



GAGE PRODUCTS CO.
821 WANDA AVENUE
FERNDALE, MI 48220
(248) 541-3824

Gage Products Company
Certificate of Analysis / QC Results

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Customer PO # :

Packaged Product: 43065 CSC 2019 Endurance Gasoline				
Property	Test Method	UOM	Specification	Value
SPECIFIC GRAVITY @ 60.0 F	ASTM D4052		REPORT	0.7403
API GRAVITY @ 60 F	ASTM D4052		REPORT	59.65
DISTILLATION, IBP	ASTM D86	DEG F (DEG C)	75.0 - 95.0(23.9 - 35.0)	83.0(28.3)
DISTILLATION, 5%	ASTM D86	DEG F (DEG C)	REPORT	110.9(43.8)
DISTILLATION, 10%	ASTM D86	DEG F (DEG C)	120.0 - 135.0(48.9 - 57.2)	124.4(51.3)
DISTILLATION, 20%	ASTM D86	DEG F (DEG C)	REPORT	144.4(62.4)
DISTILLATION, 30%	ASTM D86	DEG F (DEG C)	REPORT	167.7(75.4)
DISTILLATION, 40%	ASTM D86	DEG F (DEG C)	REPORT	196.8(91.6)
DISTILLATION, 50%	ASTM D86	DEG F (DEG C)	200.0 - 230.0(93.3 - 110.0)	217.6(103.1)
DISTILLATION, 60%	ASTM D86	DEG F (DEG C)	REPORT	227.5(108.6)
DISTILLATION, 70%	ASTM D86	DEG F (DEG C)	REPORT	236.3(113.5)
DISTILLATION, 80%	ASTM D86	DEG F (DEG C)	REPORT	254.8(123.8)
DISTILLATION, 90%	ASTM D86	DEG F (DEG C)	300.0 - 325.0(148.9 - 162.8)	314.8(157.1)
DISTILLATION, 95%	ASTM D86	DEG F (DEG C)	REPORT	338.6(170.3)
DISTILLATION, DRY POINT	ASTM D86	DEG F (DEG C)	415.0(212.8), MAX	363.1(183.9)
RECOVERY	ASTM D86	VOL. %	REPORT	97.9
RESIDUE	ASTM D86	VOL. %	2.0, MAX	1.1
LOSS	ASTM D86	VOL. %	REPORT	1.0
RVP @ 100 F	ASTM D5191	PSI (KPA)	8.90 - 9.20(61.32 - 63.39)	9.20(63.39)
RESEARCH OCTANE NUMBER	ASTM D2699	RON	96.0 - 98.5	98.0
MOTOR OCTANE NUMBER	ASTM D2700	MON	REPORT	89.2
OCTANE RATING	GAGE-CALCULATED	R+M/2	92.0, MIN	93.6
OCTANE SENSITIVITY	GAGE-CALCULATED	R-M	7.5, MIN	8.8
AROMATIC CONTENT	ASTM D5580	VOL%	25.0 - 33.0	32.0
AROMATIC CONTENT	ASTM D1319	VOL. %	35.0, MAX	27.4
OLEFIN CONTENT	ASTM D1319	VOL. %	10.0, MAX	0.3
SATURATE CONTENT	ASTM D1319	VOL. %	REPORT	72.3
SULFUR CONTENT	ASTM D5453	PPM	25.0 - 35.0	29.7
LEAD CONTENT	ASTM D3237	G/GAL	0.05, MAX.	0.00
PHOSPHOROUS CONTENT	ASTM D3231	G/GAL	0.005, MAX.	0.000
SILICON CONTENT	ASTM D5185mod	MG/KG	4.00, MAX	0.00
MANGANESE CONTENT	ASTM D3831	MG/L	2.00, MAX	0.00
COPPER CORROSION	ASTM D130	COPPER CORR.	1A, MAX.	1A
EXISTENT GUM (WASHED)	ASTM D381	MG/100ML	5.00, MAX	0.00
UNWASHED GUM	ASTM D381	MG/100ML	70.00, MAX	0.00
OXIDATION STABILITY	ASTM D525	MIN.	960, MIN.	>960
CARBON CONTENT	ASTM D5291	WT. %	REPORT	85.94
HYDROGEN CONTENT	ASTM D5291	WT. %	REPORT	14.06
C/H RATIO	GAGE-CALCULATED	WT/WT	REPORT	6.114
H/C RATIO	GAGE-CALCULATED	MOLE/MOLE	REPORT	1.949



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NET HEAT OF COMBUSTION	ASTM D240	BTU/LB (MJ/KG)	REPORT	18597.9(43.3)
CARBON DENSITY	CALCULATED		2401 - 2441	2404
OXYGENATES	ASTM D4815	VOL. %	NONE	NONE
WATER CONTENT	ASTM E1064	WT. %	0.01, MAX	0.00
PIONA ANALYSIS ATTACHED	ASTM D6730 mod	VOL%	Y/N	N
FUEL FINGERPRINT	GC - TDI METHOD. Attach chromatogram to batch ticket		Y/N	Y

Lot # 13189000

Made 02/02/19

In sealed unopened containers this product is good until 02/02/21

Approved By: Robert Datzelt

