



EASA Safety Information Notice

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Subject: Use of Automotive Gasoline (Mogas) containing Bio-Ethanol

Foreign AD : None.
See FAA Special Airworthiness Information Bulletin CE-07-06

Introduction: Several aircraft equipped with piston engines are approved for operation with automotive gasoline (mogas). These approvals may be limited to the use of mogas that does not contain low-molecular weight alcohols (methanol or ethanol). However, not all (Supplemental) Type Certificated products have this limitation.

The current European fuel standard EN 228 allows up to 3 vol-% methanol and 5 vol-% ethanol without further declaration.

While in the past most of the fuel did not contain methanol or ethanol, this situation has changed due to implementation of the "Directive 2003/30/EC of the European Parliament and of the Council of 8 May 2003 on the promotion of the use of bio fuels or other renewable fuels for transport" in the EU member states. It is anticipated that the amount of ethanol added to the fuel will increase even further in the future.

The usage of fuel containing methanol or ethanol in aircraft which are not designed and approved for it can cause the following problems:

- Increased risk for vapour lock due to different volatility.
- Incompatibility with several materials in the fuel system.
- Phase separation into an alcohol-rich aqueous phase and an alcohol-poor hydrocarbon phase when the fuel is cooled (e.g. in high altitude) and not free of water.

These problems can cause engine in-flight shut downs or fires due to leakages.

Applicability: All aircraft equipped with spark ignited piston engines and approved for operation with automotive gasoline (mogas).

Recommendation: Check whether your aircraft is approved for operation with mogas containing low-molecular weight alcohols (methanol or ethanol).

If not, do not use mogas without having evidence that it is free of methanol or ethanol by asking for a certificate from the fuel

supplier or performing a test for the methanol or ethanol content. Contact the STC-Holder (European Representative for Petersen Aviation: Innovative Aero GmbH <http://autofuelstc.softworkx.ch/> or Deutscher Aero Club <http://www.daec.de/te/en228.php>) for test equipment, or refer to FAA SAIB CE-07-06 for a simple test method.

Operators of aircraft approved for operation with mogas containing methanol or ethanol shall consider the lower energy content of such fuel (higher fuel consumption).

This Safety Information Notice is for information only. No AD action by NAAs is required.

Contact:

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