



FACT SHEETS

MTBE Extends Gasoline Supplies & Prevents Fuel Price Increases

Price Comparison of the MTBE and Ethanol Markets

MTBE's Role in Reformulated Gasoline

Underground Gasoline Storage Tank Program

Technology Provides for Quick, Easy Clean-up of Gasoline Leaks

MTBE Is Not Hazardous to Human Health

MTBE Groundwater Impact

Ethanol Is Not a Suitable Replacement for MTBE

Top Ten Facts about Ethanol

Ethanol Is Not a Suitable Replacement for MTBE

In 1990, Congress passed a law requiring fuel oxygenates – such as Methyl Tertiary-Butyl Ether (MTBE) and ethanol – to be added to Reformulated Gasoline (RFG) to reduce automotive emissions and improve the air we breathe. However, for a variety of economic, logistic and environmental reasons, refiners overwhelmingly favored MTBE over ethanol:

Gasoline Production Economics: Ethanol blends evaporate more readily than MTBE blends. Therefore, using ethanol increases refiner production costs and reduces operating flexibility. For example, the Chicago/Milwaukee ethanol market saw gasoline prices increase 25 cents/gallon over the national average during the summer of 2000. In addition, ethanol contributes about one half the blending volume provided by MTBE, and the maximum amount of ethanol that can be blended into gasoline is capped at 10% (versus 15% for MTBE). As a result, ethanol is unable to dilute many, less desirable, gasoline components.

Ethanol's Tax Subsidy: Ethanol is not economically viable without its substantial federal tax subsidy – currently 53 cents per gallon – and supplemental state tax incentives.

Supply Uncertainties & Distribution Concerns: Ethanol use is generally limited to the Midwest, with little capacity for expansion. Ethanol supplies can be uncertain due to feedstock (i.e., corn) shortages caused by summer droughts. Ethanol's high affinity for water does not allow blending at the refinery, nor transportation through the existing nation-wide gasoline pipeline infrastructure. Ethanol must be stored in segregated tanks, can only be transported by rail or truck and must be blended into gasoline at the terminal or retail station.

Environmental Concerns: Ethanol emits more harmful smog-forming emissions in the summertime than MTBE due to its high tendency to evaporate. Because ethanol is used in lower volumes, it provides less reduction in toxic air emissions than MTBE. Ethanol also can contribute to increased NOx emissions.

Consumer Acceptance: Automaker owner manuals warn buyers of performance problems with ethanol. Some consumers perceive ethanol-blended gasoline or "gasohol" as an "inferior product."

In addition, energy security implications and consumer costs remain a concern as ethanol's role in future national energy policy is debated:

- Ethanol's federal tax subsidy currently reduces money for state road maintenance and transportation infrastructure by over \$1.1 billion/year. If ethanol were used to replace MTBE, this figure would grow to over \$3.5 billion/year.
- MTBE supplies 2.5 times more non-petroleum energy into the nation's gasoline pool than ethanol (at the same oxygen content), thus increasing overall gasoline supplies.
- * { • Despite its "renewable fuel" billing, producing ethanol consumes as much energy as it yields as a finished fuel. Lower fuel economy (by as much as 2-5 %) should be expected for ethanol blended gasoline versus conventional, or MTBE-blended, gasoline.
- Increasing the use of ethanol would increase the fragility of our nation's gasoline supply outlook and potentially result in a net increase of crude and product imports.
- Calls to triple the required use of ethanol would cost U.S. consumers \$17 billion over the next nine years.
- The large ethanol subsidy generally benefits the large agri-business interests rather than average farmers.

Ethanol's use is uneconomic without a large government subsidy and, outside of the Midwest, it can not be integrated into the nation's gasoline supply and transportation system. Increased reliance on ethanol would result in air quality backsliding. And, most importantly, it can destabilize the nation's gasoline supply without offering significant energy security benefits and without even benefiting America's farmers.