Date: 10/Apr/2024

Analytical Report: SP23-00581.001 Reissue: 7

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Lohrhof GmbH
Waidach 124/1
Adnet
AUSTRIA
5421

Reissue Comment: chang to english language

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264236525

CLIENT ORDER NUMBER :		SGS ORDER NO.:	72821390_6524283
CLIENT ID :	Diesel		
		PRODUCT DESCRIPTION :	Diesel
SAMPLE SOURCE :	Petrol station	SOURCE ID :	8
SAMPLE TYPE :	As submitted	SAMPLED BY :	SGS
SAMPLED :	--	RECEIVED :	01/Mrz/2023
ANALYSED :	06/Mrz/2023 - 14/Apr/2023	COMPLETED :	05/Mai/2023
SUB-SAMPLE :	[1: 5 Litre Can]		
REPORT COMMENT :	**Zum Abgleich wurden die Limits der Spezifikation EN590 genutzt.**		
	The limits of the EN590 specification were used for comparison.		

PROPERTY	METHOD	RESULT	UNITS	MIN	MAX
Density at 15°C	DIN EN ISO 12185:1997	831,5	kg/m³	820,0	845,0
Kinematic Viscosity at 40°C	DIN EN ISO 3104:2024-04	2,370	mm²/s	2,000	4,500
Flash Point Pensky-Martens Closed Cup Method	DIN EN ISO 2719:2021-06				
Observed Pressure		99,4	kPa	--	--
Flash Point PM (Closed cup) - Procedure A		56,5	°C	>55,0	--
Distillation at Atmospheric Pressure	DIN EN ISO 3405:2019-09				
Initial boiling point (IBP)		165,9	°C	--	--
5% Recovered at		188,3	°C	--	--
10% Recovered at		194,1	°C	--	--
20% Recovered at		207,6	°C	--	--
30% Recovered at		222,3	°C	--	--
40% Recovered at		239,3	°C	--	--
50% Recovered at		256,9	°C	--	--
60% Recovered at		275,3	°C	--	--
70% Recovered at		294,6	°C	--	--
80% Recovered at		314,1	°C	--	--
90% Recovered at		333,2	°C	--	--

AUTHORISED SIGNATORY

i.V. Dr. NICO HOHLBEIN
Division Manager Lab Operations

SGS Germany GmbH
Am Neuen Rheinhafen 12a, D-67346 Speyer, Germany (t)+49 6232 1301-0

Date: 10/Apr/2024

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PROPERTY	METHOD	RESULT	UNITS	MIN	MAX
95% Recovered at		346,9	°C	--	360
Final boiling point (FBP)		358,4	°C	--	--
Residue		1,0	% (v/v)	--	--
Loss		0,5	% (v/v)	--	--
Recovered at 180°C		1,4	% (v/v)	--	--
Recovered at 250°C		46,2	% (v/v)	--	<65
Recovered at 300°C		72,7	% (v/v)	--	--
Recovered at 340°C		92,9	% (v/v)	--	--
Recovered at 350°C		95,8	% (v/v)	85	--
Sulfur	DIN EN ISO 20846:2019-12	7,9	mg/kg	--	10,0
Ash	DIN EN ISO 6245:2003	<0,001	% (m/m)	--	0,010
Carbon Residue (on 10 % Distillation Residue) - Micro Method	DIN EN ISO 10370:2015	<0,10	% (m/m)	--	0,30
Cetane Index by Four-variable Equation	DIN EN ISO 4264:2018	50,7	Rating	46,0	--
Gross Calorific Value by Bomb Calorimeter, Adiabatic Jacket *	DIN 51900:2023-12				
Gross Calorific Value *		45,539	MJ/kg	--	--
Net Calorific Value *		42,739	MJ/kg	--	--
Copper Strip corrosion (3 h / 50 °C)	DIN EN ISO 2160:1999	1a	Rating	--	1
Water Content by Coulometric KF	DIN EN ISO 12937:2002	0,005	% (m/m)	--	0,020
Total Contamination	DIN EN 12662:2014	<12,0	mg/kg	--	24
Appearance *	Visual	Clear & Bright	---	hell und klar	
Color *	Visual	Yellow	---	--	--
Elements in Diesel - ICP OES *	SGS M2534				
Iron *		<0,1	mg/kg	--	--
Aluminium *		<0,1	mg/kg	--	--
Copper *		<0,1	mg/kg	--	--
Lead *		<0,1	mg/kg	--	--
Tin *		<0,1	mg/kg	--	--
Chromium *		<0,1	mg/kg	--	--
Nickel *		<0,1	mg/kg	--	--
Zinc *		<0,1	mg/kg	--	--
Phosphorus *		<0,1	mg/kg	--	--
Magnesium *		<0,1	mg/kg	--	--

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Division Manager Lab Operations

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PROPERTY	METHOD	RESULT	UNITS	MIN	MAX
Calcium *		<0,1	mg/kg	--	--
Sodium *		<0,1	mg/kg	--	--
Molybdenum *		<0,1	mg/kg	--	--
Silicon *		0,4	mg/kg	--	--
Barium *		<0,1	mg/kg	--	--
Potassium *		<0,1	mg/kg	--	--
Titanium *		<0,1	mg/kg	--	--
Vanadium *		<0,1	mg/kg	--	--
Boron *		<0,1	mg/kg	--	--
Manganese *		<0,1	mg/kg	--	--
Cer *		<0,1	mg/kg	--	--
Silver *		<0,1	mg/kg	--	--
Cobalt *		<0,1	mg/kg	--	--
Lithium *		<0,1	mg/kg	--	--
Cadmium *		<0,1	mg/kg	--	--

