



GASOLINE, UNLEADED, INITIAL FILL, ALKYLATE, PREMIUM GRADE

WSS-M4C125-A

1. SCOPE

The material defined by this specification is a well-refined gasoline containing alkylate fuel component to prevent spark plug fouling and a controlled amount of aromatics for octane and elastomers compatibility.

2. APPLICATION

This specification was released originally for initial fill gasolines to reduce spark plug soot fouling.

3. REQUIREMENTS

Material specification requirements are to be used for initial qualification of materials.

These materials must meet the requirements of ASTM D 4814 Standard Specification for Automotive Spark Ignition Engine Fuel, plus the following:

3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2 OCTANE NUMBER

3.2.1	Research Octane Number (ASTM D 2699)	95.0 min
3.2.2	Motor Octane Number (ASTM D 2699)	Report.
3.2.3	Antiknock Index, (RON + MON)/2, min (ASTM D 2699, ASTM D 2700/)	91.0 min

3.3	TOTAL SULFUR, % Wt, max. (ASTM D 5453)	0.0030 max
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3.4 METAL CONTENT, g/L, max.

3.4.1	Lead (ASTM D 3237)	0.01
3.4.2	Phosphorous (ASTM D 3231)	0.001
3.4.3	Manganese (ASTM D 3831)	0.001

Date	Action	Revisions
2006 03 06	Revised	Title, 1, 3, 3.2.1, 3.2.2, 3.3, 3.4.1, 3.4.2, 3.5.1, 3.6, 3.7, 3.8, 3.9, 3.10, 3.12; Deleted 3.14, 3.15 & 5.3; Added 3.2.3, 3.6.1, 3.6.2, 3.10.1, 3.10.2, 3.10.3 & Chart on page 5 C. Richardson
2004 03 31	Revised	Para 3.0 inserted; Paras 3.1, 3.16 and 4 deleted
2001 12 18	Activated	



**3.5 COMPOSITION**

3.5.1	Hydrocarbons, % Vol. (ASTM D 1319)	
	Aromatics	5.0 – 10.0
	Olefins, max	1.0
	Saturates	Report
3.5.2	Water and Sediment, mg/kg, max. (ASTM D 1744-92)	100
3.5.3	Gum, mg/100 ml, max. (ASTM D 381)	
	Washed	4
	Unwashed	Report

3.6 DISTILLATION
(ASTM D 86)

3.6.1	Winter	
	Evaporation, Vol %	Temperature, °F
	10	120 max
	50	170 - 200
	90	300 max
	FBP	430 max
3.6.2	Summer	
	Evaporation, Vol %	Temperature, °F
	0	140 max
	50	170 - 225
	90	320 max
	FBP	420 max

3.7 VAPOR PRESSURE, psi
(ASTM D 5191)

Winter	13.5 – 14.5
Summer	7.4 – 7.8

3.8 SPECIFIC GRAVITY
(ASTM D 1298)

Report

3.9 OXIDATION STABILITY, minutes, min.
(ASTM D 525)

1440