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SulNOx Group Plc 10 Orange Street Havmarket, London WC2H 7DQ

Product/Grade:

Sample Origin:

Location:

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## **CERTIFICATE OF QUALITY No. L 53229-1**

Vessel/Operation: Sample and Analysis

Diesel - EN590

**Immingham** 

**Fuel Conditioner** 

Service Station Pump Fuel with the addition of SulNOxEco™

Job Number:

IM 44596

85136 Sample Number:

Date of Sampling:

08/01/2021 08/01/2021

Date Received: Date Tested: 08-18/01/2021

Test	Method	Unit	Specification	Result
Density @15 Deg C	IP365 ISO 12185	kg/ltr	0.8200 - 0.8450	0.8392
Appearance @ 15 Deg C	* D4176			Clear & Bright
CFPP	IP 309 EN116	Deg C	Minus 15	Minus 20
Viscosity @ 40 Deg C	IP71 ISO 3104	cSt	2.000 - 4.500	2.465
Derived Cetane Number	sc IP 498		51.0 Min	51.5
Cetane Index	* IP380 ISO 4264	1. <del></del>	46.0 Min	49.1
%Recovered @ 250 Deg C	IP123 ISO 3405	%Vol	65 Max	40.9
%Recovered @ 350 Deg C	IP123 ISO 3405	%Vol	85 Min	96.3
95% Recovered	IP123 ISO 3405	Deg C	360 Max	356.4
Pensky Martens Flash Point (Method A)	IP34 (A) ISO 2719 (A)	Deg C	55.0 Min	65.0
Carbon Residue 10% Bottoms	* EN10370	%wt	0.30 Max	0.05
Water Content	IP438 ISO12937	mg/kg	200 Max	51
Lubricity @ 60 Deg C	* ISO12156-1	um	460 Max	223
Poly Aromatic Hydrocarbons	* IP391	%wt	8.0 Max	3.0
Oxidation Stability	* D2274 ISO 12205	g/m³	25 Max	<1
Oxidation Stability	* EN 15751	Hours	20 Min	>40
Ash Content	IP4 ISO 6245	%wt	0.010 Max	<0.001
Sulphur Content	IP490	mg/kg	10.0 Max	6.2
Copper Corrosion 3 hr @ 50 Deg C	* IP154 ISO2160	Class	Class 1	1a

Latest issue of test methods used unless stated otherwise.

The above results relate only to the item tested.

Please refer to ASTM D3244-07 and to IP method 367 Appendix E for utilisation of test data for conformance with specifications No Measurement Uncertainty (MOU) has been applied to the reported results. The MOU is available via the reference standard or via request directly from the Laboratory.

Where sampling performed by Bureau Veritas, it is outside the scope of UKAS accreditation

\* denotes test is outside laboratories scope of UKAS accreditation

Product meets EN 590 specification based on tests performed and results obtained only with no MOU applied. Based on EN590 results SulNOxEco Fuel Conditioner should also be valid for use in High Fame Diesel Fuel (B20 and B30) as per EN 16709 specification.

Chemist



Richard Blyth Tom Drewery Jacob Lineker

M. Hollingsworth

**UK Laboratory Manager** 

Authorised Signatory for Bureau Veritas

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## **CERTIFICATE OF QUALITY No. L 53229-2**

Vessel/Operation: Sample and Analysis

Product/Grade:

Diesel - EN590

**Fuel Conditioner** 

Location: Sample Origin: **Immingham** 

Service Station Pump Fuel with the addition of SulNOxEco™

Job Number :

IM 44596

Sample Number: Date of Sampling: 85136 08/01/2021

Date Received :

08/01/2021

Date Tested:

08-18/01/2021

Test	Method	Unit	Specification	Result
Total Contamination	EN 12662	mg/kg	24 Max	12.9
Fatty Acid Methyl Ester Content	* EN14078	%vol	7.0 Max	6.7
Manganese	* EN16579	mg/l	2.0 Max	<1
Filter Blocking Tendency	* IP 387 - B	-	2.52 Max	1.04
- Sample Temperature	* IP 387 - B	Deg C		20.0
- Volume Pumped	* IP 387 - B	ml		300
- Initial Pressure	* IP 387 - B	kPa		16
- Final Pressure	* IP 387 - B	kPa		31
Cold Filter Blocking Tendency	* IP 618	-		1.15
- Sample Temperature	* IP 618	Deg C		Minus 1.0
- Volume Pumped	* IP 618	ml		300
- Initial Pressure	* IP 618	kPa		25
- Final Pressure	* IP 618	kPa		59

Latest issue of test methods used unless stated otherwise.

The above results relate only to the item tested.

Please refer to ASTM D3244-07 and to IP method 367 Appendix E for utilisation of test data for conformance with specifications No Measurement Uncertainty (MOU) has been applied to the reported results. The MOU is available via the reference standard or via request directly from the Laboratory.

Where sampling performed by Bureau Veritas, it is outside the scope of UKAS accreditation

denotes test is outside laboratories scope of UKAS accreditation

Product meets EN 590 specification based on tests performed and results obtained only with no MOU applied. Based on EN590 results SulNOxEco Fuel Conditioner should also be valid for use in High Fame Diesel Fuel (B20 and B30) as per EN 16709 specification.

Chemist



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