

**WRITTEN COMMENTS  
REGARDING  
THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S  
ADVANCE NOTICE OF INTENT TO INITIATE RULEMAKING  
UNDER THE TOXIC SUBSTANCES CONTROL ACT  
TO ELIMINATE OR LIMIT THE USE OF MTBE AS A FUEL ADDITIVE  
IN GASOLINE**

**SUBMITTED BY  
THE CLEAN FUELS DEVELOPMENT COALITION  
MAY 8, 2000**

---

The Clean Fuels Development Coalition (CFDC), a non-profit organization comprised of oxygenated fuel producers, additive manufacturers, U.S. automakers, agricultural interests and state agencies, has over 12 years of experience dealing directly with issues surrounding cleaner burning gasoline and gasoline additives, air quality, *Clean Air Act* and *Energy Policy Act* requirements, and alternative and renewable fuels. Through our active involvement and close association with state air and fuel quality officials throughout the country, we are uniquely aware of the complex issues states face as they confront air and fuel quality issues.

Because of our understanding of cleaner burning fuels, our involvement in the development of the federal Reformulated Gasoline provisions, and our active participation in the debate surrounding the use of clean burning oxygenates, such as ethanol, ETBE and MTBE, CFDC appreciates the opportunity to submit these written comments for the record in support of the U.S. Environmental Protection Agency's (EPA) Advance Notice of Intent to Initiate Rulemaking (ANPRM) under Section 6 of the Toxic Substances Control Act (TSCA) (15 USC 2605) to eliminate or limit the use of MTBE as a gasoline additive. CFDC also urges EPA to conduct a full evaluation of ETBE as part of its TSCA review to fully understand the different characteristics of ethers – in particular MTBE compared to ETBE.

**MTBE: Full Evaluation of Risk**

CFDC remains an active supporter of all oxygenates, particularly encouraging the expanded use of ethanol where practicable. We believe that the use of oxygenates in gasoline has provided tremendous health and environmental benefits. We also feel that additional areas of the country should be permitted to use oxygenates fuels as part of their emission reduction strategy. With that understanding in mind, CFDC continues to closely monitor the lingering questions about MTBE's particular fate and transport in water. We support EPA's examination of MTBE under TSCA because, in our opinion, sufficient questions remain about the nature and magnitude of potential MTBE water contamination, the possible health and environmental risks associated with such potential water contamination, and probable fuel additive replacements should MTBE use be reduced (i.e. aromatics, alkylates) that the prudent and reasonable course of action is to undertake the health and environmental assessment required under TSCA. Only upon completion of such an exhaustive inquiry will the actual nature of the relative risks be fully understood.

Section 6 of TSCA provides EPA with broad general authority to issue rules regulating the manufacture, processing, distribution, use, and/or disposal of chemical substances upon a showing that the activity associated with the chemical substances “presents or will present an unreasonable risk to health or the environment. In evaluating “unreasonable risk,” EPA is required to weigh the risks to health or the environment posed by a particular activity involving a chemical against the benefits associated with such activity. EPA must consider the costs of any proposed action and the availability of substitutes for the chemical substance. EPA must also determine whether the health or environmental risk could be eliminated or reduced by actions taken under other federal statutes administered by EPA.

Therefore, in assessing the necessary legal requirements under TSCA, the first determination must be whether or not MTBE “presents or will present” an unreasonable risk to health or the environment. Despite some EPA comments indicating the contrary, a determination that MTBE poses an unreasonable risk to health or the environment has not yet been made (see, e.g. “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.” pg. 16095; “Any final outcome must, however, provide adequate protection against any unreasonable risk associated with MTBE.” pg. 16104; “EPA believes that a comprehensive approach must include consideration of either reducing or eliminating the use of MTBE...pg. 16104).

TSCA is designed to prevent unjustified, precipitous actions that could adversely and unfairly affect industry. CFDC respectfully suggests that EPA carefully consider all of the evidence in light of the requirements of TSCA prior to making a determination regarding the risk to health or the environment posed by MTBE. Any TSCA determination must be fair and impartial, fully evaluating MTBE’s benefits as well as the concerns that have been raised regarding MTBE. Only after a determination is made that an unreasonable risk actually exists, does TSCA provide the authority to curtail such risk.

