

COUNTY OF CUMBERLAND
DEPARTMENT OF PUBLIC WORKS & PROPERTY
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February 28, 2020

Mayor Michael Santiago
City Hall
12 S. High Street
P.O. Box 609
Millville, NJ 08332

RECEIVED
APR 20 2020
CITY CLERK'S OFFICE

Dear Mayor Santiago,

Enclosed you will find an information packet I have prepared for your municipality in compliance with the New Jersey Pesticide Control Regulations (N.J.A.C. 7:30-9.10). Included is a Question and Answer sheet explaining the activities of the Cumberland County Mosquito Control Division, tips for the general public on how they can help us control mosquitoes, which pesticides are used, and various important phone numbers. In addition, I have included the New Jersey Department of Environmental Protection-approved Fact Sheets for each pesticide used in our mosquito control program. It is the intention of NJDEP that this information be shared with all residents in your community. Some examples of how this may be accomplished are: providing copies at your office, placing copies in other public buildings such as libraries, or by direct-mailing them. If you have any questions, or need any further information, do not hesitate to contact me at 856-453-2197 between 7:00 am and 3:30 pm Monday-Friday.

Sincerely,



John J. Betz
Biologist
Cumberland County Mosquito Control Division

Enclosures

PUBLIC NOTICE

Mosquito control is everyone's responsibility; please do your part by preventing mosquitoes from inhabiting your property. For more information on mosquitoes & mosquito control, contact The Cumberland County Mosquito Control Division at 856-453-2192, and visit our website at www.co.cumberland.nj.us.

In compliance with section 9.10 & 9.15 of the New Jersey Pesticide Control Code (N.J.A.C. Title 7, Chapter 30), the Cumberland County Mosquito Control Division may be applying pesticides for the control of adult mosquito populations on an area-wide basis, as needed, throughout Cumberland County during the period of May 1, 2020 through October 31, 2020.

The pesticides used will be those recommended by the New Jersey Agricultural Experiment Station (NJAES), Rutgers University, for the control of adult mosquitoes, which include: Rosemary/Peppermint Oils (Essentria All Purpose Insecticide Concentrate®), Etofenprox (Zenivex®), Malathion (Fyfanon®), Permethrin (Aqua-Reslin®), and Prallethrin/Sumithrin/PBO (Duet HD®). Products are applied by truck and/or aircraft, using Low-Volume or Ultra-Low Volume techniques. The applications will be made according to product labeling.

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 1-609-984-6507 for pesticide regulation information, pesticide complaints, and health referrals. In case of any pesticide emergency, please contact the New Jersey Poison Information and Education System at 1-800-222-1222.

Upon request, the Cumberland County Mosquito Control Division shall provide a resident with notification at least 12 hours prior to the application, except for quarantine and disease vector control only, when conditions may necessitate pesticide applications sooner.

Those seeking further information regarding Cumberland County Mosquito Control Division activities should contact:

Heather A. Lomberk, M.S.
Superintendent
NJCPA License # 29915A
Telephone # 856-453-2170
800 E. Commerce Street
Bridgeton, New Jersey 08302

CUMBERLAND COUNTY MOSQUITO CONTROL DIVISION QUESTIONS AND ANSWERS

What does our agency do?

Cumberland County Mosquito Control is a Division of the Department of Public Works and Property of Cumberland County and is involved in all aspects of mosquito control. We have two full-time inspectors who inspect known mosquito habitats for the presence of mosquitoes and apply pesticides to those areas as necessary. They also respond to service requests by inspecting and treating any mosquito habitats found at residents' homes or businesses. Our Superintendent is a graduate-level entomologist, and we have a Biologist who assists in inspections and control, is responsible for mosquito surveillance by using various types of mosquito traps, and for mosquito identification. Additionally, the Biologist handles public education and conducts educational programs for schools, civic groups, and other organizations upon request.

