

Lagenidium giganteum (129084) Fact Sheet

Summary

This pesticide active ingredient is a naturally occurring fungus that was initially isolated from mosquito larvae in the southeastern United States. *Lagenidium giganteum* infects and kills mosquito larvae. Although it has been widely tested, the fungus shows no effects on other organisms. Pesticide products containing this living fungus are effective only in freshwater environments such as rice fields, soybean fields, and ponds. Because *Lagenidium giganteum* is meant to be used against a public health pest (mosquitoes), any pesticide product containing it has met EPA's stringent standards for effectiveness as well as safety.

I. Description of the Active Ingredient

Name of Active Ingredient: *Lagenidium giganteum*

OPP Chemical Code: 129084

Lagenidium giganteum was originally identified from mosquito larvae in North Carolina and Georgia. It is an aquatic fungus that requires freshwater--it does not survive in marine or salty environments. Like most of its closest fungal relatives, *Lagenidium giganteum* is host specific. It infects only several species of mosquitoes.

II. Use Sites, Target Pests, And Application Methods

- **Use Sites:**
 - **Non-food sites:** Freshwater habitats where mosquitoes live and lay eggs, such as stormwater and drainage systems, wildlife ponds, tires and other small containers that collect water, margins of rivers and streams.
 - **Food sites:** Rice, soybean fields, irrigated pastures
- **Target pests:** Specific kinds of mosquitoes, including some that transmit diseases.
- **Application Methods:** Products containing spores of the fungus are sold as a water suspension, which is further diluted before spraying.

III. Assessing Risks to Human Health

Based on extensive testing, no harmful effects to humans are expected. *Lagenidium giganteum* is not toxic to mammals, and only infects mosquito larvae.

IV. Assessing Risks to the Environment

Lagenidium giganteum has no observable effects on any organisms except susceptible mosquitoes. Because the fungus is specifically used in aquatic environments, its potential harmful effects on aquatic organisms were thoroughly studied. No harmful effects were found in any aquatic or terrestrial species tested, including birds, beneficial insects, aquatic fish and invertebrates, mammals, and other animals.

V. Regulatory Information

Lagenidium giganteum was registered (approved for sale) as a pesticide active ingredient in 1991. As of November 2000, there were three registered pesticide end products containing this fungus as the active ingredient.

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 *Lagenidium giganteum* as the active ingredient have met these stringent standards.

VII. Registrant Information



California Department of Health Services Agraquest, Inc.
DCDC/Vector-borne Disease Section c/o Technology Sciences Group, Inc.
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VIII. Additional Contact Information

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