

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>1 of 38</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>
---------------	-----------------------------------	--------------------------------	--	---

**AT LABORATORY**

**I. FOODS & AGRICULTURAL PRODUCTS**

<b>1. Bakery Products &amp; Confectionary Product (Biscuit/Wafers/Italian Bread Dough Stick Bake/White Bread/Rusk/Bun/White Meal Bread)</b>	Moisture	IS 12711: 1989	(0.20 g to 50 g)/100 g
	Ash	IS 12711: 1989	(0.20 g to 15 g)/100 g
	Fat	IS 12711: 1989	(0.5 g to 60 g)/100 g
	Protein	IS7219: 1973 (RA 2005)	(0.5 g to 50 g)/100 g
	Acid Insoluble Ash	IS 12711: 1989	(0.02 g to 5 g)/ 100 g
	Crude Fibre	IS 12711: 1989	(0.2 g to 10g)/100 g
	Sucrose	IS 1163: 1992 (RA 2009)	(1 g to 50g)/100 g
	pH	IS 12711: 1989	1 to 14
	Carbohydrate	IS 1656: 2007	(2 g to 95 g)/100 g
	Calorific Value	IS 9487: 1980 (RA 2010)	(15 kcal to 900 kcal)/ g
	Vitamin C	IS 5838: 1970 (RA 1995)	(0.25 mg to 100mg)/ 100 g
	Acidity of Extracted Fat	IS 12711: 1989	(0.1 g to 0.5 g)/100 g
	Alcoholic Acidity	IS 12711: 1989	(0.01 g to 0.5 g)/100 g
Total Solids	IS 12711: 1989	(0.5 g to 50 g)/100 g	
Dietary Fibre	IS 11062: 1984	(0.5 g to 25 g)/100 g	

**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 2 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>Bakery Products &amp; Confectionary Product (Biscuit/Wafers/Italian Bread Dough Stick Bake/White Bread/Rusk/Bun/White Meal Bread)</b>	<b>Metals</b>		
		Lead	AOAC 999.10: 2012	0.5 mg/kg to 500 mg/kg
		Copper	AOAC 999.10: 2012	1 mg/kg to 500 mg/kg
		Arsenic	AOAC 986.15: 2012	0.05 mg/kg to 500 mg/kg
		Iron	AOAC 999.10: 2012	0.5 mg/kg to 500 mg/kg
		Calcium	AOAC 975.03: 2012	2 mg/kg to 500 mg/kg
		Zinc	AOAC:999.11: 2012	0.2 mg/kg to 100 mg/kg
		Mercury	AOAC:971.21: 2012	0.05 mg/kg to 100 mg/kg
		Tin	AOAC:980.19: 2012	5 mg/kg to 500 mg/kg
		Cadmium	AOAC:999.11: 2012	0.1 mg/kg to 10 mg/kg
	Potassium	AOAC:985.35: 2012	1 mg/kg to 8000 mg/kg	
	<b>(Italian Bread Dough Stick Bake)</b>	Sodium	AOAC 990.23: 2012	1 mg/kg to 9000 mg/kg
2.	<b>Sugar &amp; Confectionery (Chewing Gum, Bubble Gum, Peanut, Candy, Chocolate, Ice Lollies, Edible Ice, Lozenges )</b>	Moisture	IS 6287: 1985	(0.25 g to 50 g)/100 g
		Sulphated Ash	IS 6287: 1985	(0.5 g to 10 g)/100 g
		Acid Insoluble Ash	IS 6287: 1985	(0.05 g to 10 g)/100 g
		Sucrose	IS 6287: 1985	(1 g to 10 g)/100 g
		Reducing Sugar	IS 6287: 1985	(2 g to 40 g)/100 g

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>3 of 38</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>Sugar &amp; Confectionery (Chewing Gum, Bubble Gum, Peanut, Candy, Chocolate, Ice Lollies, Edible Ice, Lozenges )</b>	Refractive Index	IS 4941: 1994	1.33 to 1.580
		F/G Ratio	IS 4941: 1994	0.9 to 1.3
		Protein	IS7219: 1973 (RA 2005)	(1 g to 50 g)/100 g
		Fat	IS 4684: 1975 (RA 1983)	(0.5 g to 60 g)/100 g
		Gum Content	IS 6747: 2005 (RA 2005)	(2 g to 20 g)/100 g
		Acidity	IS 4941: 1994	(0.05 g to 1 g)/100 g
		Ficche's Test	IS 4941: 1994	Qualitative
		Acid Value of Extracted Fat	IS 548 (Part 1): 1970 (RA 2006)	(0.1 g to 5 g)/100 g
		Sucrose	IS 7592: 1989 (RA 2005)	(1 g to 40 g)/100 g
		Peanut content	IS 7592:1989(RA2005)	(5 gm to 90 gm)/100 gm
		Calcium	AOAC 975.03: 2012	2 mg/kg to 500 mg/kg
		Arsenic	AOAC: 986.15: 2012	0.05 mg/kg to 500 mg/kg
		Lead	AOAC 999.11: 2012	0.5 mg/kg to 100 mg/kg
	<b>Chocolate</b>	Total Fat	IS 1163: 1992 (RA 2009)	(0.5 g to 40 g)/100 g
		Milk Fat	IS 1163: 1992 (RA 2009)	(0.05 g to 5 g)/100 g
		Acid insoluble ash	IS 1163: 1992 (RA 2009)	(0.02 g to 5 g)/100 g

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>4 of 38</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>3.</b>	<b>Honey</b>	Moisture	IS 4941: 1994	(13 g to 25 g)/100 g	
		Total Ash	IS 4941: 1994	(0.02 g to 10 g)/100 g	
		Total Reducing Sugar	IS 4941: 1994	(10 g to 80 g)/100 g	
		F/G Ratio	IS 4941: 1994	0.5 to 5	
		Acidity	IS 4941: 1994	0.005 to 1 g)/100 g	
		Sucrose	IS 4941: 1994	(0.5 g to 20 g)/100 g	
		Hydroxy Methyl Furfural	IS 4941: 1994	1 mg/kg to 80 mg/kg	
		Fieshe Test	IS 4941: 1994	Qualitative	
		Specific Gravity 27°C	IS 4941: 1994	1.329 to 1.563	
		<b>Metals</b>			
		Lead	AOAC 999.11: 2012	0.5 mg/kg to 500 mg/kg	
		Arsenic	AOAC 986.15: 2012	0.05 mg/kg to 10 mg/kg	
		Cadmium	AOAC 999.11: 2012	1 mg/kg to 10 mg/kg	
		Copper	AOAC:999.11: 2012	1 mg/kg to 100 mg/kg	
		Nickel	AOAC 990.05: 2012	1 mg/kg to 10 mg/kg	
		Zinc	AOAC 999.11: 2012	1 mg/kg to 100 mg/kg	
		Tin	AOAC 980.19: 2012	5 mg/kg to 1000 mg/kg	
		Iron	AOAC 999.11: 2012	1 mg/kg to 100 mg/kg	

**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road,  
Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 5 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
4	Sugar	Loss on drying ( Moisture)	IS 15279: 2003	(0.05 g to 10 g)/100 g
		Total Ash	IS 15279: 2003	(0.02 g to 5 g)/100 g
		Sulphated Ash	IS 15279: 2003	(0.01 g to 2 g)/ 100 g
		Acid insoluble Ash	IS 15279: 2003	(0.01 g to 5 g)/ 100 g
		Starch	IS 15279: 2003	(0.5 g to 20 g)/ 100 g
		Sucrose	IS 15279: 2003	(60 g to 100 g)/ 100 g
		Color	IS 15279: 2003	10 IU to 200 IU
5.	Sugar & Confectionery (Chewing Gum, Bubble Gum, Peanut, Candy, Chocolate, Ice Lollies, Edible Ice, Lozenges )	Lead	AOAC: 999.11: 2012	0.5 mg/kg to 500 mg/kg
		Arsenic	AOAC: 986.15: 2012	0.05 mg/kg to 500 mg/kg
		Tin	AOAC: 980.19: 2012	5 mg/kg to 500 mg/kg
		Cadmium	AOAC: 999.11: 2012	0.1 mg/kg to 500 mg/kg
		Iron	AOAC: 999.11: 2012	1 mg/kg to 100 mg/kg
		Moisture	IS 11623: 1992 (RA 1997)	(0.2 g to 50 g)/ 100 g
		Total Ash	IS 14433: 2007	(0.2 g to 15 g)/ 100 g
		Fat	IS 1656: 2007	(0.5 g to 55 g)/ 100 g
		Protein	IS 7219: 1973 (RA 2005)	(0.5 g to 50 g)/ 100 g
		Carbohydrate	IS 1656: 2007	(2 g to 95 g)/ 100 g
Acid Insoluble Ash	IS 14433: 2007	(0.02 g to 5 g)/ 100 g		