Our agency also participates in a vector surveillance program coordinated by Rutgers University and the Office of Mosquito Control Coordination, a Division of the New Jersey Department of Environmental Protection. This program involves sampling mosquitoes from various areas throughout the County and sending them to the New Jersey Department of Health to have them tested for various encephalitis viruses. If any sampled mosquitoes test positive, we intensify our inspection and control efforts in those areas in an attempt to minimize possible risk to County residents, their pets, and their livestock.

How does our agency control mosquitoes?

Cumberland County Mosquito Control Division uses an integrated pest management (IPM) approach to control mosquitoes. This approach utilizes several methods of pest control, including mechanical, biological, and chemical.

We also employ heavy equipment operators who use various types of large machinery to engage in water management practices, or source reduction, to remove or modify mosquito habitats.

Source reduction is the largest component of our mosquito control program, and in many cases, can permanently affect mosquito population levels. Biological control can also be quite effective in eliminating mosquitoes. In this aspect of our program, we identify isolated, permanent bodies of water and introduce minnows and other types of fish to feed on mosquito larvae. Our chemical control program consists of the application of larvicides and pupicides to kill the immature stages, and adulticides to kill the flying adults. Typically, the non-chemical methods are preferred since they are the most effective; however, pesticide applications are necessary if the other methods are ineffective or not feasible.

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

For our program to be successful, it is imperative we get help from the general public. It can be a futile endeavor employing mosquito control methods if our residents are allowing mosquitoes to use their own properties as habitats!

Here are some tips to prevent mosquitoes from breeding on your property:

- keep rain gutters free of debris
- clean birdbaths at least once a week
- keep yard and surrounding areas free of artificial containers, which can collect rainwater
- eliminate standing water from crawl spaces and basements

Examples of artificial containers include:

- unused wading pools
- opened trash cans
- tires
- pool covers
- wheel ruts
- large, deep mud puddles
- buckets

- wheelbarrows
- ornamental ponds without proper aeration or fish
- empty planting pots

Anything holding water for at least four days can become a mosquito habitat. In addition, if you find a mosquito habitat, or you think you might have an area conducive to the placement of fish, do not hesitate to call our office.

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

In Cumberland County we use larvicides, a larvicide/pupicide, and adulticides to control mosquitoes.

The larvicides we use include:

Altosid – active ingredient is methoprene

Natular G30 – active ingredient is spinosad

VectoBac 12AS & VectoBac GS – active ingredient is *Bacillus thuringiensis israelensis*

VectoMax FG – active ingredients are *Bacillus sphaericus* and *Bacillus thuringiensis israelensis*

Duplex G and VectoPrime FG – active ingredients are methoprene and *Bacillus thuringiensis israelensis*

The larvicide/pupicide we use is:

CoCo Bear – active ingredient is mineral oil

The adulticides we use include:

Aqua-Reslin – active ingredient is permethrin

Duet HD – active ingredient is prallethrin/sumithrin/PBO

Essentria All Purpose Insecticide Concentrate – active ingredients are rosemary and peppermint oils

Zenivex E20 – active ingredient is etofenprox

Altosid is used as 30-day/150-day briquets, pellets, and granules, and are placed directly in water. Duplex G, Natular G30, VectoBac GS, VectoMax FG, and VectoPrime FG are used in granular form and are applied directly to water with a seed spreader or digital measuring spoon. Vectobac 12AS is applied as a liquid directly to water with a hand-held compressed air sprayer, or may be applied by aircraft. CoCo Bear is applied as a liquid directly to water with a hand-held compressed air sprayer. Essentria All Purpose Insecticide Concentrate is applied to foliage in a coarse mist created by a truck-mounted mist blower. Zenivex E20 and Aqua-Reslin are applied directly into the air to contact mosquitoes while on the wing as an Ultra-Low-Volume (ULV) spray by a truck-mounted sprayer. All products used are registered with both the USEPA and NJDEP, which means they are legal for use in New Jersey.

In addition, our Division Superintendent, inspectors, heavy equipment operators, and Biologist are all NJDEP-licensed, certified pesticide applicators. For further information about the pesticides and their use, please refer to the accompanying NJDEP-approved Fact Sheets.

