



US Environmental Protection Agency Office of Pesticide Programs

**Bacillus sphaericus serotype H5a5b strain 2362
(128128) Fact Sheet**

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Summary text

This pesticide active ingredient is a naturally occurring bacterium that is found in the United States and throughout the world. It kills mosquito larvae when the larvae ingest the bacterial spores in moist or wet areas such as lakes, coasts, streams, swamps, and drainage ditches.

I. Description of the Active Ingredient

The active ingredient, *Bacillus sphaericus* Serotype H5a5b, strain 2362, is native to the United States. Spores of this bacterium contain a protein that damages and paralyzes the gut of mosquito larvae that ingest the spores, thus starving the larvae.

II. Use Sites, Target Pests, And Application Methods

- **Use Sites:** Habitats where mosquitoes live and lay eggs, such as storm water and drainage systems, marine and coastal areas, freshwater bodies such as lakes and streams, and water that collects in discarded tires.

- **Target pests:** Specific kinds of mosquitoes, including some that transmit diseases such as encephalitis.

- **Application Methods:** Granules that contain the active ingredient are mixed with water and other substances, and then sprayed from the air or from the ground. Pesticide products containing this *Bacillus sphaericus* remain active for one to four weeks after spraying. The length of time varies, depending primarily on the species of mosquito larvae, environmental conditions, water quality, and exact form of the granules.

III. Assessing Risks to Human Health

Based on extensive testing, no harmful effects are expected to occur to the public when pesticide products with this active ingredient are applied according to label directions. Because there is the potential for skin and eye irritation, applicators are warned to avoid direct contact with the granules or a concentrated spray mix.

IV. Assessing Risks to the Environment

Various tests revealed no expected harm to non-target organisms.

V. Regulatory Information

Bacillus sphaericus Serotype H5a5b was registered (approved for sale) as an active ingredient in 1991. As of October 1999, there were two registered pesticide products containing *Bacillus sphaericus* Serotype H5a5b as the active ingredient. They differed primarily in their granule characteristics.

VI. Products Directed Against Public Health Pests

EPA defines a public health pest as any organism that can cause or transmit human disease, or can cause human discomfort or injury. Examples include mosquitoes, ticks, and rats. To help protect the public's health, EPA requires registrants of products used against public health pests to demonstrate that the product meets specific standards for effectiveness as well as for safety. The pesticide products currently registered with *Bacillus sphaericus* Serotype H5a5b as the active ingredient have met these stringent standards.

VII. Producer Information

Abbott Laboratories

Chemical and Agricultural Products Division
North Chicago, IL 60064

VIII. Additional Contact Information

Ombudsman, Biopesticides and Pollution Prevention Division (7511P)
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