Laboratory	Ashwamedh Engineers & Consultants Co-op. Soc. Ltd., Laboratory Services Division, Survey No. 102, Plot No. 26, Wadala Pathardi Road, Indira Nagar, Nashik, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	02.12.2014
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S.No.	Product /	Specific Test Performed	Test Method Specification	Range of Testing /
	material of Test		against which tests are	Limits of Detection
			performed	

I. AIR, GASES & ATMOSPHERE

1.	Ambient Air Quality	Suspended Particulate Matter	IS 5182 (Part 4): 1999, (RA 2005) (High Volume Method)	10 - 1000 μg/m ³
	Monitoring, Fugitive Emission Monitoring, Workroom Environment Ambient Air Quality Monitoring	Particulate Matter (Size less than 10 µm) or PM10	IS 5182 (Part 23): 2006 CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I,36/2012-13, Page no.11 WI/SAP-AA/5/1, Issue no.: 03 Issue date: 01.04.2014 (Gravimetric Method)	2 - 1000 μg/m ³
		Particulate Matter (Size less than 2.5 μ m) or PM _{2.5}	CPCB Guidelines, 36/2012-13, Page no. 15 and Instrument Manufacturer Operating Manual WI/SAP-AA/5/1, Issue no.: 03 Issue date: 01.04.2014 (Gravimetric Method)	0.4- 1000 μg/m ³
		Sulphur Dioxide	IS 5182 (Part 2): 2001(RA 2006) CPCB Guidelines, 36/2012-13, Page no.1 WI/SAP-AA/5/2, Issue no.: 03 Issue date: 01.04.2014 (Improved West & Gaeke Method)	4 -1000 μg/m ³
		Nitrogen Dioxide	IS 5182 (Part 6): 2006 CPCB Guidelines, 36/2012-13, Page no.7 WI/SAP-AA/5/3, Issue no.: 03 Issue date: 01.04.2014 (Modified Jacob & Hochheiser Sodium Arsenite Method)	3 - 1000 μg/m ³

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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
	Ambient Air Quality Monitoring, Fugitive Emission Monitoring, Workroom Environment Ambient Air	Ozone	CPCB Guidelines,36/2012-13, Page no.31 WI/SAP-AA/5/10, Issue no.: 03 Issue date: 01.04.2014 Methods of Air Sampling and Analysis (AWMA),3 rd Ed., Method 411, Page no. 403,1988 (Chemical Method)	19.6-200 μg/m ³
	Quality Monitoring	Ammonia	CPCB Guidelines,36/2012-13, Page no.35 WI/SAP-AA/5/7, Issue no.: 03 Issue date: 01.04.2014 Methods of Air Sampling and Analysis (AWMA),3 rd Ed, Method 401, Page no.35,1988 (Indophenol Blue Method)	40 - 400 μg/m ³ 4.0-400 μg/m ³
		Benzene	IS 5182 (Part 11) : 2006 (RA 2009) (Adsorption and Desorption followed by GC analysis)	1 - 100 μg/m ³
		Benzo (a) pyrene (BaP) Particulate Phase only	IS 5182 (Part 12): 2004, (RA2009) CPCB Guidelines,36/2012-13, Page no.40 WI/SAP-AAS/5/56, Issue no.: 03 Issue date: 01.04.2014 (Solvent extraction followed by GC analysis)	0.2 - 100 ng/m ³
		Carbon Monoxide	CPCB Guidelines, 37/2012-13, Page no.16 WI/SAP-AAS/5/17, Issue no.: 03 Issue date: 01.04.2014 (Non Dispersive Infra Red (NDIR)Spectroscopy Method)	0.5-20 mg/m ³

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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
	Ambient Air Quality Monitoring	Chlorine	IS 5182 (Part XIX): 1982, (RA 2006 (Colorimetric Method))	1 - 200 μg/m ³
	Fugitive Emission Monitoring, Workroom	Hydrogen Sulphide	IS 5182 (Part VII): 1973, (RA 2009,Amds.1 (Colorimetric Method)	6 - 400 $\mu g/m^3$
	Ambient Air Quality Monitoring	Lead	IS 5182 (Part 22): 2004, (RA 2009) CPCB Guidelines, $36/2012-13$, Page no. 48 WI/SAP-AAS/5/17, Issue no.: 03 Issue date: 01.04.2014 Methods of Air Sampling and Analysis (AWMA), 3^{rd} Ed, Method 822, Page no. 608,1988 EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999 (AAS Method)	0.02 - 500 μg/m ³
		Nickel	CPCB Guidelines,36/2012-13, Page no. 48 WI/SAP-AAS/5/17, Issue no.: 03 Issue date: 01.04.2014 Methods of Air Sampling and Analysis (AWMA),3 rd Ed, Method 822, Page no. 608,1988 EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999 (AAS Method)	3- 500 μg/m ³

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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
	Ambient Air Quality Monitoring, Fugitive Emission Monitoring, Workroom Environment Ambient Air	Arsenic	CPCB Guidelines,36/2012-13, Page no. 48 WI/SAP-AAS/5/17, Issue no.: 03 Issue date: 01.04.2014 EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999 (AAS Method)	0.3 - 500 ng/m ³
	Quality Monitoring	Iron	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999 Methods of Air Sampling and Analysis (AWMA),3 rd Ed, Method 822, Page no. 608,1988 (AAS Method)	0.02 - 500 μg/m ³
		Chromium	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999 Methods of Air Sampling and Analysis (AWMA),3 rd Ed, Method 822, Page no. 608,1988 (AAS Method)	0.02 - 500µg/m ³
		Cadmium	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999 Methods of Air Sampling and Analysis (AWMA),3 rd Ed, Method 822, Page no. 608,1988 (AAS Method)	0.02 - 500µg/m ³
		Copper	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999 Methods of Air Sampling and Analysis (AWMA),3 rd Ed, Method 822, Page no. 608,1988 (AAS Method)	$0.02 - 500 \mu g/m^3$

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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
	Ambient Air Quality Monitoring, Fugitive Emission Monitoring, Workroom Environment	Zinc	EPA/625/R-96/010 aCompendium Method IO-3.1 & 3.2, Jun 1999 Methods of Air Sampling and Analysis (AWMA),3 rd Ed, Method 822, Page no. 608,1988 (AAS Method)	0.02 - 500µg/m ³
	Ambient Air Quality Monitoring	Mercury	EPA/625/R-96/010 a Compendium Method IO-3.4 (ICP Method),Jun 1999 Sampling & Analysis for Atmosphere Mercury, Ministry, of Environment,Japan,Mar 2004 (Cold Vapour AAS Method)	0.06- 50 μg/m ³
2.	Stack Emission Monitoring	Particulate Matter	IS 11255 (Part 1): 1985, (RA 2003) CPCB, Emission Regulations, Part 3,1985 (Gravimetric Method) WI/SAP-SA/5/13, Issue no.: 03 Issue date: 01.04.2014	10 -1000 mg/Nm ³
		Sulphur Dioxide	IS 11255 (Part 2): 1985, (RA 2003) CPCB, Emission Regulations, Part 3,1985 (Titrimetric IPA thorine Method) WI/SAP-SA/5/15, Issue no.: 03 Issue date: 01.04.2014	5 - 500 mg/Nm ³ > 2 ppm > 0.02 kg/day
		Oxides of Nitrogen	IS 11255 (Part 7): 2005 (PDSA Colorimetric Method)	10 - 500 mg/Nm ³
		Carbon Dioxide	IS 13270:1992, (RA 2009 (ORSAT Method)	0.2 – 15 %
		Carbon Monoxide	IS 13270:1992, (RA 2009 (ORSAT Method)	0.2 - 6 %

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Асси	reditation Standa	rd ISO/IEC 17025: 200	5			
Disc	ipline	Chemical Testing	ls	ssue Dat	e 02.12.2014	
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Ra Lin	nge of Testing / hits of Detection	
	Stack Emission Monitoring	Oxygen	IS 13270:1992, (RA 2009) (ORSAT Method)	1 –	21 %	
		Mercury	US EPA Method no.29, Feb 2014 CPCB Guidelines on Methodologic for source emission monitoring Laboratory Analytical Techniques WI/S/5/39 Series: LATS/80/2013-2 (Cold Vapour AAS Method)	0.00 es 2014	5-50mg/Nm3	
3.	Noise Level Measurement	Ambient Noise level Measurement (L _d ,L _n ,L _{dn} ,L _{min} ,L _{max} ,L ₅₀ ,L ₉₀ , L ₁₀)	IS 9876:1981 & Manufacturer Manual,WI/S/5/35 & 36, Issue no.3 Issue date 01.04.2014	30 -	- 130 dB (A)	
II.	POLLUTION & E	NVIRONMENT				
1.	Liquid Effluents and Waste Water	Ammonical Nitrogen	APHA,22 nd Ed.,2012, 4500 NH ₃ , B & C, 4 -110, 4-112 (Titrimetric Method) APHA,22 nd Ed., 2012, 4500 NH ₃ , F, 4 -115 (Colorimetric Method)	5 - 0.1-	1000 mg/L · 50 mg/L	
		Arsenic	APHA,22 nd Ed.,2012, 3114-C, 3-33 IS 3025 (Part 37):1988, (RA 2009) (Continuous Hydride AAS Method APHA, 22 nd Ed., 2012,3120B,3-39 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	8 0.0) 1) 0.00	1 - 100 mg/L 05- 100 mg/L	
		Biochemical Oxygen Demand	APHA,22 nd Ed.,2012, 5210-B, 5-5 (5 days, 20 °C) (Iodometric Method IS 3025 (Part 44): 1993,(RA 2009,Amds.1 (3 days, 27 °C) (Iodometric Method	1 d) 1 od)	50000 mg/L 50000 mg/L	

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection
	Liquid Effluents and Waste Water	Cadmium	APHA,22 nd Ed.,2012, 3111-B, 3-18 IS 3025 (Part 41):1992, (RA 2009) (AAS Method)	0.1 -	100 mg/L
			APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.002-	- 100 mg/L
		Calcium	APHA,22 nd Ed.,2012, 3500-B, 3-65 IS 3025 (Part 40): 1991, (RA 2009) Ed.2.1 (2004-02), Amds.1 (EDTA Titrimetric Method)	5 0.4 - 1	0000 mg/L
			IS 3025(Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.5-10	0000 mg/L
		Chemical Oxygen Demand	APHA,22 nd Ed.,2012,5220-B, 5-17 IS 3025 (Part 58) : 2006 (Open Reflux Method)	5 - 100	0000 mg/L
		Chloride	APHA,22 nd Ed.,2012, 4500-Cl, B,4 IS 3025 (Part 32):1988, (RA2009) (Argentometric Method)	-72 0.25 -	10000mg/L
		Chromium (Hexa)	APHA,22 nd Ed.,2012,3500-Cr, B, 3 IS 3025 (Part 52): 2003, (RA 2009) (Colorimetric Method)	3-69 0.02 -	100 mg/L
		Chromium (Total)	APHA,22 nd Ed.,2012,3111 B,3-18 IS 3025 (Part 52): 2003, (RA 2009) (AAS Method)	0.1 - 1	000 mg/L
			APHA,22 nd Ed.,2012,3120 B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.02 -	1000 mg/L

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Accreditation Standard ISO/IEC 17025: 20		5					
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S.No.	Product / Material of Test	Sp	ecific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / s of Detection
	Liquid Effluents and Waste Water	Col	our (Co- Pt)	APHA,22 nd Ed.,2012,2120-B,2-6 IS 3025 (Part 4): 1983, (RA 2006 (Visible Comparison Method)	5)	1- 700	Hazen units
		Cop	pper	APHA,22 nd Ed.,2012,3111-B, 3- IS 3025 (Part 42): 1992, (RA 200 Amds.1 (AAS Method) APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	18 9) 0	0.04 -	1000 mg/L 000 mg/L
		Суа	nide	APHA,22 nd Ed.,2012, 4500-CN, E, 4-41 & 4-44 IS 3025 (Part 27):1986, (RA 2009 Ed. 2.1,Amds.1(Colorimetric Met APHA,22 nd Ed.,2012, 4500-CN, C & D, 4-41 & 4-43 (Titrimetric Method)	, C & Ə) thod)	0.001 -	· 100 mg/L mg/L
		Dis	solved Oxygen	APHA,22 nd Ed.,2012, 4500-O,B C,4-137 & 4-139 IS 3025 (Part 38): 1989, (RA 200 (Iodometric Method-Azide modification)	& 9)	0.05 -	15 mg/L
		Iror	1	APHA,22 nd Ed.,2012, 3111-B, 3- IS 3025 (Part 53):2003, (RA 2009 (AAS Method) APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO	-18 9) 0	0.08 -	1000 mg/L 1000 mg/L

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection		
	Liquid Effluents and Waste Water	Lead	APHA,22 nd Ed.,2012,3111-B, 3-18 IS 3025 (Part 47):1994, (RA 2009) Amds. 2 (AAS Method) APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.1- 10 0.008	00 mg/L - 100 mg/L		
		Manganese	APHA,22 nd Ed.,2012, 3111-B, 3-18 (AAS Method) APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.05 - 0.02 -	100 mg/L 100mg/L		
		Mercury	APHA,22 nd Ed.,2012,3112-B, 3-23 IS 3025 (Part 48): 1994 (RA 2009) Amds.1 & Instrument Manufacturer manual (Flameless (cold vapour) AAS Method) IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.005- 0.0008	100 mg/L 3 – 100 mg/L		
		Molybdenum	APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.002-	-100 mg/L		
		Nickel	APHA,22 nd Ed.,2012,3111 B,3-18 IS 3025 (Part 54):2009 (AAS Metho	0.06-1 d)	00 mg/L		

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range o Limits o	of Testing / f Detection
	Liquid Effluents and Waste Water		APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	(0.01 – 10	0 mg/L
		Nitrate	APHA,22 nd Ed.,2012, 4500-NO ₃ B-4-122 (UV-Spectrophotometric Screening Method)	5	0.2 – 100	0 mg NO ₃ /L
			US EPA Method no.352.1,1971 (Brucine Colorimetric Method)]	0.1 – 100 NO ₃ /L	0 mg
		рН	APHA,22 nd Ed., 2012, 4500-H ⁺ -B, 4-92 IS 3025 (Part 11):1983, (RA 2006) (By pH Meter)		1-14	
		Oil & Grease	APHA,22 nd Ed.,2012,5520-B, 5-40 IS 3025 (Part 39):1991, (RA 2009) Amds.1 (Liquid -liquid Partition- Gravimetr Method)) ric	1 - 1000 1	mg/L
		Potassium	APHA,22 nd Ed.,2012,3500-K, B, 3 IS 3025 (Part 45): 1993, (RA 2009) Amds.1 (AAS Method (In emission mode) (Elame Photometer Method)	3-87 ()	0.06 – 10	00 mg/L
			APHA,22 nd Ed.,2012, 3120B,3-39 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	(0.5 - 100	0 mg/L

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Liquid Effluents and Waste Water	Phenol	APHA,22 nd Ed.,2012, 5530- B & C,5-47 IS 3025 (Part 43):1992 ,(RA 2009) Ed.2.2 (2003-03) (Chloroform Extraction Method)	0.001 -	• 100 mg/L		
	Phosphate (Total, Ortho & Dissolved)	APHA,22 nd Ed.,2012, 4500 P,E, 4-155 (Ascorbic Acid Method)	0.1 - 5	00 mg/L		
	Sodium	APHA,22 nd Ed.,2012, 3500-Na, B, 3-97 IS 3025 (Part 45): 1993, (RA 2009 Amds.1 (AAS Method (In emission mode)	0.2 - 1	000 mg/L		
		(Flame Photometer Method) APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004/ ISO 11885:1996 (ICP Method)	0.5 - 1	000 mg/L		
	Sodium Absorption Ratio	IS11624 :1986,(RA 2006) By Calculation	0.3 - 3	0		
	Sulphide	APHA,22 nd Ed.,2012, 4500 –S ² , C-4-175, F-4-178 IS 3025 (Part 29):1986, (RA 2009) (Iodometric Method)	0.08 -	50 mg/L		
	Sulphate	APHA,22 nd Ed.,2012, 4500- SO ₄ , E,4-190 IS 3025 (Part 24): 1986, (RA 2009 (Turbidimetric Method)	2 - 100 9)	000 mg/L		

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	Liquid Effluents and Waste Water	Total Kjeldahl Nitrogen	APHA,22 nd Ed.,2012, 4500 NH ₃ , B & C, 4 -110, 4-112 or F 4 -115 & 4500 N _{Org.} , B, 4-135 (Kjeldahl method)	0.1 - 1 ⁷ ,	0000 mg/L			
		Total Dissolved Solids	APHA,22 nd Ed.,2012 , 2540 C,2-65 IS 3025 (Part 16):1984,(RA 2006) Amds.1, Ed.2.1(1999-12) (Filtration/ Gravimetric Method)	5 - 100	000 mg/L			
		Total Solids	APHA,22 nd Ed.,2012,2540-B,2-64 IS 3025 (Part 15):1984, (RA 2009) Amds.1 (Gravimetric Method)	5 - 100	000 mg/L			
		Total Suspended Solids	APHA,22 nd Ed.,2012, 2540-D,2-66 IS 3025 (Part 17):1984,(RA 2006) Amds.1 (Filtration /Gravimetric Method)	5 - 100	000 mg/L			
		Total Volatile Solids	APHA,22 nd Ed.,2012,2540-E,2-67 IS 3025 (Part 18): 1984, (RA 2006, Amds.1 (Ignition/ Gravimetric Method)	5 - 100	000 mg/L			
		Zinc	APHA,22 nd Ed.,2012, 3111-B, 3-18 IS 3025 (Part 49): 1994, (RA 2009) Amds.1(AAS Method) APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.01 - 0.05 -	1000 mg/L 1000 mg/L			

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	Liquid Effluents and Waste Water	Boron	APHA,22 nd Ed.,2012, 4500-B -C,4-27 (Carmine Method) APHA, 22 nd Ed.,2012, 4500-B -B,4-25 Annex H of IS 13428:2005 ,Amd IS 3025 (Part 57):2003, (RA 2009 (Curcumin Method) APHA, 22 nd Ed., 2012,3120B,3-4 IS 3025(Part 2): 2004 / ISO 11885:1996 (ICP Method)	ls.4 9) 40	1-100 0.1 - 1 0.1 - 1	mg/L 00 mg/L 00 mg/L	
2.	Solid Waste, Hazardous Waste, Toxic Waste, Municipal Solid Waste & Incinerator Ash	рН	CPCB Manual LATS/16/2003- 2004,Ch. 7,7.4,Page no.167 WI/SAP-HW/5/02, Issue no.3, Issue date: 01.04.2014 IS 10158:1982, (RA 2003) USEPA/SW 846 /9045 D, Rev 4,Nov 2004 (pH Meter)	4	1 -14		
		Electrical Conductivity	USEPA Method no.120.1,1982 (Conductivity Meter)		1-20 m	nS/cm	
		Solids	CPCB Manual LATS/16/2003-20 Ch.4, 4.7.1,Page no.34 WI/SAP-HW/5/04, Issue no.3, Issue date: 01.04.2014 (Gravimetric Method)	004, 4	1 -100	% by mass	
		Water content	CPCB Manual LATS/16/2003-20 Ch.4, 4.7.3,Page no.35 WI/SAP-HW/5/05, Issue no.3, Issue date: 01.04.2014 (Karl Fischer Method)	004, 4	0.1 - 5	0 % by mass	

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection		
	Solid Waste, Hazardous Waste, Toxic Waste, Municipal Solid Waste & Incinerator Ash	Loss on Drying/Dry Substances/ Moisture	CPCB Manual LATS/16/2003- 2004,Ch. 4, 4.7.2,Page no. 34 WI/SAP-HW/5/06, Issue no.3, Issue date: 01.04.2014 IS 9235:1979,(RA 2003 Ed. 1.1,Amds.1 (Gravimetric Method)	1 - 10	0 % by mass		
		Loss on Ignition /Total Organic Matter/ Volatile Substances/ Organic Content	IS 10158:1982, (RA 2003) (Gravimetric Method)	1 - 90	% by mass		
		Non Volatile Substances	IS 10158:1982, (RA 2003) (Gravimetric Method)	0.1 - 9	90 % by mass		
		Kjeldhal Nitrogen	IS 10158: 1982, (RA 2003) (Kjeldahl Method)	50-50 0.5-5	00 mg/kg % by mass		
		Potassium	IS 10158: 1982, (RA 2003) (Flame Photometer Method)	10-10	00 mg/kg		
		Chloride	USEPA/SW 846/ 9253,Rev0,Sept (Titrimetric Method)	1994 50-50	000 mg/kg		
		Phosphorous	IS 10158: 1982, (RA 2003) (Titrimetric Method)	10-10	00 mg/kg		
		Calorific Value (Gross Calorific Value)	IS 10158: 1982, (RA 2003) IS 1350(Part II):1970 (Bomb Calorimeter Method)	200-5	000 kcal/kg		

