

**Department of Legislative Services**  
Maryland General Assembly  
2005 Session

**FISCAL AND POLICY NOTE**

House Bill 659

(Delegate Glassman, *et al.*)

Environmental Matters

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**Mid-Atlantic Regional Methyl Tertiary Butyl Ether Compact**

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This bill requires the Secretary of the Environment to negotiate with surrounding Mid-Atlantic states on the creation of a Mid-Atlantic Regional Methyl Tertiary Butyl Ether Compact. The members of the compact must study specified issues related to the use of the gasoline additive methyl tertiary butyl ether (MTBE) in the region, including the feasibility and effectiveness of using alternative additives. The Maryland Department of the Environment (MDE) must report to the General Assembly by December 31, 2006 on the status of the compact.

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**Fiscal Summary**

**State Effect:** The bill's requirements could be handled with existing budgeted resources.

**Local Effect:** The bill would not directly affect local governments.

**Small Business Effect:** None.

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**Analysis**

**Current Law:** Federal law requires the use of reformulated gasoline in areas with unhealthy levels of air pollution; reformulated gasoline is required to contain a minimum of 2% oxygen (by weight). Federal law does not specifically require the use of MTBE. Refiners may choose to use other oxygenates, such as ethanol.

**Background:** MTBE is a chemical compound used as a gasoline additive. It raises the oxygen content in gasoline, which helps engines burn cleaner, thus reducing tailpipe

emissions. It was originally introduced in the late 1970s to replace lead. MTBE is being used at higher concentrations in some states, such as Maryland, to fulfill the oxygenate requirements set by Congress in the 1990 federal Clean Air Act amendments. According to MDE, reformulated gasoline is used in 14 counties in the State.

At room temperature, MTBE is a volatile, flammable, and colorless liquid that dissolves easily in water. Because MTBE is more water soluble and less biodegradable than other gasoline components, it can be introduced into groundwater from leaking underground and aboveground petroleum storage tanks. Recent studies indicate that MTBE vapors can also lead to groundwater contamination. Low levels of MTBE can make drinking water undrinkable due to its offensive taste and color. Although there is limited data on the human health effects of MTBE when ingested through drinking water, the U.S. Environmental Protection Agency (EPA) has advised that MTBE is a potential human carcinogen at high doses.

In response to the growing concerns regarding MTBE in water, EPA appointed an independent Blue Ribbon Panel to investigate the air quality benefits and water quality concerns associated with oxygenates in gasoline. In 1999, the panel made several recommendations, including removing the federal oxygenate requirement. State legislation enacted in 2000 established a task force to study the environmental effects of MTBE. In its final report the task force noted, among other things, that Maryland should give careful consideration to a reduction or a complete phase-out of MTBE in gasoline sold in the State provided there is no backsliding on air quality benefits.

Twenty states have either partially or completely banned the use of MTBE statewide. Another 10 states have passed legislation, or have legislation pending, that signals an eventual phase-out of MTBE. Some of this legislation directs state agencies to study the effects of MTBE or creates councils and commissions to monitor the progress of a phase-out. Other legislation requires notification of property owners, public water suppliers, and health officers when groundwater contamination is discovered. Overall, partial bans are the most common form of prohibiting MTBE among these states. Partial bans permit trace amounts of MTBE in motor vehicle fuel sold or used in the state. A number of the partial bans will become complete bans within a few years.

Farmers on the Eastern Shore see ethanol as a potential substitute for MTBE. Ethanol, which is made from grains, is the most widely used substitute for MTBE. According to MDE, switching to ethanol could have drawbacks, however. First, it could reverse the air quality gains made with the use of MTBE. Second, little is known about ethanol's behavior in petroleum underground storage tank releases. MDE advises that at high concentrations, ethanol may cause other gasoline constituents to become more soluble in

water, thus contributing to groundwater pollution. Further, the breakdown of surface spills could result in consumption of dissolved oxygen, causing fish kills.

Concern regarding MTBE in Maryland increased in 2004 with the discovery of groundwater contamination in Harford County; MTBE contamination has also been found in other Maryland counties. Emergency regulations addressing MTBE contamination, which require improved release detection and site monitoring, took effect January 26, 2005.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** SB 669 (Senator Harris, *et al.*) – Education, Health, and Environmental Affairs.

**Information Source(s):** Maryland Department of the Environment, U.S. Environmental Protection Agency, Department of Legislative Services

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Analysis by: Lesley G. Cook

Direct Inquiries to:  
(410) 946-5510  
(301) 970-5510