICATION.**

AERIAL APPLICATION

Adult Mosquitoes on Rangeland, Pasture, and Other Uncultivated Non-Agricultural Areas (Wastelands, Roadsides)

Apply 1.0 to 3.0 fluid ounces of Fyfanon® ULV mosquito insecticide per acre (0.08 to 0.23 lbs AI per acre).

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and that 90% of the spray is contained in droplets smaller than 100 microns (Dv 0.9 < 100 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. Adult mosquito control over cities, towns, and other areas where automobiles, trailers, trucks, and pleasure boats are present: Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control. See Precautions and Restrictions for additional instructions.

GROUND-BASED APPLICATION

Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.5 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). Directions from the equipment manufacturer or vendor, pesticide registrant or test facility using 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.

Thermal Aerosols or Fogs

For control of adult mosquitoes with thermal aerosols or fogs. Apply Fyfanon® ULV mosquito insecticide at the rate of 3.9 - 5.2 gallons Fyfanon® ULV mosquito insecticide in 100 gallons of finished solution by ground equipment delivering 40 gallons per hour at a vehicle speed of 5 miles per hour to treat a swath width of 300 feet (equivalent to 180 acres per hour). At 3.9 gallons product per 100 gallons of finished solution this is equivalent to 0.08 lbs active/acre. At 5.2 gallons per 100 gallons of finished solution, this is equivalent to 0.11 lbs active/acre.

*There is a great variation in the chemical composition of fuel oils which may be used as thermal fog solvents. These differences may cause sludge and/or affect the solubility of the Fyfanon® ULV mosquito insecticide.

Nonthermal Aerosols

Adult Mosquito Control - Control of adult mosquitoes over a 300-foot swath can be obtained with nonthermal aerosols of Fyfanon® ULV mosquito insecticide using the following rates at the indicated vehicle speeds:

RATES FOR FYFANON® ULV MOSQUITO INSECTICIDE					
Undiluted Apply as follows:					
Lbs.A.I./Acre/Day	Application Rates Fluid Ounces per Minute at Vehicle Speeds				Fluid Ounces of Fyfanon® ULV mosquito insecticide per acre
	5 mph	10 mph	15 mph	20 mph	
0.03 – 0.06*	1.0 - 2.1	2.0 - 4.3	3.0 - 6.3	4.0 - 8.6	0.38 - 0.75

*Use higher rate of application when vegetation is dense and/or mosquito populations are heavy.

OPERATING EQUIPMENT

Each nonthermal aerosol generator used for dispersal of Fyfanon® ULV mosquito insecticide to control adult mosquitoes must have minimum capability of producing the droplet spectrum described under GROUND-BASED APPLICATION. The initial determination of droplet size is made after the unit is installed in a vehicle and prior to its use in mosquito control operations. Recheck the unit frequently to insure that proper droplet size is maintained for each operation. Determination of droplet size every two months is usually sufficient if the unit has been maintained in good operating condition.

Equipment manufacturer's instructions setting forth cleaning and maintenance of the unit must be followed. The unit must be inspected before each operation to correct any leaks or obstructions in the spray system; to detect whether the nozzle, hoses, or other parts are worn and need replacement; to insure that the flow meter is properly calibrated and to determine that the pressure recommended by the manufacturer is being maintained.

Flow Rate
- Must be regulated by accurate flow meter
- Not greater than 1 gallon per hour at 5 mph; 2 gallons per hour at 10 mph; 3 gallons per hour at 15 mph, or 4 gallons per hour at 20 mph

Nozzle Direction
- Rear of the vehicle
- Upward at an angle of 45° or more

Vehicle Speed
- Not greater than 20 mph
- Shut off spray equipment when vehicle is stopped

IMPORTANT: Spray droplets of undiluted Fyfanon® ULV mosquito insecticide will permanently damage automobile paint unless all the conditions described and recommended in this label are met. If accidental exposure does occur, the vehicle should be washed at once.

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before using this product. If the terms are not acceptable, return the product at once, unopened.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of FMC. To the extent consistent with applicable law, all such risks shall be asumed by User, and User agrees to hold FMC harmless for any claims relating to such factors.

FMC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILTY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH REPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) FMC, and user assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER, AND THE EXCLUSIVE LIABILITY OF FMC FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

Fyfanon is a registered trademark of FMC Corporation or an affiliate.

FENPROPATHRIN	GROUP	3A	INSECTICIDE
ABAMECTIN	GROUP	6	INSECTICIDE

ReMoa Tri®

TRIPLE-ACTION INSECTICIDE

SPACE SPRAY

FOR NON-CROP GROUND AND AERIAL APPLICATIONS. TRIPLE MODE OF ACTION INSECTICIDE TO PROVIDE OPERATIONAL CONTROL OF MOSQUITOES. FOR NON CROP GROUND APPLICATIONS TO PROVIDE OPERATIONAL CONTROL OF BOTH SUSCEPTIBLE AND PERMETHRIN-RESISTANT AEDES AND CULEX MOSQUITOES.

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, or as allowed by State regulations for persons treating private property.

Active Ingredients:

Fenpropathrin	4.0%
Abamectin	1.5%
Octanoic acid	0.33%
Nonanoic acid	0.33%
Decanoic acid	0.33%
Other Ingredients	93.51%
Total	100.0%

Contains 0.3 lbs of Fenpropathrin, 0.11 lbs of Abamectin and 0.08 lbs of Octanoic acid/Nonanoic acid/Decanoic acid per gallon.

EPA Reg. No. 73049-526
EPA Est. No. 33762-IA-001 SKU A560205

INDEX:

KEEP OUT OF REACH OF CHILDREN

CAUTION

1.0

FIRST AID	
If swallowed	• Call a poison control center or doctor for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.
If in eyes	• 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. • Call a poison control center or doctor for immediate treatment advice.
HOT LINE NUMBER	
Have the product container label with you when calling a poison control center or doctor or going for treatment. For emergency medical treatment and or transportation emergency information contact 1-877-315-9819 or contact the National Pesticides Information Center (NPIC) at 1-800-858-7378, Monday through Friday, 8 AM to 12 PM PST, or at http://npic.orst.ed). For general information about this product, call 1-800-323-9597.	

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Wear long-sleeved shirt and long pants, socks and shoes. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

2.2 Physical or Chemical Hazards

Combustible. Do not use or store near heat or open flame.

2.3 Personal Protective Equipment (PPE)

Mixers, loaders, applicators and other handlers must wear:
- Long-sleeved shirt and long pants.
- Shoes plus socks.
- Gloves

2.4 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 this product's concentrate. Do not reuse them.

2.5

User Safety Recommendations
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

2.6 Environmental Hazards

This product is extremely toxic to fresh water and estuarine fish and invertebrates. Runoff from treated areas into a body of water may be hazardous to fish and aquatic invertebrates.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are foraging 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.

3.0 DIRECTIONS FOR USE

For Outdoor Use Only

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, consult with the State or Tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

Mandatory Spray Drift Management

Ultra Low Volume Applications

- Apply when ground wind speeds are equal to or greater than 1 mph.
- All types of applications should be conducted when temperatures at ground level are at or above 50°F.

For Ground Applications:

- Create an optimum swath when possible. An optimum swath width can be achieved when VBC-60748 Insecticide is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even distribution of the spray cloud throughout the area.
- FOR BEST RESULTS treat when mosquitoes or insects are most active and weather conditions are conducive to keeping the spray cloud in the air column close to the ground.
- An inversion of air temperatures and a light breeze is preferable. Application during the cooler hours of the night or early morning is recommended.

For Aerial Applications:

- Do not apply by fixed wing aircraft at a nozzle height less than 100 feet (30.5 m) above ground or canopy, or by helicopter at a height less than 75 feet (22.9 m) above the ground or canopy.
- 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 supervision, or as allowed by state regulations for persons treating private property.
- This pesticide is extremely toxic to aquatic organisms. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to aquatic organisms.
- 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 beyond the body of water 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.

Resistance Management:

Please note that ReMoa Tri, TRIPLE ACTION INSECTICIDE SPACE SPRAY (from here on referred to as ReMoa Tri) contains both Group 3A and Group 6 insecticides. Any insect population may contain individuals naturally resistant to ReMoa Tri and other Group 3A and Group 6 insecticides. The resistant individuals may dominate the insect population if these insecticides are used repeatedly in the same fields. Hence appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

Avoid application of more than 30 applications and consecutive sprays of ReMoa Tri or other insecticides in the same group in a year.

Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, record keeping, and which considers cultural, biological and other chemical control practices.

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 certified pest control advisor.

Note: When applications require dilution, ReMoa Tri can only be diluted with manufacturer-provided diluent. ReMoa Tri cannot be diluted with water or any other diluent.

Use ReMoa Tri for control of mosquitoes in residential areas, industrial areas, urban areas (utility tunnels, sewers, storm drains and catch basins, pipe chases, basements, underground passages, parking decks, crawl spaces, or uninhabited buildings), parks, campsites, woodlands, athletic fields, golf courses, playgrounds, recreational and overgrown waste areas, roadsides, swamps, marshes, tidal areas, corrals, feed lots, swine lots, poultry ranges, zoos, animal quarters, barns, dumps, junkyards, tire dumps, and other areas where adult mosquitoes may be found. For best results, apply when insects are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. An inversion of air temperatures and a light breeze is preferable. Apply during the cooler hours of the night or early morning. Apply when wind speed is equal to or greater than 1 mph.

