

THE FUEL RETAILERS ETHANOL GUIDE

June 2005



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Beginning July 1, 2005—

Fuel Retailers Will Have More Flexibility to Choose

On July 1, 2005, the law requiring labeling of fuel containing up to 10 percent ethanol will be repealed. This gives fuel retailers new flexibility to consider ethanol, a fuel additive that increases octane, burns cleaner, is good for engines, and could even help you offer a higher quality fuel at a lower price to your customers.

This guide was compiled to give retailers useful information and facts regarding ethanol-blended fuels—both E10 Unleaded and E85 fuel. We hope this guide will help you make an informed decision about adding ethanol to your fuel choices.

Please keep this guide to use as a resource when making your fuel decisions. You can find more information at the Kansas Ethanol Information website at www.ksgrains.com

Want to Add Ethanol at Your Station?

Ethanol Checklist Ensures Smooth Transition

No modifications are required to add up to 10 percent ethanol to fuel tanks. However, retailers need to follow the checklist below to make certain that water is removed from the tanks before adding ethanol. Below is a checklist for cleaning tanks for E10 Unleaded fuel, or fuels blended with up to 10% ethanol.



To Label, or Not to Label

As of July 1, 2005, fuels containing up to 10 percent ethanol are not required to be labeled. However many motorists are seeking out stations that carry ethanol-blended fuels. Fuel retailers find adding ethanol to be an excellent sales tool.

After all, ethanol-blended fuels are cleaner burning, higher octane and often lower priced. For promotional and informational materials for E10 Unleaded fuel, contact us at

800-489-2676

E10 CHECKLIST: Cleaning Tanks for E10 Unleaded:

Service station underground storage tanks (USTs) are subject to accumulations of water and/or sediment over time. It is important to deal with these factors before introducing ethanol into your retail fuel system. If the water is not removed from the system, the solubility limit of water in gasoline may be exceeded, and it is possible for the fuel to undergo phase separation. When phase separation in a tank has occurred, the alcohol has essentially dropped out of the fuel and now resides in the water bottoms layer of the tank. There is no “fix” for phase separation. The tank’s contents including the top fuel and bottom water/alcohol layers must be removed.

Preparation:

1. Pump out gasoline from UST.
2. Clean out all product/water/sludge from the bottom of the tank.
3. Then fill the UST as close to capacity as possible, to minimize the effect of any remaining moisture.
4. It is recommended to change the filter at this point, and a couple of times throughout the first few days of usage.
5. Water present at time of clean out indicates a problem and the source should be located and repaired to avoid future problems.

This newsletter is funded by a grant from the Kansas Department of Commerce and compiled by the Kansas Corn Growers Association and Kansas Grain Sorghum Producers Association to provide information on ethanol fuels and the repeal of labeling regulations for fuels containing up to 10 percent alcohol (ethanol)

Mythbusters—

Answers to the Top Ethanol Myths

MYTH: E-10 makes engines run hotter.

FACT: The ethanol in E-10 Unleaded actually helps keep your engine cooler, since the ethanol in the fuel combusts at a lower temperature. In fact, many high-powered racing engines use pure alcohol for that very reason.

MYTH: E-10 is bad for fuel injectors.

FACT: Ethanol and E-10 Unleaded have never contributed to burning or fouling of port fuel injectors. Some components in gasoline, such as olefins, have been identified as causing deposits that can foul injectors. Because ethanol burns 100% and leaves no residue, it can't contribute to the formation of deposits. The ethanol in E-10 actually keeps fuel injectors cleaner—helping improve engine performance. It does not increase corrosion, nor will it harm any seals or valves.

MYTH: E-10 causes vapor lock.

FACT: Vapor pressure specifications of gasoline continue to be lowered by state and federal statute, virtually eliminating the vapor lock problems that were reported in the past. The vapor pressure of gasoline is set by state law, and is lower in the spring and summer than in the fall and winter. Vapor lock usually occurs when a winter grade of gasoline formulated for cold weather starts is used under summer-like conditions. (Remember: 90% of E-10 Unleaded is gasoline, so the formulation of the base gasoline has a dramatic effect on performance.) Also, all major auto manufacturers now have in-tank fuel pumps which are not subject to vapor lock like the older in-line fuel pumps.

MYTH: E-10 plugs fuel lines.

FACT: Today occurrences of plugged fuel filters are virtually non-existent. The cleansing nature of E-10 can actually keep your fuel system cleaner and lead to improved performance. In the case of dirty fuel systems, contaminants and residues that have been deposited by previous gasoline fills can be loosened. That residue can get caught in the fuel filter. In older cars, especially those made prior to 1975, replacing the filter solves the problem, and once your fuel system is clean, your car's performance should improve as well.

