

Environmental Protection Agency

§ 1065.220

(b) If the standard-setting part requires testing with fuel appropriate for low temperatures, use gasoline test fuels meeting the specifications in the following table:

TABLE 2 OF § 1065.210—LOW-TEMPERATURE TEST-FUEL SPECIFICATIONS FOR GASOLINE

Item	Procedure ¹	Value
Distillation Range:		
1. Initial boiling point, °C	ASTM D 86-01	24.4-35.6.
2. 10% point, °C	ASTM D 86-01	36.7-47.8.
3. 50% point, °C	ASTM D 86-01	81.7-101.1.
4. 90% point, °C	ASTM D 86-01	157.8-174.4.
5. End point, °C (maximum)	ASTM D 86-01	211.7.
Hydrocarbon composition:		
1. Olefins, volume %	ASTM D 1319-02	17.5 maximum.
2. Aromatics, volume %	ASTM D 1319-02	30.4 maximum.
3. Saturates	ASTM D 1319-02	Remainder.
Lead (organic), g/liter	ASTM D 3237-97	0.013 maximum.
Phosphorous, g/liter	ASTM D 3231-02	0.005 maximum.
Sulfur, weight %	ASTM D 1266-98	0.08 maximum.
Volatility (Reid Vapor Pressure), kPa	ASTM D 323-99a	11.2-11.8 psi.

¹All ASTM standards are incorporated by reference in § 1065.1010.

(c) Use gasoline test fuel with octane values that represent commercially available fuels for the appropriate application.

[67 FR 68347, Nov. 8, 2002; 67 FR 72724, Dec. 6, 2002]

§ 1065.215 Test fuel specifications for natural gas.

(a) Natural gas used as a test fuel must meet the specifications in the following table:

TABLE 1 OF § 1065.215—TEST-FUEL SPECIFICATIONS FOR NATURAL GAS

Item	Procedure ¹	Value (mole percent)
1. Methane	ASTM D 1945-96	87.0 minimum.
2. Ethane	ASTM D 1945-96	5.5 maximum.
3. Propane	ASTM D 1945-96	1.2 maximum.
4. Butane	ASTM D 1945-96	0.35 maximum.
5. Pentane	ASTM D 1945-96	0.13 maximum.
6. C6 and higher	ASTM D 1945-96	0.1 maximum.
7. Oxygen	ASTM D 1945-96	1.0 maximum.
8. Inert gases (sum of CO ₂ and N ₂)	ASTM D 1945-96	5.1 maximum.

¹All ASTM standards are incorporated by reference in § 1065.1010.

(b) At ambient conditions, the fuel must have a distinctive odor detectable down to a concentration in air of not more than one-fifth of the lower flammability limit.

§ 1065.220 Test fuel specifications for liquefied petroleum gas.

(a) Liquefied petroleum gas used as a test fuel must meet the specifications in the following table:

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TABLE 1 OF § 1065.220—TEST-FUEL SPECIFICATIONS FOR LIQUEFIED PETROLEUM GAS

Item	Procedure ¹	Value
1. Propane	ASTM D 2163-91	85.0 vol. percent minimum.
2. Vapor pressure at 38° C	ASTM D 1267-02 or 2598-02 ²	14 bar maximum.
3. Volatility residue (evaporated temp., 35° C)	ASTM D 1837-02	-38° C maximum.
4. Butanes	ASTM D 2163-91	5.0 vol. percent maximum.
5. Butenes	ASTM D 2163-91	2.0 vol. percent maximum.
6. Pentenes and heavier	ASTM D 2163-91	0.5 vol. percent maximum.
7. Propene	ASTM D 2163-91	10.0 vol. percent maximum.
8. Residual matter (residue on evap. of 100 ml oil stain observ.)	ASTM D 2158-02	0.05 ml maximum pass. ³
9. Corrosion, copper strip	ASTM D 1838-91	No. 1 maximum.
10. Sulfur	ASTM D 2784-98	80 ppm maximum.
11. Moisture content	ASTM D 2713-91	pass.

¹ All ASTM standards are incorporated by reference in § 1065.1010.
² If these two test methods yield different results, use the results from ASTM D 1267-02.
³ The test fuel must not yield a persistent oil ring when you add 0.3 ml of solvent residue mixture to a filter paper in 0.1 ml increments and examine it in daylight after two minutes (see ASTM D 2158-02).

(b) At ambient conditions, the fuel must have a distinctive odor detectable down to a concentration in air of not over one-fifth of the lower flammability limit.

§ 1065.240 Lubricating oils.

Lubricating oils you use to comply with this part must be commercially available and represent the oil that will be used with your in-use engines.

§ 1065.250 Analytical gases.

Analytical gases that you use to comply with this part must meet the accuracy and purity specifications of this section. You must record the expiration date specified by the gas supplier and may not use any gas after the expiration date.

(a) *Pure gases.* Use the “pure gases” shown in the following table:

TABLE 1 OF § 1065.250—CONCENTRATION LIMITS FOR PURE GASES

Gas type	Maximum contaminant concentrations				Oxygen content
	Organic carbon	Carbon monoxide	Carbon dioxide	Nitric oxide (NO)	
Purified Nitrogen ...	1 ppmC	1 ppm	400 ppm	0.1 ppm	NA.
Purified Oxygen	NA	NA	NA	NA	99.5-100.0%.
Purified Synthetic Air, or Zero-Grade Air.	1 ppmC	1 ppm	400 ppm	0.1 ppm	18-21%.

(b) *Fuel for flame ionization detectors.* Use a hydrogen-helium mixture as the fuel. Make sure the mixture contains 40 ± 2 percent hydrogen and no more than 1 ppmC of organic carbon or 400 ppm of CO₂.

(c) *Calibration and span gases.* Apply the following provisions to calibration and span gases:

(1) Use the following gas mixtures, as applicable, for calibrating and spanning your analytical instruments:

(i) Propane in purified synthetic air. You may ask us to allow you to use propane in purified nitrogen for high concentrations of propane.

(ii) CO in purified nitrogen.