

Laboratory	LTC Lab - Testing Services, LTC Commercial Company (P) Ltd., 156, Nawalgarh House, Sansar Chandra Road, Jaipur, Rajasthan		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	05.04.2014
Certificate Number	T-2913	Valid Until	04.04.2016
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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 PRODUCTS			
1.	Spice & Condiments			
a.	Coriander Whole, Cumin Seed, Turmeric Whole, Chilli Whole	Moisture	IS 1797: 1985 (RA 2009)	(0.5 g to 10 g)/ 100 g
b.	Coriander Whole	Coriander Splits	IS 1797: 1985 (RA 2009)	(0.5 g to 10 g)/ 100 g
		Damaged, Discolored & Shriveled Seed	IS 1797: 1985 (RA 2009)	(0.5 g to 10 g)/ 100 g
		Foreign Matter	IS 1797: 1985 (RA 2009)	(0.5 g to 10 g)/ 100 g
		Weevilled Seed	IS 1797: 1985 (RA 2009)	(0.1 g to 5 g)/ 100 g
c.	Cumin Seed	Foreign Matter/ Edible Seeds (Other Than Cumin)	IS 1797: 1985 (RA 2009)	(0.5 g to 10 g)/ 100 g
d.	Turmeric Whole	Fingers That Are Broken /Those Less Than 15mm	IS 3576: 2010	0.5 mm to 100 mm
		Extraneous Matter	IS 1797: 1985 (RA 2009)	(0.1 g to 15 g)/ 100 g
		Defective Rhizomes (Damage Due To Moisture and Over Boiling)	IS 3576: 2010	(0.1 g to 15 g)/ 100 g
e.	Chilli Whole	Foreign Matter	IS 1797: 1985 (RA 2009)	(0.1 g to 10 g)/ 100 g
		Broken Chillies	IS 2322: 2010	(0.1 g to 40 g)/ 100 g
		Damaged & Discolored Seed /Black Stained & Unripe Seed	IS 2322: 2010	(0.1 g to 50 g)/ 100 g
		Length of Chilli Whole	IS 2322: 2010	2 cm to 15 cm
		Colour	IS 2322: 2010	Qualitative

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f.	Coriander Powder, Chilli Powder, Turmeric Powder	Total Ash (Dry Basis)	IS 1797: 1985 (RA 2009)	(0.1 g to 10 g)/ 100 g
		Acid Insoluble Ash (Dry Basis)	IS 1797: 1985 (RA 2009)	(0.02 g to 2.0 g)/ 100 g
		Crude Fiber (Dry Basis)	IS 1797: 1985 (RA 2009)	(1 to 40)/ 100 g
g.	Turmeric Powder	Lead Chromate Test	IS 3576: 2010	Qualitative
2.	Oil Seeds & by-Products			
a.	Rm Seed/ Mustard Seed, Soybean, Castor Seed	Moisture	IS 3579:1966 (RA 2010)	(1.0 g to 10 g)/ 100 g
		Foreign Matter	IS 3579:1966 (RA 2010)	(1.0 g to 10 g)/ 100 g
b.	Rm Seed (Mustard Seed),Castor Seed	Oil Content (Dry Basis)	IS 3579:1966 (RA 2010)	(30.0 g to 60.0 g)/100 g
c.	Rm Seed	Free Fatty Acid As Oleic Acid	IS 548 (Part 1): 1964 (RA 2010)	(0.1 g to 2.0 g)/ 100 g
d.	Soybean Whole	Damaged Seed	IS 3579: 1966 (RA 2000)	(1.0 g to 20.0 g)/ 100 g
f.	Oil Seed Meal Cake (Animal Feed)	Crude Fiber (Dry Basis)	IS 7874 (Part 1): 1975 (RA 2009)	(4.0 g to 35.0 g)/ 100 g
		Oil Content(Dry Basis)	IS 3579: 1966 (RA 2010)	(0.05 g to 10 g)/ 10 g
		Protein	IS 7874 (Part 1): 1975 (RA 2009)	(0.25 g to 50 g)/ 100 g
		Total Ash (Dry Basis)	IS 7874 (Part 1): 1975 (RA 2009)	(0.25 g to 10g)/ 100 g
		Moisture	IS 7874 (Part 1): 1975 (RA 2009)	(5.0 g to 15.0 g)/ 100 g

