



## MYTH 1

**It is unsafe to use ethanol in my lawn mower/weed eater/small engine.**

**The real story:** All small engine manufacturers in the United States approve the use of E10 (10 percent ethanol, 90 percent gasoline) in their equipment.

**Ethanol deteriorates fuel lines.**

## MYTH 2

**The real story:** According to Oklahoma State University, highly aromatic additives, like benzene used to increase octane, are more corrosive to plastic components than ethanol.

## MYTH 3

**E10 goes bad in my outdoor power equipment.**

**The real story:** Today's fuel (ethanol enriched or not) has a short shelf life. Many manufacturers recommend storing fuel no longer than 30-60 days unless a stabilizer is used. After this point, gasoline starts producing gums and varnish in your fuel system, possibly harming the engine. Fuel containers should also be sealed to improve longevity.

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### ADDITIONAL INFORMATION:

Learn more about ethanol use by visiting these sites:

Missouri Corn: [www.mocorn.org](http://www.mocorn.org)

Fuels America: [www.fuelsamerica.org](http://www.fuelsamerica.org)

Renewable Fuels Association: [www.ethanolrfa.org](http://www.ethanolrfa.org)

Oklahoma State University Ethanol Gasoline Blends and Small Engines: <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-6015/BAE-1746pod.pdf>

National Boat Racing Association: [www.racenbra.com](http://www.racenbra.com)

American Ethanol: [www.americanethanolracing.com](http://www.americanethanolracing.com)

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# RUN SAFE WITH ETHANOL

## SMALL ENGINES BOATS & CLASSIC CARS



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PLANTING OPPORTUNITY

When you break out the gas can, do you ever wonder what you're actually putting in your small engines? There is a lot more to a gallon of gas than petroleum.

Today's gasoline composition is made of up of more than 150 chemicals and compounds. Additives include metal deactivators, corrosion inhibitors, oxygenates and antioxidants – many of which are toxic and harmful to the environment.

### Check out these common myths to find out what could be harming your engine.

Yet with all these toxins and chemicals in the mix, ethanol (a safe, clean burning oxygenate) is often singled out as a culprit for small engine issues. Made from corn, ethanol has been used in the United States since the early 1980s.

Today over 90 percent of the gasoline sold to millions of Americans for their cars, boats and small engines contains up to 10 percent of this renewable fuel – with no issues. So what's the real culprit?



#### MYTH 1

**Ethanol adds water to fuel and causes phase separation.**

***The real story:** Ethanol is anhydrous. E10 fuel cannot absorb enough moisture from the air to cause phase separation (separation into two liquid phases). If water is allowed directly in the tank, phase separation can occur in both straight gasoline and ethanol blends.*

**Ethanol reduces the performance of my boat.**

#### MYTH 2

***The real story:** Ethanol provides high octane for exceptional engine performance and reduced emissions. Need proof? The National Boat Racing Association (NBRA) uses E10 exclusively for all their races.*

#### MYTH 3

**Ethanol doesn't work with two-stroke motors.**

***The real story:** Internal testing must be completed before a manufacturer recommends using a specific fuel blend. Recognizing the fuel's growing popularity, all small engine manufacturers have long permitted the use of E10. See your manual for more information.*



#### MYTH 1

**Ethanol clogs my carburetor.**

***The real story:** Ethanol is an effective solvent and can help remove gum and deposits left by years of gasoline use. This is one of the many reasons alcohol is often used as an additive in today's fuel.*

**My fuel system is harmed by ethanol.**

#### MYTH 2

***The real story:** Aromatics used in today's gasoline are generally more aggressive to rubber than those of the 60s and 70s. Extended storage periods without proper treatment or overuse of certain additives may also contribute to deterioration of fuel system components.*

#### MYTH 3

**Using ethanol reduces my car's performance.**

*Ethanol is one of the most economical performance fuels on the market. That is why it is used by every car in NASCAR's three premier series. Many teams have reported an increase in horsepower and no decrease in mileage when using ethanol-enhanced fuel.*