

Attention of : P. Guardiola
 Your reference : OP-SMR-0014

Analysis Report

Report number : **15300/00010710.4/L/22** Submitted date : 2022-03-04
 Main Object : Odin Petroil / Análisis Laboratorio Sample submitted at : Saybolt Colombia - Cartagena
 Report Date : 2022-03-05 Date received : 2022-03-05
 Date of issue : 2022-03-05 Date completed : 2022-03-05
 Sample object : Muestras 05/03/2022 Sample number : 12878698
 Sample type : Submitted
 Sample submitted as : Petroil 250 Uso Industrial Fuel Oil No.4
 Marked : Petroil 250 Uso Industrial Fuel Oil No.4

NAME	METHOD	UNIT	SPECS		RESULT
			Min	Max	
API Gravity at 60 °F	ASTM D 1298-12b	°API	29,5	32,8	34,1
Density at 15 °C	ASTM D 1298-12b	kg/m ³		892,1	854,0
Total Sulfur Content	ASTM D 4294-16e1	mg/kg	52	500	<100
Water and sediment	ASTM D 1796-11 (2016)	vol %		<0,003	0,0
Ash Content	ASTM D 482-19	% m/m		0,022	<0,010
ASTM Color	ASTM D 1500-17	-		0,9	0,5
Cetane Index	ASTM D 976-06 (2016)	-	45,0		43,5
Corrosion Copper Strip (3 h / 50 °C)	ASTM D 130-19	-		1A	1A
Distillation	ASTM D 86				
Initial Boiling Point (IBP)		°F			384
5% Recovered		°F			418
10% Recovered		°F			426
20% Recovered		°F			440
30% Recovered		°F			462
40% Recovered		°F			478
50% Recovered		°F			494
60% Recovered		°F			512
70% Recovered		°F			530
80% Recovered		°F			556
90% Recovered		°F			586
95% Recovered		°F			608
Final Boiling Point (FBP)		°F			622
Recovery		vol %			99
Residue		vol %			0,5
Loss		vol %			0,5
Calculated Carbon Aromaticity Index (CCAI)	ISO 8217 (Annex F)	-		870,0	816,3
Kinematic Viscosity at 40 °C	ASTM D 445-21	mm ² /s	2,500	5,250	2,738
Flash Point (PM) - Procedure A	ASTM D 93-20	°C	60,0		78,0
Heat of Combustion	ASTM D 4868				

All results in this report refer to the sample(s) tested as taken or submitted like specified in this Analysis report. Uncertainties, available on request, apply in the evaluation of the test results. All tests are conducted according to the latest version of the methods, unless another version is specifically indicated. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or concern, we refer to the interpretation of test results as defined in ASTM D3244, IP 367, ISO 4259 or GOST 33701. This report shall not be partially copied and reproduced without the written permission of the laboratory.

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Sample type : Submitted
Sample submitted as : MGO
Marked : Petroil 500

NAME	METHOD	UNIT	SPECS		RESULT
			Min	Max	
Gross Heat of Combustion		MJ/kg			45,50
Net Heat of Combustion		MJ/kg			42,72

Signed by: Rafael Castro - Oil Lab Manager
Issued by: Saybolt de Colombia SAS
Place and date of issue: Cartagena - 2022-03-05

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