How do I contact Cumberland County Mosquito Control Division and get 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 mosquito-related, please call 856-453-2192 Monday – Friday between 8:00 a.m. and 4:00 p.m. If you would like to speak directly to the Superintendent, call 856-453-2170 Monday – Friday between 8:00 a.m. and 4:00 p.m. If you would like to speak directly to the Biologist, Assistant Chief Inspector, or Supervising Heavy Equipment Operator, call 856-453-2197 Monday – Friday between 7:00 a.m. and 3:30 p.m.

For general information:

For overall pesticide-specific information – 9:30 a.m. to 7:30 p.m.

National Pesticide Information Center 800-858-7378

For pesticide health information and possible exposures – 24 hours

NJ Poison Information & Education System 800-222-1222

For New Jersey pesticide regulation and misuse complaints NJDEP Pesticide Control Program	609-984-6507
For Federal pesticide regulation USEPA Region 2 Office of Pesticide Programs	732-321-6759
For mosquito control insecticide recommendations Rutgers University, Department of Entomology	732-932-9459
For state-wide mosquito control information NJDEP Office of Mosquito Control Coordination	609-292-3649

Where can I find more specific information on pesticide applications in Cumberland County and how will I be notified?

Call the Cumberland County Mosquito Control Division at 856-453-2170 or check the website for the spray schedule, which is updated daily, at www.co.cumberland.nj.us. Attached is an example of a newspaper notice the Division places in two local newspapers throughout the mosquito control season. The two newspapers we use are the Bridgeton Evening News and the Daily Journal. A citizen has the right to ask the Cumberland County Mosquito Control Division for specific information about a planned application prior to the pesticide treatment.

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

Fact Sheet

Altosid®

This sheet answers some basic questions about a mosquito control product in use in your county. Your Cumberland County Mosquito Control Division, 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 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 emerging into adults from lakes, ponds, and other bodies of water. It acts on the larva, or immature stage of the mosquito, within water, immediately 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 reduce the need to spray for adults.

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 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 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 application. 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:

NJ 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 732-906-6809

For statewide mosquito control information:

NJDEP Office of Mosquito Control Coordination 609-292-3649

For local mosquito control information:

Cumberland County Mosquito Control Division 856-453-2192

For mosquito control recommendations:

Rutgers University, Department of Entomology 848-932-7602

For local health information:

Cumberland County Health Department 856-327-7602

Natular®

This sheet answers some basic questions about a mosquito control product in use in Cumberland County. Cumberland 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 Cumberland 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 **spinosin A** and **spinosin D** are biological agents, they tend 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 information & possible exposures – 24 hours:

New Jersey Poison Information & Education System 800-222-1222
<http://www.njpies.org>

For New Jersey pesticide regulation & misuse complaints:

Bureau of Pesticide Compliance and Enforcement 609-984-6568
<http://www.state.nj.us/dep/enforcement/pcp/>

For Federal pesticide regulations:

USEPA Region 2 Office of Pesticide Programs 732-906-6809
<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:

Cumberland County Mosquito Control 856-453-2192

For local mosquito control information:

Cumberland County Health Department 856-327-7602

For mosquito control recommendations:

Rutgers University, Department of Entomology 848-932-9774
<http://www-rci.rutgers.edu/~insects>

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>

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

Fact Sheet

Vectobac®

This sheet answers some basic questions about mosquito control products in use in your county. Your Cumberland County Mosquito Control Division, 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 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 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 emerging into adults from lakes, ponds, and other bodies of water. They act on the larva, or immature stage of the mosquito, within 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 reduce the need to spray for adults.