Ground ULV Application

4.0 APPLICATION INSTRUCTIONS

ReMoa Tri can be applied as an Ultra-Low Volume (ULV), or non-thermal aerosol spray (cold fog) in mosquito adul-ticiding programs involving outdoor residential, urban, industrial, and recreational areas, to control adult mosquitoes. Refer to the dilution table on this label for flow rate calculations for diluted end use formulations of ReMoa Tri.

Wide Area and Space Spray Application for Mosquito Control Over Non-Crop Areas

Do not apply more than 1.018 fl oz of ReMoa Tri per acre in any two-day period. Do not make more than 30 applications per site per year (For a maximum rate 30.54 fl oz of ReMoa Tri per acre per year). More frequent applications per site may be made to prevent or control a threat to public and/or animal health determined by a State, Tribal or local health or

Aerial Application

ReMoa Tri can be applied via aerial application to control susceptible mosquitoes. Refer to the dilution table on this label for flow rate calculations for diluted end use formulations of ReMoa Tri.

ReMoa Tri may be applied at rates of 0.34 to 1.02 fluid ounces ofReMoa Tri per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. Appropriate spray systems include rotary atomizers, flat fan and high-pressure impaction nozzles characterized to achieve the droplet characteristics specified in this label. ReMoa Tri may also be diluted with the manufacturer's provided diluent (water or mineral oil should not be used as a diluent for ReMoa Tri) and applied by aerial ULV equipment so long as 1.02 fluid ounces (0.00239/0.00089/0.0002/0.0002/0.0002 pounds of Fenpropathrin/Abamectin/ Octanoic Acid/Nonanoic Acid/Decanoic Acid) per acre of ReMoa Tri is not exceeded. Do not apply by fixed wing aircraft at a height less than 100 feet above the ground or canopy, or by helicopter at a height less than 75 feet above the ground or canopy. When making application at an altitude of 100 feet or greater, apply only when wind speed at altitude is greater than or equal to 3 mph.

Droplet Size Determination for Aerial Application Equipment

Spray equipment must be adjusted so that the volume median diameter (VMD) is less than 60 microns (Dv 0.5< 60 µm) and that 90% of the spray is contained in droplets smaller than 115 microns (Dv 0.9 < 115µm). 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, laser-based measurement instrument or an appropriate method for droplet size estimation using glass/acrylic slides on rotary impingers 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.

Table 2. Flow Rate Based on a 600-Foot Swath Width for Aerial Application (Fluid Ounces Per Minute)

	Application Rate (lbs. AI per Acre)			Application Rate (oz./ac)					
	Fenpropathrin	Abamectin	Octanoic Acid Nonanoic Acid Decanoic Acid	VBC-60748	Speed (mph)	Undiluted	Diluted (1:0.5)	Diluted (1:1)	Diluted (1:2)
Low Rate	0.0008	0.0003	0.0002	0.34	60	24.73	37.09	49.45	74.18
					70	28.85	43.27	57.7	86.55
					80	32.97	49.45	65.94	98.91
					90	37.09	55.64	74.18	111.27
Mid-Rate	0.00157	0.00059	0.00039	0.67	60	48	73.09	97.45	146.18
					70	56	85.27	113.7	170.55
					80	64	97.45	129.94	194.91
					90	72	109.64	146.18	219.27
High Rate	0.00239	0.00089	0.0006	1.018	60	74.04	111.05	148.07	222.11
					70	86.38	129.56	173.36	259.13
					80	98.72	148.07	197.43	296.15
					90	111.05	166.58	222.11	333.16

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.

Apply the product through a **ULV Fogger** (also known as ULV cold fogger), which is a piece of equipment designed to disperse pesticide chemicals in the air as a mist or fog.

Droplet Size Determination for Ground Application Equipment

Spray equipment must be adjusted so that the volume median diameter (VMD) is between 8-30 microns (8μ ≤ Dv0.5 ≤30μ) and that 90% of the spray volume is contained in droplets smaller than 50 microns (Dv 0.9 <50μm). A laser-based measurement instrument, or a 'hot wire' based droplet analyzer such as KLD labs DC-IV system, 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.

Create an optimum swath when possible. An optimum swath width can be achieved when ReMoa Tri is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even distribution of the spray cloud throughout the area.

- FOR BEST RESULTS treat when mosquitoes or insects are most active and weather conditions are conducive to keeping the spray cloud in the air column close to the ground.
- An inversion of air temperatures and a light breeze is preferable. Application during the cooler hours of the night or early morning is recommended.

To control mosquitoes and other listed insects, apply ReMoa Tri at a flow rate of 2.02 to 6.08 fluid ounces per minute at an average vehicle speed of 10 mph using a swath width of 300 feet for acreage calculations (see chart below). For best results, apply when mosquitoes are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. Do not apply in calm air conditions. Apply only when ground wind speed is greater than or equal to 1 mph. Conduct all types of applications at temperatures above 50°F. For ground applications, when targeting permethrin-resistant *Aedes* and *Culex* mosquitoes, use a flow rate of 4.03 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 0.00080/ 0.00030/0.00020 to 0.00239/0.00089/0.0002/0.0002/ 0.0002 pounds of Fenpropathrin/Abamectin/Octanoic acid/ Nonanoic acid/Decanoic acid respectively per air column acre. Vary flow rate according to vegetation density and mosquito population. Use higher flow rate in heavy vegetation or when populations are high. ReMoa Tri may also be diluted with the manufacturer's provided diluent (water or mineral oil should not be used as a diluent for ReMoa Tri) and applied by ground ULV equipment. Do not exceed 0.00239/0.00089/0.0002/0.0002/0.0002 pounds of Fenpropathrin/Abamectin/Octanoic acid/Nonanoic acid/Decanoic acid respectively per air column acre. Refer to the dilution tables on this label for flow rate calculations for diluted end-use formulations of ReMoa Tri. Use the following tables to calculate application rates:

Table 1. Flow Rate Based on a 300-Foot Swath Width for Ground Application (Fluid Ounces Per Minute)

Application Rates (Pounds of Fenpropathrin AI per Air Column Acre)	Application Rates (Pounds of Abamectin AI per Air Column Acre)	Application Rates (Pounds of Octanoic acid/ Nonanoic acid/ Decanoic acid AI per Air Column Acre)	ReMoa Tri (fl oz Per Air Column Acre)	Vehicle Speed (MPH)	Undiluted	Diluted 1:0.5	Diluted 1:1	Diluted 1:2
0.0008	0.0003	0.0002	0.341 (Low)	5	1.03	1.55	2.07	3.10
				10	2.07	3.10	4.13	6.20
				15	3.10	4.65	6.20	9.29
				20	4.13	6.20	8.26	12.39
0.00157	0.00059	0.00039	0.669 (Mid)	5	2.03	3.04	4.05	6.08
				10	4.05	6.08	8.11	12.16
				15	6.08	9.12	12.16	18.24
				20	8.11	12.16	16.21	24.32
0.00239	0.00089	0.0006	1.018 (High)	5	3.09	4.63	6.17	9.26
				10	6.17	9.26	12.34	18.51
				15	9.26	13.88	18.51	27.77
				20	12.34	18.51	24.68	37.02

When targeting permethrin-resistant *Aedes* and *Culex* mosquitoes, or other difficult to control species of mosquitoes, use the mid to high label rate. ReMoa Tri can not exceed the maximum rates of active ingredient per air column acre listed above.

