

## Ethanol and Your Vehicle

- A 10% ethanol-blended fuel is warranted for use by ALL auto manufacturers marketing vehicles in the U.S.
- Many auto manufacturers, including General Motors and Chrysler, recommend the use of oxygenated fuels, such as ethanol, in their vehicles.
- Ethanol guards against gas line freeze by absorbing moisture that may get in the tank during cold weather.
- Ethanol is a proven octane enhancer and replacement for lead and other toxic compounds in gasoline.
- The blending of 10% ethanol boosts the octane rating of gasoline by an average of three points.
- Nationally, since 1978, ethanol has provided motorists with more than 2 trillion road miles of satisfactory performance.
- Ethanol-blended fuels are approved for use in small engines too -- including outboard motors, snowmobiles, lawn mowers, motorcycles, and chain saws. All small-engine manufacturers that have tested a 10% ethanol blend have approved its use.

For more information about using ethanol in your vehicle, see [Ethanol Myths](#).

## Good for the Environment

- Ethanol, a renewable fuel made from agricultural feedstocks, is one of the best tools we have to fight air pollution.
- Ethanol lowers harmful carbon monoxide (CO) emissions by 30%.
- Ethanol reduces carbon dioxide (CO<sub>2</sub>) emissions by 27%.
- The use of clean-burning ethanol reduces the amount of noxious fumes and volatile organic compounds (VOCs) that standard gasoline spews into the air. Those VOCs eventually clog our lungs.
- Ethanol reduces particulate emissions, especially fine particulates that pose a health threat to children, senior citizens, and those with respiratory ailments.
- Ethanol is the safest component in gasoline today. A study by the Governors' Ethanol Coalition concluded that ethanol poses no threat to surface or ground water. Since ethanol is a naturally occurring substance produced during the fermentation of organic matter, it is expected to rapidly biodegrade in essentially all environments.
- The U.S. Environmental Protection Agency credits reformulated gasolines (that contain ethanol) with reducing and controlling hazardous emissions, which threaten air quality in many of America's cities.
- According to a study by the Argonne National Laboratory, vehicles that use ethanol actually help offset fossil fuels' greenhouse gas emissions, which contribute to global warming, by 35% to 46%.
- Ethanol is widely used in the federal winter oxygenated fuels program and the reformulated gasoline program in cities that exceed public health standards for carbon monoxide and ozone pollution.
- Today, more than one-third of the nation's gasoline contains some level of oxygenates (such as ethanol), in order to reduce harmful emissions and improve our nation's air quality.
- Renewable ethanol is extremely energy-efficient. Every 100 BTUs of energy used to produce ethanol (including planting, cultivating, harvesting, and processing) yield 167 BTUs of ethanol.

## Energy Security

- Oil imports are now about 64% of total transportation fuel use. The Energy Information Agency is projecting that amount to increase to 77% by 2025.
- The U.S. spends roughly \$50 billion each year for military protection of Mideast oil.
- About 80% of the world's proven oil reserves are in the perennially unstable Middle East. Prominent defense and intelligence experts recently stated: "While sitting on only 3% of the world's reserves -- yet using 25% of the world's oil -- nothing could be more short-sighted than for Americans to abandon the incentives for producing transportation fuel from sustainable sources."
- Ethanol-from Iowa and American corn growers-reduces our demand for imported oil by nearly 128,000 barrels each day.
- According to the Government Accounting Office, the U.S. has spent more than \$130 billion over the last 32 years in government subsidies to the oil industry.
- Tripling ethanol use could replace 600,000 barrels of crude oil daily, which is equivalent to the amount imported from Iraq each day.
- One less barrel of imported oil is needed for every 28.3 gallons of ethanol used.
- According to a study by the Argonne National Laboratory, the use of corn-based ethanol results in 50% to 60% reductions in fossil energy use.
- In 2004, the use of ethanol reduced the US trade deficit by \$5.1 billion by eliminating the need to import 143.3 million barrels of oil.