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>6 of 38</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>Sugar &amp; Confectionery (Chewing Gum, Bubble Gum, Peanut, Candy, Chocolate, Ice Lollies, Edible Ice, Lozenges )</b>	Vitamin C	IS 5838: 1970 (RA 1995)	(0.25 mg to 100mg)/ 100 g
		Dietary Fibre	IS 11062: 1984	(0.5 g to 25 g)/ 100 g
		Crude Fibre	IS 10226: 1990 (RA 1990)	(1 g to 20 g)/ 100 g
		Thiamine	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(0.5 mg to 50 mg)/ 100 g
		Riboflavin	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(1 mg to 50 mg)/ 100 g
		Nicotinic Acid	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(1 g to 50 g)/ 100 g
<b>6.</b>	<b>Spices And Condiments Turmeric/Cardamom/Cinamon/ Corriender/ Seasoning Chilli/Fennel/ Tamrin/ Garam Masala /Ajwaine Black Peper/ Musterd/ Amchur/ Clove/ Fenugreek</b>	Mass	IS 1797: 1985 (RA 2001)	(40 g to 800 g)/l
		Extraneous Matter	IS 1797: 1985 (RA 2001)	(0.5 g to 10 g)/ 100 g
		Total Ash	IS 1797: 1985 (RA 2001)	(0.25 g to 5 g)/ 100 g
		Moisture Content	IS 1797: 1985 (RA 2001)	(0.25 g to 5 g)/ 100 g
		Water Insoluble Ash	IS 1797: 1985 (RA 2001)	(0.5 g to 10 g)/ 100 g
		Acid Insoluble Ash	IS 1797: 1985 (RA 2001)	(0.5 g to 10 g)/ 100 g
		Alcohol Soluble Extract	IS 1797: 1985 (RA 2001)	(0.5 g to 10 g)/ 100 g
		Cold Water Soluble Extract	IS 1797: 1985 (RA 2001)	(0.5 g to 10 g)/ 100 g

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>7 of 38</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>Spices And Condiments Turmeric/Cardamom/Cinamon/ Corriender/ Seasoning Chilli/Fennel/ Tamrin/ Garam Masala /Ajwaine Black Peper/ Musterd/ Amchur/ Clove/ Fenugreek</b>	Calcium	IS 1797: 1985 (RA 2001)/ AOAC:985.35	20 g/kg to 1500 g/kg
		Crude Fibre	IS 1797: 1985 (RA 2001)	(0.4 g to 20 g)/ 100 g
		Salt	IS 1797: 1985 (RA 2001)	(0.1 g to 35 g)/ 100 g
		Insect Damaged Matter	IS 2443: 1994	(0.001 g to 5 g)/ 100 g
		Empty and Malformed Capsules	IS 1907: 1984	(1 g to 5 g)/ 100 g
		Light Seed	IS 1907: 1984 / IS 2443: 1980	(1 g to 5 g)/ 100 g
		Split fruits	IS 1907: 1984/ IS 2443: 1980	(1 g to 5 g)/ 100 g
		Discoloured Fruits	IS 2443: 1994	(1 g to 5 g)/100 g
		Total Ash	IS 1797: 2001 (RA 2001)	(0.1 g to 100 g)/ 100 g
		Chromate Test	IS 2446: 1980	Qualitative
		Volatile Oil	IS 1797: 1985 (RA 2001)	(0.1 g to 5 g)/ 100 g
		Non – Volatile Oil Ether Extract	IS 1797: 1985 (RA 2001)	(0.1 g to 25 g)/ 100 g
		Starch	IS 2446: 1980	(10 g to 80 g)/ 100 g
	Acidity	IS 13242: 1991	(0.3 g to 30 g)/ 100 g	

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>8 of 38</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>Spices And Condiments</b>	Sugar	IS 4079: 1967 (RA 2000)	(2 g to 15 g)/ 100 g
	<b>Turmeric/Cardamom/Cinamon/Corriender/Seasoning</b>	Arsenic	AOAC 986.15: 2012	0.05 mg/kg to 10 mg/kg
	<b>Chilli/Fennel/Tamrin/ Garam Masala /Ajwaine</b>	Lead	AOAC 999.11: 2012	0.5 mg/kg to 20 mg/kg
	<b>Black Peper/ Musterd/ Amchur/ Clove/ Fenugreek</b>	Presence of foreign Starch	IS 2400: 1976	Qualitative
		Bulk Density	IS 1797: 1985 (RA 2001)	(500 g to 800 g)/l
		Piperine Content	ISO 10925: 1999	(0.05 mg to 10mg)/ 100 kg
		Paparika	ISO 7541: 2013	2 ASTM to 500 ASTM
		Animal Filth	AOAC 975.49: 2012	Qualitative
		Mineral oil	DGHS Manual vol.08 2005	Qualitative
		Capsaicin	ARAS/CH/WI/56 Issue date:01/03/14 Issue No.: 01	(0.02 g to 1 g)/ 100 g
		Fat	IS1797: 1985 (RA 2001)	(0.5 to 20 g)/ 100 g
		Carbohydrate	IS 1656: 2007	(2 g to 95 g)/ 100 g
		Protein	IS 7219 : 1973 (RA 2005)	(0.5 g to 50 g)/ 100 g
		Unripe and marked fruits	IS 2322: 2010	(0.1 g to 5 g)/100g
		Peroxidase	IS 4624: 1978	Qualitative



<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>9 of 38</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>Turmeric Powder</b>	Lead Chromate	IS 3576: 1994	Qualitative
		Curcumin Content	IS 10925: 1984	(1 g to 10 g)/ 100 g
		Starch	IS 4706 (Part 2): 1978	(1 g to 65 g)/ 100 g
	<b>Cloves</b>	Tendrils & Mother cloves	IS 4404: 1992	Qualitative
		Khokkar cloves	IS 4404: 2010	Qualitative
		Headless cloves	IS 4404: 2010	Qualitative
	<b>Mustard Seed</b>	Argemone	IS 2323: 1983 (RA 2003)	Qualitative
		Volatile Oil (allyl isothiocynate)	IS 2323: 1983 (RA 2003)	Qualitative
	<b>Tamarind Concentrate</b>	Total Insoluble Pulp	IS 5955: 1993	Qualitative
		Total Soluble Solid	IS 5955: 1993	(10 g to 90 g)/ 100 g
		Total Tartaric Acid	IS 5955: 1993	(0.5 g to 35 g)/ 100 g
	<b>Asafoetida</b>	Alcoholic Extract	IS 7807: 1975 (RA 2003)	(0.1 g to 30 g)/ 100 g
		Starch	IS 7807: 1975 (RA 2003)	(0.1 g to 5 g)/ 100 g
	<b>Black Peper ( Whole/ Ground)</b>	Light Berries	IS 1798: 1982	(0.1 g to 20 g)/ 100 g
	<b>Black Peper Oleoresin</b>	Residual solvent	IS 5832: 1984	10 to 500 mg/kg
		Specific Gravity	Cl No. 5 in IS 326: 1968	40 to 800
		Refractive Index	Cl No. 7 in IS 326: 1968	1.4880 to 1.4970

**Rini Narayan  
Convenor**

**N. Venkateswaran  
Program Manager**

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>10 of 38</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>Ginger Oleoresin</b>	Residual solvent	IS 5832: 1984	10 mg/kg to 500 mg/kg
		Specific Gravity/ Relative Density	IS 326: 1968 Clause 5	0.589 to 1.548
		Refractive Index	CI No. 7 in IS 326: 1968	1.4880 to 1.4970
	<b>Saffron</b>	Moisture Content	IS 5453 (Part 2): 1996	(1 g to 20 g)/100g
		Total Ash	IS 5453 (Part 2): 1996	(1 g to 20 g)/ 100 g
		Acid Insoluble Ash	IS 5453 (Part 2): 1996	(0.05 g to 10 g)/ 100 g
		Bitterness	IS 5453 (Part 2): 1996	Qualitative
		Solubility in Cold Water	IS 1797: 1985 (RA 2001)	(5 g to 100 g)/ 100 g
		Crude Fibre	IS 1797: 1985 (RA 2001)	(1 g to 25 g)/ 100 g
		<b>Garam Masala Curry Powder</b>	Lead	IS 13545: 1992 AOAC 999.11: 2012
	Chromium Salt		IS 13545: 1992	Qualitative
<b>7.</b>	<b>Food additives Edible Common Salt / Iodized Salt</b>	Moisture	IS 7224: 2006	(0.05 g to 15 g)/100g
		Sodium Chloride	IS 7224: 2006	(50 g to 100 g)/100g
		Water solubility	IS 7224: 2006	(0.05 g to 5 g)/100 g
		Iodine content	IS 7224: 2006	1 mg/kg to 100 mg/kg

