

Certificate of Analysis

Atlantic Trading and Marketing, Inc.
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Our Reference Number: US300-0052001
Lab Reference Number: 2023-NEDR-001855
Customer Reference Num: HV49383

Vessel/Sample Point:	SEAFRONTIER	Sample ID:	2023-NEDR-001855-001
Sample Representing:	SEAFRONTIER Volumetric Composite	Date Sampled:	20-Dec-2023
Customer Product Desc:	Curacao 95 - Premium	Date Submitted:	20-Dec-2023
Location:	GT Logistics, Port Arthur, Texas, United States	Date Tested:	21-Dec-2023
Drawn By:	Intertek		

Method	Property	Result	Unit	Spec Limit	P/F
f ASTM D4052	API Gravity at 60 deg F	57.8	°API	Report	
	Density @ 15°C	748	kg/m³	720 - 775	Pass
ASTM D4176	Appearance	Clear, Bright & Free		Clear/Bright	Pass
f ASTM D130	Copper Corrosion @ 50°C (122°F)/3 hr	1a		STD 1	Pass
ASTM D86	Initial Boiling Point	37.5	°C	Min 30	Pass
	10% Evaporated	56.0	°C	40 - 70	Pass
	50% Evaporated	91.3	°C	80 - 115	Pass
	90% Evaporated	161.0	°C	Max 180	Pass
	Final Boiling Point	198.0	°C	Max 215	Pass
	Residue	1.1	°C	Max 2	Pass
f ASTM D381	Average Unwashed Gum Content	1.2	mg/100ml	Max 4	Pass
	Average Washed Gum Content	1.0	mg/100ml	Max 4	Pass
ASTM D4814-X1.4	Antiknock Index (Octane Rating)	91.5		Report	
ASTM D2700	Motor Octane Number	86.70		Min 85.00	Pass
ASTM D2699	Research Octane Number	96.30		Min 95.00	Pass
ASTM D1319	O2 Corrected Aromatics	29.2	Vol %	Max 35	Pass
	O2 Corrected Olefins	6.3	Vol %	Max 18	Pass
ASTM D3606	Benzene	0.66	Vol %	Max 1	Pass
ASTM D6304	Water Content	140	mg/kg	Report	
ASTM D525	Induction Period @ 100°C	>360	min	Min 360	Pass
ASTM D4815	Total Oxygenates	13.64	Vol %	Report	
	Total Oxygen	2.47	Wt %	Max 2.7	Pass
	Methanol Content	<0.2	Vol %	Max 3.0	Pass
ASTM D5191	Reid Vapor Pressure @ 100°F	8.34	psi	Max 8.7	Pass
ASTM D2622	Sulfur Content	8.8	mg/kg	Max 30	Pass
ASTM D4952	Doctor Test	Negative		Negative	Pass
ASTM D3227	Mercaptan Sulfur	0.0003	%(m/m)	Max 0.0015	Pass
ASTM D1296	Odor	Marketable		Marketable	Pass
ASTM D3231	Phosphorus Content	<.005	mg/kg	Max 1	Pass
ITM 1051	Octane improver	ND	ppb Wt	Nil	Pass
ASTM D3831	Manganese Content	<.0005	mg/L	Nil	Pass
ASTM D3237	Lead Content	<.0005	mg/L	Max 5	Pass
ASTM D7757	Silicon	<1	mg/kg	Report	
ASTM D7536 MOD	Total Chlorides	0.3	mg/kg	Report	

f - Denotes analysis results which are ISO/IEC 17025 accredited by ANSI National Accreditation Board.

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>

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