

# Is it all right to mix aviation gasoline and automobile gasoline?

## **Field Information Number 310**

*Revised 5/20/96*

Aviation gasoline and unleaded automotive gasoline may be mixed in any proportion. Any mixture containing unleaded automotive gasoline in the aircraft must be handled in accordance with the placards or precautions established for unleaded automotive gasoline

### **Can an Airport Stop me from Fueling My Own Aircraft?**

An airport cannot stop you from fueling your aircraft and continue to be eligible for Federal aid. It may however, require that you conform to its safety regulations.

In accordance with guidelines per FAA AC 150/5190-2A, section 4.D, "Any unreasonable restriction imposed on the owners and operators of aircraft regarding the servicing of their own aircraft and equipment may be considered as a violation of agency policy. The owner of an aircraft should be permitted to **fuel**, wash, repair, paint, and otherwise take care of his or her own aircraft, provided there is no attempt to perform such services for others. Restrictions, which have the effect of diverting activity of this type to a commercial enterprise, amount to an exclusion right contrary to law. Local airport regulations, however, may and should impose restrictions on these activities necessary for safety, preservation of airport facilities and protection of public interest. These might cover, for example, restrictions on the handling practices for aviation fuel and other flammable products, such as aircraft paint and thinners, requirements to keep fire lanes open, weight limitations on vehicles, and aircraft to protect pavement from over stress, etc."

### **Can alcohol, methanol and ethanol be used?**

Do not use fuel which contains methanol or ethanol. They are not compatible with materials in your fuel system and will cause malfunction of the fuel delivery system. There is a simple test to determine significant alcohol content in fuel. EAA Field Information No. 306 provides details on how to do it yourself. The FAA has tested Methyl Tertiary Butyl Ether (MTBE) and found no harmful effects in aircraft engines and typical fuel systems at various concentrations up to 100 percent MTBE. (Reference: Report DOT/FAA/CT88/05 "Alternate fuels for General Aviation Aircraft with Spark Ignition Engines."). As of late 1992, FAA clarified the policy allowing the use of MTBE for STC-approved installations. As of December 1995, the FAA has also tested and approved Ethyl Tertiary Butyl Ether (ETBE). See EAA Field Information No. 305.

### **310-1**

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### **Why is the exhaust stack of my engine black with soot after using auto gasoline?**

A black soot is the natural by-product of burning unleaded gasoline and is to be expected. This is not an indication of a rich mixture, nor an indication of internal build-up or potential for spark plug fouling. The black soot is graphite-type deposit. The gray deposit we usually see when using 100LL aviation gasoline is a lead-type deposit.

### **310-2**