



FACT SHEET

Connecticut Department of Public Health
Environmental Health Section
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What You Need To Know About: MTBE in Private Well Water

Methyl tertiary-butyl ether (MTBE) is found in some public and private groundwater drinking water wells in Connecticut. The US Environmental Protection Agency requires regular testing for this chemical in public water systems. Private wells can also contain MTBE, but testing in these wells must usually be done by the well owner.

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

What Is Methyl tertiary-butyl ether?

Methyl tertiary-butyl ether, also commonly known as MTBE, is a man-made chemical that was used in gasoline to make it burn cleaner. MTBE is no longer added to gasoline because it often got into the groundwater when storage tanks leaked or when gasoline was spilled on the ground. Even though MTBE is no longer used in gasoline, it can still be found in groundwater because it is slow to break down. MTBE levels in groundwater have been decreasing since it stopped being used in gasoline. We expect MTBE contamination of drinking water wells in Connecticut to be less of a concern in the future.

What Is The Hazard Associated With MTBE In Drinking Water?

MTBE causes sleepiness at very high levels. These effects go away quickly once exposure ends. Animal studies show that exposure over a long time to high levels of MTBE can cause kidney and liver damage, and an increase in cancer. However, it is unlikely that levels of MTBE typically found in drinking water would cause such health effects in people. Animal studies show that MTBE does not damage reproduction and is not likely to cause birth defects.

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

MTBE evaporates easily from water, so in addition to taking it into your body through drinking, you may also be exposed to a large amount from breathing the air inside your home. MTBE gets into the indoor air from appliances that use water (such as dishwashers and washing machines) and from the shower. Your body may also absorb it through the skin during a bath or shower. A simple way to absorb less is to turn on a bathroom fan while bathing or showering. This can prevent the buildup of MTBE in the bathroom air.

Is There A Safe Level Of MTBE In Drinking Water?

The CT Department of Public Health (CT DPH) has set an Action Level of 70 micrograms per liter (ug/L) for MTBE in private well water. An Action Level is a state guideline for a chemical in private well water. If your well water has MTBE at a level greater than the Action Level of 70 ug/L, you should stop drinking your water and using it for cooking until you can install a treatment system to remove MTBE. Action Levels are set well below the level that causes health effects in people or animals. So if you have MTBE in your well water at a level above the Action Level, it is still probably at a level lower than what is harmful to your health. Nevertheless, you should not drink or cook with water that has MTBE above the Action Level to be sure that you are protected.

There is no federal standard for MTBE in public drinking water. However, the US EPA has set a drinking water advisory of 20-40 ug/L for public water. This advisory level is based on taste and odor concerns and not on health effects. MTBE levels below this range should not cause water to have an unpleasant taste or odor.

What About Bathing and Showering?

Since you can inhale MTBE and absorb it through the skin while bathing and showering, it is important to prevent these exposures as well. If the MTBE level in your well water is greater than 700 ug/L (10 times greater than the Action Level), you should avoid bathing and showering until you can install a whole house treatment system to remove MTBE from all of the water you use in your home.

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 water testing lab](#). You can also call the CT Department of Energy and Environmental Protection (CT DEEP) or your local health department and ask if they are aware of a contamination problem in your neighborhood.

What Can Be Done If a Private Well Is Contaminated With MTBE?

If tests show that your well has MTBE you should call CT DEEP or your local health department to report the problem. They may investigate the source of the contamination. If the levels are above the CT Action Level of 70 ug/L, you will need a treatment system to remove the MTBE from the water. Contact the CT DPH Private Well Program to discuss water treatment options. If MTBE levels are between 20 and 70 ug/L, your water is safe to drink but you may notice an unpleasant taste or odor. In such cases, you should call CT DEEP or your local health department to report the finding of MTBE because they may wish to investigate the source of the contamination.

Whom Can I Contact For More Information?

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 Dept. of Energy and
Environmental Protection
860-424-3705
Your [Local Health Department](#)

Water Testing Laboratories:

[List of State Certified Labs](#)