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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 & AGRICU	LTURAL PRODUCTS		
1.	Coffee, Cocoa and I	By Products		
a.	Roasted Chicory Powder	Moisture	Annex C of IS 612-1992 RA 2009	0.1 -20 %
		Total Ash (on dry basis)	Annex D of IS 612-1992 RA 2009	0.1 - 10 %
		Acid Insoluble Ash (on dry basis)	Annex E of IS 612-1992 RA 2009	0.05 - 2%
		Water soluble matter (on dry basis)	Annex F of IS 612-1992 RA 2009	10 - 80%
b.	Soluble Coffee Powder	Moisture	Annex B of IS 2791-1992 RA 2009	0.1-10 %
		Total Ash (on dry basis)	Annex C of IS 2791-1992 RA 2009	0.1-15%
		Caffeine content (on dry basis)	In-house GH/0001 Issue No:01, Issue Date:25/01/2014	0.1- 5.0 %
c.	Roasted Coffee	Total ash	Annex –F of IS 3077 : 1992 RA 2011	0.01-25%
		Acid insoluble ash	Annex – G of IS 3077 : 1992 RA 2011	0.01- 25%

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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
		Water soluble ash	Annex –H of IS 3077:1992 RA 2011	0.01-95%
		Alkalinity of soluble ash	Annex –J of IS 3077 : 1992 RA 2011	0.01-10%
		Moisture	Annex –E of IS 3077 : 1992 RA 2011	0.01-25%
		Water Soluble Matter	Annex –K of IS 3309:1992 IS 3077:1992 RA 2011	10-80 %
		Caffeine	GH/0001, In-house Issue No:01, Issue Date:25/01/2014	0.01 - 99 %
		Petroleum ether extract	Annex –M of IS 3077 : 1992 RA 2011	0.1 -25%
d.	Soluble Coffee- Chicory Powder	Moisture	Annex B of IS 2791-1992 RA 2009	0.1-25 %
		Total Ash (on dry basis)	Annex C of IS 2791-1992 RA 2009	0.1 - 15 %
		Caffeine (on dry basis)	Annex D of IS 2791-1992 RA 2009	0.01- 99%

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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
2.	Tea and Tea Produ	cts		
a.	Tea	Total ash	IS 13854 : 1994 RA 2009	0.05-25%
		Water Soluble and water insoluble ash	IS 13855:1993 ISO 7576-1988 RA 2009	0.05-95%
		Alkalinity of water soluble Ash	IS 3633:2003/ IS 13856:1993 ISO 1578-1975 RA 2009	0.05-10%
		Acid insoluble ash	IS 3633:2003/ IS 13857:1993 ISO 1577-1987 RA 2009	0.05-25%
		Moisture	IS 3633:2003/ IS 13853:1994 ISO 1573-1980 RA 2009	0.01-10%
		Copper	In-house, FA/0001 Issue No:01, Issue Date:20/04/2014	0.02 -10mg/l
3.	Milk and Dairy Pro	oducts		
a.	Milk	Titratable acidity	Appendix-D of IS 1166-1986 RA 2013	0.1-10%
		pH	Appendix-C of IS 4238-1967 RA 2010	2-14
		Adulterants	IS 1479 (Part I)-1960 RA 2013	Qualitative

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b.	Milk Powder	Fat	IS 11721-2013 for reference purpose and 5 of IS 1224(Part -2) 1977 for routine purposes ISO1736-2008	0.1- 50 %
		Titratable acidity as Lactic Acid	IS 11766-1986	0.1 - 2 %
c.	Skim Milk Powder	Milk Fat	IS 11721-2013 ISO 1736-2008	0.1-5 %
d.	Ghee	Moisture content & Volatile Matter	IS 3508: 1966 RA 2013	0.05-5%
		Insoluble impurities	IS 3508: 1966 RA 2013	0.05-5%
		Acidity	IS 3508: 1966 RA 2013	0.1-25%
		Baudouin test	IS 3508: 1966 RA 2013	Qualitative
e.	Ice Cream	Milk Fat	Appendix C of IS 2802-1964, RA 2013	0.1-30 %
		Acidity As lactic acid	Appendix D of IS 2802-1964, RA 2011 IS 1479 (Part-I)-1960 RA 2003	0.05-1%

