



Florida Department of Agriculture & Consumer Services ADAM H. PUTNAM, Commissioner

Frequently Asked Questions about Naled:

1. **What is Naled?**

Naled, sold under the name Dibrom, is an organophosphate insecticide that has been registered for use in the United States by the US Environmental Protection Agency (USEPA) and in the State of Florida by the Department of Agriculture and Consumer Services. When applied in accordance with the label, Naled can be used to kill mosquitoes without posing unreasonable risks to human health or the environment.

2. **How may Naled be applied ?**

In mosquito control programs conducted by state or local authorities, truck-mounted or aircraft-mounted sprayers apply Naled.

3. **Where, when and how much Naled may be applied?**

Naled is applied as an ultra-low volume (ULV) spray. ULV sprayers dispense very fine aerosol droplets that stay aloft and kill mosquitoes on contact. ULV applications involve small quantities of pesticide active ingredient in relation to the size of the area treated. For mosquito control in Florida, Naled is applied at a rate of 0.66 ounces of active ingredient per acre, which minimizes exposure and risks to people and the environment.

4. **What happens to Naled in the environment?**

Naled starts to degrade (break down) immediately upon release of the spray droplets in the open air. Once the spray droplets land on surfaces, Naled degrades rapidly. Naled also rapidly degrades in water and in the presence of sunlight. The chemical DDVP can be created when Naled degrades. Like Naled, DDVP is short lived in the environment.

5. **Does Naled pose risks to human health?**

The USEPA recently conducted preliminary risk assessments for Naled. These assessments calculated risks under a number of different scenarios, including assumptions of several Naled spraying events over a period of weeks and toddlers ingesting some Naled in soil and grass along with exposure through skin and inhalation exposure. Because of the very small amount of active ingredient released per acre of ground, the USEPA found that for all scenarios considered, exposures were hundreds or even thousands of times below an amount that might pose a health concern.

At doses in excess of thousands higher than those associated with mosquito control, Naled can cause salivation, numbness, headaches, dizziness, tremors, nausea, abdominal cramps, sweating, blurred vision, difficulty breathing, and a slowed heartbeat. Severe high-dose poisoning may lead to unconsciousness, convulsions or fatalities. Naled can also be irritating to the skin and the eyes. Little evidence exists to suggest that Naled is a developmental toxin.

6. Does DDVP (formed when Naled degrades) pose risks to human health?

Health risk assessors at the USEPA have determined that the contribution of DDVP to risks associated with Naled is negligible and that risk characterization for Naled should be restricted to the parent compound only, and not consider DDVP.

7. Does Naled pose a cancer risk?

Studies on the effects of prolonged Naled exposure failed to demonstrate a carcinogenic response in laboratory animals.

8. What can I do to reduce exposure to pesticides like Naled during mosquito control spraying?

Generally, there is no need to relocate during mosquito control spraying. Naled has been evaluated for this use and found to pose minimal risks to human health when used according to label directions. There are, however, a number of common sense steps to help reduce possible exposure to pesticides during spraying:

- Look for notices about spraying in the newspapers and stay tuned to radio and TV for announcements.
- If you have to remain outdoors, avoid eye contact with the spray. If you get pesticide spray in your eyes, immediately rinse them with water or eye drops.
- Wash exposed skin surfaces with soap and water if you come in contact with pesticides.
- Wash any exposed fruits and vegetables with water before storing, cooking or eating them.
- There is no need to relocate during spraying, but consult your physician if you have serious physical or psychological concerns regarding the spraying.

9. Can pets go outside during spraying?

When applied for mosquito control in accordance with the label, Naled is not harmful to animals. However, if you want to reduce your pets' exposure, keep them inside during spraying.

10. Does Naled pose risks to livestock?

Naled is not harmful to livestock when applied for mosquito control in accordance with the label.

11. Should I be concerned about the fish in my outdoor fishpond?

The concentration expected to enter an outdoor fishpond or any other water body after an aerial application is much lower than what is considered toxic to fish. To minimize exposure, fishponds can be covered with a tarp before spraying. Do not leave tarps on long enough to cause overheating or oxygen depletion. If practical, you could also consider bringing your fish inside.

12. Should I be concerned about swimming pools?

Naled breaks down quickly in water and in sunlight. You can cover your pool before the spraying occurs; however, no special precautions or waiting periods are required for swimming pools.

13. Does Naled pose a risk to wildlife and the environment?

Naled used in mosquito control programs does not pose unreasonable risks to wildlife or the environment. Naled degrades rapidly in the environment and it displays low toxicity to birds and mammals. Acute and chronic toxicity to fish is not expected based on the low application rate used for mosquito control. There is potential for adverse effects to aquatic invertebrates from repeated use of Naled; however, EPA has established specific precautions on the label to reduce such risk.

Naled is considered toxic to bees. Droplets of the sprayed chemical are capable of contacting and killing foraging bees. Spraying Naled between dusk and dawn, when bees are not foraging, helps to minimize exposure to bees. Beekeepers can protect their bees by sheltering the hives during the aerial spraying operations as outlined in the document: [Honey Bees and Mosquito Control](#) or at the [Public Health and Entomology Research and Education Center](#).

For additional information:

Medical questions should be directed to your personal physician or County Health Department.

If you think you're more susceptible than others to Naled and are concerned about the application of pesticides in your area, contact your local mosquito control district or county program and notify them about your concerns. The Florida Department of Agriculture and Consumer Services's [Bureau of Entomology and Pest Control](#) maintains a listing of these programs on the Internet at the [Mosquito Control Directory](#). The Bureau can also be contacted by phone at (850) 617-7997.

Information on the use of Naled in mosquito control can be obtained from Florida Department of Agriculture and Consumer Services [Bureau of Entomology and Pest Control](#) or at (850) 617-7997.

Additional technical information about Naled can be obtained by contacting the Florida Department of Agriculture and Consumer Services [Bureau of Pesticides](#) or at (850) 617-7917.