

**Laboratory** Central Food Laboratory, 3, KYD Street, Kolkata, West Bengal

**Accreditation Standard** ISO/IEC 17025: 2005

**Discipline** Chemical Testing **Issue Date** 11.09.2015

**Certificate Number** T-1552 **Valid Until** 10.09.2017

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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
<b>I.</b>	<b>FOOD &amp; AGRICULTURAL PRODUCTS</b>			
<b>1.</b>	<b>Cereals, pulses, and by-products</b>			
<b>a.</b>	<b>Food Grains</b>	Determination of Foreign Matter	IS 4333 (Part 1): 1996 (RA 2009) DGHS Manual 3-1.1.2.1: 2005	0.1 % to 100 %
		Determination of Mineral Matter	IS 4333 (Part 1): 1996 (RA 2009) DGHS Manual 3-1.1.2.2: 2005	0.1 % to 100 %
		Detection of Rodent Hair and Excreta	IS 6261: 1971 (RA 2005)	Qualitative (Presence/Negative)
		Microscopic Structure of Cereal/Pulses Starches	IS 4706 (Part 1): 1978 (RA 2005) Edition 2.1 (1988-06)	Qualitative (Presence/Absence)
<b>2.</b>	<b>Milk and Dairy Products</b>			
<b>a.</b>	<b>Milk and Dairy Products</b>	Adulterants in milk and milk products (Sugar, Starch, Urea, Foreign Fat, Neutralizers, Detergents, Skimmed Milk Powder)	D.G.H.S. Manual 1: 2005 Serial No. 1.2 Page. 1 to 16	Qualitative tests (Presence/Absence)
		Preservatives in milk and milk products (Formalin, Hydrogen Peroxide)	D.G.H.S. Manual 1: 2005 Serial No. 1.3 Page. 18 to 19	Qualitative tests (Presence/Absence)
		Total solids	D.G.H.S. Manual 1: 2005 Serial No. 1.6 Page. 23 to 25	0.10 % to 60 %
		Total Protein	D.G.H.S. Manual 1: 2005 Serial No. 2.1.3 Page. 34 to 36	0.1 % to 50 %

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	<b>Milk and Dairy Products</b>	Fat in milk and milk products	D.G.H.S. Manual 1: 2005 Serial No. 1.7 Page. 25 to 29	0.1 % to 50 %
		Acidity as lactic acid	D.G.H.S. Manual 1: 2005 Serial No. 8.5 Page. 63 to 64	0.05 % to 10.0 %
<b>3.</b>	<b>Tea</b>	Total Ash	D.G.H.S. Manual 4: 2005 Serial No. 1.3 Page. 3 to 4	0.1 % to 20.00 %
		Water Soluble Ash (in total ash)	D.G.H.S. Manual 4: 2005 Serial No. 1.4 Page. 4 to 5	0.1 % to 70 %
		Alkalinity of Soluble Ash Expressed as KOH	D.G.H.S. Manual 4: 2005 Serial No. 1.6 Page. 6	0.1 % to 10 %
		Acid insoluble Ash	D.G.H.S. Manual 4: 2005 Serial No. 1.5 Page. 5 to 6	0.1 % to 5 %
		Water Extract	D.G.H.S. Manual 4: 2005 Serial No. 1.7 Page. 7	10 % to 40 %
		Crude Fiber	D.G.H.S. Manual 4: 2005 Serial No. 5.8 Page. 22 to 23	0.4 % to 20 %
<b>4.</b>	<b>Spices and Condiments</b>			
<b>a.</b>	<b>Spices</b>	Moisture (Toluene distillation)	D.G.H.S. Manual 10: 2005 Serial No. 03.0 Page. 2 to 5	0.1 % to 20 %
		Total Ash on dry basis	D.G.H.S. Manual 10: 2005 Serial No. 04.0 Page. 5 to 7	0.20 % to 10 %
		Ash insoluble in dilute HCl on dry basis	D.G.H.S. Manual 10: 2005 Serial No. 05.0 Page. 7 to 8	0.1 % to 10 %
		Crude Fiber	D.G.H.S. Manual 10: 2005 Serial No. 11.0 Page. 18 to 19	0.4 % to 25 %