**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road,  
Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 11 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>Food additives Edible Common Salt / Iodized Salt</b>	Alkalinity	IS 7224: 2006	(0.05 g to 5 g)/ 100 g
		Calcium	IS 7224: 2006	1 mg/kg to 100 mg/kg
		Magnesium	IS 7224: 2006	1 mg/kg to 100 mg/kg
		Sulphate	IS 7224: 2006	(0.05 g to 1 g)/ 100 g
		Lead	AOAC:999.11: 2012	0.5 mg/kg to 100 mg/kg
		Iron	AOAC:999.11 : 2012	0.5 mg/kg to 100 mg/kg
		Arsenic	AOAC:986.15 : 2012	0.05 mg/kg to 10 mg/kg
		Copper	AOAC:999.11 : 2012	1 mg/kg to 500 mg/kg
<b>8.</b>	<b>Meat, Poultry, Fish</b>	Total Ash	IS 5960 (Part 2): 2000	(0.5 g to 50 g)/ 100 g
		Fat	IS 5960 (Part 3): 1970 (RA 2005)	0.5 to 50 g/ 100 g
		Protein	IS 5960 (Part 1): 1996 (RA 2001)	(1 g to 50 g)/ 100 g
		Zinc	AOAC 986.15: 2012	0.2 mg/kg to 100 mg/kg
		Copper	AOAC 999.11: 2012	1 mg/kg to 500 mg/kg
		Calcium	AOAC 999.11: 2012	(0.5 g to 50 g)/ 100 g
		Iron	AOAC 999.11: 2012	1 mg/kg to 500 mg/kg
		Lead	AOAC 972.23: 2012	0.5 mg/kg to 500 mg/kg
		Arsenic	AOAC:986.15: 2012	0.05 mg/kg to 500 mg/kg

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>12 of 38</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>Meat, Poultry, Fish</b>	Mercury	AOAC:971.21: 2012	0.05 mg/kg to 100 mg/kg
		Phosphorus	AOAC:965.17: 2012	(1 g to 20 g)/ 100g
		Acid Insoluble Ash	IS 5960 (Part 2): 2000 (RA 2014)	10 g/ 100 g
		pH	ARAS/CH/WI/66 Issue date:01/03/14 Issue No.: 01	1 to 14
		Moisture	IS 5960 (Part 5) (RA 2014)	(0.05 g to 50 g)/ 100 g
		Carbohydrate	IS 1656: 1997	(2 g to 95 g)/ 100 g
<b>9.</b>	<b>Oil, fats and related products</b>	Moisture	IS 548 (Part 1): 1964 (RA 2006)	(0.1 g to 5 g)/ 100 g
		Insoluble impurities	IS 548 (Part 1): 1964 (RA 2006)	(0.01 g to 2.0 g)/ 100 g
		Free Fatty Acids	IS 548 (Part 1): 1964 (RA 2006)	(0.05 g to 5 g)/ 100 g
		Unsaponifiable Matter	IS 548 (Part 1): 1964 (RA 2006)	(0.2 g to 10 g)/ 100 g
		Refractive Index	IS 548 (Part 1): 1964 (RA 2006)	1.333 to 1.489
		Acid Value	IS 548 (Part 1): 1964 (RA 2006)	(0.05 g to 5 g)/100 g
		Iodine Value	IS 548 (Part 1): 1964 (RA 2006)	5 to 250
		Specific gravity	IS 548 (Part 1): 1964 (RA 2006)	0.5023 to 1.563
		Saponification Value	IS 548 (Part 1): 1964 (RA 2006)	50 to 250
	Reichert-Meissl Value	IS 548 (Part 1): 1964 (RA 2006)	5 to 40	

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>13 of 38</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>Oil, fats and related products</b>	Polenske Value	IS 548 (Part 1): 1964 (RA 2006)	1 to 13
		Peroxide Value	IS 548 (Part 1): 1964 (RA 2006)	(1 Meq to 50 Meq)/kg
		Fatty Acid Methyl Esters Profile	AOAC:996.06: 2005	(1 g to 80 g)/ 100 g
		Sesame Oil	IS 548 (Part 2): 1976 (RA 2006)	Qualitative
		Cottonseed Oil	IS 548 (Part 2): 1976 (RA 2006)	Qualitative
		Linseed Oil	IS 548 (Part 2): 1976 (RA 2006)	Qualitative
		Karanja (Pungam) Oil	IS 548 (Part 2): 1976 (RA 2006)	Qualitative
		Argimone Oil	IS 548 (Part 2): 1976 (RA 2006)	Qualitative
		Hydrocyanic Acid	IS 548 (Part 2): 1976 (RA 2006)	Qualitative
		Groundnut Oil	IS 548 (Part 2): 1976 (RA 2006)	Qualitative
		Kusum Oil	IS 548 (Part 2): 1976 (RA 2006)	Qualitative
		Castor Oil	IS 548 (Part 2): 1976 (RA 2006)	Qualitative
		Lead	AOAC 999.11: 2012	0.5 mg/kg to 500 mg/kg
		Arsenic	AOAC 986.15: 2012	0.05 mg/kg to 500 mg/kg
		Cadmium	AOAC 999.11: 2012	0.1 mg/kg to 50 mg/kg
		Mercury	AOAC 971.21: 2012	0.05 mg/kg to 100 mg/kg

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>14 of 38</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>Oil, fats and related products</b>	BTT Test	IS 548 (Part 2): 1976 (RA 2006)	Qualitative
		Viscosity	IS 11487: 1985	10 mPas to 10,00000 mPas
		Phosphorus	IS 12756: 1989 (RA 1999)	10 mg/kg to 500 mg/kg
		Semi-Siccative	FSSAI:Mannual-2	Qualitative
		Olive Pomace Oil Test	FSSAI:Mannual-2	Qualitative
		Teaseed Oil Test	FSSAI:Mannual-2	Qualitative
<b>10.</b>	<b>Tea, Coffee And Chicory ( Roasted Coffee, Coffee, green tea)</b>	Acidity	AOAC 920.92: 2012	(0.1 g to 5 g)/ 100 g
		Ash	AOAC 920.93: 2012	(1 g to 10 g)/ 100 g
		Moisture	AOAC 968.11: 2012	(0.5 g to 20 g)/100 g
		Crude Fibre	AOAC 920.98: 2012	(0.4 g to 20g)/100g
		Soluble Solids	AOAC 973.21: 2012	(1 g to 10 g) / 100 g
		Chloride	AOAC 925.14: 2012	1 mg/kg to 100 mg/kg
		Caffeine	IS 16028: 2012	(0.01 g to 5 g)/ 100 g
	<b>Tea</b>	Ash	IS 13854: 1994 (RA 1999) / AOAC 920.100: 2012	(1 g to 10 g)/ 100 g
		Crude Fibre	AOAC: 920.01: 2012	(0.4 g to 20g)/ 100 g
		Moisture	IS 13853: 1994 (RA 1999) / AOAC 920.102: 2012	(0.5 g to 20 g)/ 100 g

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>15 of 38</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>Tea</b>	Water Soluble Ash	IS 13855: 1993 (RA 1998)	(1 g to 80 g)/ 100 g
		Water Insoluble Ash	IS 13855: 1993 (RA 1998)	(1 g to 80 g)/ 100 g
		Alkalinity of Water Soluble Ash	IS 13856 : 1993 (RA 1998)	(0.1 g to 10 g)/ 100 g
		Acid Insoluble Ash	IS 13857: 1993 (RA 1998)	(0.2 g to 10 g)/ 100 g
		Water Extract	IS 13862: 1999 / AOAC 920.104 : 2012	(10 g to 80 g)/ 100 g
<b>11.</b>	<b>Cereals, pulses, and by-products Fortified flour Maida</b>	Vitamin C	IS 5838: 1970 (RA 1995)	(2 mg to 500 mg)/ 100 g
		Sugar	IS 2650: 1975	(1 g to 60 g)/ 100 g
		Fat	IS 4684: 1983	(1 g to 60 g)/ 100 g
		Carbohydrate	IS 1656: 1997	(5 g to 95 g)/ 100 g
		Calorific value	IS 9487: 1980	(15 kcal to 900 kcal)/ 100g
		Sodium	AOAC:985.35: 2012	1 mg/kg to 1500 mg/kg
		Moisture	AOAC 925.10: 2012 / IS 1155: 1968 (RA 1994)	(1 g to 25 g)/ 100 g
		Acid Insoluble Ash	IS 1155: 1968 (RA 1994)	(0.01 g to 5 g)/ 100 g
		Alcoholic Acidity	IS 1155: 1968 (RA 1994)	(0.01 g to 0.5 g)/ 100 g
		Total Ash	AOAC 923.03: 2012 / IS 1155: 1968 (RA 1994)	(0.2 g to 10 g)/ 100 g

