

The Facts About Larviciding

As part of the County's West Nile virus control efforts, the Westchester County Department of Health will be applying larvicide to catch basins throughout Westchester County beginning in mid-May. Technicians will be depositing briquettes of Altosid XR (methoprene) into Municipal and County catch basins in order to kill mosquitoes in the larval stage.

What is methoprene (Altosid)?

Methoprene, which is sold under the trade name Altosid, is an insect growth regulator that interferes with the insect's life cycle and prevents it from reaching maturity and reproducing. Methoprene is used in the production of a number of foods including meat, milk, eggs, mushrooms, peanuts, rice, and cereals. It is also used in aquatic areas to control mosquitoes and several types of flies, moths, beetles, and fleas.

Why has the County decided to use Altosid?

Altosid XR was chosen by the County because of its lengthy effectiveness time of 150 days and because of its relatively low impact on the environment.

In what forms is Altosid available?

It is available in suspension, emulsifiable and soluble concentrate formulations, as well as in briquette, aerosol, and bait forms. Altosid briquettes are designed to control mosquitoes in small bodies of water, such as storm drains, catch basins, roadside ditches, ornamental ponds and other artificial water-holding containers.

What agencies regulate the use of methoprene (Altosid)?

Methoprene was first registered by the Environmental Protection Agency (EPA) in 1975. In 1997, the EPA issued an unconditional re-registration of Altosid in all of its forms. Product labeling directions must be followed and it must be applied by a certified pesticide applicator

The New York State Department of Environmental Conservation issued the Health Department a permit for the use of methoprene in April 2000.

The World Health Organization, Expert Committee on Safe Use of Pesticides, has issued a statement that methoprene, when applied to drinking water at a dosage not exceeding 1 mg/liter, is considered safe.

What are the health effects of Altosid (methoprene)?

Health-related data submitted to the EPA consist mainly of a group of screening studies designed to show methoprene's toxicity and developmental effects on people and other non-target organisms. The results of these screening tests and other available studies indicate that it is of low toxicity and poses little risk to people. Methoprene has very low acute oral and inhalation toxicity potential and is not an eye or skin irritant (it has been placed in toxicity category IV, the least toxic category for these effects). It is also not a human skin sensitizer. Methoprene is of low acute dermal toxicity (it has been placed in toxic category III).

What are the environmental effects of Altosid (methoprene)?

The information available to the EPA indicates that methoprene will not result in unreasonable adverse effects to the environment. The EPA has a sufficient battery of studies to support the reregistration of most uses of methoprene. The only use of concern is the aquatic, mosquito larvicide use involving the briquette formulation. An estuarine invertebrate life cycle study is being required to determine whether long-term

exposure of these species to methoprene through the briquette formulation poses adverse effects. In addition, an octanol/water partition coefficient study is being required to complete the product chemistry database for methoprene.

Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. It is also rapidly metabolized in soil and does not leach. Therefore, it should not persist in soil or contaminate ground water.

Methoprene is moderately toxic to warm water, freshwater fish and is slightly toxic to cold water, freshwater fish.

The above potential adverse effects are remote possibilities given the conditions of use in Westchester County. In Westchester County, methoprene is placed in artificial catch basins and is degraded and diluted by the time it reaches fresh water bodies.

What can I do to help stop the spread of West Nile virus?

Mosquitoes need stagnant or standing water to lay their eggs. To reduce the mosquito population around your home and property, reduce or eliminate all stagnant water.

- .Remove unnecessary water-holding containers, especially old tires, cans, buckets, drums, wheelbarrows and bottles.
- .Cover trash containers to keep out rain.
- .Turn over plastic wading pools and wheelbarrows when not in use.
- .Clean roof gutters and remove standing water from flat roofs.
- .Place a couple of capfuls of household bleach in your basement sump-pump pit if it has standing water.
- .Keep drains, culverts and streams on your property clean of weeds and trash so that the water will drain properly.
- .Make sure stored boat covers are completely drained. Store small boats upside down.
- .Drain the water in birdbaths, plant pots and drip trays twice a week.
- .Keep grass cut short and trim shrubs to eliminate hiding places for adult mosquitoes.
- .Clean and chlorinate swimming pools, outdoor saunas and hot tubs. Be sure rainwater does not collect on pool, sauna or hot tub covers. You should disinfect the cover with bleach to kill larvae and eggs.
- .Clean vegetation and debris from the edges of ponds.
- .Fill in hollow tree stumps and rot holes that hold water with sand or concrete.
- .Drill holes in the bottoms of recycling containers that are kept outdoors.

Where can I get more information about Altosid (methoprene)?

For additional information, contact the Environmental Protection Agency or call the Westchester County Department of Health at (914) 813-5000.