



FACT SHEET

Connecticut Department of Public Health
Environmental Health Section
410 Capitol Avenue, PO Box 340308
Hartford, CT 06134-0308
Telephone: (860) 509-7740
www.ct.gov/dph

December 2016

What You Need To Know About:

Dieldrin in Private Well Water

Dieldrin is found in some public and private groundwater drinking water wells in Connecticut. Testing for dieldrin is included in the pesticide, herbicide and PCB monitoring required of community and non-transient non-community public water systems. Private wells can also have dieldrin, but testing in these wells must usually be done by the well owner.

This fact sheet addresses health concerns and treatment questions about dieldrin in private well water. For more information, please see the contact information at the end of this document.

What Is Dieldrin?

Dieldrin is a man-made pesticide that was used in the United States for control of a wide range of insects in soil, especially termites. From the 1950s-1970s, dieldrin was widely used by farmers to kill insects in seed and on agricultural crops. Because of concerns about human exposure and risk, persistence in the environment and danger to wildlife, use of dieldrin on food crops was banned in the 1970s. This pesticide continued to be used to control termites in homes until the late 1980s, when all uses were banned.

What Is The Hazard Associated With Dieldrin In Drinking Water?

Animals who were given large amounts of dieldrin had nervous system effects. In addition, animals exposed to dieldrin had liver and immune system effects. It is not known for sure whether dieldrin causes liver or immune system effects in humans. Dieldrin causes cancer in animals, but studies in humans have been inconclusive. Based on the evidence in animals, dieldrin is classified as a probable human carcinogen. For this reason, the CT Department of Public Health has tried to minimize the public's exposure to dieldrin by developing a strict Action Level for dieldrin in private well water. In order for cancer risks to be a possible concern, you would need to be exposed to dieldrin for a long period of time (many years).

How Might I Be Exposed To Dieldrin From My Well Water?

If chemicals are present in your water, the most obvious way you can be exposed is through drinking the water (ingestion). Another way you can be exposed is through breathing. During activities such as bathing, doing dishes, or flushing a toilet, chemicals can evaporate into the air and can be inhaled into the body. However, dieldrin does not evaporate easily in the air, so breathing is not the most significant way to be exposed. Dieldrin can also be absorbed through the skin when bathing and showering.

What are the Drinking Water Standards for Dieldrin?

The CT Department of Public Health (DPH) sets health-based **Action Levels** for many chemicals in **private well water**. When a private well has contamination exceeding an action level, DPH recommends that residents use bottled water or install a water treatment system to remove the contamination. The Action Level for dieldrin is **0.03 micrograms per liter (ug/L)**, or parts-per-billion (ppb). DPH develops Action Levels in much the same way that the U.S. Environmental Protection Agency (US EPA) sets their standards for **public** drinking water. However, there is no US EPA standard for dieldrin in public drinking water.

How Can I Find Out If There Is a Problem With My Drinking Water?

The best way is to have your well water tested by a state-certified lab. Instructions on how to find a lab in your area are at the end of this fact sheet. You can also call the Connecticut Department of Energy and Environmental Protection (DEEP) or your local health department and ask if they know of contamination in your neighborhood.

What Can Be Done If a Private Well Has Dieldrin?

If tests show that your well has dieldrin you should call DEEP and your local health department to report the problem. They may investigate to see where the contamination is coming from. If the levels are above the Connecticut Action Level of 0.03 ug/L, you need a treatment system to remove dieldrin from the water. Carbon filters are typically effective. You can contact DPH's Private Well Program to discuss water filtration options.

What About Bathing and Showering?

It depends on the concentration. Breathing dieldrin during bathing/showering is not usually a concern because dieldrin does not evaporate easily out of water. However, dermal (skin) exposures during bathing/showering can be a concern if levels of dieldrin are high. If your well water tests at or above 0.09 ug/L (3 times higher than the Action Level of 0.03 ug/L), you should contact DPH for advice about bathing and showering. If your well water tests higher than 0.9 ug/L (30 times above the Action Level), you should avoid bathing and showering until you can install treatment for all the water in your home.

Whom Can I Contact For More Information?

For answers to questions about dieldrin in drinking water, contact the Connecticut Department of Public Health or the Connecticut Department of Energy and Environmental Protection.

Health & Treatment Questions:

CT Dept. of Public Health
Environmental Health Section
860- 509-7740 - Health Questions
860-509-7296 - Treatment Questions
CT DPH [Private Well Program](#)

Report Contamination:

CT Department of Energy and
Environmental Protection
860-424-3705 and
Your [local health department](#)

State Certified Laboratories:

Click on the following link:
[List of State Certified Labs](#)