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>16 of 38</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>Cereals, pulses, and by-products Fortified flour Maida</b>	Iron	AOAC 999.11: 2012	1 mg/kg to 500 mg/kg
		Calcium	AOAC 944.03: 2012	2 mg/kg to 5000 mg/kg
		Fat	AOAC 920.85: 2012/922.06: 2005	(0.05 g to 5 g)/ 100 g
		Crude Fibre	AOAC 920.86 : 2012/ IS 1155: 1968 (RA 1994)	(0.5 g to 10 g)/ 100 g
		Total dietary fibre	AOAC 920.86: 2012	(1 g to 25 g)/ 100 g
		Protein	AOAC 951.03: 2012	(1 g to 25 g)/ 100 g
		Gluten	IS 8162: 1998 / ISO 5531: 1978	(1 g to 25 g)/ 100 g
		Granularity	IS 9629: 2004	Qualitative
		Sugar	IS 2650: 1975	(2 g to 50 g)/ 100 g
		Thiamine	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(0.1 mg/kg to 10mg)/100g
		Riboflavin	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(0.1 mg to 10 mg)/ 100 g
	Nicotinic acid	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(0.1 mg to 100 mg)/ 100 g	



<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>17 of 38</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>Cereals, pulses, and by-products Fortified flour Maida</b>	Folic acid	ARAS/ GEN/WI/03 Issue date:01/03/14 Issue No.: 01	(0.1 mcg to 100 mcg)/ 100 g
		Vitamin B12	ARAS/ GEN/WI/02 Issue date:01/03/14 Issue No.: 01	(0.1 mcg to 100 mcg)/ 100 g
		Zinc	AOAC 999.11: 2012	2 mg/kg to 100 mg/kg
		Aflatoxins	AOAC 993.16: 2012	0.3 µg/kg to 100 µg/kg
	<b>Wheat/Maida</b>	Sedimentation value	IS 13864: 1993	1ml to 50 ml
	<b>Barley</b>	Moisture	IS 1156: 1957 (RA 1988)	(0.1 g to 25 g)/ 100 g
		Total Ash	IS 1156: 1957 (RA 1988)	(0.2 g to 5 g)/ 100 g
		Acid Insoluble Ash	IS 1156: 1957 (RA 1988)	(0.1 g to 1 g)/ 100 g
		Protein	IS 1156: 1957 (RA 1988)	(2 g to 20 g)/ 100 g
		Alcoholic Acidity	IS 1156: 1957 (RA 1988)	(0.01 g to 0.5 g)/ 100 g
	<b>Pearl Barley</b>	Moisture	IS 1156: 1957 (RA 1988)	(1 g to 25 g)/ 100 g
		Total Ash	IS 1156: 1957 (RA 1988)	(0.2 g to 5 g)/ 100 g
		Acid Insoluble Ash	IS 1156: 1957 (RA 1988)	(0.1 g to 1 g)/ 100 g
		Protein	IS 1156: 1957 (RA 1988)	(2 g to 20 g)/ 100 g
		Alcoholic Acidity	IS 1156: 1957 (RA 1988)	(0.01 g to 0.5 g)/ 100 g

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>18 of 38</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>Besan</b>	Moisture	IS 1009: 1979 (RA 2005)	(1 g to 25 g)/ 100 g
		Total Ash	IS 1009: 1979 (RA 2005)	(0.2 g to 10 g)/ 100 g
		Acid Insoluble Ash	IS 1009: 1979 (RA 2005)	(0.01 g to 5 g)/ 100 g
		Protein	IS 7219: 1973 (RA 2005)	(5 g to 50 g)/ 100 g
	<b>Malted and malt based food</b>	Moisture	IS 16072: 2012	(0.1 g to 10 g)/ 100 g
		Protein	IS 7219: 1973 (RA 2005)	(0.1 g to 25 g)/ 100 g
		Fat	IS 11721: 1989	(0.2 g to 25 g)/ 100 g
		Ash	IS 14433: 1997	(0.05 g to 10 g)/ 100 g
		Acid insoluble ash	IS 14433: 1997	(0.04 g to 5 g)/ 100 g
		Starch	IS 1806: 1975 (RA 2014)	Qualitative
<b>12.</b>	<b>Milk and Dairy Products</b>			
	<b>Cream</b>	Specific Gravity	AOAC 925.22: 2012	0.5 to 2
		Acidity	AOAC 947.05: 2012	(0.1 g to 20 g)/ 100 g
		Total Solids	IS 1479 (Part 2): 1961 (RA 2003)/ AOAC 925.23: 2012	(0.2 g to 50 g)/ 100 g
		Fat	IS 1479 (Part 2): 1961 (RA 2003)/ AOAC 989.05: 2012	(0.5 g to 25 g)/ 100 g
		Ash	IS 1479 (Part 2): 1961 (RA 2003)/ AOAC 945.46: 2012	(0.01 g to 20 g)/ 100 g

**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road,  
Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 19 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>Cream</b>	pH	IS 1479 (Part 2): 1961 (RA 2003)	1 to 14
		Crude Protein	IS 1479 (Part 2): 1961 (RA 2003)	(1 g to 50 g)/ 100 g
		Protein	IS 1479 (Part 2): 1961 (RA 2003)	(1 g to 50 g)/ 100 g
		Non-protein Nitrogen	IS 1479 (Part 2): 1961 (RA 2003)	(1 g to 50 g)/ 100 g
		Chloride	IS 1479 (Part 2): 1961 (RA 2003)	(0.01 g to 5 g)/ 100 g
		Calcium	AOAC:975.03: 2012	2 mg/kg to 5000 mg/kg
		Phosphorus	IS 1479 (Part 2): 1961 (RA 2003)	100 mg/kg to 5000 mg/kg
		Copper	AOAC:999.10 : 2012	1 mg/kg to 500 mg/kg
		Total aflatoxin	AOAC: 993.16: 2012	0.3 µg/kg to 100 µg/kg
		Viscosity	IS 11487: 1985	10 mPas to 10,00000 mPas
	<b>Milk &amp; Milk Powder</b>	Moisture	IS 11623: 1986 (RA 1997)	0.5 to 10 g/ 100 g
		Total Solids	IS 1165: 2002	20 to 100 g/ 100 g
		Fat	IS 11721: 1989	0.5 to 50 g/ 100 g
		Insolubility Index	IS 12759: 1999	0.5 to 10 ml
		Total Ash	IS 1165: 2002	0.5 to 10 g/ 100 g
		Titration Acidity	IS 1165: 2002	0.1 to 5 g/ 100 g
		Acid Insoluble Ash	IS 14433: 2007	0.02 to 5 g/ 100 g

**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road,  
Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 20 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>Milk &amp; Milk Powder</b>	Total Added Sugar	IS 4079: 1967 (RA 2000)	5 to 55 g/ 100 g
		Total Milk Protein	IS 7219: 1973 (RA 2005)	0.5 to 50 g/ 100 g
		Test for Starch	IS 1479 (Part 1): 1960	Qualitative
		Iron	AOAC 999.11: 2012	0.5 mg/kg to 500 mg/kg
		Tin	AOAC 999.11: 2012	1 mg/kg to 500 mg/kg
		Cadmium	AOAC 999.11: 2012	0.1 mg/kg to 10 mg/kg
		Calcium	AOAC 975.03: 2012	2 mg/kg to 500 mg/kg
		Phosphorus	IS 1479 (Part 2): 1960 (RA 2003)	50 mg/kg to 2000 mg/kg
		Iodine	IS 7224: 2006	100 µg/kg to 600 µg/kg
		Copper	AOAC 999.11: 2012	1 mg/kg to 500 mg/kg
		Zinc	AOAC 999.11: 2012	0.2 mg/kg to 100 mg/kg
		Urea	IS 1479 (Part 1): 1960	50 mg/kg to 1000 mg/kg
		Sodium	AOAC 985.35: 2012	1 mg/kg to 900 mg/kg
		Potassium	AOAC 985.35: 2012	1 mg/kg to 800 mg/kg
		Magnesium	AOAC 975.03: 2012	5 mg/kg to 250 mg/kg
		Carbohydrate	IS 1656: 2007	(2 g to 95 g)/ 100 g
		Calorific value	IS 9487: 1980 (RA 2010)	(10 kcal to 900 kcal)/ 100g
		Lactose	IS 1479: 1960	(0.5 g to 50 g)/ 100 g

