

**Environmental Protection Agency**

**§ 1065.750**

**§ 1065.725 High-level ethanol-gasoline blends.**

For testing vehicles capable of operating on a high-level ethanol-gasoline blend, create a test fuel as follows:

(a) Add ethanol to an E10 fuel meeting the specifications described in §1065.710 until the ethanol content of the blended fuel is between 80 and 83 volume %.

(b) You may alternatively add ethanol to a gasoline base fuel with no ethanol if you can demonstrate that such a base fuel blended with the proper amount of ethanol would meet all the specifications for E10 test fuel described in §1065.710, other than the ethanol content.

(c) The ethanol used for blending must be either denatured ethanol meeting the specifications in 40 CFR 80.1610, or fuel-grade ethanol with no denaturant. Account for the volume of any denaturant when calculating volumetric percentages.

(d) The blended test fuel must have a dry vapor pressure equivalent between 41.5 and 45.1 kPa (6.0 and 6.5 psi) when measured using the procedure specified in §1065.710. You may add commercial grade butane as needed to meet this specification.

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**§ 1065.740 Lubricants.**

(a) Use commercially available lubricating oil that represents the oil that will be used in your engine in use.

(b) You may use lubrication additives, up to the levels that the additive manufacturer recommends.

**§ 1065.745 Coolants.**

(a) You may use commercially available antifreeze mixtures or other coolants that will be used in your engine in use.

(b) For laboratory testing of liquid-cooled engines, you may use water with or without rust inhibitors.

(c) For coolants allowed in paragraphs (a) and (b) of this section, you may use rust inhibitors and additives required for lubricity, up to the levels that the additive manufacturer recommends.

**§ 1065.750 Analytical gases.**

Analytical gases must meet the accuracy and purity specifications of this section, unless you can show that other specifications would not affect your ability to show that you comply with all applicable emission standards.

(a) Subparts C, D, F, and J of this part refer to the following gas specifications:

(1) Use purified gases to zero measurement instruments and to blend with calibration gases. Use gases with contamination no higher than the highest of the following values in the gas cylinder or at the outlet of a zero-gas generator:

(i) 2% contamination, measured relative to the flow-weighted mean concentration expected at the standard. For example, if you would expect a flow-weighted CO concentration of 100.0 µmol/mol, then you would be allowed to use a zero gas with CO contamination less than or equal to 2.000 µmol/mol.

(ii) Contamination as specified in the following table:

TABLE 1 OF § 1065.750—GENERAL SPECIFICATIONS FOR PURIFIED GASES<sup>1</sup>

Constituent	Purified air	Purified N <sub>2</sub>
THC (C <sub>1</sub> -equivalent)	≤ 0.05 µmol/mol	≤ 0.05 µmol/mol.
CO	≤ 1 µmol/mol	≤ 1 µmol/mol.
CO <sub>2</sub>	≤ 10 µmol/mol	≤ 10 µmol/mol.
O <sub>2</sub>	0.205 to 0.215 mol/mol	≤ 2 µmol/mol.
NO <sub>x</sub>	≤ 0.02 µmol/mol	≤ 0.02 µmol/mol.
N <sub>2</sub> O <sup>2</sup>	≤ 0.02 µmol/mol	≤ 0.02 µmol/mol.

<sup>1</sup> We do not require these levels of purity to be NIST-traceable.

<sup>2</sup> The N<sub>2</sub>O limit applies only if the standard-setting part requires you to report N<sub>2</sub>O or certify to an N<sub>2</sub>O standard.

(2) Use the following gases with a FID analyzer:

(i) *FID fuel*. Use FID fuel with a stated H<sub>2</sub> concentration of (0.39 to 0.41)

mol/mol, balance He or N<sub>2</sub>, and a stated total hydrocarbon concentration of 0.05 µmol/mol or less. For GC-FIDs that measure methane (CH<sub>4</sub>) using a FID