

Laboratory	Geo Chem Laboratories Pvt. Ltd., "ISKON Avenue", Plot No. 53, Ward No. 1/A, Gandhidham, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	14.10.2015
Certificate Number	T-2676	Valid Until	13.10.2017
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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I. COAL, COKE & OTHER SOLID FUEL				
1.	Coal & Coke	Total Moisture	ASTM-D3302/D3302M-15 IS 1350 (Part 1): 1984 (RA 2002)	1 % to 50 %
		Air dried Moisture	ASTM-D3173-11 IS 1350 (Part 1): 1984 (RA 2002)	0.2 % to 20 %
		Volatile Matter	ASTM-D3175-11 IS 1350 (Part 1): 1984 (RA 2002)	1 % to 60 %
		Ash	ASTM-D3174-12 IS 1350 (Part 1): 1984 (RA 2002)	0.3 % to 60 %
		Fixed Carbon	ASTM-D3172: 2007 IS 1350 (Part 1): 1984 (RA 2002)	20 % to 90 %
		Gross Calorific Value	ASTM D 5865-13 IS 1350 (Part 2): 1970 (RA 2000)	(2000 Kcal to 10000 Kcal)/kg
		Sulphur	IS 1350 (Part 3): 1969 (RA 2000)	0.1 % to 10 %
II. FOODS & AGRICULTURAL PRODUCTS				
1.	Edible and Non Edible Oils/Fats & Fatty Acids and their Derivatives	Specific Gravity	IS 548 (Part 1): 1964 (RA 2010)	0.8000 to 1.1000
		Acid Value	AOCS Cd 3d-63: 2009 IS 548 (Part 1): 1964 (RA 2010)	(0.2 mg to 600 mg) KOH/g
		Iodine Value	AOCS Cd 1d-92: 2009 AOCS Tg 1a-64: 2003 IS 548 (Part 1): 1964 (RA 2010)	(0.25 to 200) g _l ₂ /100 _g

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	Edible and Non Edible Oils/Fats & Fatty Acids and their Derivatives	Saponification Value	AOCS Cd 3-25: 2013 IS 548 (Part 1): 1964 (RA 2010)	(80 mg to 300 mg) KOH/g
		Unsaponifiable Matter	AOCS Ca 6a-40: 2011 IS 548 (Part 1): 1964 (RA 2010)	0.1 % to 15 %
		Cloud Point	AOCS Cc-6-25: 2009	5 °C to 30 °C
		Peroxide Value	AOCS Cd 8-53: 2012 IS 548 (Part 1): 1964 (RA 2010)	(0.25 to 70) Meq/kg
		Color	AOCS Cc 13e-92: 2009 IS 548 (Part 1): 1964 (RA 2010)	Y Upto 70.0 R Upto 70.0 B Upto 40.0
		Free Fatty Acid	AOCS Ca 5a-40: 2012 IS 548 (Part 1): 1964 (RA 2010)	0.01 % to 95 %
		Insoluble Impurities	AOCS Ca 3a-46: 2011 IS 548 (Part 1): 1964 (RA 2010)	0.01 % to 5 %
		Moisture and Volatile Matter	AOCS Ca 2c-25: 2009 IS 548 (Part 1): 1964 (RA 2010)	0.01 % to 5 %
		Melting Point	AOCS Cc 1-25: 2009 IS 548 (Part 1): 1964 (RA 2010)	20 °C to 150 °C
a.	Non Edible oil (Castor)	Appearance	SOP/GCGDM//OIL/001 Issue No: 01 & Issue Date: 19.07.15	Qualitative
b.	Non Edible oil	Color gardner	AOCS Td 1a-64: 2009	1 G to 18 G

**Anita Rani
Convenor**

**N. Venkateswaran
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III. PETROLEUM				
1.	Furnace oil	Density @ 15 °C	ISO 3675: 1998 ASTM D1298-12b	0.8500 g/ml to 1.0000 g/ml
		Flash point (PMCC)	ISO 2719: 2002 ASTM D 93-13	50 °C to 250 °C
		K.Viscosity @ 50 °C	ISO 3104: 1994 ASTM D 445-12	50 cSt to 500 cSt
		Micro Carbon residue	ISO 10370: 1993 ASTM D 4530-II	0.2 (m/m) % to 30 (m/m) %
		Conradson Carbon Residue	ASTM D 189-06 (Reapproved 2010)	0.2 (m/m) % to 30 (m/m) %
		Pour point	ISO 3016: 1994 ASTM D 97-12	(-) 33 °C to 30 °C
		Sulfur	ISO 8754: 2003D ASTM D 4294-10	0.03 % to 5.0 %
		Total sediment potential	ISO 10307 (Part 1 & Part 2): 2009 ASTM D 4870-09	0.01 % to 0.5 %
		Sediment by extraction	ASTM D 473 -07 (RA 2012)	0.1 % to 0.4 %
		Water content	ISO 3733: 1999 ASTM D 95-13	0.05 % to 25 %
		Ash content	ISO 6245: 2001 ASTM D 482-13	0.01 % to 0.5 %

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2.	Diesel (HSD)	Density @ 15 °C	ISO 3675: 1998 ASTM D 1298-12b	0.8000 g/ml to 0.9000 g/ml
		Flash point (PMCC)	ISO 2719: 2002 ASTM D 93-13	40 °C to 70 °C
		Flash point (ABEL)	ISO 13736: 1997	20 °C to 70 °C
		K.Viscosity @ 40 °C	ISO 3104: 1994 ASTM D 445-12	0.1 cSt to 7.0 cSt
		Micro Carbon residue	ISO 10370: 1993 AST M D 4530-2	0.01(m/m) % to 10 (m/m) %
		Pour point	ISO 3016: 1994 ASTM D 97-12	(-) 30 °C to 24 °C
		Sulfur	ISO 8754:2003 ASTM D 4294-10	100 mg/kg to 1000 mg/kg
		Total sediment potential	ISO 10307 (Part 1 & Part 2): 2009 ASTM D 4870-09	0.005 (m/m) % to 0.5 (m/m) %
		Sediment by extraction	ASTM D473 -07 (RA 2012)	0.01 (m/m) % to 0.3 (m/m) %
		Water content	ISO 3733: 1999 ASTM D 95-13	0.05 (v/v) % to 10 (v/v) %
		Cloud point	ISO 3015: 1992	24 °C to (-) 30 °C
		Ash content	ISO 6245: 2001 ASTM D 482-13	0.001 % to 0.1 %

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