**Rini Narayan**  
Convenor

**N. Venkateswaran**  
Program Manager

**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road,  
Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 21 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>Butter, Milk Fat, Ghee</b>	Moisture	AOAC 920.116: 2012	(1 g to 25 g)/ 100 g
		Fat	AOAC 933.06: 2012	(10 g to 95 g)/ 100 g
		Salt	AOAC 960.29: 2012	(0.5 g to 10 g)/ 100 g
		Acid Value of Butter Fat	AOAC 969.17: 2012	(0.01 g to 2 g)/ 100 g
		Refractive Index	IS 548 (Part 1): 1964 (RA 2006)	1.333 to 1.489
		Melting Point	IS 548 (Part 1): 1964 (RA 2006)	25 °C to 80 °C
		RM Value	IS 548 (Part 1): 1964 (RA 2006)	5 to 40
		Polenske Value	IS 548 (Part 1): 1964 (RA 2006)	1 to 13
		Peroxide Value	IS 548 (Part 1): 1964 (RA 2006)	(0.1 meq to 50 meq)/kg
		Iodine Value	IS 548 (Part 1): 1964 (RA 2006)	5 to 250
		Unsaponifiable Matter	IS 548 (Part 1): 1964 (RA 2006)	(0.1 g to 5 g)/ 100 g
		Detection of Vegetable Fat	IS 548 (Part 1): 1964 (RA 2006)	Qualitative
		Baudin Test	IS 548 (Part 2): 1964 (RA 2006)	Qualitative
		Free Fatty Acid	IS 548 (Part 1): 1964 (RA 2006)	(0.05 g to 5 g)/ 100 g
	B.R. Reading	IS 548 (Part 1): 1964 (RA 2006)	0.1 to 100	

**Rini Narayan**  
Convenor

**N. Venkateswaran**  
Program Manager

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>22 of 38</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>Coagulated Products (Cheese, Paneer, Processed Cheese, Khoa)</b>	Moisture	IS 2785: 1979 (RA 2010)	(5 g to 75 g)/ 100 g
		Ash	IS 5162: 1980 (RA 2014)	(0.1 g to 5 g)/ 100 g
		Calcium,	AOAC 991.25: 2012	5 mg/kg to 500 mg/kg
		Magnesium	AOAC 991.25: 2012	5 mg/kg to 500 mg/kg
		Phosphorus	AOAC 991.25: 2012	5 mg/kg to 500 mg/kg
		Salt	IS 2785: 1979 (RA 2010)	5 mg/kg to 1000 mg/kg
		Protein	IS 7219: 1973 (RA 2005)	(1 g to 35 g)/ 100 g
		Titration Acidity	IS 4883: 1990	(0.01 g to 5 g)/ 100 g
		Fat	IS 2785: 1979 (RA 2010)	(1g to 50g)/100g
		Starch	IS 1479 (Part 1): 1960 (RA 2003)	Qualitative
		Sugar	FSSAI Lab Manual – 1	Qualitative
		Citric Acid	IS 10484: 1983 (RA 2014)	Qualitative
		Added coloring Matter	DGHS Manual vol-1	Qualitative
	<b>Ice Cream, Kulfi</b>	Total Solid	IS 2802: 1964 (RA 1995)	(1 g to 50 g)/ 100 g
		Milk Fat	IS 2802: 1964 (RA 1995)	(0.5 g to 50 g)/ 100 g
		Milk Protein	IS 7219: 1973 (RA 2005)	(0.5 g to 50 g)/ 100 g

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>23 of 38</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>Evaporated Milk, Condensed Milk, Sweetend Milk</b>	Milk Fat	IS 11762: 2005	(0.5 g to 55 g)/ 100 g
		Milk Solid	IS 12333: 199 (RA 2014)7/ IS 1166: 1986 (RA 2003)	(1 g to 99 g)/ 100 g
		Milk Protein	IS 7219: 1973 (RA 2005)	(0.5 g to 50 g)/ 100 g
		Sugar	IS 1166: 1986 (RA 2003)	(2 g to 50 g)/ 100 g
<b>13.</b>	<b>Processed Fruits &amp; vegetables Products</b>			
<b>1.</b>	<b>Thermally Processed Products, Raw Fruit &amp; Vegetables, Frozen Fruits &amp; Vegetable Pickle</b>	Lead	AOAC 972.23: 2012	0.5 mg/kg to 100 mg/kg
		Arsenic	AOAC 986.15: 2012	0.05 mg/kg to 100 mg/kg
		Zinc	AOAC 986.15: 2012	0.2 mg/kg to 500 mg/kg
		Tin	AOAC 980.19: 2012	5 mg/kg to 500 mg/kg
		Crude Fibre	IS 4706 (Part 2): 1978 (RA 2005)	(1 g to 10 g)/ 100 g
		Cadmium	AOAC:999.11: 2012	0.1 mg/kg to 10 mg/kg
		Mercury	AOAC:971.21: 2012	0.05 mg/kg to 100 mg/kg
		Thiamine	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(0.1 mg to 10 mg)/ 100 g
		Riboflavin	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(0.1 mg to 10 mg)/ 100 g

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>24 of 38</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>Thermally Processed Products, Raw Fruit &amp; Vegetables, Frozen Fruits &amp; Vegetable Pickle</b>	Nicotinic Acid	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(0.1 mg to 100 mg)/ 100 g
		Peroxidase Test	IS 4624: 1968 (RA 2005)	Qualitative
		Dietary Fibre	IS 11062: 1984	(1 g to 50 g)/ 100 g
		Moisture	ARAS/CH/WI/67 Issue Date:24/12/14 Issue No:01	(0.5 g to 10g)/ 100 g
		Ash	AOAC 925.51 A: 2012	(0.5 g to 10 g)/ 100 g
		Protein	AOAC 920.152: 2012	(1 g to 50 g)/ 100 g
		Fat	IS 11721: 1989	(1 g to 50 g)/ 100 g
		Copper	AOAC:985.35: 2012	0.5 mg/kg to 500 mg/kg
		Carbohydrate	IS 1165: 2002	(1 g to 75 g)/ 100 g
		pH of Acidified Food	AOAC 981.12: 2012	1 to 14
		Acid Insoluble Ash	IS 4684: 1975 (RA 1983)	(0.02 g to 5 g)/ 100 g
		Sugar	IS 6287: 1985	(1 g to 50 g)/ 100 g
		Calorific value	IS 9487: 1994 (RA 2014)	(50 kcal to 900 kcal)/ 100g
		Calcium	AOAC 985.35: 2012	1 mg/kg to 800 mg/kg
		Iron	AOAC 999.11: 2012	1 mg/kg to 100 mg/kg
	Vitamin C	IS 5838: 1970 (RA 1995)	(0.25 mg to 100 mg)/ 100g	



**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road,  
Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 25 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
2.	Tomato Puree/ Tomato Concentrate	Soluble Solids	IS 13815: 1993 (RA 2003)	(1 to 50 g)/ 100 g
		Sugar Contents	IS 3883: 1993 (RA 1998)	(5 to 50 g)/ 100 g
		Arsenic	AOAC 986.15: 2012	0.05 mg/kg to 500 mg/kg
		Lead	AOAC 999.11: 2012	0.5 mg/kg to 500 mg/kg
		Zinc	AOAC 999.11: 2012	1 mg/kg to 500 mg/kg
		Tin	AOAC 999.11: 2012	5 mg/kg to 500 mg/kg
		Copper	AOAC 999.11: 2012	1 mg/kg to 500 mg/kg
		Sodium Chloride	IS 3883: 1993 (RA 1998)	(0.5 g to 10 g)/ 100 g
3.	Fruit Juices	Essential Oils	IS 2860: 1964 (RA 2008)	(0.1 g to 0.5 g)/ 100 g
		Acidity	IS 2860: 1964 (RA 2008)	(0.1 g to 5 g)/ 100 g
		Arsenic	IS 2860: 1964 (RA 2008)	0.05 mg/kg to 500 mg/kg
		Phosphorus	IS 12756: 1989 (RA 1999)	(2 mg to 500 mg)/ 100 g
		Total soluble solid	IS 13815: 1993 (RA 2003)	(1 g to 100 g)/ 100 g
		Copper	IS 2860: 1964 (RA 2008)	1 mg/kg to 500 mg/kg
		Zinc	IS 2860: 1964 (RA 2008)	0.2 mg/kg to 500 mg/kg
		Tin	IS 2860: 1964 (RA 2008)	5 mg/kg to 500 mg/kg
		Lead	IS 2860: 1964 (RA 2008)	0.5 mg/kg to 500 mg/kg

