Mosquito Control Product

"Vectobac"

This sheet answers some basic questions about a mosquito control product in use in your county. Bergen 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 732-321-6759

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

For local mosquito control information:
Bergen County Mosquito Control 201-634-2881

For mosquito control recommendations:
Rutgers University, Department of Entomology 732-932-9437

For local health information:
Bergen County Health Department 201-634-2600

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

Duet/AquaDuet/Duet HD

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

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. AquaDuet is a water-based formulation of Duet. Duet HD is a heavier formulation developed for aerial applications. 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 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, 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 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

For pesticide health information & possible exposures – 24 hours:
NJ Poison Information & Education System 800-222-1222

For pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program 609-984-6568

For pesticide regulation:
USEPA Region 2 Office of Pesticide Programs 732-906-6803

For pesticide health information:
Bergen County Department of Health Services 201-634-2600

For mosquito control insecticide recommendations:
Rutgers University, Department of Entomology 732-932-9774

Where can I get more information about local mosquito control?
Bergen County Mosquito Control 201-634-2880

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

Spraying for adult mosquitoes is a last resort. Most mosquito control work goes on behind the scenes, using water management, fish, and products to control immature mosquitoes in the water where they begin their life cycle. Controlling adult mosquitoes is more difficult because they are spread out and moving.

If you have questions about Duet or any other mosquito control related products or practices, please feel free to call the Bergen County Mosquito Control Division at (201) 634-2880 (Mon-Fri 7:00 AM – 3:30 PM) or visit our web site at https://www.co.bergen.nj.us/mosquito-control.