Laboratory Ashwame Laborator Pathardi R Accreditation Standard ISO/IEC 17		Ashwamedh Engin Laboratory Service Pathardi Road, Indi ISO/IEC 17025: 200	amedh Engineers & Consultants Co-op. Soc. Ltd., atory Services Division, Survey No. 102, Plot No. 26, Wadala rdi Road, Indira Nagar, Nashik, Maharashtra C 17025: 2005			
Disc	Discipline Chemical Testing		ls	Issue Date		02.12.2014
Cert	ificate Number	T-1188	v	/alid L	Jntil	01.12.2016
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	of Testing / of Detection
	Solid Waste, Hazardous Waste, Toxic Waste, Municipal Solid Waste &	Flash Point / Ignitability	CPCB Manual LATS/16/2003- 2004,Ch.7, 7.2,Page no.166 WI/SAP-HW/5/14, Issue no.3, Issu date: 01.04.2014 (Flash Point Apparatus)	ie	Ignitabl 25 °C to	e / Non- ignitable o 250°C
	Incinerator Ash	Sulphate	USEPA/SW 846/ 9038, Rev 0,Sept 1986 (Turbidimetric Method)		50-5000) mg/kg
		Oil & Grease (Hexane Extractable Matter)	USEPA/SW 846/ 9071B, Rev2 Apr 1998 (Soxhlet Extraction, Gravimetric Method)		1 - 1000) mg/kg
		Metal Total	Methody			
		Aluminum	USEPA/SW 846/ 6010 C,Rev 3 2007 (ICP Method)	3,Feb	1-2000	mg/kg
		Antimony	USEPA/SW846/7062,Rev 0,Sept 1 & 7000B ,Rev2,Feb 2007 (AAS Method) USEPA /SW 846/ 6010 C,	994	0.2-100	mg/kg mg/kg
			Rev 3, Feb 2007 (ICP Method)			
		Arsenic	CPCB Manual LATS/16/2003- 2004,Ch.5,5.6,Page no. 56 WI/SAP-AAS/5/30, Issue no.3, Issue date: 01.04.2014 USEPA/SW846/7062, Rev 0,Sept 1	1994	0.1-500) mg/kg

& 7000B,Rev2,Feb 2007

USEPA Method no.200.7,

USEPA/SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)

(AAS Method)

Rev.4.4,1994

0.01-500 mg/kg

Laboratory Ashw Labor Patha		Ashwamedh Engin Laboratory Service Pathardi Road, Indi	Ashwamedh Engineers & Consultants Co-op. Soc. Ltd., .aboratory Services Division, Survey No. 102, Plot No. 26, Wadala Pathardi Road, Indira Nagar, Nashik, Maharashtra				
Accreditation Standard ISO/IEC 17025: 200		5					
Disc	cipline	Chemical Testing		Issue Date	02.12.2014		
Cert	ificate Number	T-1188		Valid Until	01.12.2016		
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limits	e of Testing / s of Detection		
	Solid Waste,	Metal Total					
	Hazardous Waste, Toxic Waste, Municipal Solid Waste & Boron Incinerator AshBariumCadmium	Barium	USEPA/SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)	10-250	000 mg/kg		
		Boron	USEPA/SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)	5-500	0 mg/kg		
		Cadmium	CPCB Manual LATS/16/2003- 2004,Ch.5,5.4,Page no. 42 WI/SAP-AAS/5/33, Issue no.3, Is date: 01.04.2014 USEPA/SW846/7000B, Rev2,Feb 2007 (AAS Method)	5-500 ssue	mg/kg		
			USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)	0.1-50	0 mg/kg		
		Calcium	USEPA, Method no. 200.7, Rev.4.4,1994 (ICP Method)	10-500	00 mg/kg		
		Chromium	CPCB Manual LATS/16/2003-20 Ch.5,5.4,Page no. 42 WI/SAP-AAS/5/33, Issue no.3, Is date: 01.04.2014 USEPA/SW846/7000B, Rev2,Feb 2007 (AAS, Method)	004, 5-500 ssue	mg/kg		
			USEPA Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/ 6010 C, Rev3,Feb 2007 (ICP Method)	1-500	mg/kg		

Laboratory Ashwame Laborator Pathardi F		Ashwamedh Engin Laboratory Service Pathardi Road, Ind	iwamedh Engineers & Consultants Co-op. Soc. Ltd., oratory Services Division, Survey No. 102, Plot No. 26, Wadala hardi Road, Indira Nagar, Nashik, Maharashtra				
Accreditation Standard ISO/IEC 17025: 2005		5					
Disc	ipline	Chemical Testing	ŀ	ssue [Date 02.12.2014		
Cert	ificate Number	T-1188	١	Valid U	Intil 01.12.2016		
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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		
	Solid Waste,	Metal Total					
	Hazardous Waste, Toxic Waste, Municipal Solid	Chromium (Hexavalent)	USEPA/SW 846/7196 A, Rev1,Jul 1992 (Spectrophotometer Method)		10- 500 mg/kg		
	Waste & Incinerator Ash	Cobalt	USEPA/SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)		0.5-10000 mg/kg		
		Copper	CPCB Manual LATS/16/2003-200 Ch.5,5.4,Page no. 42 WI/SAP-AAS/5/33, Issue no.3, Issue date: 01.04.2014 USEPA/SW846/7000B, Rev2, Feb 2007 (AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method))4,	2-10000 mg/kg 1.0 - 10000 mg/kg		
		Iron	CPCB Manual LATS/16/2003-200 Ch.5,5.4,Page no. 42 WI/SAP-AAS/5/33, Issue no.3, Iss date: 01.04.2014 USEPA/SW846/7000B , Rev2,Feb 2007 (AAS Method) USEPA, Method no.200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method))4, sue	3.0-10000 mg/kg 1.0- 10000 mg/kg		
		Lead	CPCB Manual LATS/16/2003-200 Ch.5,5.4,Page no. 42 WI/SAP-AAS/5/33, Issue no.3, Issue date: 01.04.2014 USEPA/SW846/7000B,Rev2, Feb 2007 (AAS Method))4,	1.0-10000 mg/kg		

Laboratory Ashwamedh Engine Laboratory Services Pathardi Road, Indi		ieers & Consultants Co-op. Soc. Ltd., ∋s Division, Survey No. 102, Plot No. 26, Wadala lira Nagar, Nashik, Maharashtra			
Accreditation Standard ISO/IEC 17025: 200		95			
Discipline Chemical Testing		Chemical Testing	k	ssue Date	02.12.2014
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	ge of Testing / s of Detection
	Solid Waste, Hazardous Waste, Toxic Waste, Municipal Solid Waste, &	Metal Total	USEPA, Method no. 200.7, Rev.4.4,1994 USEPA /SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)	0.5-10	0000 mg/kg
	Incinerator Ash	Magnesium	USEPA, Method no. 200.7, Rev.4.4,1994 (ICP Method)	10-50	00 mg/kg
		Manganese	USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)	1 -10	000 mg/kg
		Mercury	CPCB Manual LATS/16/2003-200 Ch.5,5.7,Page no. 62 WI/SAP-AAS/5/32, Issue no.3, Issue date: 01.04.2014 USEPA/SW846/7471 A, Feb 2007 (AAS Method)	14, 0.04-	1000 mg/kg
			USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)	0.01-	1000 mg/kg
		Molybdenum	USEPA/SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)	1.0-1	0000 mg/kg
		Nickel	CPCB Manual LATS/16/2003-200 Ch.5,5.4,Page no. 42 WI/SAP-AAS/5/32, Issue no.3, Issue date: 01.04.2014 USEPA/SW/846/7000B, Rev2,Feb 2007 (AAS Method)	94, 3-100	000 mg/kg

Laboratory Accreditation Standard		Ashwamedh Engin Laboratory Service Pathardi Road, Indi ISO/IEC 17025: 200	Ashwamedh Engineers & Consultants Co-op. Soc. Ltd., Laboratory Services Division, Survey No. 102, Plot No. 26, Wadala Pathardi Road, Indira Nagar, Nashik, Maharashtra ISO/IEC 17025: 2005				
Disc	ipline	Chemical Testing		ssue D)ate 0	2.12.2014	
Cort	ificate Number	T-1188		/alid II	ntil 0	1 12 2016	
Last Amended on		1-1100			iitii U	1.12.2010	
		19.12.2014	F	Page	1	9 of 134	
S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range o Limits o	f Testing / f Detection	
	Solid Waste, Hazardous Waste, Toxic Waste, Municipal Solid Waste &	Metal Total	USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)	2	2.5-10000) mg/kg	
	Incinerator Ash	Potassium	USEPA/SW846/7000B, Rev2,Feb 2007 (AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)		3-1000 m 3-1000 m	g/kg g/kg	
		Selenium	CPCB Manual LATS/16/2003- 2004,Ch.5,5.6,Page no. 56 WI/SAP-AAS/5/57, Issue no.3, Issue date: 01.04.2014 USEPA/SW846/7742,Rev0Sept 19 & 7000B ,Rev2,Feb 2007 (AAS Method) USEPA,Method no. 200.7,	994	2-100 mg 0.5-100 n	/kg ng/kg	
			Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)				
		Silver	CPCB Manual LATS/16/2003-200 Ch.5,5.4,Page no. 42 WI/SAP-AAS/5/32, Issue no.3, Iss date: 01.04.2014 USEPA/SW846/7000B,Rev2,Feb 2 (AAS Method))4, 2 sue 2007	2 -10000	mg/kg	

		Ashwamedh Engin Laboratory Service Pathardi Road, Indi	ngineers & Consultants Co-op. Soc. Ltd., vices Division, Survey No. 102, Plot No. 26, Wadala Indira Nagar, Nashik, Maharashtra				
Accreditation Standard ISO/IEC 17025: 200		5					
Disc	ipline	Chemical Testing		Issue Date	02.12.2014		
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection		
	Solid Waste, Hazardous Waste, Toxic Waste, Municipal Solid Waste &	Metal Total	USEPA,Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)	0.5-10	0000 mg/kg		
	Incinerator Ash	Sodium	USEPA/SW846/7000B, Rev2 Feb 2007 (AAS Method)	3-1000	00 mg/kg		
			USEPA,Method no. 2007, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)	3-1000	00 mg/kg		
		Tin	USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)	1-1000) mg/kg		
		Vanadium	USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)	1-1000	00 mg/kg		
		Zinc	CPCB Manual LATS/16/2003- 2004,Ch.5,5.4,Page no.42 WI/SAP-AAS/5/32, Issue no.3, Issue date: 01.04.2014 USEPA/SW846/7000B, Rev2,Feb 2007(AAS Method)	2.5-10 4	00 mg/kg		
			USEPA,Method no.200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)	2.5-10	00 mg/kg		

Laboratory Ashwamedh Er Laboratory Ser Pathardi Road, Accreditation Standard ISO/IEC 17025:		Ashwamedh Engin Laboratory Service Pathardi Road, Indi ISO/IEC 17025: 200	neers & Consultants Co-op. Soc. Ltd., es Division, Survey No. 102, Plot No. 26, Wadala dira Nagar, Nashik, Maharashtra 05				
Disc	ipline	Chemical Testing	Is	sue Date	02.12.2014		
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection		
	Solid Waste, Hazardous Waste, Toxic Waste, Municipal Solid Waste & Incinerator Ash	TCLP (Toxicity Characteristic Leaching Procedure), Metals in Leachate Arsenic	CPCB Manual LATS/16/2003- 2004,Ch.5,5.6,Page no. 56 & 170 WI/SAP-AAS/5/34, Issue no.3, Issu date: 01.04.2014 USEPA/SW846/1311,Rev 0,July 19 & 7062 Rev0,Sept 1994 & 7000B ,Rev2,Feb 2007 (AAS Method) USEPA,Method no. 200.7 Rev.4.4,1994 & 1311, Rev0,July 1992 USEPA /SW 846/6010 C, Rev 3,Feb 2007 & 1311, Rev0,July 1992 (ICP Method)	0.1- 10 ne 092 0.1-10	00 mg/L 0 mg/L		
		Cadmium	CPCB Manual LATS/16/2003- 2004,Ch.5,5.4,Page no. 42 & 170 WI/SAP-AAS/5/34, Issue no.3, Issu date: 01.04.2014 USEPA/SW 846/1311,Rev 0,July 19 &7000B ,Rev2,Feb 2007 (AAS Method) USEPA,Method no. 200.7, Rev.4.4,1994 & 1311, Rev0,July 1992 USEPA/SW 846/ 6010 C,Rev 3, Feb 2007 & 1311,Rev 0,July 1992 (ICP Method)	0.1-20 ne 992 0.1-20	00 mg/L 0 mg/L		

Laboratory Accreditation Standard		Ashwamedh Engin Laboratory Service Pathardi Road, Indi ISO/IEC 17025: 200	Ashwamedh Engineers & Consultants Co-op. Soc. Ltd., Laboratory Services Division, Survey No. 102, Plot No. 26, Wadala Pathardi Road, Indira Nagar, Nashik, Maharashtra ISO/IEC 17025: 2005				
Disc	ipline	Chemical Testing	ls	ssue Date	02.12.2014		
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		19.12.2014	P	age	22 of 134		
S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection		
	Solid Waste, Hazardous Waste, Toxic Waste, Municipal Solid Waste & Incinerator Ash	TCLP (Toxicity Characteristic Leaching Procedure), Metals in Leachate Total Chromium	CPCB Manual LATS/16/2003- 2004,Ch.5,5.4,Page no. 42 &170 WI/SAP-AAS/5/34, Issue no.3, Issue date: 01.04.2014 USEPA/SW 846/1311,Rev0,July 19 & 7000B ,Rev2,Feb 2007 (AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 & 1311,Rev0,July 19 USEPA/SW 846/6010 C, Rev 3,Feb 2007 & 1311, Rev0,July 1992 (ICP Method)	0.1- 10 992 0.1-10 992	000 mg/L 000mg/L		
		Chromium (Hexavalent)	USEPA/SW 846/7196 A, Rev1,Jul 1992 (Spectrophotometer Method)	0.2-10	000 mg/L		
		Iron	CPCB Manual LATS/16/2003- 2004,Ch.5,5.4,Page no. 42 & 170 WI/SAP-AAS/5/34, Issue no.3, Issue date: 01.04.2014 USEPA/SW 846/1311,Rev 0,July 1 &7000B,Rev2,Feb 2007 (AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 & 1311,Rev0,July 19 USEPA/SW 846/ 6010 C,Rev 3, Feb 2007 &1311,Rev0,July 1992 (ICP Method)	0.5- 10 1992 0.1-10 992	000 mg/L 000mg/L		

Laboratory		Ashwamedh Engin Laboratory Service Pathardi Road, Indi	Ashwamedh Engineers & Consultants Co-op. Soc. Ltd., Laboratory Services Division, Survey No. 102, Plot No. 26, Wadala Pathardi Road, Indira Nagar, Nashik, Maharashtra				
Acci	reditation Standar	rd ISO/IEC 17025: 200	5				
Disc	ipline	Chemical Testing		Issue	Date	02.12.2014	
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / s of Detection	
	Solid Waste, Hazardous Waste, Toxic Waste, Municipal Solid Waste & Incinerator Ash	TCLP (Toxicity Characteristic Leaching Procedure), Metals in Leachate Lead	CPCB Manual LATS/16/2003- 2004,Ch.5,5.4,Page no. 42 &170 WI/SAP-AAS/5/34, Issue no.3, Issue date: 01.04.2014 USEPA/SW 846/1311,Rev0,July & 7000B,Rev2,Feb 2007 (AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 & 1311, Rev0,July USEPA/SW 846/ 6010 C,Rev 3, Feb 2007 & 1311,Rev0,July 1992 (ICP Method)	4 1992 1992	0.1- 10	00 mg/L 00mg/L	
		Nickel	CPCB Manual LATS/16/2003- 2004,Ch.5,5.4,Page no.42 &170 WI/SAP-AAS/5/34, Issue no.3, Issue date: 01.04.2014 USEPA/SW 846/1311,Rev0,July &7000B ,Rev2,Feb 2007 (AAS Method) USEPA, Method no 200.7, Rev.4.4,1994 & 1311,Rev0,July 1 USEPA/SW 846/ 6010 C,Rev 3, Feb 2007 & 1311 Rev0,July 1992 (ICP Method)	4 1992 1992 2	1 - 100 0.1-10	00 mg/L 000mg/L	
		Selenium	CPCB Manual LATS/16/2003- 2004,Ch.5,5.6,Page no.56 &170 WI/SAP-AAS/5/34, Issue no.3, Issue date: 01.04.2014 USEPA/SW 846/1311,Rev0,July &7742,Rev0,Sept 1994 (AAS Method)	l 1992	0.1-10)0mg/L	

Laboratory Ashwamedh E Laboratory Se Pathardi Road		Ashwamedh Engine Laboratory Service Pathardi Road, Indi	eers & Consultants Co-op. So s Division, Survey No. 102, P ira Nagar, Nashik, Maharashti	oc. Lt Plot N ra	id., o. 26, '	Wadala
Accreditation Standard ISO/IEC 17025: 200		5				
Disc	ipline	Chemical Testing	Is	sue l	Date	02.12.2014
Cert	ificate Number	T-1188	T-1188 Valid		Jntil	01.12.2016
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	of Testing / of Detection
	Solid Waste, Hazardous Waste, Toxic Waste, Municipal Solid Waste &	TCLP (Toxicity Characteristic Leaching Procedure), Metals in Leachate	USEPA, Method no 200.7, Rev.4.4,1994 & 1311, Rev0,July 19 USEPA/SW 846/ 6010 C,Rev 3,Feb 2007 &1311,Rev0,July 1992 (ICP Method)	992 5	0.1-100	0mg/L
	Incinerator Ash	Silver	CPCB Manual LATS/16/2003- 2004,Ch.5,5.4,Page no. 42 & 170 WI/SAP-AAS/5/34, Issue no.3, Issue date: 01.04.2014 USEPA/SW 846/1311,Rev0,July 19 &7000B ,Rev2,Feb 2007 (AAS Met USEPA, Method no. 200.7, Rev.4.4,1994 & 1311, Rev0,July 19 USEPA/SW 846/ 6010 C,Rev 3,Feb 2007 & 1311,Rev0,July 1992 (ICP Method)	992 thod) 992	0.5-500 0.1-500)mg/L) mg/L
		Barium	USEPA, Method no 200.7, Rev.4.4,1994 & 1311, Rev0,July 19 USEPA/SW 846/6010 C,Rev 3,Feb 2007 /200.8 & 1311,Rev0,July 1992 (ICP Method)	992 2	10-100	00 mg/L
		Mercury	CPCB Manual LATS/16/2003- 2004,Ch.5,5.7,Page no. 62 WI/SAP-AAS/5/34 Issue no.3, Issue date: 01.04.2014 USEPA/SW846/1311,Rev0,July 199 &7471 B,Rev2, Feb 2007 (AAS Method)	92	0.04-50) mg/L

Laboratory		Ashwamedh Engin Laboratory Service Pathardi Road, Indi	Ashwamedh Engineers & Consultants Co-op. Soc. Ltd., Laboratory Services Division, Survey No. 102, Plot No. 26, Wadala Pathardi Road, Indira Nagar, Nashik, Maharashtra				
Асси	reditation Standar	rd ISO/IEC 17025: 200	5				
Disc	ipline	Chemical Testing	l	ssue C	Date	02.12.2014	
Certificate Number Last Amended on		T-1188	V	/alid U	Intil	01.12.2016	
		19.12.2014	F	Page		25 of 134	
S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	of Testing / of Detection	
	Solid Waste, Hazardous Waste, Toxic Waste, Municipal Solid Waste &	TCLP (Toxicity Characteristic Leaching Procedure), Metals in Leachate	USEPA, Method no 200.7, Rev.4.4,1994 & 1311, Rev0,July 19 USEPA/SW 846/ 6010 C,Rev 3,Fe 2007 & 1311,Rev0,July 1992 (ICP Method)	(992 b	0.01-50	mg/L	
waste & Incinerator Ash		Zinc	CPCB Manual LATS/16/2003- 2004,Ch.5,5.4,Page no. 42 & 170 WI/SAP-AAS/5/34, Issue no.3, Issue date: 01.04.2014 USEPA/SW 846/1311,Rev0,July 1 &7000B ,Rev2,Feb 2007 (AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 & 1311, Rev0,July 1 USEPA/SW 846/(010 C Days 2 Ed)	992	0.1-100) mg/L)0mg/L	
			USEPA/SW 846/6010 C,Rev 3,Fet 2007 &1311,Rev0,July 1992 (ICP Method)	0			
3.	Used / Waste Oil	Sediments	IS 1866 (Annexure A):2000 (Gravimetric Method)	(0.1-40 9	%	
		Lead	CPCB Manual LATS/16/2003- 2004,Ch.5,5.4,Page no.42 WI/SAP-AAS/5/35, Issue no.3, Issue date: 01.04.2014 USEPA/SW 846/7000B ,Rev2, Feb 2007 (AAS Method)	(0.5-200	ppm	
			USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007(ICP Method)		0.1-200	ppm	

