

## "The Ethanol Menace"



E-10 gasoline (containing 10% Ethanol) has recently been introduced to several North Eastern regions of the U.S. With that introduction comes a lot of concerns and troubles for anyone owning a gasoline-powered (small) engine such as a snowmobile, outdoor power equipment or Marine engine (boat).

While E-10 gasoline has some benefits, there are also many problems that this new formulation can cause as well. One of the biggest problems with E10 fuel is “phase separation.” That’s what happens when too much water gets absorbed into the fuel. When phase separation occurs in E10, the ethanol is pulled out of the gas and absorbed by the water. This results in two solutions, neither of which is good for the engine or fuel system...not to mention the environment. The only solution for phase-separated fuel is to dispose of the entire fuel load, clean the tank, and start over with a fresh tank of E10.

Be careful on what you hear, as there is no magic ingredient to reverse phase separation after it has already dropped to the bottom. The easiest defense **against** phase separation is to keep the tank almost full-at all times, allowing a little space for the fuel to expand in warmer weather. Moisture comes from the empty space in the tank so reducing the amount of air in your tank will reduce the amount of water that can enter with the air. This is especially important when you are dealing with equipment designed with an “Open” fuel system.

Another problem is the unknown quality of the “new” fuel you pump into your tank. There is a very complete and comprehensive process that fuel retailers need to complete as they change over to this new fuel. If your fuel supplier disregards these specific instructions, the problems they have with their fuel will be transferred to be problems in your tank.

Ethanol is also very corrosive and can corrode the fuel tanks and other fuel system components at a rapid rate. It is very important to pour in a fuel additive that guards against corrosion every time you fill the tank; this is especially true with small engines since many still use aluminum parts which corrode quickly due to the white rust that can develop.

A third problem is that ethanol can loosen debris that normally collects in the corners of the fuel tank and can lead to clogged fuel systems. Again, adding a fuel treatment that contains cleaners will allow for these dirt particles to pass through your system.

The final important fact to remember is that gasoline “oxidizes” when exposed to air. That is, it loses its volatility over time and may turn to varnish. Using a fuel additive that will address all of these issues will help you enjoy your gasoline-powered small engines and/or boat worry-free for years to come. But buyers beware; make sure to use a trusted and established brand when seeking a complete fuel additive like STA-BIL® or Marine Formula STA-BIL®, as both are highly recommended by many Original Equipment Manufacturers in various industries.

The good news is that E-10 has been used in many parts of the country for over 15 years so there are proven ways to protect your engines from the potential hazards we have reviewed.

The following is a short list of things you can do to protect your equipment:

- Run a **non-alcohol** fuel stabilizer like STA-BIL or Marine Formula STA-BIL in your fuel system at all times. Especially, recommended for engines that sit for a lengthy period.
- On your first tank of E10 fuel make sure to use up as much of the fuel as possible as quickly as possible. Then fill up again and add STA-BIL as recommended. Many of the issues people are experiencing are due to the mixing of old and newly formulated gasoline.
- The more the vehicle/equipment is used the less likely it is to have problems.
- If you don’t plan on using it for a while, keep your tank 95% FULL to prevent any condensation but still allow room for expansion. It's important to avoid water intrusion into your fuel system.
- Make sure you know what your fuel retailer is dispensing.
- Rubber fuel lines older than the mid-to-late 1980’s should be inspected and may need to be replaced since they may not be compatible with ethanol fuel.

To review, we strongly recommend adding a product like Marine Formula STA-BIL Ethanol Treatment with every fill up. This will protect your engine from ethanol-induced corrosion as well as help keep the entire fuel system clean to avoid problems in the fuel delivery system.

Lastly, this additive will also help prevent fuel oxidation and varnishing during the periods the vehicle/equipment is not in use; effectively dealing with three of the major issues that ethanol fuels present. It has been used and trusted in the Midwest since E10 fuel was introduced in the early 1990’s, so it has been proven and effective.

As you can see, there are many potential issues with the change from your current fuel to E10 fuel but if you follow the steps above you will enjoy your vehicle/equipment for many more years, just like your friends in the Midwest.

*For more information, contact Gold Eagle Co. at 4400 S. Kildare Ave., Chicago, Ill. 60632. 800-367-3245 or visit [www.sta-bil.com](http://www.sta-bil.com).*