Rini Narayan  
Convenor

N. Venkateswaran  
Program Manager

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>26 of 38</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>
4.	<b>Dried fruits</b>	Moisture	AOAC 934.06: 2012	(0.25 g to 20 g)/ 100 g
14.	<b>Snacks</b>			
1.	<b>Tapioca sago (Saboodana)</b>	Moisture	IS 4706: 1968	0.5 to 25 g/ 100 g
		Total Ash	IS 4706: 1968	0.1 to 5g/100g
		Acid Insoluble Ash	IS 4706: 1968	(0.01 g to 2 g)/ 100 g
		Moisture	IS 4706: 1968	(0.5 g to 25 g)/ 100 g
		Starch	IS 4706: 1968	(5 g to 99 g)/ 100 g
2.	<b>Beaten Rice</b>	Moisture	IS 1158: 1973	(0.5 g to 25 g)/ 100 g
		Acid Insoluble Ash	IS 1158: 1973	(0.5 g to 25 g)/ 100 g
3.	<b>Corn Flakes</b>	Moisture	IS 1158: 1973	(0.5 g to 25 g)/ 100 g
		Total Ash	IS 1158: 1973	(0.5 g to 20 g)/ 100 g
		Acid Insoluble Ash	IS 1158: 1973	(0.01 g to 5 g)/ 100 g
		Crude Fibre	IS 1158: 1973	(0.1 g to 5 g)/ 100 g
		Alcoholic Acidity	IS 1158: 1973	(0.02 g to 1 g)/ 100 g
4	<b>Papad</b>	Moisture	IS 2639: 1984 (RA 2010)	(0.5 g to 25 g)/ 100 g
		Total Ash	IS 2639: 1984 (RA 2010)	(0.5 g to 25 g)/ 100 g
		Acid Insoluble Ash	IS 2639: 1984 (RA 2010)	(0.1 g to 5 g)/ 100 g
		Alkalinity of Ash	IS 2639: 1984 (RA 2010)	(0.5 g to 5 g)/ 100 g

**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road,  
Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 27 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>Papad</b>	pH of Aqueous Extract	IS 2639: 1984 (RA 2010)	1 to 14
		Fat	IS 2639: 1984	(0.5 g to 60 g)/ 100 g
		Protein	IS 7219 : 1973 (RA 2005)	(0.5 g to 50 g)/ 100 g
		Carbohydrate	IS 1656: 2007	(5 g to 95 g)/ 100 g
		Crude Fibre	IS 2639: 1984	(1 g to 25 g)/ 100 g
		Calorific value	IS 9487: 1980 (RA 2010)	(15 kcal to 900 kcal)/ 100g
<b>5.</b>	<b>Namkeens</b>	Moisture	IS 15271: 2003	(0.5 g to 15 g)/100 g
		Total Ash	IS 4684: 1975 (RA 1983)	(0.5 g to 25 g)/100 g
		Fat	IS 15271: 2003	(0.5 g to 60 g)/100 g
		Protein	IS 7219: 1973 (RA 2005)	(0.5 g to 50 g)/100 g
		Carbohydrate	IS 1656: 1997	(5 g to 95 g)/ 100 g
		Calorific value	IS 9487: 1980 (RA 2010)	(15 kcal to 900 kcal)/ 100g
		Sodium	AOAC 985.35: 2012	1 mg/kg to 900 mg/kg
		Potassium	AOAC 985.35: 2012	1 mg/kg to 800 mg/kg
		Calcium	AOAC 975.03: 2012	2 mg/kg to 500 mg/kg
		Iron	AOAC 999.11: 2012	1 mg/kg to 250 mg/kg

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>28 of 38</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>Namkeens</b>	Vitamin C	IS 5838: 1970 (RA 1995)	(0.25 mg to 100 mg)/ 100g
		Peroxide value	IS 15271: 2003	(1 meq to 50 meq)/kg
		Acidity of extracted fat	IS 15271: 2003	(0.1 g to 5 g)/ 100 g
<b>6.</b>	<b>Macaroni, Spaghetti, Vermicelli Egg Noodles</b>	Moisture	IS 1485: 1933 (RA 2010)	(0.5 g to 25 g)/ 100 g
		Total Ash	IS 1485: 1933 (RA 2010)	(0.5 g to 20 g)/ 100 g
		Acid Insoluble Ash	IS 1485: 1933 (RA 2010)	(0.1 g to 5 g)/ 100 g
		Protein	IS 1485: 1933 (RA 2010)	(2 g to 25 g)/ 100 g
		Free Acidity	IS 1485: 1933 (RA 2010)	(0.5 g to 10 g)/ 100 g
<b>7.</b>	<b>Nuts, Namkeens, Peanuts</b>	Aflatoxins	ARAS/CH/WI/69 Issue date.25/12/14 Issue no.01	0.3 µg/kg to 100 µg/kg
<b>15.</b>	<b>Ready to Eat Protein Rich Extracted Food Protein Rich Food Supplements for Infants / Pre School Children</b>	Moisture	IS 4684: 1975 (RA 1983) IS 1011: 2003	(0.2 g to 10 g)/ 100 g
		Fat	IS 4684: 1975 (RA 1983)	(0.5 g to 50 g)/ 100 g
		Protein	IS 7219: 1973 (RA 2005)	(0.5 g to 50 g)/ 100 g
		Total Ash	IS 4684: 1975 (RA 1983)	(0.05 g to 10 g)/ 100 g
		Acid Insoluble Ash	IS 4684: 1975 (RA 1983)	(0.02 g to 5 g)/ 100 g
		Crude Fibre	IS 10226 (Part 1): 1982 (RA 1990)	(0.25 g to 20 g)/ 100 g

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>29 of 38</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>Ready to Eat Protein Rich Extracted Food Protein Rich Food Supplements for Infants / Pre School Children</b>	Calorific value	IS 9487: 1980 (RA 2010)	(15 kcal to 900 kcal)/ kg	
		Sugar	IS 2650 : 1975	(1 g to 50 g)/ 100 kg	
		Calcium	AOAC 999.11 : 2012	1 mg/kg to 1500 mg/kg	
		Iron	AOAC. 999.11: 2012	1 mg/kg to 250 mg/kg	
		Vitamin B-12	ARAS/ GEN/WI/02 Issue date:01/03/14 Issue No.: 01	0.2-10mcg/100g	
		Folic Acid	ARAS/ GEN/WI/03 Issue date:01/03/14 Issue No.: 01	(0.1 mg to 100 mg)/ 100 g	
		Ascorbic Acid	IS 5838: 1970 (RA 1995)	0.5 mg/kg to 75 mg/kg	
<b>16.</b>		<b>Infant Foods</b>	Moisture	IS 11623: 1986 (RA 1997)	(0.1 g to 20 g)/ 100g
			Milk Protein	IS 7219: 1973 (RA 2005)	(0.5 g to 50 g)/ 100 g
			Fat	IS 11721: 1989	(0.5 g to 50 g)/ 100 g
	Total Ash		IS14433: 1997	(0.05 g to 10 g)/ 100 g	
	Acid Insoluble Ash		IS 14433: 1997	(0.04 g to 2 g)/ 100 g	
	Phosphorus		IS 12756: 1989 (RA 1999)	(2 mg to 500 mg)/ 100 g	
	Vitamin C		IS 5838: 1970 (RA 1995)	(0.5 mg to 150 mg)/ 100 g	
	Iron		AOAC 985.35: 2012	1 mg/kg to 50 mg/kg	
	Lead	AOAC 999.11: 2012	0.5 mg/kg to 10 mg/kg		

