United States Environmental Protection Agency EPA420-F-00-012 March 2000

Office of Transportation and Air Quality



Regulatory Announcement

Advance Notice of Proposed Rulemaking to Control MTBE in Gasoline

The U.S. Environmental Protection Agency (EPA) is considering a limit or ban on the use of MTBE as a fuel additive. We are publishing an Advance Notice of Proposed Rulemaking (ANPRM) of our intent to issue a rule under Section 6 of the Toxic Substances Control Act (TSCA) considering this action. EPA is requesting comment on a number of aspects of this anticipated regulatory action, including whether the Agency should take action to address any fuel additives other than MTBE.

Background

MTBE is a chemical compound that is used as a fuel additive in gasoline. Refiners add MTBE to gasoline as an oxygenate to meet the Reformulated Gasoline (RFG) requirements of the Clean Air Act (CAA). The RFG provisions require, among other things, that all RFG contain at least 2.0 percent oxygen by weight. These provisions were designed to reduce the emissions of volatile organic compounds (a precursor to ozone, or smog) and other harmful air emissions from vehicle exhaust in areas with ozone pollution problems.

The CAA mandates that RFG be sold in the ten largest metropolitan areas with the most severe summertime ozone problems (Baltimore, Chicago, Hartford, Houston, Milwaukee, New York, Philadelphia, Los Angeles, Sacramento, and San Diego). The CAA also allows certain other areas with less severe air pollution problems to opt into the RFG program. Currently, 17 states and the District of Columbia are participating in the RFG Program.

While the use of MTBE as a fuel additive in gasoline has helped to achieve significant reductions in air emissions, it has also caused widespread and serious contamination of the nation's drinking water supplies. Unlike other components of gasoline, MTBE dissolves and spreads readily in the groundwater, does not degrade easily, and is difficult and costly to remove from groundwater. Low levels of MTBE can make drinking water supplies undrinkable due to its offensive taste and odor. At higher levels, it may also pose a risk to human health.

In response to the growing concerns regarding MTBE, EPA Administrator Carol M. Browner appointed an independent Blue Ribbon Panel to investigate the use of oxygenates in gasoline. EPA is working with Congress, the states and the regulated community to implement the Blue Ribbon Panel's recommendations. This includes seeking, through Congressional action, to eliminate the oxygenate mandate in gasoline, while maintaining clean air benefits.

Advance Notice of Proposed Rulemaking

EPA's review of existing information on contamination of drinking water resources by MTBE indicates substantial evidence of a significant risk to the nation's drinking water supply. A comprehensive approach to such risk must include consideration of either reducing or eliminating the use of MTBE as a gasoline additive. EPA is concerned about the detections of MTBE in groundwater and drinking water. Our goal is to protect public health and the environment by ensuring that Americans have both cleaner air and cleaner water—and never one at the expense of the other.

The outcome of this rulemaking could be a total ban on the use of MTBE as a gasoline additive or a limitation preventing the use of MTBE in gasoline in amounts greater than those designed to provide octane enhancement. The outcome could also be less restrictive, such as limiting the amount of MTBE that could be used in gasoline; limiting the use of MTBE in particular geographic areas or during particular times of year; limiting the types of facilities in which MTBE can be stored; or limiting the manner in which MTBE is transported. Any final outcome must, however, provide adequate protection against any unreasonable risk caused by MTBE.

Issues Related to the Control of MTBE

The advance notice seeks comment on many issues related to the control or ban of MTBE. They include:

- **EPA Action** 1. Whether some use of MTBE as a gasoline additive should be allowed to continue and, if so, the level or type of use that should be allowed to continue.
 - 2. How much lead time, if any, would be necessary to enable refiners to eliminate MTBE from RFG while continuing to meet the current levels of compliance with RFG standards for VOC, NOx, and toxic emissions without unacceptable impacts on the price or supply of fuel.
 - 3. How much lead time, if any, would be necessary to enable refiners to eliminate MTBE as an octane enhancer in conventional gasoline without unacceptable impacts on the price or supply of fuel.
 - 4. Whether EPA should obtain additional information on or reduce, eliminate, or cap the use of any other gasoline additives in addition to MTBE.
 - 5. Whether MTBE presents significantly greater risk to public health and/or water quality than alternative gasoline additives.

Contamination and Remediation

- 1. Incidents of both releases of gasoline containing MTBE and the detection of MTBE in groundwater, surface waters, or drinking water supplies.
 - 2. Toxicity of MTBE, the levels at which its taste or odor can be detected in water, the levels at which its taste or odor makes water unacceptable to consumers, and any other properties of MTBE that may be relevant to a rulemaking under TSCA section 6.
 - 3. Likely future occurrence of MTBE contamination in groundwater, surface water, and/or drinking water.
 - 4. Relative contribution of different sources to present and future MTBE contamination of groundwater, surface water, and drinking water.
 - 5. Cost and efficacy of technologies for remediating soil and drinking water sources that have been contaminated with MTBE.

Alternatives to MTBE	1. Potential substitutes that might replace MTBE either as an oxygen- ate in RFG or an octane enhancer in conventional gasoline.
	2. Actual releases of gasoline additives other than MTBE to the environment.
	3. Possible impacts on health or the environment that might result from the elimination or limitation of use of MTBE as a gasoline additive and the use of alternative compounds in MTBE's place.
Economic Considerations	1. Cost impacts of an elimination or limitation of MTBE in gasoline, in the absence of a change in the RFG requirements.
	2. Availability of alternative oxygenates and octane enhancers, the time it would take for production of alternatives to meet national

Public Participation Opportunities

We welcome your comments on this advance notice. You may submit written comments to EPA up to 45 days after the proposed rule is published in the *Federal Register*. Please be aware that your comments, including your name and address, may be placed on the Internet docket web site for this ANRPM. The address for submitting written comments is:

demand, and the potential impacts on fuel supply and price.

Document Control Office (7407) Office of Pollution Prevention and Toxics (OPPT) U. S. Environmental Protection Agency Ariel Rios Building 1200 Pennsylvania Avenue NW Washington, DC 20460

The advance notice is available electronically via the EPA Internet site at: www.epa.gov/otaq/fuels.htm

For More Information

Documents related to the advance notice are available electronically at the Internet site listed above, or by contacting:

Barbara A. Cunningham Office of Program Management and Evaluation Office of Pollution Prevention and Toxics (7401) U.S. Environmental Protection Agency Ariel Rios Building 1200 Pennsylvania Avenue NW Washington, DC 20460 (202) 554-1404 TDD: (202) 554-0551 e-mail address: <u>TSCA-Hotline@epa.gov</u>