



Certificate of Analysis

Vessel / Object: MAERSK MARU (9581447)
Location: Port Arthur, TX / GT Gulfway (United States)
Job Type: Load
Product Grade: CUR 95 Ron Gasoline
Client Reference: Atlantic Trading & Marketing Inc. / HV50995

Job No: 160-24-02149
Date Sampled: 05/04/24
Date Tested: 05/06/24
Version: 1 / 07 May 2024 10:02

<u>Sample</u>		<u>Sample ID, Type & Description</u>				
160-24-02149-024		Maersk Maru 4P Running After Load				
<u>Method</u>	<u>Test</u>	<u>Min</u>	<u>Max</u>	<u>Result</u>	<u>Units</u>	<u>Remarks</u>
ASTM D5191	DVPE @ 100F° (ASTM EQ)		8.7	8.52	psi	
Notes: RESULTS ARE VALID "AS AT" DATE AND LOCATION LISTED ASTM D5191 was performed on virgin running sample						

<u>Sample</u>		<u>Sample ID, Type & Description</u>				
160-24-02149-025		Maersk Maru 4S Running After Load				
<u>Method</u>	<u>Test</u>	<u>Min</u>	<u>Max</u>	<u>Result</u>	<u>Units</u>	<u>Remarks</u>
ASTM D5191	DVPE @ 100F° (ASTM EQ)		8.7	8.54	psi	
Notes: RESULTS ARE VALID "AS AT" DATE AND LOCATION LISTED ASTM D5191 was performed on virgin running sample						

<u>Sample</u>		<u>Sample ID, Type & Description</u>				
160-24-02149-026		Maersk Maru 8P Running After Load				
<u>Method</u>	<u>Test</u>	<u>Min</u>	<u>Max</u>	<u>Result</u>	<u>Units</u>	<u>Remarks</u>
ASTM D5191	DVPE @ 100F° (ASTM EQ)		8.7	8.57	psi	
Notes: RESULTS ARE VALID "AS AT" DATE AND LOCATION LISTED ASTM D5191 was performed on virgin running sample						

<u>Sample</u>		<u>Sample ID, Type & Description</u>				
160-24-02149-027		Maersk Maru 8S Running After Load				
<u>Method</u>	<u>Test</u>	<u>Min</u>	<u>Max</u>	<u>Result</u>	<u>Units</u>	<u>Remarks</u>
ASTM D5191	DVPE @ 100F° (ASTM EQ)		8.7	8.58	psi	
Notes: RESULTS ARE VALID "AS AT" DATE AND LOCATION LISTED ASTM D5191 was performed on virgin running sample						

<u>Sample</u>		<u>Sample ID, Type & Description</u>				
160-24-02149-040		Maersk Maru 95 RON VESSEL FINAL Volumetric Composite After Load				
<u>Method</u>	<u>Test</u>	<u>Min</u>	<u>Max</u>	<u>Result</u>	<u>Units</u>	<u>Remarks</u>
ASTM D4052	Gravity by Digital Density Meter					
	API Gravity @60°F			57.5	°	
	Density @15°C	720	775	748.4	kg/m ³	
ASTM D5191	DVPE @ 100F° (ASTM CALC AVG)		8.7	8.55	psi	
Visual	Visual Appearance at 20°C	Clear & Bright		Clear and Bright		

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Sample 160-24-02149-040
Sample ID, Type & Description Maersk Maru 95 RON VESSEL FINAL Volumetric Composite After Load

Method	Test	Min	Max	Result	Units	Remarks
ASTM D86	Distillation Evaporated					
	IBP	30		31.0	°C	
	10%	40	70	52.0	°C	
	50%	80	115	92.0	°C	
	90%		180	150.9	°C	
	FBP		215	191.9	°C	
	Residue		2.0	1.0	%vol	
	% Evaporated @70°C			30.6	%vol	
ASTM D2699	Research Octane Number	95.0		95.1		
ASTM D2700	Motor Octane Number	85.0		85.1		
ASTM D4814	Antiknock Index (R+M)/2			90.1		
ASTM D3606-20e1	Benzene		1	0.70	%vol	
ASTM D4815	Oxygenates in Gasoline					
	Oxygenates			14.08	%vol	
	Total Oxygen Content		2.7	2.55	%wt	
	Methanol		3.0	< 0.20	%vol	
ASTM D2622-16	Total Sulfur Content (Origin)		30	12.5	mg/kg	
ASTM D3831	Manganese Content of Gasoline		0	< 0.2	mg/L Mn	
ASTM D3237	Lead		5	< 2.5	mg/L	
ASTM D5708A**	Silicon Content			< 1.0	mg/kg	
ASTM D7536	Total Chloride Concentration			0.3	mg/kg	
ASTM D130	Copper Strip Corrosion Rating @50°C/122°F for 3 Hours		1	1A		
ASTM D1319	Hydrocarbon types by FIA (Aromatics, Olefins & Saturates)					
	Olefins		18	5.8	%vol	
	Aromatics		35	31.2	%vol	
ASTM D381	Existent Gum Content		4	1	mg/100ml	
ASTM D525	Oxidation Stability @100°C	360		> 360	mins	
ASTM D6304A	Water Concentration			293	ppmw	
ASTM D3227	Mercaptan Sulfur		0.0015	0.0003	%wt	
ASTM D4952	Doctor Test	Negative		Negative		
ASTM D3231	Phosphorus		1	< 0.20	mg/L	
Organoleptic	Odour			Marketable		

Notes: RESULTS ARE VALID "AS AT" DATE AND LOCATION LISTED
All samples were obtained per ASTM D4057, 40 CFR1090.1335 and are retained in compliance with 40 CFR 1090.1345