



## Certificate of Analysis

<b>Vessel / Object:</b>	ZEFYROS (9515917)	<b>Job No:</b>	632-24-09973
<b>Location:</b>	Antwerp / Sea-Tank Terminal Antwerp NV K300 (Belgium)	<b>Date Sampled:</b>	
<b>Job Type:</b>	Load	<b>Date Tested:</b>	14 Aug 2024
<b>Product Grade:</b>	Gasoline 95	<b>Version:</b>	237 / 14 Aug 2024 21:21
<b>Client Reference:</b>	TOTSA TotalEnergies Trading SA / GV165741		

<u>Sample</u>	<u>Sample ID, Type &amp; Description</u>					
632-24-09973-012	Full slate curacao after load 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			58.0	°	
	Density @15.56°C	720.0	775.0	746.2	kg/m <sup>3</sup>	
ASTM D4176A proc. 1	Clear and Bright			Pass		
ASTM D130	Copper Strip Corrosion Rating @50°C/122°F for 3 Hours			1A		
ASTM D86!!	Distillation					
	IBP	30		35.5	°C	
	FBP		215	178.5	°C	
	Residue		2	0.8	%vol	
	Evaporated at 70°C			36.9	%vol	
ASTM D86!!	Distillation Evaporated					
	10%	40	70	52.2	°C	
	50%	80	115	82.4	°C	
	90%		180	141.8	°C	
ASTM D381	Existent Gum Content		4.0	< 1	mg/100ml	
ASTM D4814	Antiknock Index (R+M)/2			90.1		
ASTM D2699	Research Octane Number by Bracketing-Equilibrium (Uncorrected)	95		95.2		
ASTM D2700	Motor Octane Number					
	Motor Octane Number by Bracketing-Equilibrium (Uncorrected)	85		85.0		
	Additive Name		octane im-prover	None		
	Additive Concentration			0	ppm	
ASTM D1319	Hydrocarbon types by FIA (Aromatics, Olefins & Saturates)					
	Aromatics		35.0	28.9	%vol	
	Olefins		18.0	7.7	%vol	
	Aromatics + Olefins		45.0	36.6	%vol	
ASTM D3606-22 Proc. B	Benzene		1.00	0.78	%wt	
ASTM D525	Oxidation Stability @100°C	360		> 360	mins	
ASTM D4815 (Correlated to ASTM D5599)	Oxygenates in Gasoline					
	Total Oxygen Content		2.7	2.22	%wt	
	Total Oxygenates			12.26	%wt	
ASTM D4815-15b(19) Corr to ASTM D5599	Methanol		3.0	< 0.20	%vol	
ASTM D5191	RVP at 37.8 °C		8.7	8.36	psi	
ASTM ASTM D5453!!*	Total Sulfur Content		30	5.4	mg/kg	

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**Sample**  
632-24-09973-012

**Sample ID, Type & Description**  
Full slate curacao after load Volumetric Composite After Load

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ASTM D4952	Doctor Test			Negative		
ASTM D3227	Mercaptan Sulfur		0.0015	< 0.0003	%wt	
Visual/Olfactory	Odor			Marketable		
ASTM D3231#	Phosphorus		1	< 0.20	mg/L	
ASTM D3831	Manganese Content of Gasoline in mg/L		NIL	NIL		
HRN EN 237	Lead		5	< 2.5	mg/L	
ICP-OES Scan	Silicon			< 1.0	mg/kg	
ASTM D5808	Chloride			< 1.0	mg/kg	

Ashley Seyssens  
Laboratory Planner

!! Test Method performed and reported within the scope of EN/ISO 17025:2017 accreditation (BELAC 735-TEST).  
All methods are performed according to the latest version available unless specified otherwise in this report.  
Measurement uncertainty (applicable to the evaluation of test results), while not included in this report, can be made available upon first request.  
The results in this report relate only to the items tested.