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	<b>Spices</b>	Non Volatile ether extract on dry basis	D.G.H.S. Manual 10: 2005 Serial No. 09.0 Page. 13 to 14	0.5 % to 20 %
		Synthetic food color	D.G.H.S. Manual 8: 2005 Serial No. 04.2 Page. 77 to 80	Qualitative (Presence/Absence)
<b>5.</b>	<b>Cereals, Pulses and by-products</b>	Moisture	IS 4333 (Part 2): 2002 (RA 2008) / AOAC (19 <sup>th</sup> Edition) 925.10: 2012	5 % to 18 %
		Total Ash	D.G.H.S. Manual 3: 2005 Serial No. 8.3 Page. 17 to 18	0.2 % to 5%
		Ash insoluble in dilute HCl	D.G.H.S. Manual 3: 2005 Serial No. 8.4 Page. 18 to 19	0.1 % to 5 %
		Crude Fiber	D.G.H.S. Manual 3: 2005 Serial No. 8.9 Page. 24 to 25	0.3 % to 10 %
		Gluten, wet basis	D.G.H.S. Manual 3: 2005 Serial No. 8.5 Page. 19 to 21	1 % to 40 %
		Alcoholic Acidity	D.G.H.S. Manual 3: 2005 Serial No. 8.6 Page. 20 to 21	0.05 % to 1 %
		Protein	D.G.H.S. Manual 3: 2005 Serial No. 8.8 Page. 22 to 24	1 % to 15 %
<b>6.</b>	<b>Oil, Fats and Related Products</b>			
<b>a.</b>	<b>Oils and Fats</b>	Moisture	IS 548 (Part 1): 1964 (RA 2010) (Edition 2.5): (1996-07) Air Oven Method Page 18, 19, 20	0.01 % to 60 %
		Butyro Refractometer value	IS 548 (Part 1): 1964 (RA 2010) (Edition 2.5) Page 35	34 to 74.3

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	Oils and Fats	Oil soluble Synthetic Colour	IS 548 (Part 2): 1976 (RA 2010) (Edition 4.7): (1996-09) Page 25, 27 (19.4.1-19.4.1.1)	Qualitative (Presence/Absence)
		Saponification Value	IS 548 (Part 1): 1964 (RA 2010) (Edition 2.5): (1996-07) Page 50, 51, 52	167 to 250
		Acid Value	IS 548 (Part 1): 1964 (RA 2010) (Edition 2.5) (1996-07) Page 29, 30	0.1 to 10
		Iodine Value	IS 548 (Part 1): 1964 (RA 2010) (Edition 2.5): (1996-07) Page 47-50	7.5 to 180
		Bellier Test	IS 548 (Part 2): 1976 (RA 2010) (Edition 4.7): (1996-09) Page 14, 15	15 °C to 45 °C
		Sesame Oil (Modified Baudouins Test)	IS 548 (Part 2): 1976 (RA 2010) (Edition 4.7): (1996-09) Page 5, 6	Qualitative (Presence/Absence)
		Cotton Seed Oil (Halphens Test)	IS 548 (Part 2): 1976 (RA 2010) (Edition 4.7): (1996-09) Page 6, 7	Qualitative (Presence/Absence)
		Presence of Mineral Oil (Holdes Test)	IS 548 (Part 2): 1976 (RA 2010) (Edition 4.7): (1996-09) Page 12 (Holdes test)	Qualitative (Presence/Absence)
		Argemone Oil	D.G.H.S. Manual 2: 2005 Serial No. 30.0 Page. 81 to 83	Qualitative (Presence/Absence)

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	<b>Oils and Fats</b>	Phosphorous in Soya Bean Oil	A.O.C.S. Ca 12-55: 1989	Min: 0.01 %
		Unsaponifiable Matter	D.G.H.S. Manual 2: 2005 Serial No. 10.0 Page. 24 to 27	0.01 % to 15 %
		Melting point of Fat	D.G.H.S. Manual 2: 2005 Serial No. 08.0 Page. 19 to 21	31 °C to 51 °C Min: 28 °C
		Peroxide Value	D.G.H.S. Manual 2: 2005 Serial No. 37.1 Page. 97 to 99	0.3 Meq/kg to 50 Meq/kg
		Flash Point	D.G.H.S. Manual 2: 2005 Serial No. 06.1 Page. 9 to 11	90 °C to 370 °C
7.	<b>Fatty Acid Profile</b>	Saturated Fat	AOAC (19 <sup>th</sup> Edition) 996.06: 2012	0.2 % to 60 %
		Mono Unsaturated Fatty acid – (MUFA)	AOAC (19 <sup>th</sup> Edition) 996.06: 2012	0.2 % to 30 %
		Poly Unsaturated Fatty acid (PUFA)	AOAC (19 <sup>th</sup> Edition) 996.06: 2012	0.2 % to 70 %

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