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specificat against which tests are performed		ge of Testing / its of Detection
4.	Bakery & Confection	nery Products			
a.	Biscuits	Moisture	Annex B of IS 1011-2002 RA 2009	0.1-	10 %
		Acid insoluble ash	Annex C of IS 1011-2002 RA 2009	0.01	- 0.5 %
		Acidity of extracted fat (As oleic acid)	Annex D of IS 1011-2002 RA 2009	0.1 -	2 %
5.	Starch and Starchy	Products			
a.	Maida for General Purpose	Moisture	Annex A of IS 1009 – 197 RA 2010	9 0.1 -	20%
		Total Ash (On Dry basis)	Appendix B of IS 1009-19 RA 2010	979 0.5 -	2%
		Acid Insoluble ash	Annex C of IS 1009-1979 RA 2010	0.01	- 2 %
		Granularity	Appendix F of IS1009-197 RA 2010	79 Qual	litative
		Alcoholic acidity (as H ₂ SO ₄)	Appendix E of IS 1009-19 RA 2010	0.01	% - 25%

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6.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
6.	Sugar and By Produ	ct		
a.	Chewing Gum & Bubble Gum	Ash Sulphated	IS 6287-1985 RA 2010	0.1 - 10%
	Dubble Guin	Acid insoluble ash	IS 6287-1985 RA 2010	0.1 - 10%
b.	Raw Sugar and Refined Sugar	Sulphated ash	IS 6287:1985 ; IS15279:2003 RA 2010	0.01-50%
7.	Spices and Condime	nts		
a.	Spices	Moisture	IS 1797-1985 RA 2009	1-10 %
	(Chilli Powder / Dhaniya Powder / Jeera Powder /Pepper Powder/ Turmeric)	Total Ash (on dry basis)	IS 1797-1985 RA 2009	0.5- 10 %
		Acid insoluble ash	IS 1797-1985 RA 2009	0.1 - 1.0 %
		Crude Fibre	IS 1797-1985 RA 2009	0.5 - 30%
		Water Insoluble Ash	IS 1797-1985 RA 2009	0.01-25%
		Alcohol Soluble extract	IS 1797-1985 RA 2009	0.1-25%
		Cold water Soluble extract	IS 1797-1985 RA 2009	0.1-50%
8.	Fruits and Vegetable Products	Alcohol Soluble extract	IS 1797-1985 RA 2009	0.1-50%
	vegetable r rouucts	Cold water Soluble extract	IS 1797-1985 RA 2009	0.1-50%
		Benzoic acid	FH/0001,Inhouse Issue No :01,Issue Date:25/01/2014	10 -1000 mg /kg

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6.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
9.	Animal Feeds			
a.	Animal feeds (Poultry feed,	Moisture	IS 7874 (Pt 1)-1975 RA 2009	0.1 - 10 %
	fishmeal feed, fishmeal as Livestock feed)	Crude Protein (on dry basis)	IS 7874 (Pt 1)-1975 RA 2009	0.5- 50 %
	Livestock feed)	Crude Fat (on dry basis)	IS 7874 (Pt 1)-1975 RA 2009	0.2-20 %
		Acid insoluble ash (on dry basis)	IS 7874 (Pt 1)-1975 RA 2009	0.01- 1.0 %
		Chlorine as sodium chloride	IS 7874 (Pt II)-1975 RA 2009	0.1 - 5 %
10.	Cereals, Pulses and	By Products		
a.	Wheat flour, Rice flour, Toordhal	Moisture	Appendix –A of IS 1155:1968 / IS 1009 : 1979 RA 2010	0.01 – 25%
		Total ash	Appendix –B of IS 1155:1968 / IS 1009 : 1979 RA 2010	0.01 – 25%
		Crude fibre	Appendix –E of IS 1155:1968 RA 2010	0.05 – 50 %
		Protein	IS 7219:1973 RA 2005	0.1 – 50 %
		Acid insoluble ash	Appendix –C of IS 1009: 1979/ IS 1155:1968 RA 2010	0.01 - 50%