5.0 STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of onsite or at an approved waste disposal facility.

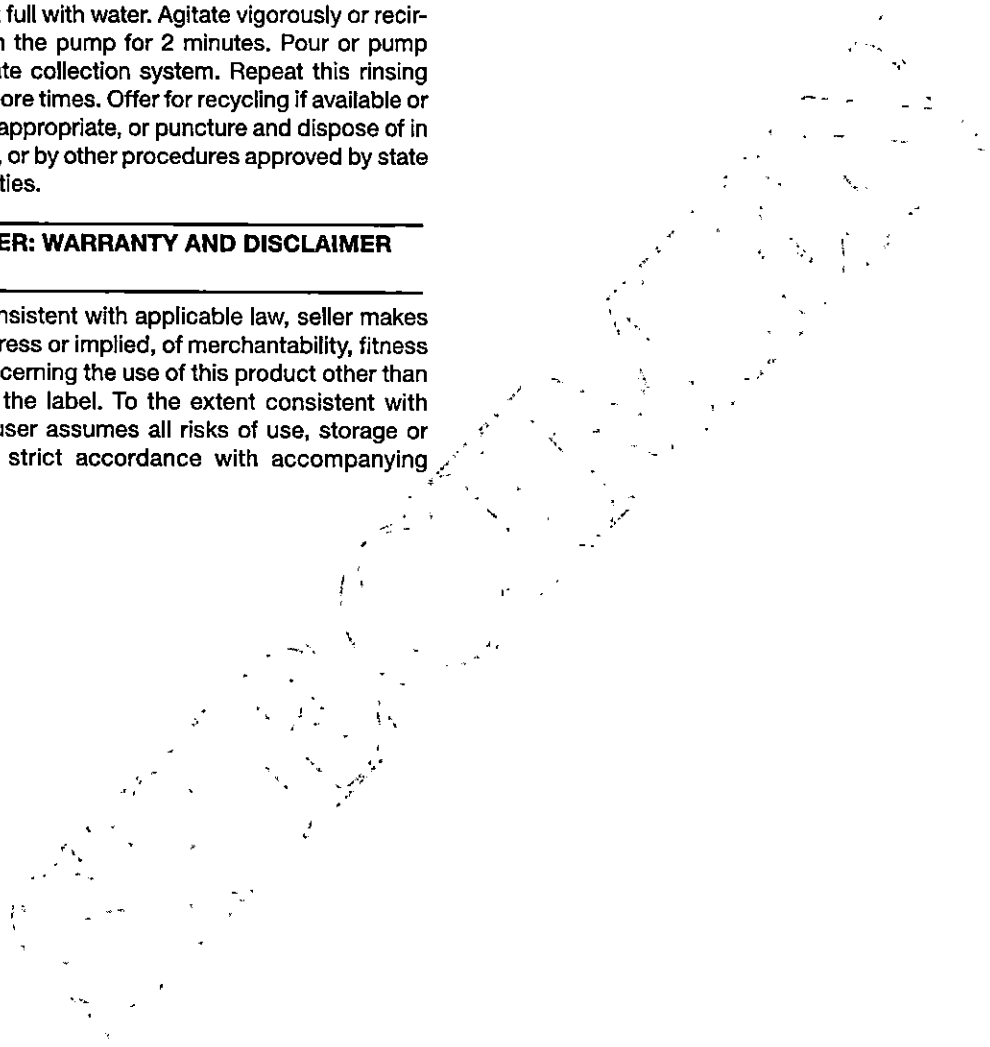
Container Disposal: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into 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. 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.

6.0 NOTICE TO USER: WARRANTY AND DISCLAIMER STATEMENT

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

Registrant:
Valent BioSciences LLC
1910 Innovation Way, Suite 100
Libertyville, IL 60048, U.S.A.
1-800-323-9597

44-1044/R2 (Pkg. A50411078/R3 V4)



MERUS® 3.0

FOR USE IN ORGANIC PRODUCTION

For control of adult mosquitoes in Outdoor Residential, Recreational, Urban, Industrial, and Agricultural Areas. For use over agricultural crops, including those intended for human consumption, pasture, and rangeland. For Aerial and Ground ULV Application.

Active Ingredient:	
Pyrethrins, a botanical insecticide	5.0%
Other Ingredients	95.0%
	100.0%

Contains 0.365 pounds Pyrethrins per gallon

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE): Mixers, loaders, applicators and other handlers must wear the following: long-sleeve shirt, long pants, shoes and socks. 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. 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. 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 washwaters.

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 foraging 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

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.

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: Aerial applications of this product require trained personnel to perform industry accepted assays to monitor resistance formation in targeted mosquitoes.

The maximum application rate for wide-area mosquito adulticide applications is 0.0025 lb a.i./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./acre/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.

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, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

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

USE INFORMATION

MERUS® 3.0 is approved for application as an Ultra Low Volume (ULV) non-thermal aerosol (cold fog) in mosquito adulticiding programs involving outdoor residential, urban, industrial, and recreational areas where adult mosquitoes are present in annoying numbers, and in vegetation surrounding parks, woodlands, swamps, marshes, overgrown areas and golf courses.

MERUS® 3.0 may be applied over crops or to areas favoring drift over crops, including row, tree, fruit, citrus, pasture and other areas where agricultural enterprises take place.

MERUS® 3.0 may be used undiluted or diluted with suitable light mineral oil and applied as an ultra low volume (ULV) non-thermal aerosol (cold fog) or in suitable mechanical spray equipment. MERUS® 3.0 cannot be diluted in water.

SPRAY DROPLET SIZE DETERMINATION

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.

AL0594

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.

GROUND ULV APPLICATION

To control Mosquitoes, apply MERUS® 3.0 at a flow rate of 3.4 to 5.3 fluid ounces per minute at an average vehicle speed of 10 MPH using a swath width of 300 feet for acreage calculations (see chart below). These rates are equivalent to 0.0016 to 0.0025 lb a.i./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. For best results, apply when mosquitoes are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. Application in calm air conditions is to be avoided. Apply only when ground wind speed is greater than or equal to 1 MPH. All types of applications should be conducted at temperatures above 50°F.

Use the following table to calculate application rates:

lb a.i./acre	Application Rates (Fl.oz./Minute) at vehicle speeds of:				Fl. oz. MERUS® 3.0/acre
	5 MPH	10 MPH	15 MPH	20 MPH	
0.0025	2.7	5.3	8.0	10.6	0.88
0.0021	2.2	4.5	6.7	8.9	0.74
0.0018	1.9	3.8	5.7	7.7	0.63
0.0016	1.7	3.4	5.1	6.8	0.56

Applications up to 2.81 fl.oz. (0.008 lb a.i.)/acre may be made when targeting *Aedes taeniorhynchus* or other difficult to control species.

lb a.i./acre	Application Rates (Fl.oz./Minute) at vehicle speeds of:				Fl. oz. MERUS® 3.0/acre
	5 MPH	10 MPH	15 MPH	20 MPH	
0.008	8.5	17.0	25.5	34.0	2.81

If dilution is preferred, adjust the flow rate accordingly to achieve 0.0016 to 0.0025 lb a.i./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:

lb a.i./acre	Application Rates (Fl.oz./Minute) at vehicle speeds of:				Fl. oz. Finished Spray/ acre
	5 MPH	10 MPH	15 MPH	20 MPH	
0.0025	5.3	10.6	15.9	21.3	1.75
0.0021	4.5	8.9	13.4	17.9	1.47
0.0018	3.8	7.7	11.5	15.3	1.26
0.0016	3.4	6.8	10.2	13.6	1.12

Urban ULV Mosquito Control: MERUS® 3.0 may be applied for control of resting or flying adult mosquitoes in urban and industrial areas such as utility tunnels, pipe chases, underground basements, underground passages, parking decks, open parking garages, abandoned warehouses, crawl spaces, uninhabited buildings, rail yards, waste yards, junkyards, tire dumps, and other areas where adult mosquitoes might be found. 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 lb a.i./acre/day (0.88 fluid ounces of undiluted spray/acre/day). Do NOT use hand-held equipment for this type of application in enclosed spaces.

MERUS® 3.0 may also be applied with non-thermal, portable, motorized backpack equipment adjusted to deliver ULV particles of less than 100 microns VMD. Use 0.56 to 0.88 fl.oz. of the undiluted spray per acre (equal to 0.0016 to 0.0025 lb.ai./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 APPLICATION

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 0.56 to 0.88 fluid ounces of undiluted MERUS® 3.0 per acre.

MERUS® 3.0 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.i./acre. Diluted or undiluted, applications up to 2.81 fl.oz. MERUS® 3.0 (0.008 lb a.i.)/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: Store in a cool, dry place. Keep container closed.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may 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 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. 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.

Have the 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.** For non-emergency information, on product usage for example, call 1-800-323-5727. In case of transportation emergency, call INFO-TRAC 1-800-553-5053.

NOTICE: To the extent consistent with applicable law, 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.

MERUS®-Trademark of Clarke Mosquito Control Products, Inc.

MANUFACTURED BY
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172

EPA Reg. No.:8329-108 EPA Est. No.: _____

Lot No.: Marked on Container Label

Available Container Sizes: 2.5 gal, 30 gal, 55 gal, 275 gal

AL0594

Zenivex® E4 RTU

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.

- **FOR THE CONTROL OF ADULT MOSQUITOES, NON-BITING MIDGES, AND BLACK FLIES**
- **FOR USE AS A SPACE SPRAY BY AIR AND GROUND APPLICATION TO CONTROL ADULT MOSQUITOES**
- **APPROVED FOR USE OVER AGRICULTURAL CROPS (INCLUDING THOSE INTENDED FOR HUMAN CONSUMPTION), PASTURE AND RANGELAND**
- **READY TO USE WITHOUT DILUTION**
- **CONTROLS ADULT MOSQUITOES THAT MAY CARRY WEST NILE VIRUS, EASTERN EQUINE ENCEPHALITIS, ST. LOUIS ENCEPHALITIS**
- **CONTROLS NON-BITING MIDGES, NUISANCE AND BITING FLIES**
- **QUICK, PERMANENT KNOCKDOWN OF ADULT MOSQUITOES**

SPECIMEN LABEL

ACTIVE INGREDIENT:	
Etofenprox (CAS #80844-07-1)	4%
OTHER INGREDIENTS*:	96%
Total:	100%

*Contains petroleum distillates
Contains 0.30 lbs etofenprox per gallon

EPA Reg. No. 2724-807 EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional Precautionary Statements,

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Applicators and other handlers must wear long-sleeved shirt, long pants, socks and shoes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and launder before reuse. Repeated exposure to etofenprox can cause skin irritation.

FIRST AID

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. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.

If in eyes • 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 eyes. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

NOTE TO PHYSICIAN: May pose an aspiration pneumonia hazard. Contains petroleum distillate.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition into bodies of water may be hazardous to fish and other aquatic organisms. 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 water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Time applications to provide the maximum possible interval between treatment and the next period of bee activity. Do not apply to blooming crops or weeds when bees are 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.

