



Oxygenated Gasoline, Unleaded Regular, Factory Fill

1 Scope

Note: Nothing in this standard supercedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose/Material Description. This specification covers unleaded low sulfur oxygenated regular grade gasoline.

1.2 Symbols. Not applicable.

1.3 Applicability. This gasoline is intended primarily for factory fill use. Factory fill gasoline is intended for use in vehicles which are stored for extended periods of time or in storage tanks where the rate of turnover is low.

1.4 Remarks. None.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

ASTM D86	ASTM D3120	ASTM D4814	ASTM D5580
ASTM D130	ASTM D3231	ASTM D4815	ASTM D5598
ASTM D381	ASTM D3237	ASTM D5059	ASTM D5599
ASTM D525	ASTM D3606	ASTM D5184	ASTM D6378
ASTM D665	ASTM D3703	ASTM D5185	CAN/CGSB 3.511
ASTM D1319	ASTM D3831	ASTM D5191	CCR Title 17, §60100- §60114
ASTM D2622	ASTM D4052	ASTM D5452	CFR 40
ASTM D2699	ASTM D4176	ASTM D5453	
ASTM D2700	ASTM D4806	ASTM D5500	

2.2 GM Standards/Specifications.

GMW3059

2.3 Additional References.

- California Code of Regulations (CCR) Title 17, §60100 through §60114 can be obtained from Barclays, 50 California Street, San Francisco, CA 94111.
- Code of Federal Regulations (CFR) 40 can be obtained from United States (U.S.) Government Printing Office, Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401.
- GM Part Number 9986086.
- TOP TIER gasoline retailers (available at URL: www.toptiergas.com).

3 Requirements

In addition to the limits shown herein, the fuel must also meet applicable regulations of the United States (U.S.) Environmental Protection Agency (EPA) for plants in the States or any local regulatory requirements, e.g., CFR 40 and CCR Title 17, §60100-§60114. These regulations take precedence over requirements within this specification.

Fuel should be a TOP TIER brand which is stated in the owner's manual. Consult the www.toptiergas.com website for a list of TOP TIER gasoline retailers.

The test requirements given in this specification are minimum or maximum, as the case may be, *Acceptance Limits* for valid tests. No adjustments for test precision are to be applied as test variability was taken into account in the determination of the requirements.

All ASTM International (ASTM) specified tests shall be performed according to the latest published version unless otherwise required by this specification.

3.1 Requirements on Delivery. These specifications apply to samples taken directly from the tank car or wagon. The supplier shall be responsible for meeting the requirements listed therein even if properties are not directly measured.

3.1.1 Chemical Requirements. See Table 1.

Table 1: Physical Properties

Property	Test Method	Units	Value
<u>Antiknock Rating:</u>			
• RON	ASTM D2699	Minimum	92
• MON	ASTM D2700	Minimum	82
• Antiknock Index (AKI)	(R+M) / 2	Minimum	87
Sensitivity	(R-M)	Report	---
Sulfur	ASTM D2622, ASTM D3120, or ASTM D5453	ppm, Maximum mass, Maximum	30 0.003%
Phosphorus Note 1	ASTM D3231	mg/L, Maximum	1.3
Lead Note 1	ASTM D3237, ASTM D5059	mg/L, Maximum	2
Silicon Note 1	ASTM D5184, ASTM D5185, ICP/AES or XRF	mg/kg, Maximum	4
Manganese Note 1	ASTM D3831	mg/l, Maximum	2.0
Copper Corrosion	ASTM D130	Classification	1a
Ferrous Corrosion	ASTM D665 Proc. A (See 3.1.2)	5%, Maximum	Pass
<u>Gum</u>			
• Solvent Washed	ASTM D381	mg/100ml, Maximum	5
• Unwashed	ASTM D381	mg/100ml, Maximum	70
Oxidation Stability	ASTM D525	Minutes, Minimum	960