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3.	Oil, Fats and Related Products			
a.	Oil & Fats	Moisture	IS 548 (Part 1): 1964 (RA 2010)	(0.01 g to 2 g)/ 100 g
		Saponification Value	IS 548 (Part 1): 1964 (RA 2010)	100 to 250
		Refractive Index At 40 °C	IS 548 (Part 1): 1964 (RA 2010)	1.35 to 1.700
		Iodine Value	IS 548 (Part 1): 1964 (RA 2010)	2 to 200
		Unsaponification Value	IS 548 (Part 1): 1964 (RA 2010)	(0.1 g to 1 g)/100 g
		Acid Value	IS 548 (Part 1): 1964 (RA 2010)	0.1 to 10.0
		Free Fatty Acid as Oleic Acid	IS 548 (Part 1): 1964 (RA 2010)	(0.1 g to 10.0 g)/ 100 g
		Peroxide Value	IS 548 (Part 1): 1964 (RA 2010)	(1.1 meq to 20 meq)/ 1000 g
		Insoluble Impurities	IS 548 (Part 1): 1964 (RA 2010)	(0.1 g to 10 g)/ 100 g
		Specific Gravity at 25 °C	IS 548 (Part 1): 1964 (RA 2010)	0.6 to 1.4
		Bedouin Test	IS 548 (Part 2): 1964 (RA 2010)	Qualitative
4.	Cereal and Cereal Products			
a.	Wheat Barley Chana Maize	Moisture	IS 4333 (Part 2): 1996 (RA 2012)	(1.0 g to 20.0 g)/ 100 g
		Foreign Matter (Organic & Inorganic)	IS 4333 (Part 1): 1996 (RA 2012)	(1.0 g to 20.0 g)/ 100 g
		Shrunken /Shriveled /Broken Grains/ Spilt / Immature	IS 4333 (Part 1): 1996 (RA 2012)	(1.0 g to 20.0 g)/ 100 g

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	Wheat Barley Chana Maize	Weevilled Seed	IS 4333 (Part 1): 1996 (RA 2012)	(0.1 g to 15.0 g)/ 100 g
		Damaged Seed/Damaged Kernel	IS 4333 (Part 1): 1996 (RA 2012)	(1.0 g to 20.0 g)/ 100 g
b.	Wheat	Test Weight (Hectoliter Weight)	IS 4333 (Part 3): 1996 (RA 2012)	70.0 kg/hl to 90.0 kg/hl
c.	Barley	Total Count Per Thousand Kernel (TCW)	IS 4333 (Part 4): 1996 (RA 2012)	(30.0 g to 50 g)/ 1000 Kernel
d.	Wheat Flour /Atta	Moisture	IS 1155: 1968 (RA 2010)	(5.0 g to 15.0 g)/ 100 g
		Total Ash (Dry Basis)	IS 1155: 1968 (RA 2010)	(1.0 g to 2.5 g)/ 100 g
		Acid Insoluble Ash (In 5nhcl)	IS 1155: 1968 (RA 2010)	(0.02 g to 2.0 g)/ 100 g
		Protein (Dry Basis)	IS 7219: 1973 (RA 2005)	(5.0 g to 15.0 g)/ 100 g
		Gluten (As Dry Basis)	IS 1155: 1968 (RA 2010)	(1.0 g to 10.0 g)/ 100 g
		Alcoholic Acidity	IS 1155: 1968 (RA 2010)	(0.01 g to 0.15 g)/100 g
		Crude Fiber (Dry Basis)	IS:10226 (Part 1): 1985	(0.5 g to 2.5 g)/ 100 g
		Carbohydrates (As Basis)	AOAC (19 th Edition) 986.25	40 % to 90 %
		Fat Content	AOAC (19 th Edition) 922.06	(0.1 g to 5.0 g)/100 g
e.	Maida Flour Besan Powder / Besan Powder	Moisture	IS 1009: 1979 (RA 2010)	(1 g to 10.0 g)/ 100 g
		Total Ash (Dry Basis)	IS 1009: 1979 (RA 2010)	(0.1 g to 2.0 g)/ 100 g
		Acid Insoluble Ash (As Basis)	IS 1009: 1979 (RA 2010)	(0.01 g to 2.0 g)/ 100 g

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	Maida Flour Besan Powder / Besan Powder	Alcoholic Acidity	IS 1009: 1979 (RA 2010)	(0.05 g to 0.5 g)/ 100 g
		Protein (Dry Basis)	IS 7219: 1973	(5.0 g to 20.0 g)/ 100 g
		Dry Gluten (As Basis)	IS 1009: 1979 (RA 2010)	(1.0 g to 15.0 g)/ 100 g
		Crude Fiber (Dry Basis)	IS 10226 (Part 1): 1982 (RA 2005)	(0.5 g to 2.5 g)/ 100 g 40 % to 90 %
		Carbohydrates (As Basis)	AOAC (19 th Edition) 986.25	(0.1 g to 5.0 g)/ 100 g
		Fat (As Basis)	AOAC (19 th Edition) 922.06	
f.	Besan Powder	Protein (As Dry Basis)	IS 7219: 1973 (RA 2005)	(10 g to 25 g)/ 100 g
		Crude Fiber(Dry Basis)	IS 10226 (Part 1): 1982 (RA 2005)	(1 g to 10 g)/ 100 g
		Carbohydrates(As Basis)	AOAC (19 th Edition) 986.25	60 % to 90 %
		Fat (As Basis)	AOAC (19 th Edition) 922.06	(0.1 g to 5 g)/ 100 g

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