PHYSICAL/CHEMICAL HAZARDS

Combustible. Do not use 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. **READ AND FOLLOW ALL LABEL DIRECTIONS.** Before making the first application of the 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.

GENERAL

ZENIVEX® E4 RTU is an effective insecticide used at low volumes to control adult mosquitoes, non-biting midges, biting and non-biting flies. Use **Zenivex® E4 RTU** undiluted as UltraLow Volume (ULV) for the control of pest species in or near residential, industrial, commercial, urban, recreational areas, woodlands, golf courses, and other areas where these pests are a problem. **Zenivex® E4 RTU** may be applied over agricultural areas prior to or following harvest for the control of adult mosquitoes within or adjacent to these areas. Apply **Zenivex® E4 RTU** aerially (both fixed and rotary aircraft) for low volume applications or through mist-blowers, backpack, and handheld sprayers for ground applications. **Zenivex® E4 RTU** will control mosquitoes and flies and can be used as part of a total integrated pest management program for controlling disease vectors. Apply **Zenivex® E4 RTU** at rates from 0.00175 to 0.0070 pounds of etofenprox per acre by ground ULV. Use this product undiluted only; do not mix with water. Apply when wind is ≥ 1 mph. Do not apply when wind speeds exceed 10 mph. A temperature inversion is preferable to keep the fog close to the ground and applications should be made when labeled insects are most active. Do not spray more than 0.18 lbs etofenprox per acre per site per year. Do not make more than 25 applications per site per year. 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.

GROUND APPLICATION

Use a vehicle-mounted cold aerosol ULV sprayer to apply the product. Direct the spray equipment nozzle to provide even distribution of the product. For best results, apply perpendicular to the wind direction using a swath width of 300 ft. Spray equipment must be adjusted so that the volume median diameter (VMD) is between 10-30 microns ($10\mu \leq D_{v0.5} \leq 30\mu$) and that 90% of the spray is contained in droplets smaller than 50 microns ($D_{v0.9} < 50\mu$). Directions from the equipment manufacturer or vendor, pesticide registrant, or 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.

The appropriate application rate can be achieved by using the following table. Refer to the following chart for examples.

Application rate pound A.I. per acre	Flow rates Undiluted		Vehicle Speed
	Oz/Acre	Oz/Minute	
0.00175	0.75	2.25	5
		4.50	10
		7.00	15
0.00350	1.5	4.50	5
		9.00	10
		13.50	15
0.00700	3.0	9.00	5
		18.00	10

Use the higher label rates when spraying areas where dense vegetation is present. Conduct applications when temperatures are between 50-95° F.

Backpack Sprayer ULV Application

Apply **Zenivex® E4 RTU** undiluted through non-thermal ULV backpack sprayer capable of applying the product in the 10 to 30 micron range. Apply product to the area as evenly as possible. Apply at the rate of 0.00175 to 0.0070 pounds etofenprox per acre.

Urban ULV Mosquito Control Applications

For control of resting or flying adult mosquitoes, biting flies and non-biting midges 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 **Zenivex® E4 RTU** using mechanical foggers, hand-held or truck-mounted ULV equipment, thermal foggers or other spray equipment suitable for this application. Apply **Zenivex® E4 RTU** at rates up to but not exceeding 0.0070 pounds of etofenprox per acre.

Thermal Fogging Application
Apply using a truck, dolly mounted, handheld, or other thermal fogging equipment. Following the equipment manufacturer's instructions, apply this product at a rate of 0.00175 to 0.0070 pounds etofenprox per acre. Direct fog to areas where mosquitoes and other pests are located. The volume median diameter (VMD) of droplets produced by thermal foggers is less than 60 microns ($D_{v0.5}$ < 60μ) and 90% of the spray is contained in droplets smaller than 100 microns ($D_{v0.9}$ < 100μ).

AERIAL APPLICATION
Apply **Zenivex® E4 RTU** aerially, undiluted, by fixed wing or rotary aircraft. Apply at the rate of 0.00175 to 0.0070 pounds of etofenprox per acre. Apply using ULV equipped and capable aircraft. Spray equipment must be adjusted so that the volume median diameter (VMD) produced is less than 60 microns ($D_{v0.5}$ < 60μ) and that 90% of the spray is contained in droplets smaller than 100 microns ($D_{v0.9}$ < 100μ). 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 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 annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated. Do not apply **Zenivex® E4 RTU** at altitudes below 100 feet. Apply at altitudes from 100-300 feet. Apply when wind speed on the ground is ≥ 1 mph. Apply when labeled insects are most active. For best results, use Global Positioning System (GPS) equipped aircraft.

IN FLORIDA: Aerial applications of this product require trained personnel to perform industry accepted assays to monitor resistance formation in targeted mosquitoes.

APPLICATIONS OVER CROPS OR TO AREAS FAVORING DRIFT OVER CROPS

Zenivex® E4 RTU may be applied over crops (including row, tree, fruit, citrus, pasture and other areas where agricultural enterprises take place) or to areas, where drift over cropland could occur. **Zenivex® E4 RTU** can be applied to these areas by either ground or aerial application. Use label rates and follow directions for use as directed in this label. Applications over crops or where drift may occur over crops are limited to 4 applications per month to the same site but no more than two applications within a seven day interval. Do not apply more than 0.028 pounds of active ingredient per month to the same site within a month. Do not spray more than 0.18 lbs etofenprox per acre per site per year. Do not make more than 25 applications per site per year.

PESTICIDE STORAGE AND DISPOSAL

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

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 DISPOSAL: Refillable 30 Gallon Drums, 120 Gallon Mini-Tote and 275 Gallon Tote: 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. If not refilled, offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration. To clean the container before final disposal, 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 mineral oil or other suitable oil diluents. 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. **Non-refillable 2.5 gallon containers: Non-refillable container.** Triple rinse (or equivalent), promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain container for 10 seconds after the flow begins to drip. Fill the container ¼ full of with mineral oil or other suitable oil diluents and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank. Drain container for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once triple rinsed, recycle if available, or puncture and dispose of in a sanitary landfill, or by incineration.

To the extent consistent with applicable law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

In case of an emergency or for product use information, call **1-800-248-7763**.

www.zenivex.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

ZOËCON®

VEC 16-015

April, 2016
Schaumburg, IL

Fact Sheet
Altosid®

Municipalities are encouraged to share this information with all residents in their community.

This sheet answers some basic questions about a mosquito control product in use in your county. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Altosid and how is it used?

Altosid is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called **Methoprene.** The U.S. Environmental Protection Agency's (EPA) current evaluation considers **Methoprene**-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Altosid is used to prevent mosquitoes from hatching in lakes, ponds, and other bodies of water. It acts on the larval or immature stage of the mosquito in water before the flying mosquito emerges. **Altosid** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Altosid?

Risk to the general public from the use of **Altosid** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Avoid direct contact with water bodies that have been treated.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether or not it is in use.

What are the symptoms of exposure to Altosid?

Methoprene is not a skin irritant or a sensitizer. The chance of experiencing symptoms of exposure with proper use is very low. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education System (**NJPIES**) at **1-800-222-1222** if you experience any symptoms following a pesticide spraying. Bring this sheet with you if you visit a physician or other medical provider.

How long will Altosid last in the environment?

Methoprene has a low persistence and breaks down in water within a few days. In soil, it breaks down in less than 10 days.

Where can I get more information on Altosid?

The following are resources for more information regarding **Altosid** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System **800-222-1222**

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**
For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Fact Sheet
CocoBear®

Municipalities are encouraged to share this information with all residents in their community.

This sheet answers some basic questions about a mosquito control product in use in your county. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is CocoBear and how is it used?

CocoBear is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called **Mineral Oil**. The U.S. Environmental Protection Agency's (EPA) current evaluation considers **Mineral Oil**-containing products to be slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

CocoBear is used to prevent mosquitoes from hatching in lakes, ponds, and other bodies of water. It acts on the pupa, or immature stage, of the mosquito in water immediately before the flying mosquito emerges. **CocoBear** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to CocoBear?

Risk to the general public from the use of **CocoBear** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk, such as pregnant women, children, the elderly, and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether or not it is in use.

What are the symptoms of exposure to CocoBear?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers, or the New Jersey Poison Information System (**NJPIES**) at **1-800-222-1222** if you experience these symptoms following a pesticide spraying. Bring this sheet with you if you visit a physician or other medical provider.

Where can I get more information on CocoBear?

The following are resources for more information regarding **CocoBear** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System
800-222-1222

For New Jersey pesticide regulation & misuse complaints:
Bureau of Pesticide Compliance and Enforcement **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Extermination Commission **856-769-3255**

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Municipalities are encouraged to share this information with all residents in their community

Duet® Adulticide

(AquaDuet & DuetHD)

This sheet answers some basic questions about a mosquito control product in use in your county. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information. Municipalities are encouraged to share this information with all residents in their community.

What is *Duet®* adulticide and how is it used?