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 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.\
- ❖ 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 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 application. 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:

NJ 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 **732-906-6809**

For statewide mosquito control information:

NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:

Cumberland County Mosquito Control Division **856-453-2192**

For mosquito control recommendations:

Rutgers University, Department of Entomology **848-932-9774**

For local health information:

Cumberland County Health Department **856-327-7602**

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. Cumberland 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 active ingredients called *Bacillus sphaericus (Bs)* and *Bacillus thuringiensis israelensis (Bti)*. Bti is a biological or a naturally occurring bacterium found in soils. It contains spores that produce toxins that specifically target and affect the larvae of the mosquito. 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:

Bureau of Pesticide Compliance and Enforcement **609-984-6568**

For Federal pesticide regulation:

USEPA Region 2 Office of Pesticide Programs **732-906-6809**

For statewide mosquito control information:

NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:

Cumberland County Mosquito Control **856-453-2192**

For mosquito control recommendations:

Rutgers University, Department of Entomology **848-932-9774**

For local health information:

Cumberland County Health Department **856-327-7602**

Fact Sheet

VectoPrime & 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. Cumberland 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 VectoPrime and how is it used?

Duplex-G and **VectoPrime** 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 and **VectoPrime** are 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** and **VectoPrime** are 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 and VectoPrime?

Risk to the general public from the use of **Duplex-G** and **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.
- ❖ Pay attention to notices about spraying found through newspapers, websites, automated telephone messages, or distributed by municipal, county, or state agencies.

Fact Sheet

CocoBear®

This sheet answers some basic questions about a mosquito control product in use in your county. Cumberland County Mosquito Control Division, 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 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 larva or pupa (immature stages), 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 spray. 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 **732-906-6809**

For statewide mosquito control information:

NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:

Cumberland County Mosquito Control Division **856-453-2192**

For mosquito control recommendations:

Rutgers University, Department of Entomology **848-932-9774**

For local health information:

Cumberland County Health Department **856-327-7602**

Fact Sheet

Aqua-Reslin[®]

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. Your Cumberland County Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is *Aqua-Reslin*[®] and how is it used?

Aqua-Reslin[®] is a synergized Permethrin/piperonyl butoxide formulation. Permethrin is an insecticide in the pyrethroid family. Pyrethroids are synthetic chemicals that act like natural extracts from the chrysanthemum flower.

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.

How can I avoid/reduce exposure to *Aqua-Reslin*[®]?

Risk to the general public from the use of pyrethroid-containing product is minimal because of the small amounts of active ingredients released per acre. 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:

- ❖ Pay attention to notices, about spraying, in newspapers, websites, telephone messages, or through municipal, county, or state agencies.
- ❖ Plan your activities to limit time spent outside during times of possible pesticide treatments. 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.
- ❖ 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.
- ❖ 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)

What are the symptoms of exposure to *Aqua-Reslin*[®]?

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, sore throat, numbness, headache, dizziness, nausea, 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 *Aqua-Reslin*[®] 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 adulticide?

The following are resources for more information regarding *Aqua-Reslin*® 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 information & possible exposures – 24 hours:

NJ Poison Information & Education System 800-222-1222
<http://www.njpies.org>

For New Jersey pesticide regulation & misuse complaints:

Bureau of Pesticide Compliance and Enforcement 609-984-6568
<https://www.nj.gov/dep/enforcement/pcp/bpo.htm>

For Federal pesticide regulation:

USEPA Region 2 Office of Pesticide Programs 732-906-6809
<http://www.epa.gov/ebtpages/pesticides.html>

For statewide mosquito control information:

NJDEP Office of Mosquito Control Coordination 609-292-3649
<http://www.state.nj.us/dep/mosquito>

For local mosquito control information:

Cumberland County Mosquito Control Division 856-453-2192
<http://www.co.cumberland.nj.us/pw/mosquito>

For mosquito control recommendations:

Rutgers University, Department of Entomology 848-932-7602
<http://vectorbio.rutgers.edu/outreach/bmpmncnj.pdf>

For local health information:

Cumberland County Health Department 856-327-7602
<http://www.co.cumberland.nj.us/ccdoh>

Fact Sheet

“Duet Dual-Action[®] Adulticide” [®]

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. Your Cumberland County Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is *Duet Dual-Action[®]* and how is it used?

Duet Dual-Action[®] 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 Dual-Action[®]* adulticide more effective against hard-to-control species like *Aedes albopictus* which typically rest during the evening hours when adulticiding usually takes place.

How can I avoid/reduce exposure to *Duet Dual-Action*[®]?