Laboratory		Ashwamedh Engin Laboratory Service Pathardi Road, Indi	Ashwamedh Engineers & Consultants Co-op. Soc. Ltd., Laboratory Services Division, Survey No. 102, Plot No. 26, Wadala Pathardi Road, Indira Nagar, Nashik, Maharashtra				
Acc	reditation Standard	d ISO/IEC 17025: 200	5				
Disc	ipline	Chemical Testing		Issue D	Date	02.12.2014	
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		19.12.2014		Page		26 of 134	
S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	of Testing / of Detection	
	Used / Waste Oil	Arsenic	CPCB Manual LATS/16/2003- 2004,Ch.5,5.6,Page no.56 WI/SAP-AAS/5/35, Issue no.3, Is date: 01.04.2014 USEPA/SW846/7062,Rev0,Sept & 7000B , Jul 1992 (AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994	ssue 1994	0.5-100	ppm	
		Cadmium	USEPA/SW 846/ 6010 C,Rev 3, Feb 2007 (ICP Method) CPCB Manual LATS/16/2003- 2004,Ch.5,5.4,Page no. 42 WI/SAP A A S/5/35, Jesua po 3, Je	1	0.5-1000) ppm	
			date: 01.04.2014 USEPA/SW 846/ 7000B ,Rev2, Feb 2007 (AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/ 6010 C,Rev 3, Feb 2007 (ICP Method)	isue (0.1-1000) ppm	
		Chromium	CPCB Manual LATS/16/2003-20 Ch.5,5.4,Page no. 42 WI/SAP-AAS/5/35, Issue no.3, Is date: 01.04.2014 USEPA/SW 846/7000B ,Rev2, Feb 2007 (AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)	004, 0	0.5-1000 0.1-1000	0 ppm 0 ppm	

Laboratory Ashwamedh I Laboratory Se Pathardi Road Accreditation Standard ISO/IEC 1702		Ashwamedh Engin Laboratory Service Pathardi Road, Indi ISO/IEC 17025: 200	neers & Consultants Co-op. Soc. Ltd., :es Division, Survey No. 102, Plot No. 26, Wadala dira Nagar, Nashik, Maharashtra 005			
DisciplineChemical TestCertificate NumberT-1188		Chemical Testing	ls	ssue Date	02.12.2014	
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	Used / Waste Oil	Nickel	CPCB Manual LATS/16/2003-2004 Ch.5,5.4,Page no. 42 WI/SAP-AAS/5/35, Issue no.3, Issu date: 01.04.2014 USEPA/SW 846/7000B ,Rev2, Feb 2007(AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C,Rev 3, Feb 2007(ICP Method)	4, 0.5-10 ue 0.1-10	00 ppm 00 ppm	
		Poly aromatic Hydrocarbons	USEPA/SW 846/ 8100,Sept 1986 (Gas Chromatography Method)	0.2 mg	g/kg – 7 %	
		Total Halogens	USEPA/SW 846/ 9253,Sept 1994 /5050,Sept 1994 (Titrimetric Method)	50 - 50	0000 ppm	
		Polychlorinated Biphenyls	USEPA/SW 846/8082,Feb 2007 (Gas Chromatography Method)	1.0-10	0 ppm	
		Sulphur	IS 1448 (Part 33) :1991,(RA 2008) (Bomb Calorimeter Method)	50 mg	/kg-5%	
		Water Content	IS 1448 (Part 40) :1987, (RA 2006 (Dean & Stark Method)) 0.1 -10	0%	

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4.	Work Place Environment/ Indoor Air Quality Monitoring	Oil Mist	NIOSH-5026, May 1996 (FTIR Method)	1 – 20	0 mg/ m ³
		Benzene	NIOSH – 1501, Mar 2003 (Gas Chromatography Method)	0.1-100 mg/m ³	
		Toluene	NIOSH – 1501, Mar 2003 (Gas Chromatography Method)	0.1-100 mg/ m ³	
		Xylene	NIOSH – 1501, Mar 2003 (Gas Chromatography Method)	0.1-10	00 mg/ m ³
		Particulates Total	NIOSH – 0500, Aug 1994 (Gravimetric Method)	0.1-10	00 mg/ m ³
		Cadmium	NIOSH – 7303, Mar 2003 (ICP Method)	0.01-1	00 mg/ m ³
		Chromium	NIOSH – 7303, Mar 2003 (ICP Method)	0.01-1	00 mg/ m ³
		Copper	NIOSH – 7303, Mar 2003 (ICP Method)	0.01-1	00 mg/ m ³
		Iron	NIOSH – 7303, Mar 2003 (ICP Method)	0.01-1	00 mg/ m ³
		Lead	NIOSH – 7303, Mar 2003 (ICP Method)	0.01-1	00 mg/ m ³
		Nickel	NIOSH – 7303, Mar 2003 (ICP Method)	0.01-1	00 mg/ m ³
		Arsenic	NIOSH – 7303, Mar 2003 (ICP Method)	0.01-1	00mg/ m ³
		Zinc	NIOSH – 7303, Mar 2003 (ICP Method)	0.01-1	00mg/ m ³

LaboratoryAshwamedh Engin Laboratory Servic Pathardi Road, IncAccreditation StandardISO/IEC 17025: 200			eers & Consultants Co-op. es Division, Survey No. 102 lira Nagar, Nashik, Maharas 05	Soc. L , Plot N htra	.td., No. 26,	Wadala
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5.	Soil	рН	FAO 1976, Sec. III, 1, Page no.6 (By pH Meter)	5	1-14	
		Particle Size Distribution	WI/SAP-Soil/5/03, Issue no. 03, date: 01.04.2014, based on Ref. V 1997, Sec. B4, Page no.7 (Hydrometer Method)	Issue WLII	1 to 10	00 %
		Moisture Content	WI/SAP-Soil/5/02, Issue no. 03, date: 01.04.2014, based on Ref. V 1997, Sec. B2, Page no.6 (Gravimetric Method)	Issue WLII	0.5 -50) %
		Organic Carbon	FAO 1976, Sec. III,3, Page no.73 (Titrimetric Method)	3	0.025	-50 %
		Total Nitrogen	FAO 1976, Sec. III,4, Page no.78 (Kjeldahl Method)	8	20-200	000 mg/kg
		Calcium Carbonate	FAO 1976, Sec. III,2-2, Page no (Titrimetric Method)	.71	5–100	00 mg/kg
		Available Nitrogen	FAO 1976, Sec. III,11, Page no. (Titrimetric Method)	145	20 -10 50-250	000mg/kg 000 kg/ha
		Available Phosphorous	FAO 1976, Sec. III,12-1, Page no (Spectrophotometer Method)	o.157	5 – 500 10-500	00 mg/kg) kg/ha
		Exchangeable (Available) Potassium	FAO 1976, Sec. III,8-1, Page no (By Flame Photometer)	.115	1 – 10 20-200	000 mg/kg 00 kg/ha

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Acc	reditation Standa	rd ISO/IEC 17025: 200	SO/IEC 17025: 2005					
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	Soil	Exchangeable (Available) Magnesium	FAO 1976, Sec. III,8-1, Page no.1 (Titrimetric Method)	115	10 -10	000mg/kg		
		Exchangeable (Available) Calcium	FAO 1976, Sec. III,8-1, Page no.1 (Titrimetric Method)	115	10-100	000mg/kg		
		Exchangeable (Available) Sodium	FAO 1976, Sec. III,8-1, Page no.1 (By Flame Photometer)	115	1 - 100	000 mg/kg		
		Electrical Conductivity	FAO 1976, Sec. III,5, Page no.85 (Conductivity Meter Method)		0.05-1	0 mmhos/cm		
		Available Zinc	WI/SAP-AAS/05/42A, Issue no: (Issue date: 01.04.2014, based on I WLII 1997, Sec. B12, Page no.22 (AAS Method)	03, Ref.	0.2 – 1	000mg/kg		
		Available Iron	WI/SAP-AAS/05/42A, Issue no: (Issue date: 01.04.2014, based on I WLII 1997, Sec. B12, Page no.22 (AAS Method)	03, Ref.	0.2 – 1	000mg/kg		
		Available Copper	WI/SAP-AAS/05/42A, Issue no: (Issue date: 01.04.2014, based on I WLII 1997, Sec. B12, Page no.22 (AAS Method)	03, Ref.	0.2 – 1	000mg/kg		
		Available Manganese	WI/SAP-AAS/05/42A, Issue no: (Issue date: 01.04.2014, based on I WLII 1997, Sec. B12, Page no.22 (AAS Method)	03, Ref.	0.2–10	000 mg/kg		
		Exchangeable Sodium Percentage	ISRIC 2006, Page No.13-58/59		1-50 %)		
		Sodium Absorption Ratio	ISRIC 2006, Page No.13-58/59		1-60			

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	Soil	Cat	ion Exchange Capacity	FAO 1976, Sec. III,7-2, Page no.1 (Sodium Acetate Method) (By Flame Photometer)	104	1.0-80 100 g	meq/	
		Alu	ıminium	USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)		1.0 -10	00 mg/kg	
		Boi	ron	USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)		5-100	mg/kg	
		Cac	lmium	USEPA/SW 846/7000B , Rev2.Feb 2007(AAS Method)		5-500	mg/kg	
				USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)		0.1-50	0 mg/kg	
		Chi	comium	USEPA/SW 846/7000B,Rev2, Feb 2007(AAS Method)		5-500	mg/kg	
				USEPA, Method no. 200.7,Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)		1.0-50	0 mg/kg	
		Сор	oper	USEPA/SW 846/7000B,Rev2 Feb 2007(AAS Method)		2-5000) mg/kg	
				USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)		1- 500	0 mg/kg	

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	Soil	Iron	USEPA/SW 846/7000B, Rev2,Feb 2007 (AAS Method) USEPA, Method no. 200.7 Rev.4.4,1994 USEPA/SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)	3-1000 1- 100	00 mg/kg 00 mg/kg		
		Lead	USEPA/SW 846/7000B , Rev2,Feb 2007(AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)	1- 100 0.5-10	0 mg/kg 00 mg/kg		
		Manganese	USEPA/SW 846/7000B, Rev2,Feb 2007 (AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)	2.5-10 1 - 100	00 mg/kg)0 mg/kg		
		Nickel	USEPA/SW 846/ 7000B, Rev2,Feb 2007 (AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/ 6010 C, Rev 3,Feb 2007(ICP Method)	3- 500 2.5-50	0 mg/kg 00 mg/kg		

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	Soil	Potassium	USEPA/SW 846/7000B, Rev2,Feb 2007(AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007(ICP Method)	3 -100 3-100	0 mg/kg 0 mg/kg		
		Sodium	USEPA/SW 846/7000B, Rev2,Feb 2007(AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/6010 C, Rev 3,Feb 2007 (ICP Method)	3 -100 3-100	00 mg/kg 00 mg/kg		
		Zinc	USEPA/SW 846/ 7000B, Rev2,Feb 2007(AAS Method) USEPA, Method no. 200.7, Rev.4.4,1994 USEPA/SW 846/ 6010 C, Rev 3,Feb 2007 (ICP Method)	2.5 -10 2.5-10	0000 mg/kg 0000 mg/kg		

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III	WATER			
1.	Potable and domestic water, Ground water, Surface water	Acidity	APHA, 22 nd Ed., 2012, 2310-B,2-31 IS 3025 (Part 22):1986, (RA 2009) (Titration Method)	0.5 -500 mg/L
	(Rivers, Lakes, Sea)/ Industrial water (Processed Food Industry)	Alkalinity (Total, Phenolphthalein & Methyl orange) (as CaCO ₃)	APHA, 22 nd Ed., 2012, 2320-B, 2-34 IS 3025(Part 23):1986, (RA 2009) Amds.1 (Titration Method)	0.5 -5000 mg /L
	Specification/ Irrigation water / Cooling purpose water/ Water for Steam raising/	Volume of 0.02 N NaOH required to neutralize 100 ml water sample using Phenolphthalein indicator	IS 456 : 2000, (RA 2012) IS 3025 (Part 22):1986 (Titration Method)	0.1 - 100 ml
	Distilled/ demineralized waterSpecification / Water for Swimming Pools/ Water for	Volume of 0.02 N H_2SO_4 required to neutralize 100 ml water sample using Mixed indicator	IS 456 : 2000, (RA 2012 IS 3025 (Part 23):1986 (Titration Method)	0.1 -100 ml
	Construction Purpose/Water for Ice Manufacture/ Primary Water Quality Criteria by CPCB/ Medicinal purpose/Water for Fermentation inductor	Aluminium (as Al)	APHA, 22 nd Ed., 2012, 3500-Al-B,3-61 IS 3025(Part 55): 2003, (RA 2009) (Eriochrome Cyanine R Method)	0.025 - 100 mg/L

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	Potable and Potable and domestic water,		APHA, 22 nd Ed., 2012,3120B,3-40 IS 3025(Part 2): 2004/ ISO 11885:1996 (ICP Method)	0.01- 100 mg/L
	Ground water, Surface water (Rivers, Lakes, Sea)/	Ammonical Nitrogen/Ammonia (as total ammonia –N)	APHA, 22 nd Ed., 2012, 4500 NH ₃ , B & C, 4 -110, 4-112, IS 3025 (Part 34) : 1988, (RA 2009) (Titrimatria Mathad)	5 - 1000 mg/L
	(Processed Food Industry) Specification/ Irrigation water /		(Thinheric Method) APHA, 22 nd Ed.,2012, $4500 \text{ NH}_3, \text{ F}, 4 -115,$ IS 3025 (Part 34) : 1988, (RA 2009) (Colorimetric Method)	0.1-50 mg/L
	water/ Water for Steam raising/ Distilled/ demineralized	Anionic detergents (as MBAS)	APHA, 22 nd Ed.,2012, 5540-B&C,5-51& 5-53 Annexure K of IS 13428 : 2005 (Methylene Blue extraction method)	0.1-50 mg/L
	waterSpecification / Water for Swimming	Antimony (as Sb)	USEPA/SW 846/7062, Sept 1994 & Manufacturer manual (Continuous Hydride AAS Method)	0.005 - 100 mg/L
	Pools/ Water for Construction Purpose/ Water for Ice		APHA, 22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.003- 100 mg/L
	Manufacture/ Primary Water Quality Criteria by CPCB/ Medicinal purpose/ Water for Fermentation industry	Arsenic (as As)	APHA, 22 nd Ed.,2012, 3114-C, 3-38 IS 3025 (Part 37):1988, (RA 2009 (Continuous Hydride AAS Method) APHA, 22 nd Ed., 2012,3120B,3-40 IS 3025(Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.01 - 100 mg/L 0.005 mg/L 1-100 mg/L

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	Potable and domestic water, Ground water, Surface water (Biyong Lolog	Bicarbonate	APHA, 22 nd Ed., 2012, 2320-B, 2-34, 5 -3 & 4500-CO ₂ -D,4-36 IS 3025 (Part 51):2001, (RA 2006) (By calculation)	0.5 - 5000 mg/L
	(Rivers, Lakes, Sea)/ Industrial water (Processed Food	Biochemical Oxygen Demand	APHA, 22 nd Ed., 2012, 5210-B, 5-5 (5 days, 20 °C) (Jodometric Method)	1- 10000 mg/L
	Industry) Specification/ Irrigation water / Cooling purpose		(Todonietic Method) IS 3025(Part 44): 1993, (RA 2009) Amds.1 (3 days , 27 °C) (Iodometric Method)	1- 10000 mg/L
	water/	Boron	APHA, 22 nd Ed., 2012,	1-100 mg/L
	Water for Steam raising/ Distilled/ demineralized waterSpecification	(as B)	4500-B -C,4-27(Carmine Method) APHA, 22 nd Ed., 2012, 4500-B -B,4-25 Annex H of IS 13428:2005, Amds.4 IS 3025 (Part 57):2003, (RA 2009)	0.1 –100 mg/L
	Swimming Pools/ Water for Construction Purpose/ Water		APHA,22 nd Ed., 2012,3120B,3-40 IS 3025(Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.1 - 100 mg/L
	for Ice Manufacture/ Primary Water Quality Criteria			
	by CPCB/ Medicinal purpose/Water for Fermentation industry			

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	Potable and domestic water, Ground water, Surface water	Cadmium (as Cd)	APHA,22 nd Ed., 2012, 3111-B, 3-18 IS 3025, Part 41,1992, (RA 2009) (AAS Method) APHA,22 nd Ed., 2012,3120B,3-40	0.1 - 100 mg/L 0.002– 100mg/L
	(Rivers, Lakes, Sea)/ Industrial water		IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	
	(Processed Food Industry) Specification/	Calcium (as Ca)	APHA,22 nd Ed.,2012,3500-B, 3-67 IS 3025 (Part 40):1991, (RA 2009) Ed.1(2004-02)	0.4 - 1000 mg/L
	Irrigation water / Cooling purpose water/ Water for Steam		(EDTA Titrimetric Method) APHA,22 nd Ed.,2012,3120B,3-40 IS 3025(Part 2):2004 / ISO 11885:1996 (ICP Method)	0.5 - 1000 mg/L
	raising/ Distilled/ demineralized waterSpecification	Carbonate	APHA,22 nd Ed.,2012 ,2320-B, 2-34 , 5 -1 & 4500-CO ₂ -D,4-36 IS 3025 (Part 51):2001, (RA 2006) (By calculation)	0 - 5000 mg/L
	/ Water for Swimming Pools/ Water for Construction Purpose/ Water	Carbon dioxide (free)	APHA,22 nd Ed.,2012, 4500- CO ₂ C,4-31 IS 3025 (Part 61):2008 (Titrimetric Method)	0.5-200 mg/L
	for Ice Manufacture/ Primary Water	Chemical Oxygen Demand	APHA,22 nd Ed.,2012,5220-B, 5-17 IS 3025 (Part 58):2006 (Open Reflux Method)	5 -10000 mg/L
	by CPCB/ Medicinal purpose/ Water	Colour	APHA,22 nd Ed.,2012 ,2120-B, 2-26 IS 3025 (Part 4):1983, (RA 2006) (Visible Comparison Method)	1- 500 Hazen units
	for Fermentation industry	Colour retention of KMnO ₄	IS 1070:1992, (RA 2003) Annexure A (Visual Method)	Passes/Does not pass

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	Potable and domestic water, Ground water,	Chloride (as Cl)	APHA,22 nd Ed.,2012,4500-Cl, B,4-72 IS 3025 (Part 32):1988, (RA 2009) (Argentometric Method)	0.25 - 20000 mg/L
	Surface water (Rivers, Lakes, Sea)/	Free Residual Chlorine	APHA,22 nd Ed.,2012,4500-Cl-B,4-60 IS 3025 (Part 26):1986, (RA 2009) Ed. 2 1(2004-02)(Iodometric Method)	0.1 –100 mg/L
	Industrial water (Processed Food Industry)		APHA,22 nd Ed., 2012,4500-Cl-G,4-69 (Spectrophotometric Method)	0.05 – 1mg/L
	Specification/ Irrigation water /	Chloramines (as Cl ₂)	APHA,22 nd Ed.,2012,4500-Cl-G,4-69 (Spectrophotometric Method)	0.05 – 1mg/L
	Cooling purpose water/ Water for Steam raising/	Chromium (Hexa)	APHA,22 nd Ed.,2012,3500-Cr,B,3-69 IS 3025 (Part 52):2003, (RA 2009) (Colorimetric Method)	0.02 - 100 mg/L
	Distilled/ demineralized waterSpecification	Chromium (Total) (as Cr)	APHA,22 nd Ed.,2012,3111 B,3-18 IS 3025 (Part 52): 2003, (RA 2009) (AAS Method)	0.1 - 100 mg/L
	/ Water for Swimming Pools/ Water for		APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.02 - 100 mg/L
	Construction Purpose/ Water for Ice	Copper (as Cu)	APHA,22 nd Ed.,2012 , 3111-B, 3-18 IS 3025 (Part 42): 1992, (RA 2009) Amds. 1 (AAS Method)	0.04 -100 mg/L
	Manufacture/ Primary Water Quality Criteria		APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.02 -100 mg/L
	Medicinal purpose/ Water for Fermentation industry	Cyanide (as CN)	APHA, 22 nd Ed., 2012, 4500-CN, C & E, 4-41 & 4-44 IS 3025 (Part 27):1986, (Clause 2) (RA 2009) Ed. 2.1, Amds.1 (Colorimetric Method)	0.001 - 1 mg/L

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	Potable and domestic water,		APHA, 22 nd Ed., 2012, 4500-CN, C & D, 4-41 & 4-43 (Titrimetric Method)	1-100 mg/L
	Ground water, Surface water (Rivers, Lakes, Sea)/ Industrial water (Processed Food	Dissolved Oxygen	APHA,22 nd Ed.,2012, 4500-O,B & C,4-132 & 4-139 IS 3025 (Part 38):1989, (RA 2009) (Iodometric Method-Azide modification)	0.05 - 20 mg/L
	Industry) Specification/ Irrigation water / Cooling purpose	Electrical Conductivity	APHA, 22 nd Ed., 2012, 2510- B, 2-54 IS 3025(Part 14): 1984 , (RA 2006) (By Conductivity Meter)	0.1 μmho/cm – 20000 μmho/cm
	Water for Steam raising/ Distilled/ demineralized waterSpecification	Fluoride (as F)	APHA, 22 nd Ed., 2012, 4500-F ⁻ , D, 4-87 SPADNS Method IS 3025 (Part 60):2008 (Colour Comparison Visual Method)	0.05 - 20 mg/L
	/ Water for Swimming Pools/ Water for Construction Purpose/ Water	Total Hardness (as CaCO ₃)	APHA, 22 nd Ed., 2012, 2340 C, 2-44 IS 3025 (Part 21): 1983, (RA 2009) (EDTA Titrimetric Method)	0.5 - 10000 mg /L
	for Ice Manufacture/ Primary Water Quality Criteria by CPCB/	Inorganic Solids	APHA, 22 nd Ed., 2012, 2540-E,2-67 IS 3025 (Part 18): 1984, (RA 2006) Amds.1 (Ignition/ Gravimetric Method)	5 - 10000 mg/L
	Medicinal purpose/ Water for Fermentation industry	Iron (as Fe)	IS 3025 (Part 53):2003, (RA 2009) (AAS Method) APHA, 22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004/ ISO 11885:1996 (ICP Method)	0.08 - 100 mg/L 0.06 - 100 mg/L