Duet® contains two pesticides called ***Prallethrin and Sumithrin***, and a synergistic compound called ***piperonyl butoxide*** which increases the effectiveness of the pesticides. Prallethrin and Sumithrin are members of a category of pesticides called ***pyrethroids***, which in turn are synthetic versions of pesticides produced by plants called *pyrethrins.* Pyrethroid/piperonyl butoxide mixtures have been recommended for Ultra-Low-Volume (ULV) mosquito control in New Jersey by Rutgers, The State University of New Jersey. The U.S. Environmental Protection Agency's (EPA) current evaluation considers pyrethroid-containing products to be slightly toxic with minimal potential risk to people when used properly as part of an integrated mosquito control program.

This pyrethroid-containing product is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes in water are preferred and most used, the spraying of adult mosquitoes is called for when biting populations reach critical levels or when a disease organism is present in adult mosquitoes. A very fine mist is sprayed into the air since flying mosquitoes must directly contact the pesticide in order for it to be effective. The combination of the two pesticides has been shown to produce what the manufacturer calls 'benign agitation'. In other words mosquitoes are agitated from a resting state to a non-biting flying state where they are more vulnerable to pesticide exposure. This makes *Duet* adulticide more effective against hard-to-control species like *Aedes albopictus* which typically rest during the evening hours when adulticiding usually takes place.

What is the difference between *AquaDuet®* and *Duet HD®*?

AquaDuet® and *Duet HD®* both contain the same active ingredients at the same ratio; they are both meant to be applied as an Ultra-Low Volume cold aerosol spray. *Duet HD®* is heavier in its density than *AquaDuet®* and so therefore, *Duet HD®* is meant for aerial application only, where *AquaDuet®* is meant for application by truck mounted sprayer.

How can I reduce my exposure to *Duet®*?

Because of the very small amounts of active ingredients released per acre, the risk to the general public from the use of pyrethroid-containing products is minimal. Avoiding exposure is always the safest course of action. Any possible exposure risk can be reduced by following some common sense actions:

- Pay attention to notices about spraying found through newspapers, websites, automated telephone messages or distributed by municipal, county or state agencies.
- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move your pets, their food, and water dishes inside during ULV application. Also bring clothing and children's toys inside.
- Stay away from application equipment, whether in use or not.
- Whenever possible, remain indoors with windows closed and with window air conditioners on non-vent (closed to the outside air) and window fans turned off during spraying.
- Avoid direct contact with surfaces that are still wet from pesticide spraying. Do not allow children to play in areas that have been sprayed until they have completely dried (approximately one hour).

- If you must remain outdoors, avoid eye and skin contact with the spray. If you get spray in your eyes or on your skin, immediately flush and rinse with water.

What are the symptoms of exposure to *Duet*® ?
Symptoms of over-exposure can include irritation to skin and eyes, respiratory and nasal irritation, irritability to sound or touch, abnormal facial sensation, sensation of prickling, tingling or creeping of skin, numbness, headache, dizziness, nausaea, vomiting, diarrhea, excessive salivation, and fatigue. The chance of experiencing these symptoms of over-exposure with proper use is low. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education System (**NJPIES**) at **1-800-222-1222** if you experience these symptoms following a pesticide spraying.

How long will *Duet*® last in the environment?
Pyrethroids have a soil half-life of 12 days. They have an extremely low pesticide movement rating because they bind tightly to the soil. Pyrethroids are unstable in light and air. They rapidly degrade in sunlight at the soil surface and in water. Piperonyl butoxide has a soil half-life of approximately 4 days.

Where can I get more information on this adulticide?
The following are resources for more information regarding *Duet*® and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information-9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**
http://npic.orst.edu

For pesticide health informat6ion & possible exposures – 24 hours:
New Jersey Poison Information & Education System **800-222-1222**
http://www.njpies.org

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**
https://www.nj.gov/dep/enforcement/pcp/bpo.htm

For Federal pesticide regulations:
USEPA Region 2 Office of Pesticide Programs **877-521-4575**
http://www.epa.gov/ebtpages/pesticides.html

For state-wide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**
http://www.state.nj.us/dep/mosquito

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**
https://www.salemcountynj.gov/departments/mosquito-control/

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Fact Sheet
Duplex-G

This sheet answers some basic questions about a mosquito control product in use in your county. Municipalities are encouraged to share this information with all residents in their community. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Duplex-G and how is it used?

Duplex-G contains two pesticides: **Methoprene** and ***Bacillus thuringiensis israelensis (Bti)***. The U.S. Environmental Protection Agency's (EPA) current evaluation considers **Methoprene**-containing products to be slightly toxic with minimal potential risk to people and **Bti** - containing products to be slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Duplex-G is used to prevent mosquitoes from hatching in lakes, ponds, and other bodies of water. It acts on the larval or immature stage of the mosquito in water before the flying mosquito emerges. **Duplex-G** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Duplex-G?

Risk to the general public from the use of **Duplex-G** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Avoid direct contact with water bodies that have been treated.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether or not it is in use.
- Pay attention to notices about spraying found through newspapers, websites, automated telephone messages, or distributed by municipal, county, or state agencies.

What are the symptoms of exposure to Duplex-G?

Methoprene is not a skin irritant or a sensitizer. The chance of experiencing symptoms of exposure with proper use is very low. **BTi** may cause mild irritation or discomfort if you come into direct contact. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education System (**NJPIES**) at **1-800-222-1222** if you experience any symptoms following a pesticide treatment. Bring this sheet with you if you visit a physician or other medical provider.

How long will Duplex-G last in the environment?

Methoprene has a low persistence and breaks down in water within a few days. In soil, it breaks down in less than 10 days. Because **Bti** is a biological agent, it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Where can I get more information on Duplex-G?

The following are resources for more information regarding **Duplex-G** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System **800-222-1222**

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Municipalities are encourage to share this information with all residents in their community

Fact Sheet

Essentria All Purpose Insecticide Concentrate®

This sheet answers some basic questions about a mosquito control product in use in your county. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Essentria All Purpose Insecticide Concentrate and how is it used?

Essentria All Purpose Insecticide Concentrate is an insecticide product recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticides called Rosemary Oil and Peppermint Oil. The U.S. Environmental Protection Agency's (EPA) current evaluation considers Rosemary Oil and Peppermint Oil containing products to be slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Essentria All Purpose Insecticide Concentrate is a natural pesticide that provides control to Adult mosquitoes. Using Octopamine BlockerSM Technology, the product confuses the insect's nervous system, offering immediate knockdown with long lasting protection, only affecting the target insects. This makes the product great for sensitive areas, organic landscape programs, even near or over bodies of water. Essentria All Purpose Insecticide Concentrate is also National Organics Program (NOP) complaint and is EPA FIFRA 25 (b) exempt product, containing plant oils that leave a nice scent behind as they clear the application area of pest, even in the most difficult situations.

How can I avoid exposure to Essentria All Purpose Insecticide Concentrate?

Risk to the general public form the use of Essentria All Purpose Insecticide Concentrate is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk, such as pregnant women, children, the elderly, and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Pay attention to notices about pesticide applications found through newspapers, websites, automated telephone messages or distributed by municipal, county, or state agencies.
- Plan your activities to limit time spent outside during times of possible pesticide applications.
- Move animals and their food and water dishes inside during applications.
- Move clothing and children's toys inside during applications.
- Stay away from application equipment, whether or not it is in use.
- Whenever possible, remain indoors with windows closed, window air conditioners on non-vent (closed to the outside air), and window fans turned off during application of pesticides.
- Avoid direct contact with surfaces still wet from pesticide applications. Do not allow children to play in treated areas until they have completely dried (approximately one hour).

- ❖ If you must remain outdoors, avoid eye and skin contact with the spray. If you get spray in your eyes or on your skin, immediately flush and rinse with water.

What are the symptoms of exposure to Essentria All Purpose Insecticide Concentrate?
Symptoms of exposure can include irritation to skin and eyes. The chance of experiencing these symptoms with proper use is low. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education System (NJPIES) at 1-800-222-1222 if you experience these symptoms following a pesticide application. Bring this sheet with you if you visit a physician or other medical provider.

How long will Essentria All Purpose Insecticide Concentrate last in the environment?
It can take anywhere from 6 to 30 days for the product to break down. This is dependent on the conditions when the product was applied

Where can I get more information on Essentria All Purpose Insecticide Concentrate?
The following are resources for more information regarding Essentria All Purpose Insecticide Concentrate and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**
http://npic.orst.edu

For pesticide health informat6ion & possible exposures – 24 hours:
New Jersey Poison Information & Education System **800-222-1222**
http://www.njpies.org

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**
http://www.state.nj.us/dep/enforcement/pcp/

For Federal pesticide regulations:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**
http://www.epa.gov/ebtpages/pesticides.html

For state-wide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**
http://www.state.nj.us/dep/mosquito

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**
http://www.salemcountynj.gov/departments/mosquito-control/

For local health information:
Salem County Health Department **856-935-7510**
http://health.salemcountynj.gov/

For mosquito control recommendations:

Rutgers University, Department of Entomology **848-932-9774**
http://www-rci.rutgers.edu/~insects

Municipalities are encouraged to share this information with all residents in their community

Fact Sheet
Fourstar®

This sheet answers some basic questions about a mosquito control product in use in your county. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Fourstar and how is it used?