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6.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Alcoholic Acidity	Appendix –F of IS 1155:1968 / IS 1009:1979 RA 2010	0.05 - 25%
11.	Honey and Honey H	Products		
a.	Honey	Ash	IS 4941-1994 RA 2008	0.01-25%
		Acidity	IS 4941:1994 RA 2008	0.1-10%
12.	Oil, Fats and Relate	ed Products		
a.	Sunflower Oil,	Acid Value	IS 548 (Part I)- 1964 RA 2010	0.1-25
	Round nut oil, Coconut oil,	Iodine Value	IS 548 (Part I): 1964 RA 2010	7.5 - 200
	Castor Oil,	Saponification Value	IS 548 (Part I): 1964 RA 2010	100 - 300
		Peroxide Value	IS 548 (Part I): 1964 RA 2010	0.05-25 meq
		Moisture	IS 548 (Part I): 1964 RA 2010	0.001-10%
		Free Fatty acids	IS 548 (Part I):1964 RA 2010	0.01-25 %
13.	Nutritional Suppler	nents		
a.	Nutritional Labeling in Nutritional Supplements	Calories Total fat Total Carbohydrates Protein	FC/0001 Issue No:01, Issue Date:02/12/2013	100 to 1000 Kcal 0.01-100 % 1 - 80 % 0.1-100 %

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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
14.	Beverages			
a.	Soft Drinks	Caffeine	GH/0001 Issue No:01, Issue Date:25/01/2014	0.01-1000 mg/l
II.	WATER			
1.	Domestic, Irrigation, Industrial/	Colour	IS 3025 (Part 4)-1983,RA 2012,Method A-platinum cobalt APHA 2120-C, 22 nd Edition	2 - 500 Hz unit
	cooling Purposes, Steam Raising & Bore well water	Odour	IS 3025 (Part 5)-1983,RA 2012 APHA 2150-B,22 nd Edition	Qualitative
		Turbidity	IS 3025 (Part 10)-1984, RA 2006 APHA 2130-B,22 nd Edition	0.01 - 1000 NTU
		pH value	IS 3025 (Part 11)-1983,RA 2006 Electrometric method APHA 4500-H+B,22 nd Edition	1-13
		Conductivity	IS 3025 (Part 14)-1984 RA 2006 APHA 2510-A,22 nd Edition	0 - 2000µs/cm 0 - 200mS/cm
		Total Dissolved Solids	IS 3025 (Part 16)-1984,RA 2012 APHA 2540-C,22 nd Edition	1 - 5000 mg/L
		Total Suspended Solids	IS 3025 (Part 17)-1984,RA 2012 APHA 2540-D,22 nd Edition	1 - 500 mg/L

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	Total Hardness, as CaCO ₃	IS 3025 (Part 21)-2009 APHA 2340-C,22 nd Edition	1 - 300	00 mg/L	
	Acidity, as CaCO ₃	IS 3025 (Part 22)-1986 RA 2009 APHA 2310-B,22 nd Edition	2 - 500) mg/L	
	Alkalinity, as CaCO ₃	IS 3025 (Part 23)-1986 RA 2003 APHA 2320-B,22 nd Edition	2 - 500	00 mg/L	
	Sulphates, as SO ₄	IS 3025 (Part 24)-1986 RA 1998 Turbidity method APHA 4500-SO ₄ -E,22 nd Edition	2 - 100	00 mg/L	
	Chloride as Cl	IS 3025 (Part 32)-1988 RA 2009 Argentometric method APHA 4500-Cl-B,22 nd Edition	2 - 500	00 mg/L	
	Calcium as Ca	IS 3025 (Part 40)-1991 RA 1998 APHA 3500-Ca-B,22 nd Edition	1 -100	0 mg/L	
	Copper as Cu	IS 3025 (Part 42)-1992 RA 2003,Method B-AAS	0.05 -	100 mg/L	

IS 3025 (Part 46)-1994

RA 2009,Volumetric method APHA 3500-Mg-B,22nd Edition

IS 3025 (Pt 34)-1988 RA 1999 Chromotrophic acid method APHA-4500-NO₃.B, 22nd Edition