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	Potable and domestic water, Ground water	Lead (as Pb)	APHA, 22 nd Ed.,2012, 3111-B,3-18 IS 3025 (Part 47):1994, (RA 2009) Amds 2 (AAS Method)	0.1- 100 mg/L
	Surface water (Rivers, Lakes, Sea)/		APHA, 22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.008 –100 mg/L
	Industrial water (Processed Food Industry) Specification/	Magnesium (as Mg)	APHA, 22 nd Ed.,2012, 3500-Mg, B,3-84 IS 3025 (Part 46):1994, (RA 2009) Amds 2 (By Calculation)	0.02 - 1500 mg/L
	Cooling purpose water/ Water for Steam		APHA, 22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004/ ISO 11885:1996 (ICP Method)	0.5 –1500 mg/L
	raising/ Distilled/ demineralized waterSpecification / Water for	Manganese (as Mn)	APHA, 22 nd Ed.,2012, 3500-Mn, B, 3-85 (Persulfate Method) IS 3025 (Part 59):2006 (Colour Comparison Visual Method)	0.04 - 100 mg/L
	Swimming Pools/ Water for Construction Purpose/ Water for Loo		APHA, 22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004/ ISO 11885:1996 (ICP Method) APHA, 22 nd Ed.,2012,3111 B,3-18	0.02 –100 mg/L 0.05 –100 mg/L
	Manufacture/ Primary Water	Mercury	(AAS Method) APHA, 22 nd Ed., 012,3112-B, 3-23	0.005 - 100 mg/L
	Quality Criteria by CPCB/ Medicinal purpose/ Water for Fermentation industry	(as Hg)	IS 3025 (Part 48):1994, (RA 2009) Amds.1& Manufacturer's manual (Flameless (cold vapour) AAS Method)	-

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	Potable and domestic water,		IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.0008 –100 mg/L
	Ground water, Surface water (Rivers, Lakes,	Mineral Oil	APHA,22 nd Ed., 2012, 5520-B, 5-40 (Liquid -liquid , Partition- Gravimetric	1 - 100 mg/L
	Sea)/ Industrial water (Processed Food		IS 3025 (Part 39): 1991(Clause 6) (RA 2009) Amds.1 (FTIR Method)	0.005 -100mg/L
	Industry) Specification/ Irrigation water / Cooling purpose	Molybdenum (as Mo)	APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2):2004 / ISO 11885:1996 (ICP Method)	0.002–100 mg/L
	water/ Water for Steam raising/ Distilled/	Nickel (as Ni)	APHA, 22 nd Ed., 2012, 3111 B,3-18 Annex L of IS 13428:2005, Amds.4 IS 3025 (Part 54):2003, (RA 2009)	0.06-100 mg/L
	demineralized waterSpecification / Water for		(AAS Method) APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2):2004/ ISO 11885:1996 (ICP Method)	0.01 –100 mg/L
	Pools/ Water for Construction Purpose/ Water for Ice	Nitrate (as NO ₃)	APHA,22 nd Ed.,2012, 4500-NO ₃ ,B-4-122 (UV Spectrophotometer Screening Method)	0.2 - 100 mg NO ₃ /L
	Manufacture/ Primary Water		US EPA Method no.352.1,1971 (Brucine Colorimetric Method)	0.1 - 100 mg NO ₃ /L
	Quality Criteria by CPCB/ Medicinal purpose/ Water for Fermentation		IS 3025 (Part 34) : 1988, (RA 2009) (Cadmium Reduction Colorimetric Method)	0.05- 100 mg NO ₃ /L

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	Potable and domestic water, Ground water, Surface water	Nitrite (as NO ₂)	APHA,22 nd Ed., 2012, 4500-NO ₂ -B,4-120 IS 3025 (Part 34):1988, (RA 2009) (Colorimetric Method)	0.02 -100 mg/L
	(Rivers, Lakes, Sea)/ Industrial water	Odour	IS 3025 (Part 5): 1983, (RA 2006) (Qualitative Method)	Agreeable/ Not agreeable
	(Processed Food Industry) Specification/ Irrigation water /	Organic Solids	APHA,22 nd Ed.,2012,2540-E,2-67 IS 3025 (Part 18): 1984, (RA 2006) Amds.1 (Ignition/ Gravimetric Method)	5 - 10000 mg/L
	water/ Water for Steam	Oxygen absorbed in 4 hours at 37 °C	IS 3025 (Part 63):2007 (Iodometric Titration)	0.1 - 50 mg/L
	Distilled/ demineralized waterSpecification / Water for	pH value	APHA,22 nd Ed.,2012, 4500-H ⁺ - B, 4-92 IS 3025 (Part 11):1983, (RA 2006) (By pH Meter)	1-14
	Swimming Pools/ Water for Construction Purpose/ Water for Ice Manufacture/	Phenolic compounds (as C_6H_5OH)	APHA, 22 nd Ed.,2012, 5530- B & C, 5-47 IS 3025(Part 43):1992 ,(RA 2009) Ed.2.2(2003-03) (Chloroform Extraction Method)	0.001 - 100 mg/L
	Primary Water Quality Criteria by CPCB/ Medicinal	Phosphate (Total, Ortho & Dissolved)	APHA, 22 nd Ed. 2012, 4500 P,E, 4-155 (Ascorbic Acid Method)	0.1 - 500 mg/L
	purpose/ Water for Fermentation industry	Potassium (as K)	APHA,22 nd Ed.,2012,3500-K, B, 3-87 IS 3025 (Part 45): 1993, (RA 2009) Amds.1 (AAS Method)In emission mode (Flame Photometer Method)	0.06 - 1000 mg/L

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	Potable and domestic water, Ground water,		APHA,22 nd Ed.,2012,3120-B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.5 - 1000 mg/L
	Surface water (Rivers, Lakes, Sea)/ Industrial water	Selenium (as Se)	APHA,22 nd Ed.,2012, 3114-C, 3-38 IS 3025 (Part 56): 2003, (RA 2009) & Manufacturer manual	0.01 - 100 mg/L
	(Processed Food Industry) Specification/		(Continuous Hydride AAS Method) APHA,22 nd Ed.,2012,3120-B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.005 - 100 mg/L
	Cooling purpose water/ Water for Steam raising/ Distilled/	Silica (as SiO ₂)	APHA,22 nd Ed.,2012 , 4500-SiO ₂ , D,4-169 IS 3025 (Part 35): 1988, (RA 2009) (Hetero Poly Blue Method)	0.04 - 100mg/L
	demineralized	Silver	Annex J of IS 13428: 2012, Amds. 2	0.008 - 100 mg/L
	waterSpecification / Water for Swimming Pools/ Water for Construction	(as Ag)	(AAS Method) APHA,22 nd Ed.,2012,3120-B,3-40 IS 3025 (Part 2): 2004/ ISO 11885:1996 (ICP Method)	0.005 - 100 mg/L
	Purpose/ Water for Ice Manufacture/ Primory Water	Sodium (as Na)	APHA,22 nd Ed.,2012, 3500-Na, B, 3-97 IS 3025 (Part 45): 1993, (D A 2000, Amda 1	0.2 - 10000 mg/L
	Quality Criteria by CPCB/ Medicinal purpose/ Water for Fermentation industry		(AAS Method) (In emission mode) (Flame Photometer Method) APHA,22 nd Ed.,2012,3120B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.5 - 10000 mg/L

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	Potable and domestic water, Ground water	Sodium absorption ratio	IS 11624:1986 (By calculation)	0.3- 30
	Surface water (Rivers, Lakes, Sea)/ Industrial water (Processed Food	Sulphate (as SO ₄)	APHA,22 nd Ed.,2012, 4500- SO ₄ ,E,4-190 IS 3025 (Part 24): 1986, (RA 2009) (Turbidimetric Method)	2 - 10000 mg/L
	Industry) Specification/ Irrigation water /	Sulphide (as H ₂ S)	APHA, 22 nd Ed.,2012, 4500 –S ² ,C-4-175, F-4-178 IS 3025 (Part 29):1986, (RA 2009) (Jodometric Method)	0.08 - 50 mg/L
	water/ Water for Steam raising/ Distilled/		(Notionetric Method) APHA, 22 nd Ed., 2012, $4500 -S^2$, D-4-175, F-4-178 IS 3025 (Part 29):1986, (RA 2009) (Methylene Blue Method)	0.025 - 50 mg/L
	demineralized waterSpecification / Water for Swimming	Taste	IS 3025 (Part 7):1984, (RA2002) IS 3025 (Part 8): 1984, (RA 2003) (Qualitative Method)	Agreeable/ Not Agreeable Action tendency Scale
	Pools/ Water for Construction Purpose/ Water for Ice	Temperature	APHA,22 nd Ed.,2012, 2550-B, 2-69 IS 3025 (Part 9):1984, (RA 2006) (Method: By Thermometer)	0 – 100 °C
	Manufacture/ Primary Water Quality Criteria by CPCB/	Total Kjeldahl Nitrogen	APHA,22 nd Ed.,2012,4500 NH ₃ , B & C, 4 -110, 4-112 or F, 4 -115& 4500 N _{Org.} , B, 4-132	0.1 - 1000 mg/L
	Medicinal purpose/ Water for Fermentation industry	Total Dissolved Solids	APHA,22 nd Ed.,2012,2540 C, 2-65 IS 3025 (Part 16): 1984, (RA 2006) Ed.2.1(1999-12),Amds.1 (Filtration/ Gravimetric Method)	5 - 10000 mg/L

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	Potable and domestic water, Ground water,	Total Solids	APHA,22 nd Ed.,2012, 2540-B,2-64 IS 3025 (Part 15): 1984, (RA 2009) Amds.1 (Gravimetric Method)	5 - 10000 mg/L
	Surface water (Rivers, Lakes, Sea)/ Industrial water (Processed Food	Total Suspended Solids	APHA,22 nd Ed.,2012, 2540-D,2-66 IS 3025 (Part 17): 1984,(RA 2006) Amds.1 (Filtration/ Gravimetric Method)	5 - 10000 mg/L
	Industry) Specification/ Irrigation water / Cooling purpose	Turbidity	APHA,22 nd Ed.,2012, 2130-B,2-13 IS 3025 (Part 10):1984, (RA 2006) (Nephelometric Method)	0.1 -1000 NTU
	water/ Water for Steam raising/ Distilled/	Zinc (as Zn)	APHA,22 nd Ed.,2012, 3111-B, 3-18 IS 3025 (Part 49): 1994, (RA 2009) Amds.1 (AAS Method)	0.01 - 100 mg/L
	demineralized waterSpecification / Water for Swimming		APHA,22 nd Ed.,2012,3120-B,3-40 IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.05 –100 mg/L
	Pools/ Water for Construction	Barium (as Ba)	Annex F of IS 13428:2005, Amds.4 (Titration Method)	0.3 - 100 mg/L
	for Ice Manufacture/		IS 3025 (Part 2): 2004 / ISO 11885:1996(ICP Method)	0.1 – 100mg/L
	Primary Water Quality Criteria	Trihalomethanes	USEPA 551.1,Rev1,1995 WI/SAP-GC/5/16,	
	by CPCB/ Medicinal	a. Bromoform	Issue no. 03, Issue date: 01.04.2014	0.01-0.2 mg/L
	purpose/ Water for Fermentation industry	b.Dibromochloromethane	USEPA 551.1, Rev1,1995 WI/SAP- GC/5/16, Issue no. 03, Issue date: 01.04.2014	0.01-0.2 mg/L

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	Potable and domestic water, Ground water, Surface water	c.Bromodichloromethane	USEPA 551.1, Rev1,1995 WI/SAP-GC/5/16, Issue no. 03, Issue date: 01.04.2014	0.01-0.2 mg/L
	(Rivers, Lakes, Sea)/	d.Chloroform	USEPA 551.1, Rev1,1995 WI/SAP-GC/5/16,	0.01-0.2 mg/L
	(Processed Food Industry)	Polynuclear aromatic hydrocarbons (as PAH)	APHA,22 nd Ed.,2012,6440, 6-94	0.00007mg/L-100mg/L
	Specification/ Irrigation water / Cooling purpose water/	Polychlorinated biphenyls (PCB)	Annex M of IS 13428:2005 ,Amds.4 APHA,22 nd Ed.,2012,6630C, 6128 (GC Method)	0.00007mg/L –100 mg/L
	Water for Steam raising/ Distilled/ demineralized waterSpecification / Water for	Pesticide Residues p,p DDT	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L-100 mg/L 0.01 μg/L-100 mg/L
	Swimming Pools/ Water for Construction Purpose/ Water for Ice Manufacture/	o,p DDT	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L-100 mg/L 0.01μg/L-100 mg/L
	Primary Water Quality Criteria by CPCB/ Medicinal purpose/ Water for Fermentation industry	p,p DDE	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L-100 mg/L 0.01μg/L-100 mg/L

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	Potable and domestic water, Ground water, Surface water (Rivers, Lakes,	o,p DDE	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L – 100 mg/L 0.01μg/L-100 mg/L
	Sea)/ Industrial water (Processed Food Industry) Specification/	p,p DDD	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed.,2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L – 100 mg/L 0.01μg/L-100 mg/L
	Irrigation water / Cooling purpose water/ Water for Steam raising/	o,p DDD	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L - 100 mg/L 0.01μg/L-100 mg/L
	Distilled/ demineralized waterSpecification / Water for Swimming	Gamma HCH (Lindane)	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L -100 mg/L 0.01μg/L - 100 mg/L
	Pools/ Water for Construction Purpose/ Water for Ice	Alfa HCH	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L – 100 mg/L 0.01μg/L-100 mg/L
	Manufacture/ Primary Water Quality Criteria by CPCB/ edicinal purpose/ Water for Fermentation industry	Beta HCH	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.025 μg/L –100 mg/L 0.01μg/L-100 mg/L

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	Potable and domestic water, Ground water, Surface water (Rivers, Lakes,	Delta HCH	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L –100 mg/L 0.01μg/L-100 mg/L
	Sea)/ Industrial water (Processed Food Industry) Specification/	Alfa Endosulfan	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L –100 mg/L 0.01μg/L-100 mg/L
	Irrigation water / Cooling purpose water/ Water for Steam raising/	Beta Endosulfan	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L –100 mg/L 0.01μg/L-100 mg/L
	Distilled/ demineralized waterSpecification / Water for Swimming	Endosulfan Sulphate	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 μg/L -100 mg/L 0.01μg/L- 100 mg/L
	Pools/ Water for Construction Purpose/ Water for Ice Manufacture/	Monocrotophos	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.07 μg/L-100 mg/L 0.05μg/L– 100 mg/L
	Primary Water Quality Criteria by CPCB/ edicinal purpose/ Water for Fermentation industry	Ethion	US EPA 8141B ,Rev2,Feb2007 US EPA 1657A (GC Method)	0.07 µg/L –100 mg/L

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	Potable and domestic water, Ground water,		US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.05 µg/L-1 mg/L
	Surface water (Rivers, Lakes, Sea)/ Industrial water (Processed Food Industry)	Chlorpyriphos	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.07 μg/L –mg/L 100 mg/L 0.05 μg/L– 100mg/L
	Specification/ Irrigation water / Cooling purpose	Phorate	US EPA 8141B ,Rev2,Feb2007 (GC Method)	0.07 µg/L – 100 mg/L
	water/ Water for Steam raising/ Distilled/ demineralized waterSpecification	Phorate sulphoxide	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.07 μg/L – 100 mg/L 0.05 μg/L– 100 mg/L
	/ Water for Swimming Pools/ Water for Construction Purpose/	Phorate sulphone	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.07 μg/L – 100 mg/L 0.05 μg/L–100 mg/L
	Water for Ice Manufacture/	2,4-D	US EPA 515.1,1995 (GC Method)	$0.07 \ \mu g/L - 100 \ mg/L$
	Primary Water Quality Criteria by CPCB/ edicinal purpose/ Water for Fermentation industry	Butachlor	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.07 μg/L – 100 mg/L 0.01 μg/L– 100 mg/L

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	Potable and domestic water.	Isoproturon	US EPA 532,2000 (HPLC Method)	$0.07~\mu\text{g/L}-100~\text{mg/L}$
	Ground water, Surface water (Rivers, Lakes, Sea)/ Industrial water	Alachlor	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed.,2012,6410B,6-74 (GC-MS/MS Method)	0.07 μg/L - 100 mg/L 0.01 μg/L– 100 mg/L
	(Processed Food Industry) Specification/ Irrigation water / Cooling purpose	Atrazine	US EPA 532,2000 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed.,2012,6410B,6-74 (GC-MS/MS Method)	0.07 μg/L –100 mg/L 0.01 μg/L– 100 mg/L
	water/ Water for Steam raising/ Distilled/ demineralized waterSpecification	Methyl Parathion	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.07 μg/L – 100 mg/L 0.05 μg/L- 100 mg/L
	/ Water for Swimming Pools/ Water for Construction Purpose/	Methyl Paraoxon	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012, 6410B, 6-74 (GC-MS/MS Method)	0.07 μg/L – 100 mg/L 0.05 μg/L–100 mg/L
	Water for Ice Manufacture/ Primary Water Quality Criteria by CPCB/ edicinal purpose/ Water for Fermentation	Malathion	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6-74 (GC-MS/MS Method)	0.07 μg/L – 100 mg/L 0.05 μg/L– 100 mg/L

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Ассі	reditation Standa	rd ISO/IEC 17025: 200	ISO/IEC 17025: 2005				
Disc	ipline	Chemical Testing		Issue Date	02.12.2014		
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		Malaoxon	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6- (GC-MS/MS Method)	0.07 0.05	μg/L – 100 mg/L μg/L–100 mg/L		
		Aldrin	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed., 2012,6410B,6- (GC-MS/MS Method)	0.02 0.01 74	5 μg/L–100 mg/L μg/L– 100 mg/L		
		Dieldrin	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA, 22 nd Ed.,2012,6410B,6- (GC-MS/MS Method)	0.02 0.01 74	5 μg/L - 100 mg/L μg/L– 100 mg/L		
2.	Packaged	Description	IS 14543:2004	Qual	itative		
	Water / Packaged Natural	Colour (Pt-Co)	IS 3025 (Part 4):1983 (RA 2006) (Visible Comparison Method)	1-50	0 Hazen units		
	Mineral Water	Odour	IS 3025 (Part 5):1983, (RA 2006 (Qualitative Method)) Agree Agree	eable/ Not eable		
		Taste	IS 3025 (Part 8):1984, (RA 2002 (Qualitative Method)) Agre Agre	eable/ Not eable		
		Turbidity	IS 3025 (Part 10):1984, (RA 200 (Nephelometric Method)	6) 0.2	- 1000 NTU		
		Total Dissolved Solids	IS 3025 (Part 16): 1984, (RA 200 Ed.2.1(1999-12), Amds. 1 (Filtration/Gravimetric Method)	06) 5 - 1	0000 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
	Packaged Drinking	pH value	IS 3025 (Part 11):1983, (RA 2006 (By pH Meter)	1-14
	Water / Packaged Natural Minoral Water	Barium (as Ba)	Annex F of IS 13428:2005, Amds. 4(Titration Method)	0.3 - 100 mg/L
	Mineral water	(IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.3 – 100mg/L
		Copper (as Cu)	IS 3025 (Part 42): 1992, (RA 2009) Amds.1 (AAS Method)	0.04 -100 mg/L
		(45 04)	IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.02 –100mg/L
		Iron (as Fe)	IS 3025 (Part 53):2003, (RA 2009) (AAS Method)	0.08 - 100 mg/L
		(4510)	IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.06 - 100mg/L
		Manganese (as Mn)	IS 3025 (Part 59): 2006 (Colour Comparison Visual Method)	0.05 - 100 mg/L
			IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.02-100mg/L
		Nitrate (as NO ₃)	IS 3025 (Part 34): 1988, (RA 2009) (Cadmium Reduction Colorimetric Method)	0.05– 100 mg NO ₃ /L
		Nitrite (as NO ₂)	IS 3025 (Part 34): 1988, (RA 2009) (Sulphanilamide Colorimetric Method)	0.02 -100 mg/L
		Fluoride (as F)	IS 3025 (Part 60):2008 (Colour Comparison Method)	0.05 - 20 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
	Packaged Drinking	Zinc (as Zn)	IS 3025 (Part 49):1994, (RA 2009) Amds.1 (AAS Method)	0.01 - 100 mg/L
	Water / Packaged Natural Mineral Water		IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.05 - 100 mg/L
		Silver	Annex J of IS 13428:2005,Amds.4	0.008 - 100 mg/L
		(as Ag)	IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.005 – 100 mg/L
		Aluminium (As Al)	IS 3025 (Part 55):2003, (RA 2009) (Erichrome Cyanine R Method)	0.025 - 100 mg/L
			IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.01–100 mg/L
		Chloride (as Cl)	IS 3025 (Part 32):1988, (RA 2009) (Argentometric Method)	0.25 - 10000mg/L
		Selenium (as Se)	IS 3025 (Part 56): 2003 & Instrument Manufacturer Manual	0.01 -100 mg/L
			(Continuous Hydride AAS Method) IS 3025 (Part 2): 2004/ ISO 11885:1996 (ICP Method)	0.005 –100 mg/L
		Sulphate (as SO ₄)	IS 3025 (Part 24): 1986, (RA 2009) (Turbidimetric Method)	2 - 10000 mg/L
		Alkalinity (as HCO ₃)	IS 3025 (Part 23): 1986, (RA 2009) Amds. 1 (Titration Method)	0.5 -5000 mg /L