Fourstar is an insecticide product recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. They contain the pesticide called ***Bacillus thuringiensis israelensis (Bti)*** and ***Bacillus sphaericus 2362 (Bs)***. The U.S. Environmental Protection Agency's (EPA) current evaluation considers ***Bti*** and ***Bs*** -containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Fourstar is used to prevent mosquitoes from emerging into adults from lakes, ponds, and other bodies of water. It acts on the larva, or immature stage of the mosquito, in water immediately before the flying mosquito emerges. **Fourstar** is a part of a mosquito management approach using the habitat and other measures to control immature mosquitoes in order to decrease the need to spray for adults.

How can I avoid exposure to Fourstar?

Risk to the general public from the use of **Fourstar** is minimal. Avoiding exposure is always the safest course of action, particularly for populations whose members may be at higher risk, such as pregnant women, children, the elderly, and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Avoid direct contact with treated bodies of water.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether or not it is in use.

What are the symptoms of exposure to Fourstar?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education

System (**NJPIES**) at **1-800-222-1222** if you experience these symptoms following a pesticide spraying. Bring this sheet with you if you visit a physician or other medical provider.

How long will Fourstar last in the environment?

Because ***Bti*** and ***Bs*** are biological agents, it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Where can I get more information on Fourstar?

The following are resources for more information regarding **Fourstar** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System **800-222-1222**

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Fact Sheet
Fyfanon®

Municipalities are encouraged to share this information with all residents in their community.

This sheet answers some basic questions about a mosquito control product in use in your county. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Fyfanon and how is it used?

Fyfanon is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called **Malathion**. The U.S. Environmental Protection Agency's (EPA) current evaluation considers **Malathion**-containing products to be slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Fyfanon is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes in water are the preferred routine approaches, the spraying of adult mosquitoes is called for when biting populations reach critical levels, or when a disease organism is present in adult mosquitoes. A very fine mist is sprayed into the air since flying mosquitoes must directly contact the pesticide in order for it to be effective.

How can I avoid exposure to Fyfanon?

Risk to the general public from the use of **Fyfanon** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk, such as pregnant women, children, the elderly, and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Pay attention to notices about spraying found through newspapers, websites, automated telephone messages, or distributed by municipal, county, or state agencies.
- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether or not it is in use.
- Whenever possible, remain indoors with windows closed and with window air conditioners on non-vent (closed to the outside air) and window fans turned off during spraying.
- Avoid direct contact with surfaces that are still wet from pesticide spraying. Do not allow children to play in areas that have been sprayed until they have completely dried (approximately one hour).
- If you must remain outdoors, avoid eye and skin contact with the spray. If you get spray in your eyes or on your skin, immediately flush and rinse with water.

What are the symptoms of exposure to Fyfanon?

Symptoms of exposure can include headache, nausea, dizziness, excessive sweating, salivation, excessive tearing, and a runny nose. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education System (**NJPIES**) at **1-800-222-1222** if you experience these symptoms following a pesticide spraying. Bring this sheet with you if you visit a physician or other medical provider.

How long will Fyfanon last in the environment?

Fyfanon spray stay in the air for a short time until before landing on surfaces. **Malathion** has a low persistence and lasts no longer than 25 days in water and soil. **Malathion** breaks down faster in sunlight.

Where can I get more information on Fyfanon?

The following are resources for more information regarding **Fyfanon** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System
800-222-1222

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**

For mosquito control recommendations:
Rutgers University, Department of Entomology **732-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Salem County Mosquito Control

Municipalities are encouraged to share this information with all residents in their community

"Merus 3.0"

This **Fact Sheet** answers some basic questions about mosquito control products in use in your county. The Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is *Merus 3.0* ™ and how is it used?

Merus 3.0 ™ contains botanical insecticides called **pyrethrins**, a class of organic compounds extracted from *Chrysanthemum* flowers. Unlike most pyrethroids (the synthetic equivalent of pyrethrins that are more commercially available), ***Merus 3.0*** ™ does not contain additional chemical synergists such as piperonyl butoxide. ***Merus 3.0*** ™ is Organic Materials Review Institute (OMRI) listed and meets National Organic Program (NOP) standards for adult mosquito control in and around organic gardens, farms and crops. It poses a low risk to human health and the environment when used properly as part of an integrated mosquito control program. Pyrethrins are considered non-carcinogenic at exposure relevant to human use, and no data is available to indicate the product or any components present at greater than 0.1% are mutagenic or teratogenic.

Merus 3.0 ™ is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes in water are preferred and most used, the spraying of adult mosquitoes is necessary when biting populations reach critical levels or when a disease organism is present in adult mosquitoes. A very fine mist is sprayed into the air since flying mosquitoes must directly contact the pesticide in order for it to be effective.

How can I reduce my exposure to *Merus 3.0* ™?

Because of the very small amounts of active ingredients released per acre, the risk to the general public from the use of pyrethrin-containing products is minimal. Avoiding exposure is always the safest course of action. Any possible exposure risk can be reduced by following some common sense actions:

- Pay attention to notices about spraying found through newspapers, websites, automated telephone messages or distributed by municipal, county or state agencies.
- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move your pets, their food, and water dishes inside during ULV application. Also bring clothing and children's toys inside.
- Stay away from application equipment, whether in use or not.
- Whenever possible, remain indoors with windows closed and with window air conditioners on non-vent (closed to the outside air) and window fans turned off during spraying.
- Avoid direct contact with surfaces that are still wet from pesticide spraying. Do not allow children to play in areas that have been sprayed until they have completely dried (approximately one hour).

- If you must remain outdoors, avoid eye and skin contact with the spray. If you get spray in your eyes or on your skin, immediately flush and rinse with water.

What are the symptoms of exposure to *Merus 3.0* ™?

Symptoms of over-exposure to pyrethrins can include irritation to skin and eyes, asthma-like symptoms, nausea, and vomiting. The chance of experiencing these symptoms of over-exposure with proper use is low. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education System (**NJPIES**) at **1-800-222-1222** if you experience these symptoms following a pesticide spraying.

How long will *Merus 3.0* ™ last in the environment?

In the presence of sunlight, pyrethrin 1 (a component of pyrethrins) has a half-life of 11.8 hours in water and 12.9 hours on soil surfaces. In the absence of light, pyrethrin 1 breaks down more slowly in water. Half-lives of 14 to 17 days have been reported. When water was more acidic, pyrethrin 1 did not readily break down. Pyrethrins that enter the water do not dissolve well but tend to bind to sediment. Half-lives of pyrethrin 1 in sediment are 10.5 to 86 days.

Where can I get more information on this adulticide?

The following are resources for more information regarding Merus 3.0 and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System **800-222-1222**

For New Jersey pesticide regulation & misuse complaints:
NJDEP Bureau of Pesticide Compliance & Enforcement **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-935-7510 ext. 3225**

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Natular®

Municipalities are encouraged to share this information with all residents in their community.

This sheet answers some basic questions about a mosquito control product in use in Salem County. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Natular® and how is it used?

Natular® is a bacterial larvacide that is in use by Salem County Mosquito Control on a limited basis this year. It contains the active ingredient called "***Spinosad.***" Spinosad is made up of the complex organic compounds spinosyn A and spinosyn D, which are created by soil microbes. The U.S. Environmental Protection Agency's (EPA) current evaluation considers **spinosyn**-containing products to be slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Natular® contains parts of a naturally occurring soil bacterium. When mosquito larvae eat the spores, toxins are released by the mosquito's stomach fluids, which in turn cause the larvae to die. **Natular®** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Natular®?

Risk to the general public from the use of **Natular®** is very minimal. The organic compounds that are so lethal to mosquitoes are harmless to mammals. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illness. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Avoid direct contact with water bodies that have been treated.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether in use or not.

What are the symptoms of exposure to Natular®?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information and Education System **(NJPIES)** at **1-800-222-1222** if you experience these symptoms following a pesticide spraying. Bring this sheet with you if you visit a physician or other medical provider.

How long will Natular® last in the environment?
Because **spynosin A** and **spynosin D** are biological agents, they tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Where can I get more information on Natular®?
The following are resources for more information regarding **Natular® XRG** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**
http://npic.orst.edu

For pesticide health informat6ion & possible exposures – 24 hours:
New Jersey Poison Information & Education System **800-222-1222**
http://www.njpies.org

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**
http://www.state.nj.us/dep/enforcement/pcp/

For Federal pesticide regulations:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**
http://www.epa.gov/ebtpages/pesticides.html

For state-wide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**
http://www.state.nj.us/dep/mosquito

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**
http://www-rci.rutgers.edu/~insects

For local health information:
Salem County Health Department **856-935-7510**

For general information on the pesticide Natular® XRG and Spinosad:
EPA:
http://www.epa.gov/pesticides/health/mosquitoes/larvicides4mosquitoes.htm
Clarke Mosquito Control Products (Distributor):
http://www.clarkemosquito.com

ReMoa Tri

Municipalities are encouraged to share this information with all residents in their community.

This Fact Sheet answers some basic questions about mosquito control products in use in your county. The Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is ReMoa Tri mosquito space spray and how is it used?

