

<b>Laboratory</b>	<b>Indian Oil Corporation Ltd. (Marketing Division), Delhi Terminal Laboratory, Bijwasan, New Delhi</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>07.08.2015</b>
<b>Certificate Number</b>	<b>T-0305</b>	<b>Valid Until</b>	<b>06.08.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>1 of 3</b>

<b>S. No.</b>	<b>Product / Material of Test</b>	<b>Specific Test Performed</b>	<b>Test Method Specification against which tests are performed</b>	<b>Range of Testing / Limits of Detection</b>
<b>I.</b>	<b>PETROLEUM</b>			
1.	<b>Kerosene, MTO, Hexane &amp; JET A-1</b>	Colour	IS 1448 (Part 14): 1960 (RA 2003)	[(+) 30 to (-) 16] Saybolt
2.	<b>Motor Gasoline, Automotive diesel fuel, Kerosene, JETA-1, MTO, RT Fuel, Aviation Gasoline, Hexane</b>	Density	IS 1448 (Part 16): 1990 (RA 2007)	0.600 g/ml to 1.000 g/ml
		Distillation Temperature Volume	IS 1448 (Part 18): 1991 (RA 2006)	30 °C to 400 °C Upto 100 ml
		Copper Strip Corrosion Test	IS 1448 (Part 15): 2004	1A to 4 A
3.	<b>Automotive diesel fuel, Kerosene, JETA-1, MTO, RT Fuel</b>	Flash Point (Abel) (Method –B)	IS 1448 (Part 20): 2004	19 °C to 70 °C
4.	<b>JETA-1, Aviation Gasoline, RT Fuel</b>	Freezing Point	IS 1448 (Part 11): 2004	(+) 27 °C to (-) 65 °C
		Water Reaction	IS 1448 (Part 42): 1977 (RA 2006)	1 to 4
5.	<b>Automotive diesel fuel, RT Fuel &amp; JETA-1</b>	Kinematic Viscosity	IS 1448 (Part 25) (RA 2007)	2.0 cSt to 8.0 cSt
6.	<b>JETA-1 &amp; RT Fuel</b>	Mercaptan Sulphur	IS 1448 (Part 109): 2004	(0.0003 % to 0.01 %) by mass
		Total Acidity	IS 1448 (Part 113): 1983 (RA 2006)	(0.001 mg to 0.1 mg) KOH/g

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**Last Amended on** - **Page** 2 of 3

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
7.	Motor Gasoline, Automotive diesel fuel, JETA-1 & RT Fuel	Sulphur Contents	ASTM D 4294 (RA 2010) ISO 20847: 2004	(0.010 % to 5 %) mass 20 mg/kg to 500 mg/kg
8.	JETA-1, MTO & RT Fuel	Aromatics	IS 1448 (Part 23): 2004	(5 % to 99 %) by volume
9.	JETA-1	Olefins	IS 1448 (Part 23): 2004	(0.3 % to 55 %) by volume
		Naphthalene	IS 1448 (Part 118): 1985 (RA 2007)	(0.3 % to 5.0 %) by volume
		Conductivity	ISO 6297: 1997	10 pS/m to 1500 pS/m
		Silver Strip Corrosion Test	IP 227: 93	Upto 4
10.	JET-A1, Kerosene, RT fuel	Smoke Point	IS 1448 (Part 31): 2013	10 mm to 50 mm
11.	JETA-1 & Aviation Gasoline	Aniline Point (Method 1& 5)	IS 1448 (Part 3): 1984 (RA 2007)	43 °C to 66 °C
12.	JETA-1, RT Fuel & Hexane	Doctor Test	IS 1448 (Part 19): 1989 (RA 2002)	Qualitative
13.	JETA-1, RT Fuel, MS, Aviation Gasoline	Existent Gum	IS 1448 (Part 29): 2004	0.4 mg/100 ml to 50 mg/100 ml
14.	MTO	Residue On Evaporation	IS 1448 (Part 29): 2004	0.4 mg/100 ml to 50 mg/100 ml

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**Last Amended on** - **Page** 3 of 3

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15.	HSD	Pour Point	IS 1448 (Part 10): 1970 (RA 2003)	(-) 12 °C to (+) 48 °C
16.	Motor Gasoline & Aviation Gasoline	RVP Test	IS 1448 (Part 39): 1967 (RA 2003)	0.01 kg/cm <sup>2</sup> to 1.0 kg/cm <sup>2</sup>
17.	Motor Gasoline	RON	IS 1448 (Part 27): 1960 (RA 2003)	40 to 100
18.	RT Fuel	Benzene Contents	ASTM D 5580: 2007	(0.1 % to 5 %) by volume
		Ash Content	IS 1448 (Part 4): 2008	(0.001 % to 0.180 %) by mass
		Water Soluble Acids/ Alkalies	IS 1448 (Part 2): 2007	Qualitative
		Hydrogen Sulphide	IS 1448 (Part 19): 1989 (RA 2002)	Qualitative
19.	Motor Gasoline, Automotive Diesel Fuel, Kerosene, JETA-A	Calorific Value	IS 1448 (Part 7): 2004	10342 cal/g to 11360 cal/g
		Sulphur contents	ASTM D 2622: 10	3 mg/kg to 3000 mg/kg
20.	JETA-1, AVGAS & RT FUEL	Specific Energy	ASTM D 3338: 09 (RA 2010)	40.19 MJ/kg to 44.73 MJ/kg

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