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Disc	Discipline Chemical Tes		ls	sue Date	02.12.2014	
Certificate Number		T-1188	Va	alid Until	01.12.2016	
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection	
	Packaged Drinking Water /	Calcium (as Ca)	IS 3025 (Part 40): 1991, (RA 2009 Ed.2.1(2004-02) (EDTA Titrimetric Method)) 0.4 - 1	000 mg/L	
	Packaged Natural Mineral Water		IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.5 –1	00 mg/L	
		Magnesium (as Mg)	IS 3025 (Part 46):1994, (RA 2009) Amds.2 (By Calculation)) 0 - 100	00 mg/L	
			IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.5 –1	000 mg/L	
		Sodium (as Na)	IS 3025 (Part 45): 1993,(RA 2009) Amds.1) 0.2 - 5	00 mg/L	
			(AAS Method) (in emission mode) IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.5 - 5	00 mg/L	
		Residual free chlorine	IS 3025 (Part 26):1986 ,(RA 2009) Ed. 2.1(2004-02) (Titration Method	0.1 -1(00 mg/L	
		Phenolic compounds (as C_6H_5OH)	Clause 6 of IS 3025(Part 43):1992, (RA 2009) Ed.2.2 (2003-03) (Chloroform Extraction Method)	0.001	- 100 mg/L	
		Mineral oil	IS 3025 (Part 39):1991, (RA 2009) Amds.1 (Partition Gravimetric Method)) 1-100) mg/L	
			IS: 3025 (Part 39): 1991 (Clause 6) (RA 2003) Amds.1(FTIR Method)	0.005	–100mg/L	

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ACC	reditation Standa	rd 150/1EC 17025: 200	5		
Disc	cipline	Chemical Testing	lss	sue Date	02.12.2014
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection
	Packaged Drinking Water /	Anionic surface active agents (as MBAS)	IS 13428 : 2005, Annexure K (Methylene Blue Extraction Method)	0.1-50	mg/L
	Packaged Natural Mineral Water	Sulphide (as H ₂ S)	IS 3025 (Part 29) 1986, (RA 2009) (Iodometric Method) IS 3025 (Part 29):1986, (RA 2009)	0.08 - 0.025	50 mg/L - 50 mg/L
		Antimony (as Sb)	(Methylene Blue Method) USEPA/SW846/7062, Rev 0,Sept 1994	0.005	– 100 mg/L
			(Continuous Hydride AAS Method) IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.003-	-100 mg/L
			IS 13428: 2005, (RA 2009) Annex G (Spectrophotometric Method)	0.002-	100 mg/L
		Borate (as B)	IS 13428:2005 ,Amds.4 ,Annex H (Colorimetric Method)	0.1-50	mg/L
			IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.1 –5	0 mg/L
		Mercury (as Ag)	IS 3025 (Part 48): 1994, (RA 2009) Amds.1& Instrument Manufacturer Manual (Flameless (cold vapor)	0.005	- 100 mg/L
			IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.0008	8-100 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
	Packaged Drinking	Cadmium (as Cd)	IS 3025 (Part 41):1992 , (RA 2009) (AAS Method)	0.1 - 100 mg/L
	Water / Packaged Natural Mineral Water		IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.002-100 mg/L
		Arsenic (as As)	IS:3025 (Part 37):1988, (RA 2009) (Continuous Hydride AAS Method)	0.01 –100 mg/L
			IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	0.005- 100 mg/L
		Cyanide (as CN)	IS 3025(Part 27):1986,(Clause 2) (RA 2009) Ed.2.1, Amds.1 (Distillation Colorimetric Method)	0.001 – 10 mg/L
		Lead (as Pb)	IS 3025 (Part 47):1994, (RA 2009) Amds.2 (AAS Method) IS 3025 (Part 2):2004 / ISO 11885:1996 (ICP Method)	0.1- 100 mg/L 0.008 –100 mg/L
		Chromium (as Cr)	IS 13428:2005, Amds.4, Annex J IS 3025 (Part 52):2003, (RA 2009) (AAS Method)	0.1 - 100 mg/L
			IS 3025 (Part 2):2004 / ISO 11885:1996 (ICP Method)	0.02 -100 mg/L

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Raı Lin	nge of Testing / nits of Detection	
	Packaged Drinking Water / Packaged Natural Mineral Water	Nickel (as Ni)	Annex L of IS 13428:2005 ,Amds IS 3025 (Part 54):2003, (RA 2009 (AAS Method) IS 3025 (Part 2): 2004 / ISO 11885:1996 (ICP Method)	.4 0.00)) 0.01	5 - 100 mg/L 1 –100 mg/L	
		Polychlorinated biphenyls (PCB)	Annex M of IS 13428:2005 ,Amd APHA,22 nd Ed.,2012,6630C, 612 (GC Method)	s.4 0.0′ 8	7 μg/L–100 mg/L	
		Polynuclear aromatic hydrocarbons (PAH)	APHA,22 nd Ed.,2012,6440, 6-94 (GC Method)	0.0 [°] 100	7 μg/L—) mg/L	
		Pesticide Residues p,p DDT	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00 0.00	0005-100 mg/L 0001-100 mg/L	
		o,p DDT	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00	0005-100 mg/L 0001-100 mg/L	
		p,p DDE	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00 0.00	0005-100 mg/L 0001-100 mg/L	

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Accreditation Standard ISO/IEC 17025: 200		5					
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection		
	Packaged Drinking Water / Packaged Natural Mineral Water	o,p DDE	US EPA 508,1995 GC Method US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.0000 0.0000 4	05 -100mg/L 01-100 mg/L		
		p,p DDD	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-7 (GC- MS/MS Method)	0.000 0.000	05-100 mg/L 01-100 mg/L		
		o,p DDD	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.0000 0.0000 4	05-100 mg/L 01-100 mg/L		
		γ HCH (Lindane)	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.000 0.000 4	05-100 mg/L 01-100 mg/L		
		αHCH	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.0000 0.0000 4	05-100 mg/L 01-100 mg/L		
		β НСН	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.000 0.000 4	05-100 mg/L 01-100 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
	Packaged Drinking Water / Packaged Natural	δΗСΗ	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00005-100 mg/L 0.00001-100 mg/L
	Mineral Water	α Endosulfan	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00005-100 mg/L 0.00001-100 mg/L
		β Endosulfan	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00005-100 mg/L 0.00001-100 mg/L
		Endosulfan Sulphate	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00005-100 mg/L 0.00001-100 mg/L
		Monocrotophos	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00007–100mg/L 0.00005-100 mg/L
		Ethion	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00007–100mg/L 0.00005-100 mg/L

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	Packaged Drinking Water / Packaged Natural Mineral Water	Chlorpyrifos	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00 0.00	0007-100 mg/L 0005-100 mg/L		
		Phorate	US EPA 8141B ,Rev2,Feb2007 (GC Method)	0.00	0007–100mg/L		
		Phorate sulphoxide	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00 0.00	0007-100 mg/L 0005-100 mg/L		
		Phorate sulphone	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC- MS/MS Method)	0.00 0.00	0007–100mg/L 0005-100 mg/L		
		2,4-D	US EPA 515.1,1995 (GC Method	l) 0.00	0007-100 mg/L		
		Butachlor	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC-MS/MS Method)	0.00 0.00	0007-100 mg/L 0001-100 mg/L		
		Isoproturon	US EPA 532,2000 (GC Method)	0.00	0007-100 mg/L		
		Alachlor	US EPA 508,1995 (GC Method)	0.00	0007-100 mg/L		

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	Packaged Drinking Water /		US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC-MS/MS Method)	0.0000)1-100 mg/L	
	Packaged Natural Mineral Water	Atrazine	US EPA 532,2000 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC-MS/MS Method)	0.0000 0.0000)7-100 mg/L)1-100 mg/L	
		Methyl Parathion	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC-MS/MS Method)	0.0000 0.0000	07-100 mg/L 05-100 mg/L	
		Methyl Paraoxon	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC-MS/MS Method)	0.0000 0.0000	07-100 mg/L 05-100 mg/L	
		Malathion	US EPA 8141B ,Rev2,Feb2007 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC-MS/MS Method)	0.0000 0.0000	07-100 mg/L 05-100 mg/L	
		Malaoxon	US EPA 8141B ,Rev2,Feb2007 (GC Method)	0.0000	07-100 mg/L	

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	Packaged Drinking Water /		US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-7 (GC-MS/MS Method)	0.000 4	005-100 mg/L	
	Packaged Natural Mineral Water	Aldrin	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-7 (GC-MS/MS Method)	0.000 0.000 4	0025-100 mg/L 001-100 mg/L	
		Dieldrin	US EPA 508,1995 (GC Method) US EPA 525.2,1995 APHA,22 nd Ed.,2012,6410B,6-74 (GC-MS/MS Method)	0.000 0.000	0025-100 mg/L 001-100 mg/L	
IV.	FOOD & AGRICU	LTURAL PRODUCTS				
1.	Milk and Dairy Products (Dairy Products and Analogues)	Moisture	DGHS Lab. Manual 1 (2.1, 4, 11, 12,15,16) ,2005 AOAC,19 th Ed.,2012, Method no 927.05,Ch-33,Page no.72 AOAC, 19 th Ed.,2012, Method no 926.08,Ch-33,Page no.81 IS 2785:1979, (RA 2000 IS 1479 (Part II) AOAC,19 th Ed.,2012, Method no 920.116,Ch-33,Page no.76 IS 3507:1966, Amds.1,(RA 2009 (Gravimetric Method)	, 1-90). o.)	g/100g or 100 ml	
		pH	IS 1479 (Part II): 1961,(RA 200 Amds.1 (By pH Meter)	9) 1 – 1	2	

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	Milk and Dairy Products (Dairy Products and Analogues)	Total Solids	DGHS Lab. Manual 1(1.6, 3), 2005 AOAC,19 th Ed.,2012, Method no.925.23,Ch-33,Page no.10 AOAC, 19 th Ed, 2012, Method no. 941.08, Ch-33,Page no.96 AOAC,19 th Ed.,2012, Method no. 920.107, Ch-33,Page no.66 IS 2802:1964, (RA 2000,Edition 1. IS 1479 (Part II): 1961, (RA 2009) Amds. 1 (Gravimetric Method)	5 1-99 .4	9 g/100g or 100 ml	
		Total Ash	DGHS Lab. Manual 1(9,14,15) , 200 IS 1479 (Part II): 1961, (RA 2009) Amds. 1 AOAC,19 th Ed.,2012, Method no. 945.46,Ch-33,Page no.10 AOAC,19 th Ed.,2012, Method no. 930.30,Ch-33,Page no.72 (Gravimetric Method)	05 0.05	-10 g/100g or 100 ml	
		Acid Insoluble Ash	DGHS Lab. Manual 1 (9.7), 2005	0.05	-2 g/100g or 100 ml	
		Milk Fat	DGHS Lab. Manual 1(1,6,8,9,10,11),2005 IS 2802 (Part II): 1964 IS 1479 (Part II): 1961, (RA 2009) Amds. 1 AOAC,19 th Ed.,2012, Method no. 995.19,Ch-33,Page no.69 AOAC,19 th Ed.,2012, Method no. 905.02,Ch-33,Page no.18 AOAC,19 th Ed.,2012, Method no.952.06,Ch-33,Page no.97 AOAC,19 th Ed.,2012,	0.1-	99 g/100g or 100 ml	

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	Milk and Dairy Products (Dairy Products and Analogues)		Method no.989.05,Ch-33,Page n AOAC,19 th Ed., 2012, Method no.938.06,Ch-33,Page no.76 (Gravimetric Method)	o.18			
		Phosphorus	IS 1479 (Part II):1961 (Titrimetric Method)		1 – 50 ml	0 mg/100g or 100	
		Milk Protein in Milk solid not Fat	DGHS Lab. Manual 1(2.1),2005 (Titrimetric Method)		1- 50 g	g/100g or 100 ml	
		Titrable Acidity	DGHS Lab. Manual 1(8.5, 9.3), IS 11766:1986, Ed.1.1, (RA 2008,Amds.1/ ISO 6092:1980 AOAC,19 th Ed.,2012, Method n 947.05,Ch-33,Page no.7 (Titrimetric Method)	2005 o.	0.1-2	g/100g or 100 ml	
		Carbohydrate	DGHS Lab. Manual 1 (9.4) , 200 USFDA Title 21, Apr 2012 (By Calculation Method))5	1-70 g	/100g or 100 ml	
		Sucrose	DGHS Lab. Manual 1 (8.3) , 200 IS 1479 (Part II): 1961, (RA 200 Amds.1 (Titrimetric Method))5 19)	1-70 g	g/100g or 100 ml	
		Milk Solids not Fat	AOAC 19 th Ed.,2012, Method n 990.21,Ch-33,Page no.40 (Gravimetric Method)	0.	1-15 g	/100g or 100 ml	
		Protein	DGHS Lab. Manual 1 (6.5), 200 IS 1479 (Part II): 1961	5	0.4-50	g/100g or 100 ml	
		Casein in Protein	DGHS Lab. Manual 1 (16),2005 (Titrimetric Method)		1-98 g	/100g or 100 ml	

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	Milk and Dairy Products (Dairy	Sugar	DGHS Lab Manual 1(8.3),2005 (Titrimetric Method)	(0.5 - 10	g/100g or 100 ml
	Products and Analogues)	Solubility Percent	DGHS Lab Manual 1(9.7),2005 (Gravimetric Method)		10-100 g	g/100g
		Vitamin C	AOAC,19 th Ed.,2012,Method no. 985.33,Ch-50, Page no.11 IS 5838:1970,(RA 2010 (Titrimetric Method)	1	5-100 m ml	g/100g or 100
		Common Salt	DGHS Lab. Manual 1(11.08), 200 AOAC 19 th Ed.,2012, Method no.960.29,Ch-33, Page no.76 IS 3507:1966, Amds.1,(RA 2009) (Titrimetric Method))5 (0.01-5 g	/100g or 100 ml
2.	Ghee	Baudouin Test (Test for presence of Sesame oil)	DGHS Lab. Manual 1(12.06), 200 AOAC 19 th Ed.,2012, Method no. 893.01,Ch-41, Page no.54 (Qualitative Method)	95]]	Positive/ Negative	2
		Butyro Refractometer reading at 40 ^o C/Refractive Index at 40 ^o C	DGHS Lab. Manual 1(12.03), 200 IS 548 (Part I):1964, (RA 2006,Edition 2.5 (1996-07) (Refractometer Method))5 (1.422-1. 0-99.1	489
		Reichert Value	DGHS Lab. Manual 1 (12.05), 200 IS 548 (Part I):1964, (RA 2006,Edition 2.5 (1996-07) (Titrimetric Method)	05 (0.2-50	
		Free fatty acid as Oleic acid	DGHS Lab. Manual 1 (12.04), 200 IS 548 (Part I):1964, (RA 2006,Edition 2.5 (1996-07) (Titrimetric Method)	05 (0.01-10ք	t/100g

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	Ghee	Peroxide Value	DGHS Lab Manual 1(12.08), 2005 IS 548 (Part I):1964, (RA 2006) Edition 2.5 (1996-07)	0.1 – 10 meq/kg
		Mineral Oil	DGHS Lab Manual 2 (11.02), 2005 FSSAI Instruction Manual(Part II), Page no. 11, 2012 (Qualitative Method)	Present/Absent
3.	Adulterants in Milk	Cane Sugar	DGHS Lab. Manual 1(1.2),2005 IS1479 (Part II):1961,(RA 2009) Amds.1 (Qualitative Method)	Present/Absent
		Starch	DGHS Lab. Manual 1(1.2),2005 IS1479(Part II):1961,(RA 2009) Amds.1 (Qualitative Method)	Present/Absent
		Cellulose	DGHS Lab. Manual 1(1.2), 2005	Present/Absent
		Dulcin	DGHS Lab. Manual 1(1.2), 2005	Present/Absent
		Saccharin	DGHS Lab. Manual 1(1.2), 2005	Present/Absent
		Urea	DGHS Lab. Manual 1(1.2),2005 IS1479(Part II):1961,(RA 2009) Amds.1 (Qualitative Method)	Present/Absent
		Ammonium Sulphate	DGHS Lab. Manual 1(1.2),2005 IS1479(Part II):1961,(RA 2009) Amds.1 (Qualitative Method)	Present/Absent
		Added glucose in milk and milk product	DGHS Lab. Manual 1(1.2),2005 IS1479(Part II):1961,(RA 2009) Amds.1 (Qualitative Method)	Present/Absent

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	Adulterants in Milk	Sodium Chloride	DGHS Lab. Manual 1(1.2),2005 IS1479(Part II):1961,(RA 2009) Amds.1 (Qualitative Method)	Preser	nt/Absent
		Quaternary ammonium compounds (Detergent)	DGHS Lab. Manual 1(1.2),2005 IS1479 (Part II):1961,(RA 2009 Amds.1 (Qualitative Method)	Preser)	nt/Absent
		Detection of Neutralizers	DGHS Lab. Manual 1(1.2) ,2005 IS1479(Part II):1961,(RA 2009) Amds.1 (Qualitative Method)	Preser	nt/Absent
		Hypochlorites and Chloramines	DGHS Lab. Manual 1(1.2),2005 IS1479(Part II):1961,(RA 2009) Amds.1 (Qualitative Method)	Preser	nt/Absent
		Glucose	DGHS Lab. Manual 1(1.2),2005	Preser	nt/ Absent
		Detergent containing Alkylbenzene sulphonic acid	DGHS Lab. Manual 1(1.2),2005 IS1479(Part II):1961,(RA 2009) Amds.1 (Qualitative Method)	Preser	nt/Absent
		Presence of Skimmed milk powder in raw milk	DGHS Lab. Manual 1(1.2),2005 IS1479(Part II):1961,(RA 2009) Amds.1 (Qualitative Method)	Preser	nt/Absent
		Added Starch in ice cream	DGHS Lab. Manual 1(1.2),2005	Preser	nt/ Absent

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	Preservatives in Milk	Test for Formalin	DGHS Lab. Manual 1 (1.3),2005 IS1479(Part II):1961,(RA, 2009) Amds.1 (Qualitative Method))	Present	/Absent
		Test for presence of Boric acid and Borates	DGHS Lab. Manual 1 (1.3),2005 IS 1479(Part II):1961,(RA 2009) Amds.1(Qualitative Method))	Present	/Absent
		Test for presence of Salicylic acid	DGHS Lab. Manual 1 (1.3),2005 (Qualitative Method)		Present	/Absent
4.	Edible Oils, Fats & Related Products (Fats,	Clarity	WI/SAP-Food/5/19, Issue no.: 03, date: 01.04.2014 (Qualitative Method)	Issue,	Present	/Absent
	Emulsions)	Rancidity	DGHS Lab. Manual 2 (37),2005 FSSAI Instruction Manual (Part II Page no.12,2012 (Qualitative Method)	[)	le Date 02.12.2014 d Until 01.12.2016 e 68 of 134 Range of Testing / Limits of Detection Present/Absent Present/Absent Present/Absent Present/Absent Present/Absent Present/Absent	
		Mineral Oil	DGHS Lab. Manual 2 (28),2005 AOAC 19 th Ed., 2012, Method no. 945.10, Ch-41, Page no. 55 (Qualitative Method)		Present	/Absent
		Cloud Point	DGHS Lab. Manual 2 (17),2005		1-50°C	
		Bellier Test (Turbidity temperature Acetic acid Method)	DGHS Lab. Manual 2 (14),2005 (Acetic Acid Method)		1-50°C	
		Baudouin Test (Test for Sesame oil)	DGHS Lab. Manual 2 (15),2005 (Qualitative Method)		Present	/Absent