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264236525

CLIENT ORDER NUMBER :		SGS ORDER NO.:	72821390_6524283
CLIENT ID :	Diesel mit FeroxTM der Fa. Rennsli Corp		
		PRODUCT DESCRIPTION :	Diesel
SAMPLE SOURCE :	Petrol station	SOURCE ID :	8
SAMPLE TYPE :	As submitted	SAMPLED BY :	SGS
SAMPLED :	--	RECEIVED :	01/Mrz/2023
ANALYSED :	06/Mrz/2023 - 14/Apr/2023	COMPLETED :	05/Mai/2023
SUB-SAMPLE :	[1: 5 Litre Can]		
SAMPLE COMMENT :	**Mischungsverhältnis: 0,0624g FeroxTM auf 4,68l Diesel**		
REPORT COMMENT :	**Zum Abgleich wurden die Limits der Spezifikation EN590 genutzt.**		
	The limits of the EN590 specification were used for comparison.		

PROPERTY	METHOD	RESULT	UNITS	MIN	MAX
Density at 15°C	DIN EN ISO 12185:1997	831,5	kg/m³	820,0	845,0
Kinematic Viscosity at 40°C	DIN EN ISO 3104:2024-04	2,370	mm²/s	2,000	4,500
Flash Point Pensky-Martens Closed Cup Method	DIN EN ISO 2719:2021-06				
Observed Pressure		99,4	kPa	--	--
Flash Point PM (Closed cup) - Procedure A		56,5	°C	>55,0	--
Distillation at Atmospheric Pressure	DIN EN ISO 3405:2019-09				
Initial boiling point (IBP)		168,4	°C	--	--
5% Recovered at		186,3	°C	--	--
10% Recovered at		193,5	°C	--	--
20% Recovered at		207,6	°C	--	--
30% Recovered at		222,2	°C	--	--
40% Recovered at		238,6	°C	--	--
50% Recovered at		256,2	°C	--	--
60% Recovered at		274,8	°C	--	--
70% Recovered at		293,6	°C	--	--
80% Recovered at		313,2	°C	--	--
90% Recovered at		332,1	°C	--	--
95% Recovered at		346,2	°C	--	360
Final boiling point (FBP)		357,6	°C	--	--
Residue		1,0	% (v/v)	--	--
Loss		0,5	% (v/v)	--	--
Recovered at 180°C		2,0	% (v/v)	--	--
Recovered at 250°C		46,5	% (v/v)	--	<65

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PROPERTY	METHOD	RESULT	UNITS	MIN	MAX
Recovered at 300°C		73,0	% (v/v)	--	--
Recovered at 340°C		93,2	% (v/v)	--	--
Recovered at 350°C		95,9	% (v/v)	85	--
Sulfur	DIN EN ISO 20846:2019-12	7,8	mg/kg	--	10,0
Ash	DIN EN ISO 6245:2003	<0,001	% (m/m)	--	0,010
Carbon Residue (on 10 % Distillation Residue) - Micro Method	DIN EN ISO 10370:2015	<0,10	% (m/m)	--	0,30
Cetane Index by Four-variable Equation	DIN EN ISO 4264:2018	50,5	Rating	46,0	--
Gross Calorific Value by Bomb Calorimeter, Adiabatic Jacket *	DIN 51900:2023-12				
Gross Calorific Value *		45,537	MJ/kg	--	--
Net Calorific Value *		42,757	MJ/kg	--	--
Copper Strip corrosion (3 h / 50 °C)	DIN EN ISO 2160:1999	1a	Rating	--	1
Water Content by Coulometric KF	DIN EN ISO 12937:2002	0,005	% (m/m)	--	0,020
Total Contamination	DIN EN 12662:2014	<12,0	mg/kg	--	24
Appearance *	Visual	Clear & Bright	---	hell und klar	
Color *	Visual	Yellow	---	--	--
Elements in Diesel - ICP OES *	SGS M2534				
Iron *		0,9	mg/kg	--	--
Aluminium *		<0,1	mg/kg	--	--
Copper *		<0,1	mg/kg	--	--
Lead *		<0,1	mg/kg	--	--
Tin *		<0,1	mg/kg	--	--
Chromium *		<0,1	mg/kg	--	--
Nickel *		<0,1	mg/kg	--	--
Zinc *		<0,1	mg/kg	--	--
Phosphorus *		<0,1	mg/kg	--	--
Magnesium *		<0,1	mg/kg	--	--
Calcium *		<0,1	mg/kg	--	--
Sodium *		<0,1	mg/kg	--	--
Molybdenum *		<0,1	mg/kg	--	--
Silicon *		0,5	mg/kg	--	--
Barium *		<0,1	mg/kg	--	--
Potassium *		<0,1	mg/kg	--	--

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PROPERTY	METHOD	RESULT	UNITS	MIN	MAX
Titanium *		<0,1	mg/kg	--	--
Vanadium *		<0,1	mg/kg	--	--
Boron *		<0,1	mg/kg	--	--
Manganese *		<0,1	mg/kg	--	--
Cer *		<0,1	mg/kg	--	--
Silver *		<0,1	mg/kg	--	--
Cobalt *		<0,1	mg/kg	--	--
Lithium *		<0,1	mg/kg	--	--
Cadmium *		<0,1	mg/kg	--	--

**** End of Analytical Results ****

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