**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road,  
Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 30 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>Infant Foods</b>	Arsenic	AOAC 986.15: 2012	0.05 mg/kg to 100 mg/kg
		Tin	AOAC 980.19: 2012	5 mg/kg to 100 mg/kg
		Cadmium	AOAC 999.11: 2012	0.1 mg/kg to 5 mg/kg
		Calcium	AOAC 985.35: 2012	1 mg/kg to 800 mg/kg
		Copper	AOAC 985.35: 2012	1 mg/kg to 50 mg/kg
		Zinc	AOAC 985.35: 2012	0.2 mg/kg to 100 mg/kg
		Sodium	AOAC 985.35: 2012	1 mg/kg to 1500 mg/kg
		Potassium	AOAC 985.35: 2012	(1 mg to 100 mg)/ 100 g
		Magnesium	AOAC 985.35: 2012	(1 mg to 500 mg)/ 100 g
		Manganese	AOAC 985.35: 2012	0.1 mg/kg to 10 mg/kg
		Selenium	AOAC 996.17: 2012	0.1 mg/kg to 5 mg/kg
		Thiamine	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(0.1 mg to 10 mg)/ 100 g
		Riboflavin	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(0.1 mg to 10 mg)/ 100 g
		Niacin	ARAS/CH/WI/62 Issue date:12/09/14 Issue No.: 01	(0.1 mg to 10 mg)/ 100 g
	Vitamin B12	ARAS/GEN/WI/02 Issue date:01/03/14 Issue No.: 01	(0.2 mcg to 10 mcg)/ 100 g	

**Rini Narayan**  
Convenor

**N. Venkateswaran**  
Program Manager

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>31 of 38</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>
17.	<b>Carbonated &amp; non carbonated beverages, alcoholic beverages</b>	Total Soluble Solid	IS 13815: 1993 (RA 2003)	(1 g to 50 g)/ 100 ml
		Copper	AOAC 999.11: 2012	(1 mg to 10 mg)/l
		Iron	AOAC 999.11: 2012	(1 mg to 150mg)/l
		Arsenic	AOAC 986.15: 2012	(0.05 mg to 100 mg)/l
		Lead	AOAC 999.11: 2012	(0.5 mg to 10 mg)/l
		Residue on evaporation	IS 3752: 2005	(0.05 g to 10 g)/ 100 ml
		Alcohol Content	IS 3752: 2005	(0.5 g to 80 g)/ 100 ml
		Total Acidity	IS 3752: 2005	(2 g to 100 g)/ 100 l
		Volatile Acidity	IS 3752: 2005	(20 g to 1000 g)/ 100 l
		Total Ash	IS 3752: 2005	(0.01 g to 1 g)/ 100 ml
18.	<b>Baking Powder, Silver leaf, Pan Masala</b>	Protein	IS 1797: 1985 (RA 2001)	(0.5 g to 50 g)/ 100 g
		Fat	IS 4684: 1975 (RA 1983)	(0.5 g to 60 g)/ 100 g
		Calorific value	IS 9487: 1980 (RA 2010)	(15 kcal to 900 kcal)/ 100 g
		Sugar	IS 2650: 1975	(1 g to 60 g)/100 g
		Total Ash	IS 2962 : 1964 (RA 2009)	(0.5 g to 50 g)/ 100 g
		Acid Insoluble Ash	IS 2962 : 1964 (RA 2009)	(0.02 g to 10 g)/ 100 g
		Moisture	IS 2962 : 1964 (RA 2009)	(0.3 g to 20 g)/ 100 g
		Iron	AOAC:985.35: 2012	1 mg/kg to 500 mg/kg

**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 32 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>Baking Powder, Silver leaf, Pan Masala</b>	Lead	AOAC:999.11: 2012	0.05 mg/kg to 100 mg/kg
		Volatile oil	IS 1797: 1985 (RA 2001)	(0.5 g to 5 g)/ 100 g
		Non Volatile Oil	IS 1797: 1985 (RA 2001)	(0.5 g to 25 g)/ 100 g
<b>19.</b>	<b>Canned Rasogulla</b>	Moisture	IS 4079: 1967 (RA 2000)	(10 g to 75 g)/ 100 g
		Fat	IS 4079: 1967 (RA 2000)	(0.5 g to 20 g)/ 100 g
		Total ash	IS 14433: 1997	(0.05 g to 10 g)/ 100 g
		Carbohydrate	IS 1656: 1997	(5 g to 95 g)/ 100 g
		Calorific value	IS 9487: 1980 (RA 2010)	(15 kcal to 900 kcal)/ 100 g
		Sucrose	IS 4079: 1967 (RA 2000)	(10 g to 60 g)/ 100 g
		Protein	IS 4079: 1967 (RA 2000)	(1 g to 15 g)/ 100 g
		Acidity of Syrup	IS 4079: 1967 (RA 2000)	(0.1 g to 10 g)/ 100 g
		Concentration of Syrup	IS 4079: 1967 (RA 2000)	(0 to 70 ml)/ 100 ml
<b>II</b>	<b>AIR, GASES &amp; ATMOSPHERE</b>			
<b>1.</b>	<b>Ambient Air Monitoring</b>	PM10	IS 5182 (Part 23): 2006	5 µg/m <sup>3</sup> to 2000 µg/m <sup>3</sup>
		PM2.5	ARAS/WI/ENV/28 date:01/03/14 Issue No.: 01	2 µg/m <sup>3</sup> to 1000 µg/m <sup>3</sup>
		SO <sub>2</sub>	IS 5182 (Part 2): 2001	3 µg/m <sup>3</sup> to 800 µg/m <sup>3</sup>

Rini Narayan  
Convenor

N. Venkateswaran  
Program Manager



<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>33 of 38</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>Ambient Air Monitoring</b>	NO <sub>2</sub>	IS 5182 (Part 6): 2006,	3 µg/m <sup>3</sup> to 250 µg/m <sup>3</sup> 250 µg/m <sup>3</sup> to 750 µg/m <sup>3</sup> (24 h Sampling )
		Ozone	Method 411 : Edition 3, IS 5182 P(9)1974	3 µg/m <sup>3</sup> to 1000 µg/m <sup>3</sup>
		Ammonia	APHA(401) Edition 3	5 µg/m <sup>3</sup> to 2000 µg/m <sup>3</sup>
		Lead	IS 5182 (Part 22)/	0.02 µg/m <sup>3</sup> to 100 µg/m <sup>3</sup>
		Nickel	IS 5182 (Part 22)	2 µg/m <sup>3</sup> to 100 µg/m <sup>3</sup>
<b>2.</b>	<b>Stack Emission Monitoring</b>	SPM	IS 11255 (Part 1): 2009	5 mg/Nm <sup>3</sup> to 5000 mg/Nm <sup>3</sup>
		SO <sub>x</sub>	IS 11255 (Part 2): 2009	3 mg/Nm <sup>3</sup> to 500 mg/Nm <sup>3</sup>
		NO <sub>x</sub>	IS 11255 (Part 7): 2005	3 mg/Nm <sup>3</sup> to 600 mg/Nm <sup>3</sup>
		CO <sub>2</sub>	IS 13270: 1992 (By Orsat)	0.2 % to 25 %
		O <sub>2</sub>	IS 13270: 1992 (By Orsat)	0.2 % to 25 %
		CO	IS 13270: 1992 (By Orsat)	0.2 % to 20%
<b>III.</b>	<b>WATER</b>			
<b>1.</b>	<b>Potable and Domestic , Process Ground water</b>	Turbidity	IS 3025 (Part 10): 1984 (RA 2006)/ APHA (22 <sup>nd</sup> Edition): 2012	0.1 NTU to 500 NTU
		Colour	APHA (22 <sup>nd</sup> Edition) 2120-B: 2012/ IS 3025 (Part 4): 1983	2 Hz to 500 Hz

**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 34 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>Potable and Domestic , Process Ground water</b>	Odour	IS 3025 (Part 5): 1983	Qualitative
		Taste	IS 3025 (Part 7&8)	Qualitative
		pH Value	IS 3025 (Part 11): 1983 (RA 2006) APHA (22 <sup>nd</sup> Edition): 2012	1to 13
		TDS	IS 3025 (Part 16): 1984 APHA (22 <sup>nd</sup> Edition): 2012	5 mg/l to 10000 mg/l
		Total Suspended Solid	IS 3025 (Part 17): 1984 APHA (22 <sup>nd</sup> Edition): 2012	2 mg/l to 1000 mg/l
		Hardness	IS 3025 (Part 21): 1983/ APHA (22 <sup>nd</sup> Edition) 2340-C: 2012	1 mg/l to 2000 mg/l
		Chloride	APHA (22 <sup>nd</sup> Edition) 4500-CL-B:	2 mg/l to 5000 mg/l
		Acidity	IS 3025 (Part 22): 1986 (RA 2009)	2 mg/l to 500 mg/l
		Alkalinity	IS 3025 (Part 23) 1986 (RA 2009)	2 mg/l to 500 mg/l
		Sulphate	APHA (22 <sup>nd</sup> Edition) 4500-SO <sub>4</sub> E: 2012	1 mg/l to 500 mg/l
		Phosphorous	IS 3025 (Part 31): 1988/ APHA (22 <sup>nd</sup> Edition) 4500-D: 2012	0.05 mg/l to 100 mg/l
		Specific Conductivity	IS 3025 (Part 14): 1984 (RA 2009) APHA (22 <sup>nd</sup> Edition) 4500-D: 2012	1 mΩs to 1000 mΩs
		Iron	APHA (22 <sup>nd</sup> Edition) 3500-Fe: 2012	0.05 mg/l to 100 mg/l
		Calcium	APHA (22 <sup>nd</sup> Edition) 3500-Ca	2 mg/l to 1000 mg/l

