

# A Screening Level Assessment of Household Exposures to MTBE in California Drinking Water

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**T**he widespread use of methyl tertiary butyl ether (MTBE) in the United States is a direct result of the 1990 Clean Air Act Amendments. Dubbed the "oxygenate of choice", MTBE has been added to gasoline since 1992 (15% by volume) to reduce carbon monoxide levels during winter months, and since 1995 (11% by volume) to reduce ground-level ozone formation year-round. In California, MTBE has been used year-round (11% by volume) to meet the Phase II reformulated gasoline or Cleaner Burning Gasoline (CBG) requirements, which became effective March 1, 1996.

Substituting MTBE reformulated gasoline for conventional gasoline has led to reduced tailpipe emissions and ambient concentrations of selected criteria and toxic air pollutants, such as benzene and 1,3-butadiene. However, the ability of MTBE to travel rapidly in groundwater, coupled with detections of MTBE in some drinking water sources, has raised public concerns about potential environmental and health risks associated with MTBE exposures.

The governor of California has recently determined that MTBE in gasoline poses an "unacceptable environmental threat", and a new rule (Phase 3 gasoline requirements) prohibits the formulation of gasoline with MTBE after December 31, 2002. Legislation has also been introduced in Congress to allow states to waive out of the federal oxygenate requirement, which would further curtail the use of MTBE nationwide.