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	Edible Oils, Fats & Related	Phosphorous	DGHS Lab. Manual 2 (34),2005 (Spectrophotometer Method)		0.002-0.1g	/100g	
	Oils and Fat Emulsions)	Moisture and volatile matter	DGHS Lab. Manual 2 (3),2005 IS 548 (Part 1): 1964, Ed.2.5,(RA 2009) Amds.5 AOAC,19 th Ed.,2012, Method no.926.12/ 984.20, Ch-41, Page no (Gravimetric Method)	p.1	0.1-10 g/1	00g	
		Refractive Index at 40 ⁰ C (B.R.Reading at 40 ⁰ C)	DGHS Lab. Manual 2 (5),2005 IS 548 (Part 1): 1964, Ed.2.5,(RA 2009) Amds.5 AOAC,19 th Ed.,2012, Method no.921.08 Ch-41,Page no. 03 (Refractometer Method)		1.422-1.48 0-99.1	9	
		Saponification Value	DGHS Lab. Manual 2 (9),2005 IS 548 (Part 1) :1964, Ed.2.5,(RA 2009) Amds.5 AOAC,19 th Ed., 2012, Method no.920.160,Ch-41, Page no. 12 (Titrimetric Method)		1.0 - 500		
		Castor Oil Test	FSSAI Instruction Manual (Part II Page no.11,2012),	Present/Ab	osent	
		Argemone Oil Test	DGHS Lab. Manual 2 (30), 2005 FSSAI, Instruction Manual (Part II),Page no.11,2012		Present/Ab	osent	
		Halphen's Test	DGHS Lab. Manual 2 (16), 2005 FSSAI, Instruction Manual, (Part II),Page no.11,2012		Present/Ab	osent	

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	Edible Oils, Fats & Related Products (Fats, Oils and Fat Emulsions)	Acid Value	DGHS Lab. Manual 2 (11.1.5), 20 IS 548 (Part 1) :1964, Ed.2.5,(RA 2009) Amds.5 AOAC,19 th Ed., 2012, Method no.940.28, Ch-41 Page no.12 (Titrimetric Method)		0.1 – 15	
		Unsafonifiable Matter	DGHS Lab. Manual 2 (10),2005 IS 548 (Part 1) : 1964, Ed.2.5,(RA 2009)Amds.5 (Titrimetric Method)	A	0.1 – 20	g/100g
		Iodine Value (Wij's Method)	DGHS Lab. Manual 2 (12),2005 IS 548 (Part 1) : 1964, Ed.2.5,(RA 2009) Amds.5 AOAC,19 th Ed., 2012, Method no.993.20,Ch-41,Page no. 07 (Titrimetric Method)	A	0.1 – 25	0
		Peroxide Value	DGHS Lab. Manual 2 (37.1), 200 IS 548 (Part 1) : 1964, Ed.2.5,(RA 2009) Amds.5 AOAC,19 th Ed.,2012, Method no.965.33, Ch-41, Page no. 11 (Titrimetric Method)	5 A	1.0 -10	meq/kg
		Free fatty acid	DGHS Lab. Manual 2 (11, 11.1.6),2005 IS 548 (Part 1) : 1964, Ed.2.5,(RA 2009) Amds.5 AOAC,19 th Ed., 2012, Method no.940.28, Ch-41, Page no. 12 (Titrimetric Method)	Δ	0.01 - 1	g/100g

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	Edible Oils, Fats & Related Products (Fats,	Insoluble Impurities/(Suspended or other foreign matter)	IS 548 (Part 1):1964, Ed.2.5,(RA 2009) Amds.5 (Gravimetric Method)	0.1-20	g/100g	
	Oils and Fat Emulsions) Vo	Volatile Matter	AOAC,19 th Ed., 2012, Method no.926.12, Ch-41, Page no. (Vacuum Oven Method)	0.1-20	0.1-20g/100g	
		Melting point	DGHS Lab. Manual 2 (8.1),2005 IS 548 (Part 1) : 1964, Ed.2.5,(RA 2009) Amds.5 (By Open Tube Capillary – Slip Method)	5- 50 ⁰ 0	2	
		Reichert Value	DGHS Lab. Manual 2 (13),2005 IS 548 (Part 1) : 1964, Ed.2.5,(RA 2009) Amds.5 (Titrimetric Method)	1-50		
		Polensky Value	DGHS Lab. Manual 2 (13),2005 IS 548 (Part 1) : 1964, Ed.2.5,(RA 2009) Amds.5 (Titrimetric Method)	1-50		
5.	Antioxidants	TBHQ	Handbook of Analysis and Quality Control for Fruit & Vegetable Products, Ranganna,1986 WI/SAP-Food/5/96, Issue no.: 03, Issue date: 01.04.2014	10-10	00mg/kg	
		ВНА	DGHS Lab. Manual 2 (5.2.2), 2005	5 -100	0mg/kg	

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6.	Fruit & Fruit Products Vegetable & Vegetable Products including Canned and Processed Foods, Jams, Juices, Soucces and	Soluble Solids (Total)	DGHS Lab. Manual 5 (1.6, 2.2, 3.1, 5, 6, 13, 15, 16),2005 AOAC,19 th Ed., 2012, Method no.932.14 ,Ch-37, Page no.7 IS 13815:1993/ ISO 2173:1978,(RA 2003) AOAC 19 th Ed.,2012, Method no. 932.12, Ch-37, Page no. 7 (Refractometer Method)	0.1-90 g/100g or 100 ml	
	Sauces and Concentrates	entrates Salt (Sodium Chloride in brine) DGHS Lab. Manual 5 (1.7,19), 2005 IS 2860: 1964, Ed. 1.1, (RA 2008) Amds. 1 (Titrimetric Method)	0.1-20 g/100g or 100 ml		
]	Total Solids	DGHS Lab. Manual 5 (2.1, 14.3), 2005 AOAC,19 th Ed. 2012, Method no. 920.151, Ch-37, Page no. 6 (Gravimetric Method)	1- 90 g/100g or 100 ml	
		Insoluble/Extraneous Matter	DGHS Lab. Manual 5 (2.1), 2005 AOAC,19 th Ed. 2012, Method no.920.151, Ch-36, Page no. 9 (Gravimetric Method)	0.1-10 g/100g or 100 ml	
		рН	DGHS Lab. Manual 5 (2.3, 11.1, 15.2, 19.2),2005 IS 2860:1964, Ed.1.1, (RA 2008) Amds. 1 (By pH Meter)	1- 10	
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	Fruit & Fruit Products Vegetable & Vegetable Products including Canned and Processed	Acidity	DGHS Lab. Manual 5 (2.4, 18.3, 19.3),2005 AOAC,19 th Ed., 2012, Method no.942.15, Ch-37, Page no. 10 IS 2860:1964, (RA 2001, Edition 1.1 IS 13844:1993, (RA 2008 (Titrimetric Method)	0.1 - 10 g/100g or 100 ml
	Jams, Juices, Sauces and Concentrates	Added Sugar (Total)	DGHS Lab. Manual 5 (2.6), 2005 (Titrimetric Method)	0.1 -70 g/100g or 100 ml
	Vitamin	Vitamin C (Ascorbic Acid)	DGHS Lab. Manual 5 (2.8), 2005 (Titrimetric Method)	10-900 mg/kg
		Mineral Impurities	DGHS Lab. Manual 5 (2.10), 2005 IS:13816, 1993, (RA 2009)/ ISO 762:1982 (Gravimetric Method)	5-50 mg/kg
		Moisture	DGHS Lab. Manual 5 (4, 6.1), 2005 AOAC,19 th Ed.,2012, Method no.934.06, Ch-37, Page no. 4 (Gravimetric Method)	1-98g/100g or 100ml
		Ash Insoluble in Dilute HCl	DGHS Lab. Manual 5 (5.3, 7.2, 13.2, 17.4),2005 IS 13846:1993, (RA 2008)/ ISO 763:1982 (Gravimetric Method)	0.01-10g/100g or 100ml
		Total Ash	DGHS Lab. Manual 5 (11.3, 14.4, 17.3),2005 IS 13846:1993, (RA 2008)/ ISO 763:1982	0.1-10g/100g or 100ml

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	Fruit & Fruit Products Vegetable & Vegetable Products including Canned and Processed		AOAC,19 th Ed., 2012, Method no.950.49 ,Ch-40, Page no. 2 AOAC,19 th Ed., 2012, Method no.940.26, Ch-37, Page no. 7 AOAC,19 th Ed., 2012, Method no.930.35, Ch-43, Page no. 12 (Gravimetric Method)	
	Jams, Juices, Sauces and Concentrates	Nitrogen	DGHS Lab. Manual 5 (14.9), 2005 (Titrimetric Method)	0.1 -10 g/100g or 100ml
		Volatile Acids	DGHS Lab. Manual 5 (2.5),2005 (Titrimetric Method)	0.1-10 g/100g or 100ml
		Malic Acid	AOAC,19 th Ed., 2012, Method no.995.06, Ch-37, Page no. 15 (HPLC Method)	3 mg/L -20 g/L
		Water Capacity of the Container	DGHS Lab. Manual 5 (1.3), 2005 (Weighing Method)	10-100g/100g
		Drained Weight	DGHS Lab. Manual 5 (1.4,18.1),2005 IS 2860: 1964, (RA 2001, Edition 1.1 (1995 – 02) (Weighing Method)	10-100 g/100g
		Fat	AOAC,19 th Ed., 2012, Method no.950.54, Ch-43,Page no. 9	0.01-15 g/100g
		Total soluble solids free of added salts or Salt free basis	DGHS Lab. Manual 5 (2.1), 2005 (Gravimetric Method)	0-90 g/100g

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	Fruit & Fruit Products	Starch	DGHS Lab. Manual 5 (7.3), 2005 (Titrimetric Method)	1-50g/100g
	Vegetable & Vegetable	Mineral acid	DGHS Lab. Manual 5 (14.6), 2005 (Qualitative Method)	Present/Absent
	Froducts including Canned and Processed Foods, Jams, Juices, Sauces and Concentrates	Foreign matter in table olives	FSSR 2011 (2.3.44) WI/SAP-Food/5/20, Issue no.: 03, Issue date: 01.04.2014	0 and above unit/kg
7.	Nut and nut products	Moisture	AOAC,19 th Ed., 2012, Method no.925.40,Ch-40,Page no.1 DGHS Lab. Manual 5 (20.1), 2005 (Gravimetric Method)	1-98 g/100g
		Sulphur Dioxide	DGHS Lab. Manual 8 (1.5), 2005 (Colorimetric Method)	0.005 - 15 g/100g
		Crude Fat (Oil content)	AOAC,19 th Ed., 2012, Method no.948.22,Ch-40,Page no.1 (Gravimetric Method)	0.01-15 g/100g
		Peroxidase	DGHS Lab. Manual 5 (17.5), 2005 (Qualitative Method)	Present/Absent
		Extraneous vegetable matter in Dates	FSSR 2011 (2.3.47.4) WI/SAP-Food/5/21, Issue no.: 03, Issue date: 01.04.2014 (Visual Method)	0 and above unit/100g
		Rancidity	WI/SAP-Food/5/22, Issue no.: 03, Issue date: 01.04.2014 (Visual Method)	Present/Absent

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	Nut and nut products	Livinş	g Insects	IS 1908:2008 WI/SAP-Food/5/23, Issue no.: 03, Issue date: 01.04.2 (Visual Method)	014	Presen	t/Absent	
	Mould	d	IS 1907:2008 WI/SAP-Food/5/24, Issue no.: 03, Issue date: 01.04.2 (Visual Method)	014	Presen	t/Absent		
		Dead Insects	Insects	IS 1908:2008 WI/SAP-Food/5/25, Issue no.: 03, Issue date: 01.04.2 (Visual Method)	2014	Presen	t/Absent	
		Insect	Fragments	IS 1908:2008 WI/SAP-Food/5/26, Issue no.: 03, Issue date: 01.04.2 (Visual Method)	2014	Presen	t/Absent	
		Roder	nt Contamination	IS 1908:2008 WI/SAP-Food/5/27, Issue no.: 03, Issue date: 01.04.2 (Visual Method)	014	Presen	t/Absent	
		Dama	ged Raisins	FSSR 2011 (2.3.47.2) WI/SAP-Food/5/28, Issue no.: 03, Issue date: 01.04.2 (Gravimetric Method)	014	0 and a	above g/100g	
		Sugar	ed Raisins	FSSR 2011 (2.3.47.2) WI/SAP-Food/5/29, Issue no.: 03, Issue date: 01.04.2 (Gravimetric Method)	014	0 and a	above g/100g	

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	Nut and nut products	Blemished/Damaged Units	FSSR 2011 (2.3.47.4) WI/SAP-Food/5/32, Issue no.: 03, Issue date: 01.04.20 (Gravimetric Method)	14	0 and a	above g/100g		
8.	Cereal and Cereal Products, Pulses and Pulse Products	Foreign Matter	DGHS Lab. Manual 3, 2005 Issue no.: 03, Issue date: 01.04.201 IS 4333 (Part 1): 1996, (RA 2009) (Gravimetric Method)	14	0 and a	ubove g/100g		
		Shriveled Grains	IS 4333 (Part 1): 1996, (RA 2009)		0 and a	above g/100g		
		Damaged Grains	IS 4333 (Part 1): 1996, (RA 2009)		0 and a	above g/100g		
		Insect damaged Grains/ Weevilled Grains	IS 4333 (Part 1): 1996, (RA 2009)		0 and a	above g/100g		
		Mass of 1000 grains	IS 4333 (Part 4): 2002, (RA 2009)/ ISO 520 : 1977	/	0 and a grains	bove g/1000		
		Moisture	DGHS Lab. Manual 3 (2, 8.2, 16.1),2005 IS 1155: 1968, Ed.3.3, (RA 2010) Amds.3 IS 4333 (Part 2): 2002, (RA 2009) AOAC,19 th Ed., 2012, Method no. 925.10, Ch-32, Page no. 1 AOAC,19 th Ed., 2012, Method no. 945.39, Ch-32, Page no. 63 IS 15271:2003 (Gravimetric Method)	,	1-20 g/	/100g		

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	Cereal and Cereal Products, Pulses and Pulse Products	Total Ash	DGHS Lab. Manual 3 (8.3), 2005 IS 1155:1968, Ed.3.3, (RA 2010) Amds.3 AOAC,19 th Ed.,2012, Method no. 923.03, Ch-32, Page no. 2 (Gravimetric Method)		0.01-10	g/100g		
		Gluten	DGHS Lab. Manual 3 (8.5), 2005 IS 1155:1968, Ed.3.3, (RA 2010) Amds.3 (Gravimetric Method)	,	0.2-20 g	⊈⁄100g		
		Ash Insoluble in dil. HCl	DGHS Lab. Manual 3 (8.4), 2005 IS 1155: 1968, Ed.3.3, (RA 2010) Amds.3 IS 1011:2002 IS 15271:2003 (Gravimetric Method)	;),	0.002-1	0 g/100g		
		Alcoholic Acidity (With 90% alcohol)	DGHS Lab. Manual 3 (8.6), 2005 IS 1155: 1968, Ed.3.3, (RA 2010) Amds.3 (Gravimetric Method)	;),	0.02-2 g	z/100g		
		Nitrogen/Protein	DGHS Lab. Manual 3 (8.8), 2005 IS 7219: 1973, (RA 2010) AOAC,19 th Ed.,2012, Method no.920.8, Ch-32, Page no.14 (Titrimetric Method)	5	0.1-50 g	z/100g		
		Fat	AOAC,19 th Ed., 2012, Method no.922.06, Ch-32, Page n IS 15271:2003 (Gravimetric Method)	no. 5	0.02-10	g/100g		

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	Cereal and Cereal Products, Pulses and Pulse Products	Crude Fibre	DGHS Lab. Manual 3 (8.9), 2005 IS 1155: 1968, Ed.3.3, (RA 2010), Amds.3 IS 10226(Part I) 1982, (RA 2012 (Gravimetric Method)	,	0.2-5 g/	100g		
		Total Solids	DGHS Lab. Manual 3 (17.1.4),200 (Gravimetric Method)	05	1- 99 g/	100g		
		Rodent Hair and Excreta	DGHS Lab. Manual 3 (1.2),2005 WI/SAP-Food/5/34, Issue no.: 03, Issue date: 01.04.2014 (Visual Method)		Present/	Absent		
		Calcium Carbonate	DGHS Lab. Manual 3 (8.7),2005 AOAC,19 th Ed.,2012, Method no.944.03, Ch-32, Page no. 4 (Titrimetric Method)		0.1 – 5n	ng/100g		
		Uric acid	DGHS Lab. Manual 3 (3),2005 IS 4333 (Part 5): 2002, (RA 2009 AOAC,19 th Ed.,2012, Method no.970.24, Ch-32,Page no. 27 (Spectrophotometric method))	4-200m	g/kg		
		Potassium Bromate	AOAC, 19 th Ed.,2012, Method no. 956.03, Ch-32, Page no. 20 (Titrimetric Method)		1-50mg/	/kg		
		Total Ash excluding salt /Total Ash excluding added common salt	DGHS Lab. Manual 3 (16.2),2005 (Gravimetric Method)		0.05-5g	/100g		
		Cocoa powder	DGHS Lab. Manual 3 (17.2),2005 (Gravimetric Method)		0.1-10g	/100g		

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	Cereal and Cereal Products, Pulses and Pulse Products	Acidity of extracted fat (as oleic acid)	DGHS Lab. Manual 3 (14.4), 2005 IS 1011:2002 IS 15271:2003 (Titrimetric Method)	5	0.1-5g/	/100g		
		Microscopic Determination	DGHS Lab. Manual 3 (13),2005 IS 2400:1979, (RA 2009		Qualita	ative		
9.	Bakery Products	Moisture	IS 12711 : 1989, Ed. 1.1, (RA 201 Amds.1 (Gravimetric Method)	0),	0.5-10	g/100g		
		Total Ash	IS 12711 : 1989, Ed. 1.1, (RA 201 Amds.1 (Gravimetric Method)	0),	0.05-5	g/100g		
		Ash Insoluble in dil. HCl	IS 12711 : 1989, Ed. 1.1, (RA 201 Amds.1 (Gravimetric Method)	0),	0.05-5	g/100g		
		Alcoholic Acidity (With 90% alcohol)	IS 12711 : 1989, Ed. 1.1, (RA 2014 Amds.1 (Gravimetric Method)	0,	0.02-2	g/100g		
		Fat	IS 12711 : 1989, Ed. 1.1, (RA 201 Amds.1 (Gravimetric Method)	0)	0.5-60	g/100g		
		Crude Fibre	IS 12711: 1968, Ed.3.3, (RA 2010 Amds.3 (Gravimetric Method)),	1-20 g/	/100g		
		Total Solids	IS 12711 : 1989, Ed. 1.1, (RA 201 Amds.1 (Gravimetric Method)	0),	1- 99 g	z/100g		

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	Bakery Products	pН		IS 12711 : 1989, Ed. 1.1, (RA 201 Amds.1 (pH meter Method)	0),	1 – 10	
		Acie olei	dity of extracted fat (as c acid)	IS 12711 : 1989, Ed. 1.1, (RA 201 Amds.1 (Titrimetric Method)	0),	0.1-5g/	/100g
10.	Meat and Meat Products	Moi	isture	AOAC, 19 th Ed.,2012, Method no. 950.46, Ch-39, Page n (Gravimetric Method)	no.1	10 - 90	g/100g
		Ash		AOAC,19 th Ed.,2012, Method no.920.153, Ch-39, Page 1 (Gravimetric Method)	no.04	0.5 - 10	0 g/100g
		Pro	tein	DGHS Lab. Manual 6 (2.2),2005 IS 7219: 1973, (RA 2010) (Titrimetric Method)		0.1 -50	g/100g
		Fat		DGHS Lab. Manual 6 (2.1),2005 (Gravimetric Method)		0.5 - 50	0 g/100g
		Ene	rgy	Codex Alimentarius, 3.3.1,1985 (By Calculation)		1-1000	kcal/100g
11.	Fish and Fish Products, Sea Foods	Moi	isture	AOAC,19 th Ed.,2012, Method no.950.46, Ch-39, Page no (Gravimetric Method)	o.1	1 - 90 g	g/100g
		Ash		AOAC,19 th Ed.,2012, Method no.938.08, Ch-35, Page no (Gravimetric Method)	o. 8	0.01-10	0 g/100g

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	Fish and Fish Products, Sea Foods	Protein	IS 7219: 1973, (RA 2010) (Titrimetric Method)	(0.1 -50g/100)g	
	FUUUS	Fat	DGHS Lab. Manual 6 (2.1),2005 (Gravimetric Method)	(0.5- 50 g/10	Og	
		Energy	Codex Alimentarius, 3.3.1,1985 (By Calculation)		1-1000 kcal/	'100g	
12.	Sweets and Confectionery Products	Moisture	DGHS Lab. Manual 4 (13.7, 14.2 15.2),2005 IS 1163:1992 IS 6287:1985 (Gravimetric Method)	2, (0.5- 10 g/10	Jg	
		Ash	DGHS Lab. Manual 4 (13.3, 14.3),2005 (Gravimetric Method)	(0.05- 5 g/10	0g	
		Sulphated Ash	DGHS Lab. Manual 4 (13.2, 13.4),2005 IS 6287:1985 (Gravimetric Method)	(0.05 -50 g/1	00g	
		Sulphated Ash (on salt free basis)	DGHS Lab. Manual 4 (13.2A) , 2 IS 6287:1985 (Gravimetric Method)	2005 (0.05-5g/100g	g	
		Ash Insoluble in dilute Hydrochloric acid	DGHS Lab. Manual 4(13.3, 14.3 2005 IS 1163:1992 (Gravimetric Method)), (0.05-5g/100	g	
		Total Protein	DGHS Lab. Manual 4 (13.4), 200 IS 6287:1985 (Titrimetric Method))5 (0.1-20g/100g	g	