**Rini Narayan**  
Convenor

**N. Venkateswaran**  
Program Manager

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>35 of 38</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>Potable and Domestic , Process Ground water</b>	Copper	APHA (22 <sup>nd</sup> Edition) 3500-Cu	0.05 mg/l to 100 mg/l
		Lead	APHA (22 <sup>nd</sup> Edition) 3500-Pb	0.05 mg/l to 100 mg/l
		Zinc	APHA (22 <sup>nd</sup> Edition) 3500-Zn	0.05 mg/l to 50 mg/l
		Nitrate	APHA (22 <sup>nd</sup> Edition) 4500-NO <sub>3</sub> <sup>-</sup> B	2 mg/l to 1000 mg/l
		Sodium	APHA (22 <sup>nd</sup> Edition) 3500-Na:B: 2012	0.5 mg/l to 1000 mg/l
		Magnesium	IS 3025 (Part 46) (RA 2009) APHA (22 <sup>nd</sup> Edition) 3500-Mg:	2 mg/l to 1000 mg/l
		Manganese	APHA (22 <sup>nd</sup> Edition) 3500-Mn:	0.02 mg/l to 100 mg/l
		Chromium	APHA (22 <sup>nd</sup> Edition) 3500-Cr B	0.02 mg/l to 100 mg/l
<b>2.</b>	<b>Waste Water Surface Water</b>	pH Value	IS 3025 (Part 11): 1983 (RA 2006)/ APHA (21 <sup>st</sup> Edition) 2540-E: 2005	1 to 14
		TDS	IS 3025 (Part 16): 1984/ APHA (22 <sup>nd</sup> Edition) 2540-C: 2012	1 mg/l to 20000 mg/l
		TSS	IS 3025 (Part 17): 1984/ APHA (22 <sup>nd</sup> Edition) 2540-D: 2012	1 mg/l to 1000 mg/l
		Dissolved Oxygen	IS 3025 (Part 38): 1989 (RA 2009)/ APHA (22 <sup>nd</sup> Edition) 4500-0C: 2012	1 mg/l to 10 mg/l
		Oil & Grease	IS 3025 (Part 39): 1991 (RA 2009)/ APHA (22 <sup>nd</sup> Edition) 5520-B: 2012	1 mg/l to 100 mg/l

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>36 of 38</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>Waste Water Surface Water</b>	B.O.D.	IS 3025 (Part 44): 1993 (RA 2009)/ APHA (21 <sup>st</sup> Edition) 5210-B:2005	1 mg/l to 10000 mg/l
		Lead	APHA (22 <sup>nd</sup> Edition) 3500-Pb: 2012	0.01 mg/l to 100 mg/l
		Zinc	APHA (22 <sup>nd</sup> Edition) 3500-Zn: 2012	0.05 mg/l to 50 mg/l
		Chromium	APHA (22 <sup>nd</sup> Edition) 3500-Cr: 2012	0.05 mg/l to 50 mg/l
		COD	IS 3025 (Part 58): 2006 / APHA (22 <sup>nd</sup> Edition) 5520-B: 2012	1mg/l to 3000 mg/l
		Nickel	IS 3025 (Part 54): 2003/ APHA(22 <sup>nd</sup> Edition) 3500-Ni: 2012	0.05 mg/l to 50 mg/l
		Phosphorous	IS 3025 (Part 31): 1988/ APHA (22 <sup>nd</sup> Edition) 4500-C: 2012	0.05 mg/l to 100 mg/l
		Cadmium	APHA (22 <sup>nd</sup> Edition) 3500-Cd: 2012	0.01 mg/l to 5 mg/l
		Manganese	APHA (22 <sup>nd</sup> Edition) 3500-Mn: 2012	0.05 mg/l to 15 mg/l
		Copper	APHA (22 <sup>nd</sup> Edition) 3500-Cu: 2012	0.01 mg/l to 10 mg/l
		Iron	APHA (22 <sup>nd</sup> Edition) 3500-Fe: 2012	0.01 mg/l to 10 mg/l
		Nitrate	APHA (22 <sup>nd</sup> Edition) 4500-NO <sub>3</sub> -B: 2012	2 mg/l to 1000 mg/l

**Rini Narayan  
Convenor**

**N. Venkateswaran  
Program Manager**

<b>Laboratory</b>	<b>Advance Research &amp; Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>31.03.2015</b>
<b>Certificate Number</b>	<b>T-1437</b>	<b>Valid Until</b>	<b>30.03.2017</b>
<b>Last Amended on</b>	<b>-</b>	<b>Page</b>	<b>37 of 38</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>Waste Water</b>	Specific Conductivity	IS 3025 (Part 14): 1984 (RA 2009) APHA (22 <sup>nd</sup> Edition) 2510-B: 2012	1 mΩs to 1000 mΩs
	<b>Surface Water</b>	Fluoride	APHA (22 <sup>nd</sup> Edition) 4500-FD: 2012 IS 3025 (Part 60)	0.1 mg/l to 100 mg/l
		Turbidity	IS 3025 (Part 10): 1984 (RA 2006)/ APHA (22 <sup>nd</sup> Edition): 2012	0.1 NTU to 500 NTU
<b>3.</b>	<b>Construction Water</b>	pH Value	IS 3025 (Part 11): 1983 (RA 2006)/ APHA (21 <sup>st</sup> Edition) 2540-E: 2005	1 to 13
		TDS	IS 3025 (Part 16): 1984	1 mg/l to 20000 mg/l
		Inorganic Solids	IS 3025 (Part 18): 1984	1 mg/l to 10000 mg/l
		Organic Solids	IS 3025 (Part 18): 1984	1 mg/l to 10000 mg/l
		Sulphate	IS 3025 (Part 24): 1986	1 mg/l to 1000 mg/l
		Chloride	APHA(22 <sup>nd</sup> Edition) 4500-Cl-B: 2012/ IS 3025 (Part 32)	2 mg/l to 1000mg/l
		TSS	IS 3025 (Part 17): 1984/ APHA(22 <sup>nd</sup> Edition) 2540-D: 2012	1 mg/l to 1000 mg/l
		NaOH	IS3025 (Part 22) 1986	0.1 ml to 100 ml
		H <sub>2</sub> SO <sub>4</sub>	IS 3025 (Part 23): 1986	0.1 ml to 100 ml

**Laboratory** Advance Research & Analytical Services, 1/8 South Side GT Road, Bulandshar Industrial Area, Lal Kuan, NH-24, Ghaziabad, Uttar Pradesh

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

**Discipline** Chemical Testing **Issue Date** 31.03.2015

**Certificate Number** T-1437 **Valid Until** 30.03.2017

**Last Amended on** - **Page** 38 of 38

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
<b>IV.</b>	<b>SOIL</b>			
<b>1.</b>	<b>Soil</b>	pH Value (1: 2) at 25°C	IS 2720 (Part 26): 1987 (RA 2002)	0 to 14
		Conductivity (1: 2) at 25°C	IS 2720 (Part 21): 1977 (RA 2006)	(1 mΩ to 1000 mΩ)/cm
		Organic matter	IS 2720 (Part 22): 1972 (RA 2006)	0.1 % to 10 %
		Chloride	IS 4032: 1985 Amd 2	1 mg/kg to 5000 mg/kg
		Water Soluble Sulphate	IS 2720 (Part 27): 1977 (RA 2001)	1 mg/kg to 1000 mg/kg
		Moisture	IS 2720 (Part 9): 1992 (RA 2002)	(0.2 g to 100 g)/100 g
		Cation Exchange Capacity	IS 2720 (Part 24) (RA 2010)	(0.5 meq to 100 meq)/100 g
<b><u>AT LABORATORY &amp; SITE</u></b>				
<b>1.</b>	<b>NOISE MONITORING</b>	Ambient Noise	IS 9989:1981	30 dB to 130 dB (A)

**-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-**

**Rini Narayan**  
Convenor

**N. Venkateswaran**  
Program Manager