ReMoa Tri is an oil-based insecticide registered for use in controlling susceptible and permethrin resistant adult mosquitoes. It contains three active ingredients: abamectin, fenpropathrin, and C8910. This unique combination makes ReMoa Tri especially good at controlling mosquitoes resistant to other pesticides. Abamectin is a macrocyclic lactone fermented from a naturally occurring soil bacterium and is used as an antiparasitic by veterinarians. It interferes with a specific set of transmembrane proteins which are only found in invertebrates increasing their margin of safety for mammals. Fenpropathrin is a Type 2 pyrethroid insecticide (a synthetic version of pesticides produced by plants called pyrethrins) which is neurotoxic to insects. Pyrethroid insecticides have been recommended for Ultra-Low-Volume (ULV) mosquito control in New Jersey by Rutgers, The State University of New Jersey. The U.S. Environmental Protection Agency's (EPA) current evaluation considers pyrethroid-containing products to be slightly toxic with minimal potential risk to people when used properly as part of an integrated mosquito control program. C8910 is a patented fatty acid made from palm oil, coconut oil, and tallow that breaks down the insect cuticle and increases the efficacy of abamectin and fenpropathrin.

This product is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes in water are preferred and most used, the spraying of adult mosquitoes is called for when biting populations reach critical levels or when a disease organism is present in adult mosquitoes. A very fine mist is sprayed into the air since flying mosquitoes must directly contact the pesticide for it to be effective. The three active ingredients in ReMoa Tri each have different modes of action in the mosquito, making ReMoa Tri effective against mosquitoes that have developed resistance to other insecticides.

How can I reduce my exposure to ReMoa Tri?

Because of the very small amounts of active ingredients released per acre, the risk to the public from the use of this product is minimal. Avoiding exposure is always the safest course of action. Any possible exposure risk can be reduced by following some common-sense actions for **any** mosquito insecticide spray:

- Pay attention to notices about spraying found through newspapers, websites, social media, automated telephone messages or distributed by municipal, county, or state agencies.

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move your pets, their food, and water dishes inside during ULV application. Also bring clothing and children's toys inside.
- Stay away from application equipment, whether in use or not.
- Whenever possible, remain indoors with windows closed and with window air conditioners on non-vent (closed to the outside air) and window fans turned off during spraying.
- Avoid direct contact with surfaces that are still wet from pesticide spraying. Do not allow children to play in areas that have been sprayed until they have completely dried.
- If you must remain outdoors, avoid eye and skin contact with the spray. If you get spray in your eyes or on your skin, immediately flush and rinse with water.

What are the symptoms of over-exposure to ReMoa Tri?

Symptoms of over-exposure can include allergic reactions in some individuals, irritation to skin and eyes, respiratory and nasal irritation, dilated pupils, unsteadiness, and muscle tremors. The chance of experiencing these symptoms of over-exposure with proper use is low. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education System at 1-800-222-1222 if you experience these symptoms following a pesticide spraying.

How long will ReMoa Tri last in the environment?

Pyrethroids have a soil half-life of 12 days. They have an extremely low pesticide movement rating because they bind tightly to the soil. Pyrethroids are unstable in light and air. They rapidly degrade in sunlight, at the soil surface and in water.

Where can I get more information on this insecticide?

The following are resources for more information regarding ReMoa Tri and mosquito control in your area (unless otherwise noted, available during normal business hours):

National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:

New Jersey Poison Information & Education System **800-222-1222**

For New Jersey pesticide regulation & misuse complaints:

NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:

USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:

NJDEP Office of Mosquito Control Coordination	**609-292-3649**
For local mosquito control information:	
Salem County Mosquito Control	**856-935-7510 ext. 3225**
For mosquito control recommendations:	
Rutgers University, Department of Entomology	**848-932-9774**
For local health information:	
Salem County Health Department	**856-935-7510**

Fact Sheet
Spheratax®

Municipalities are encouraged to share this information with all residents in their community.

This sheet answers some basic questions about a mosquito control product in use in your county. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Spheratax and how is it used?

Spheratax is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called ***Bacillus sphaericus (Bsph)***. The U.S. Environmental Protection Agency's (EPA) current evaluation considers ***Bsph***-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Spheratax is used to prevent mosquitoes from hatching in lakes, ponds, and other bodies of water. It acts on the larval or immature stage of the mosquito in water before the flying mosquito emerges. **Spheratax** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Spheratax?

Risk to the general public from the use of **Spheratax** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk, such as pregnant women, children, the elderly, and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Avoid direct contact with water bodies that have been treated.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether or not it is in use.

What are the symptoms of exposure to Spheratax?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your

physician, other medical providers, or the New Jersey Poison Information and Education System (**NJPIES**) at **1-800-222-1222** if you experience these symptoms following a pesticide spraying. Bring this sheet with you if you visit a physician or other medical provider.

How long will Spheratax last in the environment?

Because **Bsph** is a biological agent it remains active for one to four weeks after use. The length of time varies; depending primarily on the species of mosquito larvae, environmental conditions, water quality, and exact form of the granules. This is a naturally occurring bacterium that is found in the United States and throughout the world.

Where can I get more information on Spheratax?

The following are resources for more information regarding **Spheratax** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System
800-222-1222

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Fact Sheet for
Sumilarv® 0.5G (Granules) and WSP (Sachets)

Municipalities are encouraged to share this information with all residents in their community.

This **Fact Sheet** answers some basic questions about mosquito control products in use in your county. The Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Sumilarv, and how is it used?

We use two variations of **Sumilarv,** 25g granule satchels and loose granules. The active ingredient in both is Pyriproxyfen, which mimics naturally occurring juvenile hormones in mosquitoes. Pyriproxyfen (2-[1-Methyl-2-(4-phenoxyphenoxy) ethoxy] pyridine) makes up 0.50% of the sachet and loose granules, the 99.50% being other ingredients such as sand. The granule and sachets are designed to be dropped into standing water to prevent the emergence of adult mosquitoes. In treated water, larvae do not develop into normal pupae and therefore cannot emerge into adults.

Sumilarv is used for the control of larval mosquitoes in standing water. While habitat management is a preferred measure to control adult and larval mosquitoes, controlling immature mosquitoes is another crucial part of integrated pest management. Reducing larval mosquitoes reduces the number of adult mosquitoes emerging from water sources and therefore reduces mosquito bites and the spread of diseases they may carry.

How can I avoid exposure to Sumilarv?

Risk to the public from the use of **Sumilarv** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following these actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Avoid direct contact with water bodies that have been treated.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether it is in use or not.

What are the symptoms of exposure to Sumilarv?

Pyriproxyfen is a skin, eye, neurological, and gastrointestinal irritant. These can have mild, moderate, and severe symptoms. Mild and moderate symptoms can include redness and swelling of the eyes, headache, dizziness, fatigue, excessive sweating, nausea, vomiting, diarrhea, stomach cramps, and increased salivation. More severe symptoms can include muscle twitching or weakness, difficulty breathing or respiratory distress, mental confusion, and in children, convulsions may be the first sign of exposure. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education System (NJPIES) at 1-800-222-1222 if you experience any symptoms following a larvicide treatment. Bring this sheet with you if you visit a physician or other medical provider.

How long will Sumilarv last in the environment?

Sumilarv is designed to stay in the environment from 28-150 days depending on the amount applied to an area. Longer durations of time are usually used for environments such as catch basins. Treatments in other habitats last 4-5 weeks.

Where can I get more information on Sumilarv?

The following are resources for more information regarding **Sumilarv** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:

National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:

New Jersey Poison Information & Education System **800-222-1222**

For New Jersey pesticide regulation & misuse complaints:

NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:

USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:

NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:

Salem County Mosquito Control **856-935-7510 ext. 3225**

For mosquito control recommendations:

Rutgers University, Department of Entomology **848-932-9774**

For local health information:

Salem County Health Department **856-935-7510**

Mosquito Control Fact Sheet...

"Vectobac" "Teknar" "Bactimos" "Aquabac" "Mosquito Dunks"

This sheet answers some basic questions about a mosquito control product in use in your county. The Atlantic County Department of Public Works, Office of Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information. Municipalities are encouraged to share this information with all residents in their community.

What are these products and how are they used?
These products are recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. They contain the pesticide called ***"Bacillus thuringiensis israelensis (B.t.i.)."*** The U.S. Environmental Protection Agency's (EPA) current evaluation considers **B.t.i.**-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

These products are used to control immature mosquitoes in ponds, wetlands and other bodies of stagnant water. They act on the larval or immature stage of the mosquito in water before the flying mosquito emerges. The product is part of an integrated mosquito management approach using habitat management and other measures to control immature mosquitoes before they emerge as adults and become nuisances or vectors of disease.

How can I avoid exposure to B.t.i.?
Risk to the general public from the use of **B.t.i.** is minimal. Avoiding exposure is always the safest course of action. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Stay away from application equipment, whether in use or not.
- Avoid direct contact with water bodies that have been treated.
- Pay attention to notices about spraying found through newspapers, websites, automated telephone messages or distributed by municipal, county or state agencies.

What are the symptoms of exposure to B.t.i.?
Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information and Education System **(NJPIES)** at **1-800-222-1222** if you

experience these symptoms following a pesticide spraying. Bring this sheet with you if you visit a physician or other medical provider.

How long will B.t.i. last in the environment?

Because **B.t.i.** is a biological agent, it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Where can I get more information on B.t.i.?

The following are resources for more information regarding **B.t.i.** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System
800-222-1222

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For state-wide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

(Pesticide fact sheets approved by the NJ DEP Pesticide Control Program)

Fact Sheet
"Vectobac"

Municipalities are encouraged to share this information with all residents in their community.

