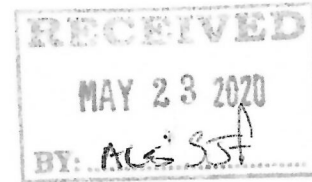


SW 03255



Certificate of Analysis

PO Number: 39698
 Product: CALUMET 195-208 <1%
 Cust. Mat. No: 03255
 Product Code: 300339100000
 Lot Number: 2005010008
 Carrier: 0010007003-THE KANSAS CITY SOUTHERN R

Order Number: 603264
 Shipping Date: May 6, 2020
 Date of Mfg: May 1, 2020
 Qty: 167,883.186 LB
 Rail ID: SRIX030057

Test Description	Units	Method	Min.	Max.	Results
API GRAVITY @ 60°F		D4052			68.0
SPECIFIC GRAVITY @ 60/60°F		D1250			0.7093
POUNDS PER GALLON @ 60°F	lb/gal	D1250			5.913
COLOR, SAYBOLT		D156	28		30
WATER CONTENT (ppm)	ppm	D1533		500	48
ANILINE POINT (°F)	°F	D611			147.7
ANILINE POINT (°C)	°C	D611			64.2
DISTILLATION, IBP (°F)	°F	D86	195		196
DISTILLATION, 5% (°F)	°F	D86			198
DISTILLATION, 10% (°F)	°F	D86			198
DISTILLATION, 20% (°F)	°F	D86			199
DISTILLATION, 30% (°F)	°F	D86			199
DISTILLATION, 40% (°F)	°F	D86			200
DISTILLATION, 50% (°F)	°F	D86			200
DISTILLATION, 60% (°F)	°F	D86			201
DISTILLATION, 70% (°F)	°F	D86			201

Analysis Certified By: Daniel Holder Laboratory Manager Daniel Holder
 Printed Name Title Lab Signature/Loader

LOT NO. 2105134

Certificate of Analysis

PO Number: 39698
 Product: CALUMET 195-208 <1%
 Cust. Mat. No: 03255
 Product Code: 300339100000
 Lot Number: 2005010008
 Carrier: 0010007003-THE KANSAS CITY SOUTHERN R

Order Number: 603264
 Shipping Date: May 6, 2020
 Date of Mfg: May 1, 2020
 Qty: 167,883.186 LB
 Rail ID: SRX030057

<u>Test Description</u>	<u>Units</u>	<u>Method</u>	<u>Min.</u>	<u>Max.</u>	<u>Results</u>
DISTILLATION, 80% (°F)	°F	D86			202
DISTILLATION, 90% (°F)	°F	D86			204
DISTILLATION, 95% (°F)	°F	D86			208
DISTILLATION, DP (°F)	°F	D86			208
SULFUR, ppm	ppm	D5453		208	208
TOTAL AROMATICS, wt %	wt %	D5134		1.0	0.0100
KAURI-BUTANOL VALUE		D1133			0.0
BTEX (DETECTION LIMIT <1 PPM)		EPA SW-846 8260B			31.6
					ND

Analysis Certified By:

Daniel Holder
Printed Name

Laboratory Manager
Title

Daniel Holder
Lab Signature/Loader