Oxygenates such as ethanol and MTBE have provided tremendous air quality benefits. Data collected by refiners, the U.S. Environmental Protection Agency, automakers and others clearly shows that Federal Phase I RFG, primarily because of the use of ethanol and MTBE, has surpassed all expectations (i.e. over-complied) by over 13% for air toxics, 13% for VOC’s and 8% for NOx.<sup>1</sup> MTBE and ethanol offer beneficial gasoline blending properties such as high octane and low distillation temperatures, that would not normally occur without their use. Because of their extremely low atmospheric reactivity, oxygenates reduce the long-term reactivity of CO in the atmosphere, which, in turn, reduces ozone formation. Available studies show that the use of oxygenates also substantially reduces primary PM – by as much as 25 – 30%.

---

<sup>1</sup> See, e.g. Letter from Robert Perciasepe, Assistant Administrator, U.S. Environmental Protection Agency, to Angus S. King, Governor of Maine, October 30, 1998; Letter from Margo Oge, U.S. Environmental Protection Agency, Office of Mobile Sources, to Harold Reheis, Commissioner, Georgia Department of Natural Resources, December 30, 1997.

These beneficial blending properties help dilute the presence of other, more harmful properties (i.e. aromatics) and improve the over-all gasoline blend. Any changes to the RFG formula as a result of the potential elimination or limitation of MTBE use must fully consider these substantial benefits, and not allow refiners to significantly increase aromatic levels and distillation temperatures – leading directly to increased risk to health or the environment. The risk of reducing the air quality benefits enjoyed by 70 to 100 million American’s should not be taken lightly.

Further, evidence suggests that some of the water contamination “concerns” may not, in fact, rise to the level of an “unreasonable risk to health or the environment.” Although CFDC certainly urges a careful evaluation of all these issues according to TSCA Section 6, some recent studies suggest that the 1998 enhanced Underground Storage Tank requirements may be improving the occurrence of gasoline leaks. For example, Exponent’s 2000 review of California Department of Health Services, “A Screening Level Assessment of Household Exposures to MTBE in California Drinking Water,” concludes that “despite the negative publicity surrounding MTBE and potential aesthetic issues, MTBE in drinking water should not pose a significant public health hazard in California based on what is currently known about MTBE toxicity and exposures.”<sup>2</sup> The study goes on to state that the “estimated lifetime cancer risk for the general population in California is likely to be less than 9 per 100 million based on current exposures to MTBE and less than 1 per 10 million based on current and anticipated MTBE exposures.”<sup>3</sup>

EPA’s own data suggests that incidences in which MTBE has contaminated water supplies have been directly linked to actual gasoline releases from Underground Storage Tanks. In cases where no such direct link to a leaking UST are found, the level of MTBE detected in water resources has generally been substantially below health concern – and even secondary taste and odor standards.

Because fundamental questions about the use of MTBE continue to exist and no actual risk assessment has been conducted, CFDC looks forward to the full and complete examination, according to TSCA, of the actual “risk” associated with the use of MTBE. CFDC continues to support the use of all oxygenates in gasoline. Any changes made to the RFG formula must be carefully and fairly considered. It is the opinion of CFDC that EPA’s TSCA analysis offers the best opportunity to perform the necessary factual review – without resorting to the hyperbole that has often entered into discussions about the use of MTBE.

### **Examination of ETBE Necessary**

In its ANPRM, EPA also compares MTBE to other ethers, stating that “other ethers are likely to display similar chemical properties – high solubility in groundwater, poor sorption in soil, and slower biodegradation..”

---

<sup>2</sup> Williams, Scott, Hays, Paustenbach, Exponent, “A Screening Level Assessment of Household Exposures to MTBE in California Drinking Water,” p. 63, Soil Sediment & Groundwater Magazine, April/May 2000.

<sup>3</sup> Id., at p. 68.

In response to anticipated questions about the hydrogeologic characteristics of ETBE, the Department of Chemical Engineering at the University of Nebraska-Lincoln has conducted preliminary research into the behavior of ETBE in water. This study suggests that ETBE's water solubility properties are less than half of MTBE. In addition, a preliminary report by the university notes that existing literature suggests a faster degradation rate for ETBE than MTBE. More specifically, the Nebraska study found:

- ETBE is four times less soluble in water than MTBE
- ETBE's life in water is ½ of MTBE's
- ETBE's life in air is ½ of MTBE's
- ETBE Biodegrades easier than MTBE
- ETBE can be more easily removed from water

The Nebraska Ethanol Board, several federal agencies and other interested stakeholders have proposed additional research on the properties of ETBE to fully determine its water characteristics. CFDC urges EPA to fully understand the differences among the oxygenates – particularly the differences between MTBE and ETBE – prior to making an assessment that “all ethers have similar” water characteristics.