

Geo Chem Middle East Laboratory, NAL 049
Testing Laboratory (ISO/IEC 17025:2005)

Free zone Phase 1, Fujairah, UAE

Issue Date: 26-10-2019

Expiry Date: 29-09-2021

Issue No.:06

Testing Field	Materials/ Products tested	Type of test/ Test parameter/ Properties measured/Range of measurement	Test Method (Standard, Internal Procedure, Technique)	Permanent lab (P) / Client- site (S)
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Chemical	Distillate Marine Fuels (Diesel)	Appearance	Visual, ISO 8217, Section 7.6(2017)	P
		Density @ 15° C (Hydrometer) 0.6000 - 1.1000Kg/L	ISO 3675(1998)/ASTM D 1298(2017)/IP160(1998)	
		Density @ 15° C (Density meter) 0.6000 - 1.1000 Kg/L	ISO12185(1996)/ASTM D 4052(2018)/IP365(1996)	
		Kinematic viscosity @ 40° C 0.2 to 300000mm ² /sec	ISO 3104(1994)/ ASTM D 445(2018)/ IP71(1994)	
		Pour Point -38 to +50° C	ISO 3016(1994)/ ASTM D 97(2017)/ IP15 (1995)	
		Flash Point 40 to 360 ° C	ISO 2719 A(2016)/ ASTM D93(2018) Methods A and B/ IP34(2002)	
		Water 0 to 25% v	ISO 3733(1999)/ ASTM D 95(2018)/ IP74(2000)	
		Ash 0.001 to 0.180%m	ISO 6245(2001)/ ASTM D482(2013)/ IP4(2001)	
		Cetane Index 32.5 to 56.5	ISO 4264(2007)/ ASTM D 4737(2016)/ IP 380(2007)	
		Sulfur 17 ppm to 5.0%m	ISO 8754(2003)/ ASTM D 4294(2016)/ IP336(2003)	
		Hydrogen Sulphide 0.40 ppm to 15 ppm	IP 570(2016)/ ASTM D 7621 Method B(2016)	
		Acid Number 0.1 to 150 mg/g KOH	ASTM D 664(2018)/ IP 177(2013)	

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Chemical	Distillate Marine Fuels (Diesel)	Total Sediment by Hot filtration 0 to 0.4 %m	ISO 10307-1(2009)/ ASTM D 4870(2018)/ IP375(2011)	P
		Carbon Residue micro method on the 10% volume distillate residue 0.10 to 30%m	ISO 10370(2014)/ ASTM D 4530(2015)/ IP398(1995)	
		Carbon Residue micro method Range: 0.10 to 30%m	ISO 10370(2014)/ ASTM D 4530(2015)/ IP398(1995)	
		Distillation 0 to 400 °C	ISO 3405(2011)/ ASTM D86(2017)/ IP123(2001)	
Chemical	Residual Marine Fuels (Fuel Oil)	Density @ 15° C (Hydrometer) 0.6000 - 1.1000 Kg/L	ISO 3675(1998)/ ASTM D 1298(2017)/ IP160(19980)	P
		Density @ 15° C (Density meter) 0.6000 - 1.1000 Kg/L	ISO 12185(19960/ ASTM D 4052(2018)/ IP 365(1996)	
		Kinematic viscosity @ 50° C 0.2 to 300000mm ² /sec	ISO 3104(1994)/ ASTMD 445(2018)/ IP71(1994)	
		Kinematic viscosity @ 100°C 0.2 to 300000mm ² /sec	ISO 3104(1994)/ ASTMD 445(2018)/ IP71(1994)	
		Pour Point -38 to +50° C	ISO 3016(1994)/ ASTM D 97(2017)/ IP15(1995)	
		Flash Point -40°C to 360°C	ISO 2719 B(2016)/ ASTM D93 B(2018)/ IP34(2002)	
		Water 0 to 25% v	ISO 3733(1999)/ ASTM D 95(20180/ IP74(2000)	

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Chemical	Residual Marine Fuels (Fuel Oil)	Ash 0.001 to 0.180% _m	ISO 6245(2001)/ ASTM D482(2013)/ IP4(2001)	P
		CCAI 800-930	ISO 8217, Annex F method(2017)	
		Sulfur 17 ppm to 5.0% _m	ISO 8754(2003)/ ASTM D 4294(2016)/ IP336(2003)	
		Hydrogen Sulphide 0.40 ppm to 15 ppm	IP 570(2016)/ ASTM D 7621 Method B(2016)	
		Acid Number 0.1 to 150 mg/g KOH	ASTM D 664(2018)/ IP 177(2013)	
		Total Sediment Aged 0 to 0.4 % _m	ISO 10307-2 B(2009)/ ASTM D 4870 B(2018) / IP 390 B(2011)	
		Total Sediment Potential 0 to 0.4 % _m	ISO 10307-2 A(2009)/ ASTM D 4870A(2018)	
		Carbon residue: Micro method 0.10 to 30% _m	ISO 10370(2014)/ ASTM D 4530(2015)/ IP398(1995)	
		Aluminum 5 - 150 ppm	IP 470(2005)/ IP501(2005)	
		Calcium 3 - 100 ppm		
		Silicon 10 - 250 ppm		
		Sodium 1 - 100 ppm		
		Vanadium 1 - 400 ppm		
Zinc 1 - 70 ppm				

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Chemical	Residual Marine Fuels (Fuel Oil)	Iron 2 - 60 ppm	IP501(2005)	P
		Nickel 1 - 100 ppm		
		Phosphorous 1 - 70 ppm		
END				