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	Sweets and Confectionery Products	Fat content	DGHS Lab. Manual 4 (13.5B, 15. 15.3),2005 IS 1163:1992 IS 6287:1985 (Gravimetric Method)	.6,	0.5-50	g/100g		
		Total Reducing Sugar	DGHS Lab. Manual 4 (6.4) (Gravimetric Method)		0.1 - 8	80 g/100g		
		Sucrose content	DGHS Lab. Manual 4 (6.4,13.6), (Titrimetric Method)	2005	10-100) g/100g		
		Gum	DGHS Lab. Manual 4 (14.6), 200 (Gravimetric Method)	95	0.02 -	50 g/100g		
		Cocoa Solids	DGHS Lab. Manual 4 (15.7),2005 AOAC, 19 th Ed.,2012, Method no 931.05, Ch-31,Page no. 9 (Gravimetric Method)	5 o.	0.1-50	g/100g		
13.	Sweetening Agents including Honey							
a.	Honey and Honey Products	Foreign Matter	FSSR 2011(2.8.3) WI/SAP-Food/5/35, Issue no.: 03, Issue date: 01.04.20 (Visual Method))14	Presen	t/Absent		
		Specific Gravity	IS 4941:1994, (RA 2002) DGHS Lab. Manual 4 (6.3),2005 (Gravity Bottle Method)		0.5-1.5	5g/100g		
		Moisture	IS 4941:1994, (RA 2002) DGHS Lab. Manual 4 (6.2),2005 (Refractometer Method)		0.1-40	g/100g		

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	Honey and Honey Products	Total Reducing Sugars Reducing Sugars	IS 4941:1994, (RA 2002) DGHS Lab. Manual 4 (6.4),2005 AOAC,19 th Ed., 2012, Method no 920.183, Ch-44, Page no. 28 (Titrimetric Method) IS 4941:1994, (RA 2002)	0.	0.5-90g 1-70g	g/100g /100g
			DGHS Lab. Manual 4 (6.4),2005 (Titrimetric Method)		C	
		Sucrose	IS 4941:1994, (RA 2002) DGHS Lab. Manual 4 (6.4, 7.4, 8.2),2005 AOAC,19 th Ed., 2012, Method no. 920.184,Ch-44, Page no. 28 (Titrimetric Method)		1-30g/	100g
		Fructose/Glucose ratio	IS 4941:1994, (RA 2002) DGHS Lab. Manual 4 (6.5),2005 (Titrimetric Method)		0.1-10	
		Acidity (Expressed as formic acid)	IS 4941:1994, (RA 2002) DGHS Lab. Manual 4 (6.8),2005 (Titrimetric Method)		0.05-2	.0g/100g
		Ash	IS 4941 : 1994, (RA 2002) AOAC,19 th Ed., 2012, Method no. 920.181, Ch-44, Page no. 26 DGHS Lab. Manual 4 (6.7, 7.3, 9.3),2005 (Gravimetric Method)		0.1 -10)g/100g
		Fiehe's Test	IS 4941 : 1994, (RA 2002) DGHS Lab. Manual 4 (6.6),2005 (Qualitative Test)		Positiv	e/Negative

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / of Detection
	Honey and Honey Products	Optical Density	IS 4941 : 1994, (RA 2002 (Spectrophotometer Method)		0.01-0.	5g/100g
b.	Sugar and Sugar Products	Dirt	FSSR 2011(2.8.1) WI/SAP-Food/5/36, Issue no.: 03, Issue date: 01.04.201 (Visual Method)	4	Present	t/Absent
		Filth	FSSR 2011(2.8.3.1) WI/SAP-Food/5/37, Issue no.: 03, Issue date: 01.04.201 (Visual Method)	14	Present	t/Absent
		Iron Filings	FSSR 2011(2.8.1) WI/SAP-Food/5/38, Issue no.: 03, Issue date: 01.04.201 (Visual Method)	4	Present	t/Absent
		Moisture	DGHS Lab. Manual 4 (7.2),2005 IS 6287 : 1985 IS 15279:2003 (Gravimetric Method)		0.05-10	0g/100g
		Sucrose	DGHS Lab. Manual 4 (7.4),2005 IS 6287:1985, Ed.2.1(2002-05) IS 15279:2003 (Titrimetric Method)		10-100	g/100g
		Total Ash	DGHS Lab. Manual 4 (7.3, 9.3),200 IS 6287:1985, Ed.2.1(2002-05) (Gravimetric Method)	05	0.01-5g	g/100g
		Ash insoluble in dilute Hydrochloric acid	DGHS Lab. Manual 4 (1.5),2005 IS 6287:1985, Ed.2.1(2002-05) (Gravimetric Method)		0.01-5g	g/100g

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	Sugar and Sugar Products	Conductivity	DGHS Lab. Manual 4 (7.6), 2005 (By EC meter)	1-50	00micromhos/cm			
		Calcium Oxide	DGHS Lab. Manual 4 (7.7), 2005 (Titrimetric Method)	0.1-	100 mg/100g			
		Total Starch	DGHS Lab. Manual 4 (11),2005 IS 15279:2003 (Titrimetric Method)	0.5-	20g/100g			
		Sulphated Ash	DGHS Lab. Manual 4 (10, 13.2),2 IS 6287: 1985 (Gravimetric Method)	005 0.01	l-5g/100g			
		Glucose in Honey	DGHS Lab. Manual 4 (6.5),2005 (Titrimetric Method)	20-3	100g/100g			
		Colour	IS 15279:2003 (Spectrophotometric Method)	1 -2 ICU	00 JMSA Colour units			
		Extraneous matter (Insoluble matter) in Jaggery, Sugar	DGHS Lab. Manual 4 (9.2) IS 15279:2003,2005 (Gravimetric Method)	0.00	01- 10 g/100g			
14.	Spices, Condiments and Related Products							
a.	Spices, Condiments and related products(Whole and Ground Spices)	Mould	IS 1907:1984,(RA 2009 IS3576 : 2010 IS 2477:2010 IS 3795:2010 IS 1908:2008 IS 3796:2011 IS 3797:2011 IS1798:2010 WI/SAP-Food/5/39, Issue no.: 03, Issue date: 01.04.2014 (Visual Me	Pres thod)	sent/Absent			

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	Spices, Condiments and related products(Whole	Rancidity	WI/SAP-Food/5/22, Issue no.: 03, Issue date: 01.04.2 Visual Method (Qualitative Method)	2014	Presen	t/Absent	
	and Ground Spices)	Living and dead insects	IS 3576 : 2010 IS 2477:2010		Presen	t/Absent	

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Spices, Condiments and related products(Whole	Rancidity	WI/SAP-Food/5/22, Issue no.: 03, Issue date: 01.04.2014 Visual Method (Qualitative Method)	Present/Absent
and Ground Spices)	Living and dead insects	IS 3576 : 2010 IS 2477:2010 IS 3795:2010 IS 1908:2008 IS 3796:2011 IS 3797:2011 IS1798:2010 WI/SAP-Food/5/40, Issue no.: 03, Issue date: 01.04.2014 (Visual Method)	Present/Absent
	Insect Fragments	IS 3576 : 2010 IS 2477:2010 IS 3795:2010 IS 1908:2008 IS 3796:2011 IS 3797:2011 IS 1798:2010 WI/SAP-Food/5/41, Issue no.: 03, Issue date: 01.04.2014 (Visual Method)	Present/Absent
	Rodent Contamination	IS 3576 : 2010 IS 2477:2010 IS 3795:2010 IS 1908:2008 IS 3796:2011 IS 3797:2011 IS1798:2010 WI/SAP-Food/5/42, Issue no.: 03, Issue date: 01.04.2014 (Visual Method)	Present/Absent

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Spices, Condiments and	Extraneous Matter	IS 3576 : 2010 IS 2477:2010	Present/Absent
related products(Whole and Ground Spices)		IS 3795:2010 IS 1908:2008 IS 3796:2011 IS 3797:2011 IS 1798:2010 IS 1907:1984,(RA 2009 IS 1797:1985 WI/SAP-Food/5/44, Issue no.: 03, Issue date: 01.04.2014 (Visual Method)	0 and above g/100g
	Foreign Vegetable Matter	IS 1908:2010 WI/SAP-Food/5/45, Issue no.: 03, Issue date: 01.04.2014 (Visual Method)	Present/Absent
	Insect damaged Matter	IS 1907:1984,(RA 2009) IS3576 : 2010 IS 2477:2010 IS 3795:2010 IS 1908:2008 IS 3796:2011 IS 3797:2011 IS1798:2010 WI/SAP-Food/5/46, Issue no.: 03, Issue date: 01.04.2014 (Visual Method)	0 and above g/100g
	Empty and Malformed capsules by count	IS 1907:1984,(RA 2009) WI/SAP-Food/5/47, Issue no.: 03, Issue date: 01.04.2014 (Visual Method)	0 and above % by count

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	Spices, Condiments and related products(Whole	Immature and Shriveled capsules	IS 1907:1984,(RA 2009) WI/SAP-Food/5/48, Issue no.: 03, Issue date: 01.04.201 (Visual Method)	0 and a	above g/100g			
	and Ground Spices) I	Light Seeds	IS 1907:1984,(RA 2009) WI/SAP-Food/5/49, Issue no.: 03, Issue date: 01.04.201 (Visual Method)	0 and a	above g/100g			
		Unripe and Marked Fruit	FSSR 2011(2.9.3.1) WI/SAP-Food/5/50, Issue no.: 03, Issue date: 01.04.201 (Visual Method)	0 and a	above g/100g			
		Tendrils, Mother Cloves	FSSR 2011(2.9.6.1) WI/SAP-Food/5/52, Issue no.: 03, Issue date: 01.04.201 (Visual Method)	0 and a	above g/100g			
		Khokar Cloves	FSSR 2011(2.9.6.1) WI/SAP-Food/5/53, Issue no.: 03, Issue date: 01.04.201 (Visual Method)	0 and a	above g/100g			
		Headless Cloves	FSSR 2011(2.9.6.1) WI/SAP-Food/5/54, Issue no.: 03, Issue date: 01.04.201 (Visual Method)	0-10g/	/100g			
		Insect damaged cloves	FSSR 2011(2.9.6.1) WI/SAP-Food/5/55, Issue no.: 03, Issue date: 01.04.201 (Visual Method)	0-10g/	/100g			

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	Spices, Condiments and related products(Whole and Ground	Proportion of edible seeds other than cumin seeds	FSSR 2011(2.9.8.1) WI/SAP-Food/5/58, Issue no.: 03, Issue date: 01.04.20 (Visual Method)	Pres	ent/Absent			
	Spices)	Edible seeds other than cumin black	WI/SAP-Food/5/59, Issue no.: 03, Issue date: 01.04.20 (Visual Method)	0 an 014	d above g/100g			
		Defective seeds	IS3796:2011 WI/SAP-Food/5/60, Issue no.: 03, Issue date: 01.04.20 (Visual Method)	0 an	d above g/100g			
		Edible seeds other than fenugreek	IS3795:2011 WI/SAP-Food/5/61, Issue no.: 03, Issue date: 01.04.20 (Visual Method)	0 an	d above g/100g			
		Light berries	FSSR 2011(2.9.15.1) WI/SAP-Food/5/64, Issue no.: 03, Issue date: 01.04.20 (Visual Method)	0 an	d above g/100g			
		Pinheads or Broken Berries	FSSR 2011(2.9.15.1) WI/SAP-Food/5/65, Issue no.: 03, Issue date: 01.04.20 (Visual Method)	0 an	d above g/100g			
		Defective Rhizomes	FSSR 2011(2.9.18.1) WI/SAP-Food/5/67, Issue no.: 03, Issue date: 01.04.20 (Visual Method)	0 an 014	d above g/100g			

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / of Detection		
	Spices, Condiments and related products(Whole	Damaged Slices In dried Mango Slices	FSSR 2011(2.9.23.1) WI/SAP-Food/5/68, Issue no.: 03, Issue date: 01.04.20 (Visual Method)	14	0 and a	bove g/100g		
	and Ground Spices)	Seed Coatings In dried Mango Slices	FSSR 2011(2.9.23.1) WI/SAP-Food/5/69, Issue no.: 03, Issue date: 01.04.20 (Visual Method)	14	0 and a	bove g/100g		
		Broken Berries	FSSR 2011(2.9.25.1) WI/SAP-Food/5/70, Issue no.: 03, Issue date: 01.04.20 (Visual Method))14	0 and a	bove g/100g		
		Black Berries	FSSR 2011(2.9.25.) WI/SAP-Food/5/71, Issue no.: 03 Issue date: 01.04.201 (Visual Method)	4	0 and a	bove g/100g		
		Moisture	DGHS Lab. Manual 10(3,14.4, 15, 16.1),2005 IS 1797:1985,Ed 3.2, (RA 2009) Amds 2 AOAC,19 th Ed., 2012, Method no.986.21, Ch-43, Page no (Gravimetric Method)	.2, p.01	5-50g/	100g		
		Total Ash	DGHS Lab. Manual 10 (4, 14.5, 1) 16.2),2005 IS 1797:1985,Ed 3.2, (RA 2009) Amds 2 AOAC,19 th Ed., 2012, Method no.941.12, Ch-43, Page no.02 (Gravimetric Method)	5.2,	0.5-15	g/100g		

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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
	Spices, Condiments and related products(Whole and Ground Spices)	Acid Insoluble Ash	DGHS Lab. Manual 10 (5, 14.5, 15.2, 16.2),2005 IS 1797:1985,Ed 3.2, (RA 2009) Amds 2 AOAC,19 th Ed., 2012, Method no.941.12B, (Gravimetric Method)	0.1-10g/100g
		Non volatile Ether Extract	DGHS Lab. Manual 10 (9),2005 IS 1797:1985,Ed 3.2, (RA 2009) Amds 2 AOAC,19 th Ed., 2012, Method no.940.29 (Gravimetric Method)	0.5-30g/100g
		Crude Fibre	DGHS Lab. Manual 10 (11), 2005 IS 1797:1985,Ed 3.2, (RA 2009), Amds 2 AOAC,19 th Ed., 2012, Method no.940.29 ,Ch. 43, page no. 03 (Gravimetric Method)	0.5-14g/100g
		Protein	DGHS Lab. Manual 10 (14.7), 2005 IS 7219:1973,(RA 2010) AOAC,19 th Ed., 2012, Method no.920.165, Ch-43, Page no.2 (Titrimetric Method)	0.4-50 g/100g
		Fat	AOAC,19 th Ed., 2012, Method no.950.54, Ch-43, Page no.9 (Gravimetric Method)	0.5-20 g/100g
		Carbohydrate	USFDA Title 21, Food and Drugs, Apr 2012 (By Calculation)	1-100 g/100g

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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
	Spices, Condiments and related	Energy Value (Calories)	Codex Alimentarius, 3.3.1,1985 (By Calculation)	2.5-400 kcal/100g
	products(Whole and Ground Spices)	Volatile Oil	DGHS Lab. Manual 10 (10), 2005 IS 1797:1985, Ed. 3.2, (RA 2009), Amds. 2 AOAC,19 th Ed.,2012, Method no.962.17, Ch-43, Page no. 3 (Gravimetric Method)	0.5-25 g/100g
		Total Starch	DGHS Lab. Manual 10 (15.5), 2005 AOAC,19 th Ed.,2012, Method no.940.30, Ch-43, Page no. 7 (Titrimetric Method)	5 – 80 g/100g
		Salt	IS 1797:1985, Ed. 3.2, (RA 2009), Amds. 2 (Titrimetric Method)	0.5 -10 g/100g
		Capsaicin	WI/SAP-HPLC/5/4, Issue no.: 03, Issue date: 01.04.2014 (HPLC method)	0.1- 50g/100g
		Curcumin Content	DGHS Lab. Manual 10 (15.4), 2005 (Spectrophotometer Method)	0.1 - 50 g/100g
		Calcium as Calcium oxide on dry basis	DGHS Lab. Manual 10 (8),2005 (Titrimetric Method)	0.01 – 10 g/100g
		Solubility in cold water on dry weight basis	DGHS Lab. Manual 10 (6),2005 (Gravimetric Method)	0.1 – 90 g/100g
		Test for Lead Chromate	DGHS Lab. Manual 10 (15.6), 2005 (Qualitative Method)	Positive/Negative

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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
	Spices, Condiments and related	Peroxidase test	DGHS Lab. Manual 5 (17.5), 2005 (Qualitative Method)	Positive/Negative
	products(Whole and Ground Spices)	Microscopic Determination	Pearson's Composition and Analysis of Foods, Page no. 400, 9 th Ed.,1991 WI/SAP-Food/5/72, Issue no.: 03, Issue date: 01.04.2014	Qualitative
b.	Asafoetida	Moisture	DGHS Lab. Manual 10 (16.1), 2005 (Gravimetric Method)	0.5- 20 g/100g
		Ash Insoluble in Dil. HCl	DGHS Lab. Manual 10 (16.2), 2005 (Gravimetric Method)	0.1-5 g/100g
		Alcoholic Extract	DGHS Lab. Manual 10 (16.3), 2005 (Gravimetric Method)	0.1-20g/100g
		Total Ash	DGHS Lab. Manual 10 (16.2), 2005	0.5 -50 g/100g
		Starch	DGHS Lab. Manual 10 (15.5),2005 (Titrimetric Method)	0.5 – 25 g/100g
c.	Salt (Edible common salt and Iodized salt)	Moisture	IS 7224:2006 IS 253:1985,(RA 2004) (Gravimetric Method)	0.1 – 10 g/100g
		Total Chloride/Sodium Chloride	IS 7224:2006 IS 253:1985, (RA 2004) (Titrimetric Method)	1 – 100 g/100g
		Matter insoluble in water	IS 7224:2006 IS 253:1985,(RA 2004) (Gravimetric Method)	0.01 - 10 g/100g

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range Limit:	e of Testing / s of Detection		
	Salt (Edible common salt and Iodized salt)	Matter soluble in water other than Sodium Chloride	IS 7224:2006 IS253:1985,(RA 2004) (Gravimetric Method)	0.01 –	10 g/100g		
		Iodine content	IS 7224:2006 (Titrimetric Method)	1 – 50	mg/kg		
		Water Soluble Calcium	IS 253: 1985, (RA 2004) (Titrimetric Method)	0.05- 1	10 g/100g		
		Water Soluble Magnesium	IS 253: 1985, (RA 2004) (Titrimetric Method)	0.1-10) g/100g		
		Alkalinity	IS 253: 1985, (RA 2004) (Titrimetric Method)	0.01- 1	10 g/100g		
		Sulphate	IS 253: 1985, (RA 2004) (Gravimetric Method)	0.1-10) g/100g		
15.	Beverages	Potassium	IS 253: 1985, (RA 2004) (Flame Photometric Method)	0.1-10) g/100g		
a.	Tea and Tea Products	Water Extract	IS 13862:1999/ ISO 9768 : 1994 (Gravimetric Method) AOAC,19 th Ed., 2012, Method no. 920.104, Ch-30, Page no.12 DGHS Lab. Manual 4 (1.7, 2.5, 5 (Gravimetric Method)	5 – 60 <u>,</u> .6)	g/100g		

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Ran Limi	ge of Testing / ts of Detection	
	Tea and Tea Products	Total Ash	IS 13854:1994, (RA 2009)/ ISO 1575: 1987 AOAC,19 th Ed., 2012, Method no. 920.100A, Ch-30, Page no. 10 (Gravimetric Method)	1-15	g/100g	
		Water Soluble Ash in Total Ash/Water Soluble Ash	IS 13855:1993, (RA 2009)/ ISO 1576: 1988 AOAC,19 th Ed., 2012, Method no. 920.100B, Ch-30, Page no. 10 (Gravimetric Method)	1-80	g/100g	
		Alkalinity of Water Soluble Ash	IS 13856:1993, (RA 2009)/ ISO 1578 : 1975 AOAC,19 th Ed.,2012, Method no. 920.100C, Ch-30, Page no.10 DGHS Lab. Manual 4 (1.6) (Titrimetric Method)	0.1-1	0 g/100g	
		Acid Insoluble Ash	IS 13857:1993, (RA 2009)/ ISO 1577 : 1987 AOAC,19 th Ed.,2012, Method no. 920.100E, Ch-30, Page no.10 DGHS Lab. Manual 4 (1.5) (Gravimetric Method)	0.1-5	g/100g	
		Crude Fibre	IS 10226 (Part I):1982, (RA 2010) ISO 5498:1981 AOAC,19 th Ed., 2012, Method no. 920.102, Ch-30,Page n (Gravimetric Method)	/ 1-50 0.12	g/100g	