MYTH: Ethanol reduces gas mileage.

FACT: Many variables affect fuel economy, including seasons, the weather, and the state of your car, road grade, tire pressure, and the use of air conditioners. Most drivers using E10 see an increase or no difference in fuel economy.

MYTH: Most auto mechanics tell people not to use E-10 .

FACT: A mechanic who says not to use E-10 simply does not have correct information—particularly since every major automaker in the world approves the use of E-10. Unfortunately, there has been little information for mechanics on fuel formulation, so when a problem appears to be fuel related, some mechanics will immediately ask if E-10 Unleaded has been used. In some states, E-10 Unleaded advocates have offered a substantial reward to any customer who can document damage from E-10 Unleaded to his or her car—and so far, no one has ever collected.



MYTH: E-10 can't be used in older cars.

FACT: The formulation of gasoline has changed dramatically over the past few years without affecting the performance of older cars. Many older cars were designed to run on leaded gasoline, with the lead providing necessary octane for performance—and the lead oxides that were formed during combustion provided a cushion that reduced wear on non-case-hardened valve seats. When lead was phased out of gasoline, oil companies added chemicals to raise the octane rating—and other additives to replace the "lubrication" value of lead. The ethanol in E-10 raises octane in gasoline by three points—and it does so using a natural, renewable additive that works well in older engines.

MYTH: E-10 can't be used in small engines.

FACT: E-10 is perfectly acceptable in lawn mowers, snowmobiles, and other small engines. Manufacturers of this equipment know that more than 40% of the gasoline sold across the U.S. contains oxygenates such as ethanol, so they've made certain that their engines perform on these clean-burning fuels. E-10 may be used anywhere that unleaded gasoline is used—from ATVs to chainsaws, from lawn mowers to personal watercraft. Virtually every small engine manufacturer approves the use of E-10 in its equipment.

Bottom Line—Ethanol-blended fuels are safe for your vehicle. Virtually all gas-powered vehicles in California and Minnesota use ethanol blended fuels.

Ethanol Tax Credits and Incentives for E10 and E85

Incentives Help Retailers, Customers

For all ethanol blends:

51 Cent per Gallon Ethanol Tax Credit Is Important Tool

The Volumetric Ethanol Excise Tax Credit, also known as VEETC, is a Federal tax credit that went into effect on January 1, 2005. This is a credit of \$.51 for every gallon of pure ethanol blended into gasoline. For example, an E10 blend will have a credit available of \$.051/gallon, and E85 will have a credit available of \$.4335/gallon. This credit is identical for both E10 and E85, as are the forms to file for it. A registered blender is the only individual in the supply chain that is eligible for this credit, and it can only be taken once. Understanding where this credit is taken and who is eligible is imperative to keep the pricing of ethanol-blended fuels below regular gasoline and in-line with where they should be. This credit is now refundable quarterly, and all funds are paid out of the General Fund of the federal budget. In years past, these funds were allocated from the Highway Fund. It is recommended that you consult with your accountant to see how this credit will effect your business.

VEETC Details

- Credit of 51 cents for every gallon of pure ethanol blended into gasoline
- E10 would have a credit of 5.1 cents per gallon.
- VEETC is sometimes referred to as the “blenders credit”. A registered blender is the only individual eligible for the credit.
- The credit is refundable quarterly from the General Fund



For E85 fuel:

State Offers Credit for Stations that Add E85 Fuel

A retailer can add E85 to their product line and become eligible for an income tax credit equal to 40% of the total amount expended on adding that product. According to the statute, “Any taxpayer who makes expenditures for a qualified alternative-fuel fueling station shall be allowed a credit against the income tax imposed by article 32 of chapter 79 of the Kansas Statutes Annotated, as follows: Any qualified alternative-fuel fueling station placed in service on or after January 1, 2005, an amount equal to 40% of the total amount expended for each qualified alternative-fuel fueling station, but not to exceed \$160,000 for each fueling station.” The form can be downloaded at: www.ksrevenue.org/taxcredits-altfuel.htm

State Tax Credit to FFV Owners Who Use E85 Fuel

People who buy FFVs and use E85 can claim a state tax credit. An individual who purchases a new FFV has from the date of purchase through that calendar year and the next calendar year to purchase 500 gallons of E85. They can then submit those receipts with their taxes and receive a \$750 tax credit.

Commissions Help with Ethanol Promotions

While the new state law that takes effect July 1, 2005, removes the labeling requirement for fuels containing up to 10% ethanol, many retailers will choose to label their ethanol blended fuel at a selling tool. The Kansas Corn Commission and Kansas Grain Sorghum Commission can help stations who choose to advertise ethanol blended fuels at their stations by providing brochures and promotional items and by participating in ethanol rallies. For help with a promotion, contact us at 800-489-2676.



