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

"Merus 3.0™ Adulticide"

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

What is *Merus 3.0*™ adulticide 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 pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6568**

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

For local mosquito control information:
Monmouth County Mosquito Control Division **732-542-3630**

For health related pesticide information:
The Monmouth County Health Department **732-431-7456**