This sheet answers some basic questions about a mosquito control product in use in your county. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Vectobac and how is it used?

Vectobac is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called ***"Bacillus thuringiensis israelensis (Bti)."*** The U.S. Environmental Protection Agency's (EPA) current evaluation considers **Bti**-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Vectobac is used to prevent mosquitoes from hatching in lakes, ponds and other bodies of water. It acts on the larval or immature stage of the mosquito in water immediately before the flying mosquito emerges. **Vectobac** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Vectobac?

Risk to the general public from the use of **Vectobac** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Avoid direct contact with water bodies that have been treated.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.

- Stay away from application equipment, whether in use or not.

What are the symptoms of exposure to Vectobac?
Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information and Education System (**NJPIES**) at **1-800-222-1222** if you experience these symptoms following a pesticide spraying. Bring this sheet with you if you visit a physician or other medical provider.

How long will Vectobac last in the environment?
Because **Bti** is a biological agent, it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Where can I get more information on Vectobac?
The following are resources for more information regarding **Vectobac** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center 800-858-7378

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System
800-222-1222

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program 609-984-6568
For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs 877-251-4575

For state-wide mosquito control information:
NJDEP Office of Mosquito Control Coordination 609-292-3649

For local mosquito control information:
Salem County Mosquito Control 856-769-3255

For mosquito control recommendations:
Rutgers University, Department of Entomology 848-932-9774

For local health information:
Salem County Health Department 856-935-7510

Fact Sheet
Vectolex®

Municipalities are encouraged to share this information with all residents in their community.

This sheet answers some basic questions about a mosquito control product in use in your county. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Vectolex and how is it used?

Vetctolex is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called ***Bacillus sphaericus (Bsph)***. The U.S. Environmental Protection Agency's (EPA) current evaluation considers ***Bsph***-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Vectolex is used to prevent mosquitoes from hatching in lakes, ponds, and other bodies of water. It acts on the larval or immature stage of the mosquito in water before the flying mosquito emerges. **Vectolex** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Vectolex?

Risk to the general public from the use of **Vectolex** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk, such as pregnant women, children, the elderly, and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Avoid direct contact with water bodies that have been treated.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether or not it is in use.

What are the symptoms of exposure to Vectolex?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your

physician, other medical providers, or the New Jersey Poison Information and Education System (**NJPIES**) at **1-800-222-1222** if you experience these symptoms following a pesticide spraying. Bring this sheet with you if you visit a physician or other medical provider.

How long will Vectolex last in the environment?

Because **Bsph** is a biological agent it remains active for one to four weeks after use. The length of time varies; depending primarily on the species of mosquito larvae, environmental conditions, water quality, and exact form of the granules. This is a naturally occurring bacterium that is found in the United States and throughout the world.

Where can I get more information on Vectolex?

The following are resources for more information regarding **Vectolex** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System
800-222-1222

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Municipalities are encouraged to share this information with all residents in their community

Fact Sheet
VectoMax®

This sheet answers some basic questions about a mosquito control product in use in your county. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is VectoMax and how is it used?

VectoMax is an insecticide product with active ingredients that are recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called ***Bacillus sphaericus (Bs)*** and ***Bacillus thuringiensis israelensis (Bti)***. The U.S. Environmental Protection Agency's (EPA) current evaluation considers ***Bs*** and ***Bti*** -containing products known to be moderately toxic when eaten, absorbed through the skin, inhaled or may cause moderate skin or eye irritation.

VectoMax is used to prevent mosquitoes from hatching in lakes, ponds, and other bodies of water. It acts on the larval or immature stage of the mosquito in water before the flying mosquito emerges. **VectoMax** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to VectoMax?

Risk to the general public from the use of **VectoMax** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk, such as pregnant women, children, the elderly, and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Avoid direct contact with water bodies that have been treated.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether or not it is in use.

What are the symptoms of exposure to VectoMax?

Direct contact with eyes or skin may cause moderate irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education System (**NJPIES**) at **1-800-222-1222** if you experience these symptoms following a pesticide spraying. Bring this sheet with you if you visit a physician or other medical provider.

How long will VectoMax last in the environment?

Because **Bs** and **Bti** are biological agents, it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Where can I get more information on VectoMax?

The following are resources for more information regarding **VectoMax** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System
800-222-1222

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Municipalities are encouraged to share this information with all residents in their community

Fact Sheet
VectoPrime®

This sheet answers some basic questions about a mosquito control product in use in your county. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is VectoPrime and how is it used?

VectoPrime is an insecticide product with active ingredients that are recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticides ***Bacillus thuringiensis israelensis (Bti)*** **and Methoprene**. The U.S. Environmental Protection Agency's (EPA) current evaluation considers ***Bti*** **and Meothoprene** containing products known to be slightly toxic when eaten, absorbed through the skin, inhaled or may cause moderate skin or eye irritation.

VectoPrime is used to prevent mosquitoes from hatching in lakes, ponds, and other bodies of water. It acts on the larval or immature stage of the mosquito in water before the flying mosquito emerges. **VectoPrime** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to VectoPrime?

Risk to the general public from the use of **VectoPrime** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk, such as pregnant women, children, the elderly, and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Avoid direct contact with water bodies that have been treated.
- Move children's toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether or not it is in use.

What are the symptoms of exposure to VectoPrime?

Direct contact with eyes or skin may cause moderate irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education

System (**NJPIES**) at **1-800-222-1222** if you experience these symptoms following a pesticide spraying. Bring this sheet with you if you visit a physician or other medical provider.

How long will VectoPrime last in the environment?

Bti is considered a biological agent and it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Methoprene has a low persistence and breaks down in water within a few days. In soil, it breaks down in less than 10 days.

Where can I get more information on VectoPrime?

The following are resources for more information regarding **VectoPrime** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System **800-222-1222**

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**
https://www.salemcountynj.gov/departments/mosquito-control/

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**

Zenivex Adulticide Fact Sheet

Municipalities are encouraged to share this information with all residents in their community

This Fact Sheet answers some basic questions about mosquito control products in use in your County. Salem County Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is *Zenivex™* adulticide and how is it used?

Zenivex™ contains a pesticide called *Etofenprox,* a member of the category of pesticides called *non-ester pyrethroids*, which are synthetic versions of pesticides produced by plants called pyrethrins. Traditional pyrethroid/piperonyl butoxide mixtures are recommended for Ultra-Low-Volume (ULV) mosquito control in New Jersey by Rutgers, The State University of New Jersey. *Zenivex™* is a non-ester pyrethroid, and therefore does not require a synergist such as piperonyl butoxide. The U.S. Environmental Protection Agency (EPA) has classified Etofenprox as a reduced risk pesticide. It poses a low risk to human health and the environment when used properly as part of an integrated mosquito control program. As formulated in *Zenivex™* adulticide, Etofenprox is considered a non-carcinogen, non-teratogen and non-mutagen.

This non-ester pyrethroid-containing product is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes in water are preferred and most used, the spraying of adult mosquitoes is necessary when biting populations reach critical levels or when a disease organism is present in adult mosquitoes. A very fine mist is sprayed into the air since flying mosquitoes must directly contact the pesticide in order for it to be effective.

How can I reduce my exposure to *Zenivex™*?

Because of the very small amounts of active ingredients released per acre, the risk to the general public from the use of non-ester pyrethroid-containing products is minimal. Avoiding exposure is always the safest course of action. Any possible exposure risk can be reduced by following some common sense actions:

- Pay attention to notices about spraying found through newspapers, websites, automated telephone messages, or distributed by municipal, county or state agencies.
- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move your pets, their food, and water dishes inside during ULV applications. Also bring clothing and children's toys inside.
- Stay away from application equipment, whether or not it is in use.
- Whenever possible, remain indoors with windows closed, window air conditioners on non-vent (closed to the outside air), and window fans turned off during spraying.

- Avoid direct contact with surfaces still wet from pesticide spraying. Do not allow children to play in areas that have been sprayed until they have completely dried (approximately one hour).
- If you must remain outdoors, avoid eye and skin contact with the spray. If you get spray in your eyes or on your skin, immediately flush and rinse with water.

What are the symptoms of exposure to *Zenivex*™?
Symptoms of over-exposure can include irritation to skin and eyes. The chance of experiencing these symptoms of over-exposure with proper use is low. You should contact your physician, other medical providers, or the New Jersey Poison Information and Education System (NJPIES) at 1-800-222-1222 if you experience these symptoms following a pesticide spraying.

How long will *Zenivex*™ last in the environment?
The non-ester pyrethroid in *Zenivex*™ has a half-life of 1.7 days in water and 4.4 days in soil. *Zenivex*™ rapidly degrades in sunlight at the soil and water surface into its constituent elements: Carbon, Hydrogen, and Oxygen.

Where can I get more information on this adulticide?
The following are resources for more information regarding *Zenivex*™ and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information – 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures – 24 hours:
New Jersey Poison Information & Education System **800-222-1222**

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **877-251-4575**

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Salem County Mosquito Control **856-769-3255**

For mosquito control recommendations:
Rutgers University, Department of Entomology **848-932-9774**

For local health information:
Salem County Health Department **856-935-7510**