

Univar Solutions Batch#: 0834 K01818  
 Material#: 16140758  
 Initial AL Date: 5-11-2020

MFG Date: 5-1-2020  
 Exp Date: 5-11-2021



2780 Waterfront Pkwy E., Indianapolis IN 46214

Phone: 317-328-5660 Fax: 317-328-2359 www.calumetspecialty.com

## Certificate of Analysis

PO Number: 4524263303-1	Order Number: 607113
Product: CALUMET 420-460	Shipping Date: May 9, 2020
Cust. Mat. No: 16055819	Date of Mfg: May 1, 2020
Product Code: 300345100000	Qty: 44,360 LB
Lot Number: 2005010043	Container ID: T500
Carrier: 0060001402-SINDLE TRUCKING, LLC	Truck ID: 1870

<b>Billing:</b>	<b>Shipping To:</b>	<b>Shipping From:</b>
UNIVAR SOLUTIONS USA PO BOX 34325 SEATTLE WA 98124-1325	UNIVAR USA INC. 2600 S. GARFIELD AVE COMMERCE CA 90040	Calumet Refining, LLC 1756 Old Highway 7 Cotton Valley LA 71018-2989

Test Description	Units	Method	Min.	Max.	Results
API GRAVITY @ 60°F		D4052	43.0	48.0	45.9
SPECIFIC GRAVITY @ 60/60°F		D1250	0.7883	0.8109	0.7976
POUNDS PER GALLON @ 60°F	lb/gal	D1250			6.650
COLOR, SAYBOLT		D156	28		30
FLASH POINT, PMCC (°F)	°F	D93			206
DISTILLATION, IBP (°F)	°F	D86	422		435
DISTILLATION, 5% (°F)	°F	D86			440
DISTILLATION, 10% (°F)	°F	D86			440
DISTILLATION, 20% (°F)	°F	D86			442
DISTILLATION, 30% (°F)	°F	D86			443
DISTILLATION, 40% (°F)	°F	D86			445
DISTILLATION, 50% (°F)	°F	D86			446
DISTILLATION, 60% (°F)	°F	D86			448
DISTILLATION, 70% (°F)	°F	D86			451
DISTILLATION, 80% (°F)	°F	D86			454
DISTILLATION, 90% (°F)	°F	D86			460

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

All sales of Products by Calumet Specialty Products Partners, L.P. and its subsidiaries and affiliates are subject to the applicable terms and conditions of sale at <http://www.calumetspecialty.com/customer-service/terms-of-sale>, which are incorporated herein by reference.



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<u>Test Description</u>	<u>Units</u>	<u>Method</u>	<u>Min.</u>	<u>Max.</u>	<u>Results</u>
DISTILLATION, 95% (*F)	*F	D86			466
DISTILLATION, DP (*F)	*F	D86		475	472
WATER CONTENT (ppm)	ppm	D1533		500	56
MEETS CARB REQUIREMENTS					YES
VAPOR PRESSURE	mmHg20C	CARB-ARB310			0.1

Analysis Certified By:	<u>Daniel Holder</u> Printed Name	<u>Laboratory Manager</u> Title	<u><i>Daniel Holder</i></u> Lab Signature/Loader
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