



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

## CERTIFICATE OF QUALITY No. L 53229-1

Vessel/Operation : <b>Sample and Analysis</b>	Job Number : <b>IM 44596</b>
Product/Grade : <b>Diesel - EN590</b>	Sample Number: <b>85136</b>
Location : <b>Immingham</b>	Date of Sampling : <b>08/01/2021</b>
Sample Origin : <b>Service Station Pump Fuel with the addition of SulNOxEco™ Fuel Conditioner</b>	Date Received : <b>08/01/2021</b>
	Date Tested : <b>08-18/01/2021</b>

Test	Method	Unit	Specification	Result
Density @15 Deg C	IP365 ISO 12185	kg/ltr	<b>0.8200 - 0.8450</b>	0.8392
Appearance @ 15 Deg C	* D4176	-		Clear & Bright
CFPP	IP 309 EN116	Deg C	<b>Minus 15</b>	Minus 20
Viscosity @ 40 Deg C	IP71 ISO 3104	cSt	<b>2.000 - 4.500</b>	2.465
Derived Cetane Number	sc IP 498	-	<b>51.0 Min</b>	51.5
Cetane Index	* IP380 ISO 4264	-	<b>46.0 Min</b>	49.1
%Recovered @ 250 Deg C	IP123 ISO 3405	%Vol	<b>65 Max</b>	40.9
%Recovered @ 350 Deg C	IP123 ISO 3405	%Vol	<b>85 Min</b>	96.3
95% Recovered	IP123 ISO 3405	Deg C	<b>360 Max</b>	356.4
Pensky Martens Flash Point (Method A)	IP34 (A) ISO 2719 (A)	Deg C	<b>55.0 Min</b>	65.0
Carbon Residue 10% Bottoms	* EN10370	%wt	<b>0.30 Max</b>	0.05
Water Content	IP438 ISO12937	mg/kg	<b>200 Max</b>	51
Lubricity @ 60 Deg C	* ISO12156-1	um	<b>460 Max</b>	223
Poly Aromatic Hydrocarbons	* IP391	%wt	<b>8.0 Max</b>	3.0
Oxidation Stability	* D2274 ISO 12205	g/m <sup>3</sup>	<b>25 Max</b>	<1
Oxidation Stability	* EN 15751	Hours	<b>20 Min</b>	>40
Ash Content	IP4 ISO 6245	%wt	<b>0.010 Max</b>	<0.001
Sulphur Content	IP490	mg/kg	<b>10.0 Max</b>	6.2
Copper Corrosion 3 hr @ 50 Deg C	* IP154 ISO2160	Class	<b>Class 1</b>	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 : <b>Sample and Analysis</b>	Job Number : <b>IM 44596</b>
Product/Grade : <b>Diesel - EN590</b>	Sample Number: <b>85136</b>
Location : <b>Immingham</b>	Date of Sampling : <b>08/01/2021</b>
Sample Origin : <b>Service Station Pump Fuel with the addition of SulNOxEco™ Fuel Conditioner</b>	Date Received : <b>08/01/2021</b>
	Date Tested : <b>08-18/01/2021</b>

Test	Method	Unit	Specification	Result
Total Contamination	EN 12662	mg/kg	<b>24 Max</b>	12.9
Fatty Acid Methyl Ester Content	* EN14078	%vol	<b>7.0 Max</b>	6.7
Manganese	* EN16579	mg/l	<b>2.0 Max</b>	<1
Filter Blocking Tendency	* IP 387 - B	-	<b>2.52 Max</b>	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.

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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.

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