Magnesium as Mg

Nitrates as NO₃

1 - 1000 mg/L

0.1- 500 mg/L

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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
		Total Solids	IS 3025 (Pt 15)-1984 RA 2012 APHA 2540-B,22 nd Edition	1 - 5000 mg/L
2.	Drinking Water/ Packaged Drinking	Colour	IS 3025 (Part 4)-1983,RA 2012,Method A-platinum cobalt	2 -100 Hz unit
	Water	Odour	IS 3025 (Part 5)-1983,RA 2012	Qualitative
		Turbidity	IS 3025 (Part 10)-1984,RA 2006	0.01 - 10 NTU
		Total Dissolved Solids	IS 3025 (Part 16)-1984,RA 2012	1 - 500 mg/L
		pH Value	IS 3025 (Part 11)-1983,RA 2006 Electrometric method	3 - 12
		Copper as Cu	IS 3025 (Part 42)-1992 RA 2003	0.02 -10 mg/L
		Nitrates as NO ₃	IS 3025 (Part 34)-1988 RA 1999	0.1- 100 mg/l
		Nitrites as NO ₂	IS 3025 (Part 34)-1988 RA 1999	0.01 - 10 mg/L
		Chloride as Cl ₂	IS 3025 (Part 32)-1988 RA 2009 Argentometric method	1- 200 mg/l
		Sulphates as SO ₄	IS 3025 (Part 24)-1986 RA 1998 Turbidity Method	0.2 - 200 mg/L
		Alkalinity as CaCO ₃	IS 3025 (Part 23)-1986 RA 2003	1 - 500 mg/L
		Calcium as Ca	IS 3025 (Part 40)-1991 RA 1998	1- 100mg/L

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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
		Magnesium as Mg	IS 3025 (Part 46)-1994 RA 2009	1 - 100 mg/L
3.	Waste Water / Effluent Water	Colour	IS 3025 (Part 4)-1983, RA 2012,Method A-Platinum cobalt APHA 2120-C,22 nd Edition	2 - 500 Hz unit
		Turbidity	IS 3025 (Part 10)-1984,RA 2006 APHA 2130-B,22 nd Edition	0.01-5000 NTU
		pH value	IS 3025 (Part 11)-1983,RA 2006 APHA 4500-H+B,22 nd Edition	1-13
		Conductivity	IS 3025 (Part 14)-1984 RA 2006 APHA 2510-A,22 nd Edition	0.1µS/cm- 20mS/cm
		Total Dissolved Solids	IS 3025 (Part 16)-1984,RA 2012 APHA 2540-C,22 nd Edition	1 - 2000 mg/L
		Total Suspended Solids	IS 3025 (Part 17)-1984,RA 2012 APHA 2540-D,22 nd Edition	1 - 5000 mg/L
		Total Hardness as CaCO ₃	IS 3025 (Part 21)-2009 APHA 2340-C,22 nd Edition	1 - 5000 mg/L
		Acidity,as CaCO ₃	IS 3025 (Part 22)-1986 RA 2009 APHA 2310-B,22 nd Edition	2 t- 500 mg/L
		Alkalinity,as CaCO ₃	IS 3025 (Part 23)-1986 RA 2003 APHA 2320-B,22 nd Edition	2 - 500 mg/L

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		Sulphates as SO ₄	IS 3025 (Part 24)-1986 RA 1998 APHA 4500-SO ₄ -E,22 nd Edition	0.2 - 1000 mg/L
		Chloride as Cl	IS 3025 (Part 32)-1988 RA 2009 APHA 4500-Cl-B,22 nd Edition	2 - 5000 mg/L
		Calcium as Ca	IS 3025 (Part 40)-1991 RA 1998 APHA 3500-Ca-B,22 nd Edition	1 - 100 mg/L
		Copper as Cu	IS 3025 (Part 42)-1992 RA 2003	0.05 - 100 mg/L
		Magnesium as Mg	IS 3025 (Part 46)-1994 RA 2009 APHA 3500-Mg-B,22 nd Edition	1- 100 mg/L
		Total Solids	IS 3025 (Part 15)-1984 RA 2012 APHA 2540-B,22 nd Edition	1 - 2000 mg/L

*NOTE: The Laboratory has demonstrated competence for the stated scope for WATER. This however <u>does not fully</u> <u>cover</u> the specification requirements of **BIS for the Packaged Drinking Water as per IS:14543 and the Packaged** Natural Mineral Water IS:13428.