



**Florida Department of Agriculture & Consumer
Services**

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Frequently Asked Questions about Naled

What is naled?

Naled is an organophosphate insecticide registered in the U.S. and in Florida by both the U.S. Environmental Protection Agency (EPA) and the Florida Department of Agriculture and Consumer Services (FDACS). Naled is approved for use to control many insect pests of public health and agricultural concern, including mosquitoes, fruit flies, and dog flies. Pesticide products containing naled used for mosquito control include “Dibrom” and “Trumpet.”

How may naled be applied?

State or local mosquito control programs commonly apply naled by airplanes as an ultra-low volume (ULV) spray. ULV sprayers apply very fine droplets that are small enough to stay airborne for an extended time. Naled kills mosquitoes when they contact the droplets. The small droplet size improves the control of insects and reduces contact with humans and non-target wildlife. ULV sprayers use tiny amounts of naled to treat large areas, typically about one tablespoon of product (0.05 pounds of naled) per acre. That’s about the same as using 1–2 ounces in an area about the size of a football field.

Why has the EPA reviewed the use of naled?

The EPA conducted “re-registration” reviews on all pesticides registered before 1984. The program was started to review older pesticides based on the latest environmental and toxicity data. The intent of the re-registration program was to make sure that the regulation of a pesticide meets today’s stricter standards. Under this program, pesticide makers must submit the latest data to the EPA and update the safety data to keep the registration current. This process ensures that the product can be safely used. The EPA continues to review pesticides on a routine basis.

What happens to naled in the environment?

Aerially applied naled quickly breaks down in the environment, as does its breakdown products, in a matter of hours to days.

What are the potential human health effects of naled exposure?

The EPA has concluded that the small levels of naled used in mosquito control are unlikely to cause adverse health effects in bystanders, including potentially sensitive populations such as pregnant women and infants. Small amounts of naled can kill mosquitoes and other insects without harming people because of the small size of mosquitoes compared to people and because people are better able than mosquitoes to quickly break down naled to harmless components in the body.

Naled is considered moderately toxic to people and mammals if eaten, but has low to very low acute toxicity when inhaled or when it contacts the skin. Naled did not cause birth defects in animal studies. Although adverse health effects are unlikely to result from spraying, exposure to sufficiently high amounts of naled may cause eye or skin irritation. While allergic reactions did not occur in animal studies, it is possible that allergic symptoms may occur in some sensitive people, although it is unlikely to cause asthmatic symptoms.

At levels far higher than those used for mosquito control, naled could cause excessive salivation, numbness, headaches, dizziness, tremors, nausea, abdominal cramps, sweating, blurred vision, difficulty breathing, and a slowed heartbeat. Exposure to very high levels of naled, such as in cases of intentional poisoning, may lead to loss of consciousness, convulsions or death.

The U.S. Centers for Disease Control and Prevention (CDC) has released a report stating that the use of naled to control mosquitoes “did not result in substantial pesticide exposure in humans.” The report can be found at: <http://www.cdc.gov/mmwr/PDF/wk/mm5421.pdf>.

Does naled pose a cancer risk?

Naled did not cause cancer in animal studies and it is non-mutagenic. The EPA has concluded that naled is unlikely to cause cancer in humans.

Are the naled breakdown products a risk to human health?

The EPA concluded that small amounts of breakdown products form after mosquito control spraying and that the tiny amounts of these breakdown products should not cause health problems in people.

What does Florida Health suggest to protect health?

The surest way to prevent harm from pesticides is to avoid coming into contact with them. In most cases, it is not essential or practical to leave an area being sprayed. However, exposure can be reduced or prevented by staying indoors. Even so, being outside during spraying has very little chance to cause any harm to health.

How can I reduce exposure to naled during spraying?

EPA has evaluated naled for mosquito control and other labeled uses and concluded that it poses little risk to human health when used according to the label directions. Several common-sense steps can help reduce possible contact with pesticides during spraying:

- Look for spraying notices in the newspaper, radio, TV, or internet announcements.
- If you must stay outdoors and get the spray in your eyes, rinse them immediately with water or eye drops.
- Wash exposed skin with soap and water if you come in direct contact with the spray.
- Wash any fruits and vegetables that were outside during spraying with water before storing, cooking or eating.
- Talk with your doctor if you have major health concerns about the spraying.

What if my child puts fingers or unwashed toys in his or her mouth while playing outdoors?

EPA concluded that the amount of naled that contacts solid surfaces is well below any amount that could harm human health, and any tiny amount of residue that lands is quickly broken down.

Will naled harm my pets?

The amount of naled from mosquito spraying that could potentially enter the body of dogs, cats, or other animals is very small. It is not likely to harm pets, even if they are outside during spraying. To further reduce any risk of harm to your pet's health, you can take the same safety steps as for humans. Naled is not very toxic to mammals, so it is not likely to harm pets such as dogs or cats when used according to the label directions.

Does naled pose risks to livestock?

Naled is unlikely to harm the health of livestock when used for mosquito control according to the label.

Will naled affect my fishpond?

Naled can be toxic to fish, but the amount likely to enter an outdoor fishpond or any other water body after spraying for mosquito control is much lower than that shown to be toxic to fish. If you wish to reduce exposure, you can cover your fish ponds with a tarp before spraying. Do not leave tarps on long enough to cause overheating or a decrease in oxygen. Some people may prefer to bring their fish to a tank inside.

Can I swim in my pool after naled is sprayed?

Since naled spray droplets are designed to stay airborne for an extended period, little if any naled is expected to settle in your swimming pool. The water in the swimming pool greatly dilutes the naled and quickly degrades it and filters it out. If you choose, you can cover your pool before the spraying occurs. You do not need to take special steps or wait before you can use your pool again.

What effects does naled have on wildlife?

Naled used for mosquito control does not pose high risks to wildlife or the environment. Naled breaks down quickly in air, water and soil. It is not very toxic to birds and mammals. The small amount needed for mosquito control is not known to cause acute or chronic toxicity to fish. While high doses of naled are toxic to fish, the very low concentrations used for mosquito and dog fly control are not. EPA has set certain safety steps on the label to reduce the risk to invertebrates that live in water from repeated uses of naled. Naled may be toxic to bees and other insects besides mosquitoes. However, it is most often applied in the early morning or evening hours when bees are not out searching for food, which reduces their chance of contact.

What can I do if I believe that naled might be making me sick?

If you are ill, you should call your doctor. For other concerns, you can also call your county health department, or the Florida Health Pesticide Surveillance Program's toll-free number at 1-800-606-5810. Or you can call the Florida Poison Control Centers at 1-800-222-1222.

How do I get more information about naled?

You can get more information on the use of naled in mosquito control by calling the Florida DACS Bureau of Scientific Evaluation and Technical Assistance at (850) 617-7917.