Risk to the general public from the use of pyrethroid-containing product is minimal because of the small amounts of active ingredients released per acre. 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:

- ❖ Pay attention to notices, about spraying, in newspapers, websites, telephone messages, or through municipal, county, or state agencies.
- ❖ Plan your activities to limit time spent outside during times of possible pesticide treatments. 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.
- ❖ 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.
- ❖ 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)

What are the symptoms of exposure to *Duet Dual-Action*[®]?

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, nausea, 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 Dual Action*[®] 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 adulticide?

The following are resources for more information regarding *Duet Duel Action*® 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 information & possible exposures – 24 hours:

NJ Poison Information & Education System 800-222-1222
<http://www.njpies.org>

For New Jersey pesticide regulation & misuse complaints:

Bureau of Pesticide Compliance and Enforcement 609-984-6568
<https://www.nj.gov/dep/enforcement/pcp/bpo.htm>

For Federal pesticide regulation:

USEPA Region 2 Office of Pesticide Programs 732-906-6809
<http://www.epa.gov/ebtpages/pesticides.html>

For statewide mosquito control information:

NJDEP Office of Mosquito Control Coordination 609-292-3649
<http://www.state.nj.us/dep/mosquito>

For local mosquito control information:

Cumberland County Mosquito Control Division 856-453-2192
<http://www.co.cumberland.nj.us/pw/mosquito>

For mosquito control recommendations:

Rutgers University, Department of Entomology 848-932-7602
<http://vectorbio.rutgers.edu/outreach/bmpmncnj.pdf>

For local health information:

Cumberland County Health Department 856-327-7602
<http://www.co.cumberland.nj.us/ccdoh>

Essentria All Purpose Insecticide Concentrate®

Fact Sheet

This sheet answers some basic questions about a mosquito control product in use in your county. Cumberland County Mosquito Control Division, 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 very 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, while being safe for the environment. 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) compliant and is an EPA FIFRA 25(b) Exempt product, containing plant oils that leave a nice scent behind as they clear the application area of pests, even in the most difficult situations.

How can I avoid exposure to Essentria All Purpose Insecticide Concentrate?

Risk to the general public from 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?

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

For pesticide health information & possible exposures – 24 hours:

NJ 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 732-906-6809

For statewide mosquito control information:

NJDEP Office of Mosquito Control Coordination 609-292-3649

For local mosquito control information:

Cumberland County Mosquito Control Division 856-453-2192

For mosquito control recommendations:

Rutgers University, Department of Entomology 848-932-9774

For local health information:

Cumberland County Health Department 856-327-7602

Fact Sheet

Zenivex™ E20

This sheet answers some basic questions about a mosquito control product in use in your County. The Cumberland County Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Zenivex and how is it used?

Zenivex is an insecticide product recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called **Etofenprox**, which is a member of the category of pesticides called non-ester pyrethroids. These are synthetic versions of pesticides called pyrethrins, which are produced by plants. Since **Zenivex** is a non-ester pyrethroid, it does not require a synergist such as piperonyl butoxide, which is found in traditional synthetic pyrethroid-based ULV pesticides. The U.S. Environmental Protection Agency's (EPA) current evaluation considers **Etofenprox**-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program. As formulated in **Zenivex** adulticide, **Etofenprox** is considered a non-carcinogen, non-teratogen and non-mutagen.

Zenivex is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes are the preferred method of control, the application of adulticides is sometimes 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 during peak flight times of the adult mosquitoes since they must directly contact the pesticide in order for it to be effective.

How can I avoid exposure to Zenivex?

Because of very small amounts of active ingredient released per acre, risk to the general public from the use of **Etofenprox**-containing products 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 Zenivex?

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 Zenivex last in the environment?

Etofenprox has a half-life of 1.7 days in water and 4.4 days in soil. It 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 Zenivex?

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:
NJ 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 732-906-6809

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

For local mosquito control information:
Cumberland County Mosquito Control Division 856-453-2192

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

For local health information:
Cumberland County Health Department 856-327-7602