The ethanol-powered Corn Car at an ethanol rally .

E85 Fuel for Flexible Fuel Vehicles

What Is E85?

E85 is the term for motor fuel blends of 85 percent ethanol and just 15 percent gasoline. (E70 is the winter-blend, normally offered from October 15th through March 15th. The additional gasoline helps with cold starts in the cooler months.) E85 is an alternative fuel as defined by the U.S. Department of Energy. Besides its superior performance characteristics, ethanol burns cleaner than gasoline; it is a completely renewable, domestic, environmentally friendly fuel that enhances the nation's economy and energy independence.

E-85 fuel can be used in flexible fuel vehicles (FFVs). The FFV system allows the driver to use any combination of gasoline or ethanol - from 100 percent unleaded gasoline to 85 percent ethanol. GM, DaimlerChrysler, Ford, Mercedes, Mercury and Nissan all produce vehicles that can run on E85. Over six million cars on America's highways have the flexible fuel option. Kansas currently has four E85 stations located in Topeka, Maize, Hays and Garnett. With the high price of oil and resulting high price of unleaded gasoline, motorists have begun to notice E85 prices between 30 and 60 cents below regular unleaded.



NEVC Grants Available

Grants up to \$1,000 are available from the National Ethanol Vehicle coalition to qualified retailers and fleet locations to convert existing equipment to E85; to install new E85 fueling equipment and/or to, successfully launch E85. Funding is limited and specific criteria must be met.

Contact NEVC at 877-485-8595.

Preparing Tanks for E85 *(85% ethanol)*

E85 Fuel is for use in Flexible Fuel Vehicles and must be labeled to notify customers of the high ethanol content. The same tank cleaning procedures apply for E85 as E10 Unleaded, but modifications are necessary with existing equipment.

Preparation:

1. Pump out gasoline or diesel from underground tank.
2. Clean out all product/water/sludge from the bottom of the tank.
3. Add 100 gallons of E10 Unleaded gasoline.
4. Pump out all E10 Unleaded and any remaining residue.
(Steps 5 and 6 may not be necessary, but are provided as a suggestion.)
5. Add 500 gallons of E10 Unleaded gasoline.
6. Sell the 500 gallons of E10 Unleaded gasoline.
7. Install E85-compatible non-aluminum nozzle (nickel-plated or steel); compatible breakaways and Teflon-lined hose with stainless steel ends/fittings to pump.
8. Install 1-micron (instead of 10-micron gasoline) dispenser filters.
9. Decal pump with E85 logos, cautionary statement and orange/black Federal Trade sticker. Also, please use E85 nozzle cover, pump topper and hose hangtags as needed to train customer behavior and to promote the new product. Display price of E85 on price marquee.
10. Drop in the first load of E85 (minor blending with remaining gasoline is acceptable).
11. Notify insurance company regarding change in product.
12. It is also recommended that you contact your AST/UST manufacturer or supplier to ensure compatibility of your tank with E85.

For more information on adding E85 fuel for flexible fuel vehicles at your station, contact the National Ethanol Vehicle Coalition at 877-485-8595 or visit the web site at www.e85fuel.com

Ethanol Blending Economics

	Prices	NoLead (87)	E10 (89)
Gasoline	1.4825	1.4825	1.3343
Ethanol	1.20		.1200
Subtotal		1.4825	1.4543
State Tax	.240	.240	
State Tax E10	.240		.240
Federal Tax—Gasoline	.184	.184	
Federal Tax—E10			.184
VEETC <i>(ethanol tax credit)</i>	.51		-.051
TOTAL		1.9065	1.8273

Kansas Ethanol Information
website at:

www.ksgrains.com

Ethanol Resources for Fuel Retailers

- **Kansas Ethanol Information Website**
www.ksgrains.com/ethanol
- **Kansas Corn Growers/Grain Sorghum Commissions and Associations: 800-489-2676**
www.ksgrains.com
- **National Ethanol Vehicle Coalition**
www.e85fuel.com
- **American Coalition for Ethanol**
www.ethanol.org
- **Renewable Fuels Association**
www.ethanolrfa.org
- **Ethanol Producers Information Council**
www.drivingethanol.org
- **E10 Unleaded Web Site**
www.e10unleaded.com
- **Petroleum Marketers and Convenience Store Association of Kansas: 785-233-9655**
www.pmcaofks.org
- Special thanks to:
Kansas Department of Commerce
www.kansascommerce.com

LOOK INSIDE
Helpful information
for fuel retailers

The Fuel Retailer's Ethanol Guide
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