

Curacao Oil N. V. (Curoil)
Excon Martina
A.M Chumanceiro Blvd.15,
P.O. Box 3927
Willemstad
Netherlands Antilles

Our Reference Number: NA100-0007934
Lab Reference Number: 2024-CURA-000078
Customer Reference Number: Sea Frontier

Customer Product Description: ULSD	Sample ID: 2024-CURA-000078-001
Location: Prins Hendrik Wharf, Curacao, , Netherlands Antilles	Date Sampled: 01-Jun-2024
Sample Representing: Vessel Sea Frontier Volumetric Composite Before Discharge	Date Submitted: 01-Jun-2024
Drawn By: Intertek	Date Tested: 27-Jun-2024

Method	Property	Result	Units	Min	Max	P/F
ASTM D445	Kinematic Viscosity at 40 °C	2.303	mm ² /s	2.0	4.1	Pass
ASTM D4052	API Gravity @ 60°F	39.0	°API	32.0		Pass
	Density @ 15°C	829.3	kg/m ³	820	845	Pass
	Specific Gravity @ 60°F	0.8297				
ASTM D2622	Sulfur Content	7.8	mg/kg		15	Pass
ASTM D976	Cetane Index	50.5		46.0		Pass
ASTM D93	Corrected Flash Point	60.0	°C	60.0		Pass
ASTM D664	Acid Number	0.05	mg KOH/g		0.50	Pass
³ ASTM D2274	Total Insolubles (Oxidation Stability)	2	mg/L		25	Pass
ASTM D4530	Micro Method Carbon Residue 10%	<0.1	Wt %		0.3	Pass
ASTM D2500	Cloud Point	-7	°C			
ASTM D97	Pour Point	-18	°C		0	Pass
ASTM D4176 MOD	Appearance	Clear & Bright		Clear and Bright		Pass
ASTM D482	Ash	<0.010	Wt %		0.010	Pass
² ASTM D6079	Wear Scar Diameter	320	µm		460	Pass
ASTM D86	Initial Boiling Point	166.5	°C			
	10% Recovery	190.0	°C			
	50% Recovery	251.0	°C		288.0	Pass
	90% Recovery	335.0	°C	282.0	338.0	Pass
	Final Boiling Point	364.0	°C			
	Residue	1.5	% Vol		2.0	Pass
	Loss	0.5	% Vol		2.0	Pass
ASTM D1500	ASTM Color	0.5		<= 2.5		Pass
² ASTM D130	Copper Corrosion @ 50°C (122°F)/3 hr	1a			Max No. 3	Pass
² ASTM D613	Cetane Number	52.3		46.0		Pass
² ASTM D1319	Aromatics	17.4	Vol %		35.0	Pass
² EN 12662	Total Contamination	<12.0	mg/kg		24.0	Pass
² ASTM D7111	Manganese	<0.50	mg/kg			
	Silicon	<0.10	mg/kg			
ASTM D2624	Temperature	26.0	°C			

Report of Analysis

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Method	Property	Result	Units	Min	Max	P/F
ASTM D2624	Electrical Conductivity	360	pS/m	25		Pass
² UOP 779	Chloride	<2	mg/kg			
² ASTM D6591	Polycyclic-Aromatic Hydrocarbons (POLY-AH)	2.5	Mass %		8.0	Pass
ASTM D95	Water Content	<0.01	% (V/V)		0.02	Pass

Material conforms to the Curoil ULSD requirements on above relevant point(s) of testing

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The analysis results denoted by (2) were performed by Intertek Panama laboratory.

Results are only representative of the sample tested. All tests have been performed using the latest version unless otherwise indicated. This report shall not be reproduced except in full without written approval of Intertek. Report is subject to our standard Terms and Conditions which can be obtained at our website : <http://www.intertek.com/terms>
 The analysis results denoted by (3) was performed by CRU Refinery laboratory. Intertek cannot accept liability for the accuracy of any results not performed by its own laboratories.



Signed: _____

Glenn Gustina, Branch Coordinator

Date: 27-Jun-2024