

Laboratory Oil & Fats Laboratory, Vinayak Oil & Fats Pvt. Ltd., Jalan Complex, (Industrial Estate), 29.5 Milestone, N. H.- 6, Village Baniara, P .O. Begri, P. S. Domjoor, Dist. Howrah, West Bengal

Accreditation Standard ISO/IEC 17025: 2005

Discipline Chemical Testing **Issue Date** 31.10.2016

Certificate Number T-3176 **Valid Until** 30.10.2018

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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. FOOD & AGRICULTURAL PRODUCT				
1.	Oils and Fats (Sesame oil, Rice bran oil, Mustard oil, Soybean oil, Sunflower oil, Palm oil, Groundnut oil, Coconut oil and other vegetable oils)	Refractive Index at 40 °C	IS 548 (Part 1): 1964 (RA 2015) Serial No. 10	1.40 to 1.5
		Free Fatty Acid (%)	IS 548 (Part 1): 1964 (RA 2015) Serial No. 07	0.05 g/100 g to 10 g/100 g
		Iodine Value	IS 548 (Part 1): 1964 (RA 2015) Serial No. 14	5 to 250
		Saponification value	IS 548 (Part 1): 1964 (RA 2015) Serial No. 15	100 to 250
		Unsaponifiable Matter	IS 548 (Part 1): 1964 (RA 2015) Serial No. 8	0.2 g/100 g to 6 g/100 g
		Peroxide value	IS 548 (Part 1): 1964 (RA 2015) Serial No. 21	0.1 meq/k g to 5 meq/k g
		Flash Point	IS 1448 (Part 21): 2012	90 °C to 300 °C
		Colour	IS 548 (Part 1): 1964 (RA 2015) Serial No. 13 (By Lovibond Tintometer)	2 Y to 20 Y 0.5 R to 10 R
		Bellier Turbidity Temperature	IS 548 (Part 2): 1976 (RA 2015) Serial No. 13	20 °C to 50 °C
	Moisture Content	IS 548 (Part 1): 1964 (RA 2015) Serial No. 5	0.01 g/100 g to 0.5 g/100 g	

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	Oils and Fats (Sesame oil, Rice bran oil, Mustard oil, Soybean oil, Sunflower oil, Palm oil, Ground nut oil, Coconut oil and other vegetable oils)	Specific Gravity 30 ⁰ /30 ⁰ C	IS 548 (Part 1): 1964 (RA 2015) Serial No. 11	0.80 to 1.00
		Argemone Oil	IS 548 (Part 2): 1976 (RA 2015) Serial No. 10	Qualitative (Present/Absent)
		Insoluble Matter	IS 548 (Part 2): 1976 (RA 2015)	Qualitative (Present/Absent)
		Cottonseed Oil	IS 548 (Part 2): 1976 (RA 2015) Serial No. 7	Qualitative (Present/Absent)
		Linseed Oil	IS 548 (Part 2): 1976 (RA 2015) Serial No. 8	Qualitative (Present/Absent)
		Neem Oil	IS 548 (Part 2): 1976 (RA 2015) Serial No. 16	Qualitative (Present/Absent)
		Kusum Oil	IS 548 (Part 2): 1976 (RA 2015) Serial No. 14	Qualitative (Present/Absent)
		Sesame Oil (Baudouin)	IS 548 (Part 2): 1976 (RA 2015) Serial No. 6	Qualitative (Present/Absent)
		Karanja Oil	IS 548 (Part 2): 1976 (RA 2015) Serial No. 9	Qualitative (Present/Absent)
		Mineral Oil	IS 548 (Part 2): 1976 (RA 2015) Serial No. 12.1	Qualitative (Present/Absent)
	Castor Oil	IS 548 (Part 2): 1976 (RA 2015) Serial No. 15	Qualitative (Present/Absent)	

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	Oils and Fats (Sesame oil, Rice bran oil, Mustard oil, Soybean oil, Sunflower oil, Palm oil, Ground nut oil, Coconut oil and other vegetable oils)	Fatty Acid Composition		
		Butyric Acid	IS 548 (Part 3): 1976 (RA 2012)	1 g/100 g to 10 g/100 g
		Caproic Acid		1 g/100 g to 10 g/100 g
		Caprylic Acid		1 g/100 g to 10 g/100 g
		Capric Acid		1 g/100 g to 20 g/100 g
		Lauric Acid		1 g/100 g to 55 g/100 g
		Myristic Acid		1 g/100 g to 20 g/100 g
		Palmitic Acid		1 g/100 g to 75 g/100 g
		Palmitoleic Acid		1 g/100 g to 10 g/100 g
		Margaric Acid		1 g/100 g to 10 g/100 g
		Stearic Acid		1 g/100 g to 10 g/100 g
		Oleic Acid		1 g/100 g to 90 g/100 g
		Elaidic Acid		1 g/100 g to 10 g/100 g
		Linoleic Acid		1 g/100 g to 60 g/100 g
		Linoelaidic Acid		1 g/100 g to 10 g/100 g
		Linolenic Acid		1 g/100 g to 20 g/100 g
		Gama Linolenic Acid		1 g/100 g to 10 g/100 g
		Arachidic Acid		1 g/100 g to 10 g/100 g
		Eicosenoic Acid		1 g/100 g to 20 g/100 g
		Arachidonic Acid		1 g/100 g to 10 g/100 g
	Behenic Acid		1 g/100 g to 10 g/100 g	
	Erucic Acid		1 g/100 g to 60 g/100 g	
	Lignoceric Acid		1 g/100 g to 10 g/100 g	
	Eicosapentaenoic Acid		1 g/100 g to 10 g/100 g	
	Docosahexaenoic Acid		1 g/100 g to 10 g/100 g	

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