

# wellcare<sup>®</sup> information for you about **MTBE**

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## **What is MTBE?**

MTBE (methyl tertiary butyl ether) is a chemical added to fuel to make it burn more cleanly and efficiently. In the 1990s, many states required the addition of MTBE to gasoline in order to meet federal clean air mandates.

MTBE is a flammable liquid with a distinctive, disagreeable odor, somewhat like a sweet solvent. Leaking gasoline storage tanks and spills are the leading source of MTBE contamination in water.

The US Geological Survey has found MTBE in ground water in 24 states. However, in studies to date, only about one percent of water that tested positive for the contaminant demonstrated levels higher than 20 parts per billion.

## **What are the health effects of MTBE?**

There is no published data on the effects on people who ingest MTBE. Studies with rats and mice suggest that it may be a possible cancer-causing agent and may cause gastrointestinal irritation, liver and kidney damage and nervous system effects.

## **How do I test for MTBE?**

Due to the widespread use of MTBE in fuel, reports of the chemical in ground water are increasing. The U.S. Environmental Protection Agency (EPA) has placed MTBE on the drinking water contaminant candidate list for future evaluation.

Your local health department or state environmental agency may be able to tell you if MTBE has been found in water in your area. If you live near a gas station in a state where MTBE is used, you should probably test for the chemical. Also, MTBE in drinking water has a nasty smell, a sure sign to test for the additive. A test for MTBE costs about \$150 per sample.

The EPA recommends a maximum level of MTBE of 20 parts per billion to control odor and 40 parts per billion to prevent adverse taste. Meeting these control levels also will protect against adverse health effects.

## **What is the treatment for MTBE in drinking water?**

While the EPA currently does not offer treatment recommendations, air stripping in packed tower aerators and granular activated carbon (GAC) filters is used frequently to remove other volatile organics from drinking water. Contact your state health department or well professional for guidance.

## For more information on your ground water

Your local well contractor, health department, cooperative extension service and state environmental or natural resources department can provide more information about ground water in your area. Check the telephone directory or search the web under "water wells" or "government agencies."

## For more information about wells and other wellcare® publications

wellcare® is a program of the **Water Systems Council (WSC)**. WSC is a national nonprofit organization dedicated to promoting the wider use of wells as modern and affordable safe drinking water systems and to protecting ground water resources nationwide.



Contact us at 202-625-4387 or visit [www.watersystemscouncil.org](http://www.watersystemscouncil.org)

### Other wellcare® publications:

A Consumer's Guide to Water Wells

A Consumer's Guide to Well Testing & Disinfection

wellcare® Info Sheet: Home Drinking Water Treatment Devices

wellcare® Info Sheet: Water Quality – arsenic, bacteria, chromium, iron, MTBE (methyl tertiary butyl ether), nitrates, radon, radium, sulfur and TCE (trichloroethylene)

### Other organizations you may want to contact:

Water Quality Association	630-505-0160	<a href="http://www.wqa.org">www.wqa.org</a>
The Ground Water Foundation	800-858-4844	<a href="http://www.groundwater.org">www.groundwater.org</a>
American Ground Water Trust	603-228-5444	<a href="http://www.agwt.org">www.agwt.org</a>
National Ground Water Association	800-551-7379	<a href="http://www.ngwa.org">www.ngwa.org</a>

This publication was developed in part under Assistance Agreement No. X-82849101-1 awarded by the U.S. Environmental Protection Agency. It has not been formally reviewed by EPA. The views expressed in this document are solely those of WSC. EPA does not endorse any products or commercial services mentioned in this publication.