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	Tea and Tea Products	Water Insoluble Ash	IS 13855 : 1993, (RA 2009) / ISO 1576 : 1988 AOAC,19 th Ed., 2012, Method no. 920.100B, Ch-30,Page no.10 (Gravimetric Method)		0.1-5 g/	'100g
		Loss in Mass (Moisture)	IS 13853 : 1994, (RA 2009) / ISO 1573 : 1980 AOAC,19 th Ed., 2012, Method no. 925.19, Ch-30,Page no (Gravimetric Method)	o.10	1-15 g/1	100g
		Lead	DGHS Lab. Manual 9 (2),2005 IS 12074:1987, (RA 2010) AOAC,19 th Ed., 2012, Method no.999.11, Ch-9,Page no.1 (AAS Method)	19	0.2 -10	0 mg/kg
		Copper	DGHS Lab. Manual 9 (2),2005 IS 11123:1984, (RA 2010) AOAC,19 th Ed., 2012, Method no.971.20, Ch-9, Page no. (AAS Method)	15	0.2 - 10	0 mg/kg
		Caffeine	DGHS Lab. Manual 4 (1.8B), 2003 (HPLC Method) AOAC,19 th Ed.,2012, Method no.969.15(E), Ch-30, Page no.11 (Spectrophotometric Method)	5	10-1000) mg/kg
		Microscopic Determination	DGHS Lab. Manual 4 (1.9),2005 IS 3077 : 1992,(RA 2004, Ed.3.3	3	Qualitat	tive
		Iron filings	DGHS Lab. Manual 4 (5.9),2005 (Qualitative Test)		Present	/Absent

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b.	Alcoholic Drinks & Beverages (Wine,Beer, Rum,Vodka,Whis ky,Gin, Toddy,Brandy, Grape Spirit)	Reducing Residual Sugar	IS 7585:1995,(RA 2009) (Titrimetric Method)	1 – 17.	5 g/L	
		рН	IS 7585:1995,(RA 2009) IS 3865:2001,(RA 2009) AOAC,19 th Ed., 2012, Method no. 945.10,Ch-27, Page no (By pH Meter)	1 - 14		
		Total Acidity /Acids (as Tartaric acid)	IS 7585:1995, (RA 2009) IS 3752:2005, (RA 2009) AOAC,19 th Ed.,2012, Method no. 962.12,Ch-28, Page no (Titrimetric Method)	0.075- 100-20 . 9	- 100 g/L 000 g/100L	
		Volatile Acidity (as Acetic acid)	IS 7585:1995,(RA 2009) IS 3752:2005,(RA 2009) (Titrimetric Method)	0.03-5 3 –500	g/L) g/100 L	
		Esters (as Ethyl acetate)	IS 3752:2005,(RA 2009) (Titrimetric Method)	0.1 <i>-</i> 50 10-100	0 g/L 00 g/100 L	
		Higher Alcohols (as Amyl alcohol)	IS 3752:2005,(RA 2009) (Spectrophotometric Method)	0.1-10 10 -10	0 g/L 00 g/100L	
		Aldehydes (as Acetaldehyde)	IS 3752:2005,(RA 2009) AOAC,19 th Ed.,2012, Method no. 972.08, Ch-26, Page no (Titrimetric Method)	$\begin{array}{r} 0.2 - 5 \\ 10 - 100 \\ 0.11 20 - 50 \end{array}$	5 g/L) g/100 ml 00 g/100 L	
		Total Sulphur dioxide	IS 7585:1995,(RA 2009 AOAC,19 th Ed., 2012, Method no. 940.20, Ch-28, Page no WI/SAP-AB/5/8, Issue no.: 03 Issu date: 01.04.2014 (Titrimetric Method)	3.2 – 1 0.17 je	000 mg/L	

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	Alcoholic Drinks & Beverages (Wine,Beer, Rum,Vodka,Whis ky,Gin, Toddy,Brandy, Grape Spirit)	Free Sulphur dioxide	IS 7585:1995,(RA 2009) (Titrimetric Method)	1.28	3–500 mg/L
		Copper	IS 7585:1995,(RA 2009) (Visual Method) IS 6854:1973,(RA 2009), Amds. 1 IS 3752:2005,(RA 2009) AOAC,19 th Ed.,2012, Method no.967.08, Ch-26, Page no. (AAS Method)	.12	4 –100 mg/L
		Iron	AOAC,19 th Ed., 2012, Method no.970.19, Ch-28, Page no. (AAS Method)	0.08	3 -100 mg/L
		Extracts	IS 7585:1995,(RA 2009) (Gravimetric Method)	5 -5	00 g/L
		Tannins	IS 7585:1995,(RA 2009) (Spectrophotometric Method)	0.5	-50 g/L
		Methyl Alcohol	IS 3752:2005,(RA 2009) IS 3865:2001,(RA 2009) AOAC,19 th Ed.,2012, Method no. 958.04, Ch-26, Page no (Spectrophotometric Method)	0.1 0.1	– 5 g/L –30 g/100 L
		Alcohol/Ethyl Alcohol	AOAC,19 th Ed.,2012, Method no.920.57, Ch-28, Page no. IS 3865:2001,(RA 2009) IS 3752:2005,(RA 2009) (Pycnometer Method) AOAC,19 th Ed.,2012, Method no.983.13,Ch-28,Page no.3 (Gas Chromatographic Method)	1- 2 .1	0 g/100ml

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	Alcoholic Drinks & Beverages (Wine,Beer,	Turbidity	AOAC,19 th Ed.,2012, Method no.970.14,Ch-27,Page no. (Nephelometric Method)	2	-500 FTU	
Rur ky,C Tod Gra	Rum,Vodka,Whis ky,Gin, Toddy,Brandy, Grape Spirit)	Malic Acid	AOAC,19 th Ed.,2012, Method no.945.33 & 986.13, Ch-28, Page no.11 (HPLC Method)	3	mg/L –10 g/L	
		Colour Intensity	AOAC,19 th Ed.,2012, Method no.976.08,Ch-27, Page no (Spectrophotometric Method)	0 9.1 5	.1 – 0 units	
		Sugar	IS 1162:1958, (RA 2009, Amds. AOAC,19 th Ed., 2012, Method no.920.51,Ch-27, Page no (Titrimetric Method)	1 1 .7	– 30 g/100ml	
		Residue on Evaporation	IS 3752:2005,(RA 2009) (Gravimetric Method)	0	.1-30 g/100 ml	
		Furfurals	IS 3752:2005,(RA 2009) (Visual Method)	3	– 20 g/100 L	
		Ash	AOAC,19 th Ed.,2012, Method no.920.67,Ch-28, Page no.6 IS 3752:2005,(RA 2009) (Gravimetric Method)	0	.1 - 5g/100 ml	
		Density	OIV-MI-AS201A-2009) (Pycnometer Method)	0	$.5 - 5 \text{ g/cm}^3$	

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	Alcoholic Drinks & Beverages (Wine,Beer,	Fat	AOAC,19 th Ed.,2012, Method no.922.06, Ch-32, Page no (Gravimetric Method)	0.5	0.02-1	g/100 ml	
R ky T G	Rum,Vodka,Whis ky,Gin, Toddy,Brandy, Grape Spirit)	Protein	IS 7219 :1973, (RA 2010) AOAC,19 th Ed., 2012, 920.53, Ch-27, Page no. 10 (Kjeldahl Nitrogen Method)		0.1-1	g/100 ml	
		Carbohydrate	AOAC,19 th Ed., 2012, 985.10, Ch-28, Page no.6 (By Calculation)		0.5-5 g	g/100 ml	
		Energy value (Calories)	AOAC,19 th Ed., 2012, 979.07, Ch-28, Page no. 6 (By Calculation)		0.5-50	0 kcal/100 ml	
c.	Non-Alcoholic Carbonated Beverages	Caffeine	DGHS Lab. Manual 8 (3.5.4),2005 (HPLC method)	5	10-100	00 mg/L	
16.	Nutritional Analysis of Food and Agricultural Products (All categories of food products)	Fat	DGHS Lab. Manual 1(4),2005 IS 2802 (Part II): 1964 IS 1479 (Part II): 1961, (RA 2009) Amds. 1 AOAC,19 th Ed.,2012, Method no. 995.19 th , Ch-33, Page no.69 AOAC,19 th Ed.,2012, Method no. 905.02, Ch-33, Page no. 18 AOAC,19 th Ed.,2012, Method no. 952.06, Ch-33, Page no.9 7 AOAC,19 th Ed., 2012, Method n 989.05, Ch- 33, Page no.18 AOAC,19 th Ed., 2012, Method no), 0.	0.1-50	g/100g or 100ml	

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	Nutritional Analysis of Food and Agricultural Products (All categories of food products)		938.06, Ch-33, Page no.76 AOAC,19 th Ed.,2012, 950.54, Ch Page no.9 AOAC,19 th Ed.,2012, Method no.922.06, Ch-32, Page no.5 (Gravimetric Method) IS 1163:1992	n-43,				
		Protein	DGHS Lab. Manual 1(4, 6),2005 IS 7219:1973, (RA 2010 AOAC,19 th Ed.,2012, Method no.920.165, Ch-43, Page no. 2 AOAC,19 th Ed.,2012, 920.53, Ch-27, Page no. 10 IS 1479 (Part II): 1961 (Kjeldahl/Titrimetric Method)		0.1-80	g/100g or 100ml		
		Carbohydrate	USFDA Title 21, Food and Drug Apr 2012 (By Calculation)	s,	1 -100	g/100g or 100ml		
		Sugar	DGHS Lab. Manual 4,2005 IS 6287:1985, (RA 2010,Ed.2.1,Amds.1 AOAC, 19 th Ed.,2012, Method no.939.03, Ch-32, Page r (Volumetric Method)	10 12	0.1-4	0 g/100g or 100ml		
		Energy value (Calories)	Codex Alimentarius, 3.3.1,1985 (By Calculation)		1-1000 ml) kcal/100g or 100		
17.	Vitamins	Vitamin B1	WI/SAP-HPLC/5/6, Issue no.: 03, Issue date: 01.04.20 (HPLC Method)	014	0.5-10 ml	0 mg/100g or 100		
		Vitamin B2	WI/SAP-HPLC/5/6, Issue no.: 03, Issue date: 01.04.20 (HPLC Method)	014	0.5-10 ml	0 mg/100g or 100		

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S.No.	Product / Material of Test	Speci	fic Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / s of Detection	
	Vitamins	Vitami	n B3	WI/SAP-HPLC/5/6, Issue no.: 03, Issue date: 01.04.20 (HPLC Method)	14	0.5-10 ml	0 mg/100g or 100	
		Vitami	n B6	WI/SAP-HPLC/5/6, Issue no.: 03, Issue date: 01.04.20 (HPLC Method)	14	0.5-10 ml	0 mg/100g or 100	
		Vitami	n B12	WI/SAP-HPLC/5/6, Issue no.: 03, Issue date: 01.04.20 (HPLC Method)	14	0.5-10 ml	0 mg/100g or 100	
		Vitami	n B9	WI/SAP-HPLC/5/6, Issue no.: 03, Issue date: 01.04.20 (HPLC Method)	014	0.05-10 ml	00 mg/100g or 100	
		Vitami	n C	DGHS Lab. Manual 5 (2.8),2005 AOAC,19 th Ed.,2012, Method no.985.33, Ch-50, Page n WI/SAP-HPLC/5/3, Issue no.: 03, Issue date: 01.04.20 (HPLC Method)	o.11)14	0.2-100 ml	0 mg/100g or 100	
		Vitami	n A	WI/SAP-HPLC/5/8, Issue no.: 03, Issue date: 01.04.20 (HPLC Method)	14	0.5-10 ml	Omg/100g or 100	
		Vitami	n D3	WI/SAP-HPLC/5/8, Issue no.: 03, Issue date: 01.04.20 (HPLC Method)	14	0.05-10 ml	00mg/100g or 100	
		Choles	terol	AOAC, 19 th Ed.,2012, Method no.994.10,Ch- 45,Page no. 105 WI/SAP/-GC/5/18, Issue no.: 03, Issue date: 01.04.20	14	<u>></u> 1mg/	100g or 100 ml	

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Acci	reditation Standar	d ISO/IEC 17025: 200	SO/IEC 17025: 2005				
Disc	ipline	Chemical Testing		Issue	Date	02.12.2014	
Cert	ificate Number	T-1188		Valid	Until	01.12.2016	
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / s of Detection	
18.	Fatty Acid Methyl Ester (FAME) in Edible Oils, Fat & Ghee	Saturated Fatty Acids	AOAC, 19 th Ed., 2012, Method no.996.06, Ch-41,Page n WI/SAP/-GC/5/17, Issue no.: 03, Issue date: 01.04.2	no.20 2014	0.1 - 1 ml	00 g/100g or 100	
		Monounsaturated Fatty Acids (MUFA)	AOAC, 19 th Ed., 2012, Method no.996.06, Ch-41,Page n WI/SAP/-GC/5/17, Issue no.: 03, Issue date: 01.04.24	no.20 014	0.1 - 1 ml	00 g/100g or 100	
		Polyunsaturated Fatty Acids (PUFA)	AOAC, 19 th Ed., 2012, Method no.996.06, Ch-41,Page n WI/SAP/-GC/5/17, Issue no.: 03, Issue date: 01.04.20	no.20 014	0.1 - 10 ml	00 g/100g or 100	
		Trans Fatty Acids	AOAC, 19 th Ed., 2012, Method no.996.06, Ch-41,Page n WI/SAP/-GC/5/17, Issue no.: 03 Issue date: 01.04.20	no.20)14	0.1 - 10 ml	00 g/100g or 100	
		Phosphorous	AOAC, 19 th Ed., 2012, Method no.986.24,Ch-50,Page no.13 (Spectrophotometer Method)		0.1-20	g/100g or 100 ml	
19.	Animal Feed Compounded Feed, Dairy Feed	Moisture	IS 7874 (Part I): 1975, Ed.1.2, (RA 2009), Amds.2 (Gravimetric Method)		0.1-40	g/100g	
	Poultry Feed, Pet Food	Crude Protein	IS 7874 (Part I): 1975, Ed.1.2, (RA 2009) Amds.2 (Kjeldahl Method)		0.2-40	g/100g	

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Accreditation Standard ISO/IEC 17025: 200			95				
Discipline Chemical Testing		Is	sue Date	02.12.2014			
Cert	ificate Number	T-1188	Va	alid Until	01.12.2016		
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection		
	Animal FeedCrude FatCompoundedFeed,Feed,Crude FibrePoultry Feed, PetCrude FibreFoodAcid Insoluble Ash	Crude Fat	IS 7874 (Part I): 1975, Ed.1.2, (RA 2009) Amds.2 (Gravimetric Method)	0.1-5g	/100g		
		Crude Fibre	IS 7874 (Part I): 1975, Ed.1.2, (RA 2009) Amds.2 (Gravimetric Method)	0.1-5	g/100g		
		Acid Insoluble Ash	IS 7874 (Part I): 1975, Ed.1.2, (RA 2009) Amds.2 (Gravimetric Method)	1.0-10	g/100g		
		Sodium	AOAC,19 th Ed., 2012, Method no.968.08, Ch-4,Page no. 60	3 – 50 0	00 mg/kg		
			(AAS Method) AOAC,19 th Ed., 2012, Method no.968.08, Ch-4,Page no. 60 (ICP Method)	2.5–50	000 mg/kg		
		Zinc	AOAC,19 th Ed., 2012, Method no.968.08, Ch-4,Page no. 60 (AAS Method)	2.5 –7 0	000 mg/kg		
			AOAC,19 th Ed., 2012, Method no.968.08, Ch-4,Page no. 60 (ICP Method)	2.5 –7 0	000 mg/kg		
		Iron	AOAC,19 th Ed., 2012, Method no.968.08, Ch-4,Page no. 66 (AAS Method)	4 –500 0	00 mg/kg		
			AOAC,19 th Ed., 2012, Method no.9 08, Ch-4,Page no. 60 (ICP Method)	68 3 -500	00 mg/kg		

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Accreditation Standard ISO/IEC 170		rd ISO/IEC 17025: 200	7025: 2005				
Disc	ipline	Chemical Testing	I	Issue I	Date	02.12.2014	
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / of Detection	
	Animal Feed Compounded Feed, Dairy Feed, Poultry Feed, Pet Food	Manganese	AOAC,19 th Ed., 2012, Method no.968.08, Ch-4,Page no. (AAS Method) AOAC,19 th Ed., 2012, Method no.968.08, Ch-4,Page no (ICP Method)	60 . 60	2.5 –50 1 –5000	00 mg/kg 0 mg/kg	
		Copper	AOAC,19 th Ed., 2012, Method no.968.08, Ch-4,Page no. (AAS Method) AOAC,19 th Ed., 2012, Method no.968.08, Ch-4,Page no. (ICP Method)	60 60	1 -5000 1- 5000	0 mg/kg 0 mg/kg	
		Selenium	AOAC,19 th Ed., 2012, Method no.968.08, Ch-4,Page no. (AAS Method) AOAC,19 th Ed., 2012, Method no.968.08, Ch-4,Page no. (ICP Method)	60 60	0.5 –50 0.1 –50	0 mg/kg 0 mg/kg	
20.	Plant Material/Tissue & Herbal/	Total Nitrogen	AOAC,19 th Ed., 2012, Method no.978.04,Ch-2,Page no. (Kjeldahl Method)	28	0.01 –	15 g/100g	
	Medicinal Plants	Phosphorous	WLII,1997, Page no. 59 WI/SAP-Food/5/93, Issue no. 03, Issue date: 01.04.2014 (Spectrophotometer Method)		0.1-10	g/100g	

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	Plant Material/Tissue & Herbal/	Potassium	AOAC,19 th Ed., 2012, Method-no.965.09, Ch-3,Page no. 13 (AAS Method)	2-200 mg/kg
	Medicinal Plants	Sodium	AOAC,19 th Ed., 2012, Method / 965.09 D, Ch-3,Page no. 13 (AAS Method)	2-200 mg/kg
		Iron	AOAC,18 th Ed., 2012, Method no.975.03/ 965.09 D, Ch-3,Page no. 13	4-500 mg/kg
			WLII, 1997, Page no. 59 WI/SAP-ICP/5/5, Issue no. 03, Issue date: 01.04.2014, (ICP Method)	3-500 mg/kg
		Zinc	AOAC,19 th Ed., 2012, Method no.975.03, Ch-3,Page no. 5 (AAS Method)	5-500 mg/kg
			WLII, 1997, Page no. 59 WI/SAP-ICP/5/5, Issue no. 03, Issue date: 01.04.2014, (ICP Method)	0.5- 500 mg/kg
		Copper	AOAC,19 th Ed., 2012, Method no.975.03/ 965.09 D, Ch-3,Page no.13 (A AS Method)	2- 500 mg/kg
			WLII,1997, Page no. 59 WI/SAP-ICP/5/5, Issue no. 03, Issue date: 01.04.2014 (ICP Method)	0.5-500 mg/kg

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Accreditation Standard	ISO/IEC 17025: 2005			
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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	
	Plant Material/Tissue & Herbal/ Medicinal Plants	Cadmium	WHO,1998, Page no.62 (AAS Method) WLII,1997, Page no. 59 WI/SAP-ICP/5/5, Issue no. 03, Issue date: 01.04.2014 (ICP Method)	5-500 mg/kg 0.05-500 mg/kg	
		Sulphur	AOAC,19 th Ed., 2012, Method no.923.01/ 920.10B , Ch-3,Page no.26 (Gravimetric Method)	50-5000 mg/kg	
		Arsenic	WHO,1998, Page no.61 (Qualitative Method) WLII,1997, Page no. 59 WI/SAP-ICP/5/5, Issue no. 03, Issue date: 01.04.2014 (ICP Method)	Qualitative 0.1-100 mg/kg	
		Lead	WHO,1998, Page no.62 (AAS Method) WLII,1997, Page no. 59 WI/SAP-ICP/5/5, Issue no. 03, Issue date: 01.04.2014 (ICP Method)	5-500 mg/kg 0.1-100 mg/kg	
		Mercury	WLII,1997, Page no. 59 WI/SAP-ICP/5/5, Issue no. 03, Issue date: 01.04.2014 (ICP Method)	0.01-50 mg/kg	
		Chromium	WHO,1998, Page no. 62 (AAS Method)	0.2-200 mg/kg	
			WLII,1997, Page no. 59 WI/SAP-ICP/5/5, Issue no. 03, Issue date: 01.04.2014 (ICP Method)	0.2-200 mg/kg	
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Accreditation Standard	ISO/IEC 17025: 200	5			
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S.No. Product / S Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection	

			performed	
	Plant Material/Tissue & Herbal/ Medicinal Plants	Nickel	WHO,1998, Page no. 62 (AAS Method) WLII,1997, Page no. 59 WI/SAP-ICP/5/5, Issue no. 03, Issue date: 01.04.2014 (ICP Method)	0.1-100 mg/kg 0.5-50 mg/kg
21.	Food for special dietary uses	Total Ash	DGHS Lab. Manual 3 (8.3), 2005 IS 1155: 1968, Ed.3.3, (RA 2010), Amds.3 AOAC,19 th Ed.,2012, Method no. 923.03, Ch-32, Page no. 2 (Gravimetric Method)	0.01-10 g/100g
		Ash Insoluble in dil. HCl (Acid Insoluble Ash)	DGHS Lab. Manual 3 (8.4),2005 IS 1155: 1968, Ed.3.3, (RA 2010) , Amds.3 IS 1011:2002 IS 15271:2003 (Gravimetric Method)	0.002-2 g/100g
		Moisture	DGHS Lab. Manual 3,2005 (8.2,2,16.1) IS 1155: 1968, Ed.3.3, (RA 2010, Amds.3 IS 4333 (Part 2): 2002, (RA 2009 AOAC,19 th Ed.,2012, Method no. 925.10, Ch-32, Page no. 1 AOAC,19 th Ed., 2012, Method no. 945.39, Ch-32, Page no. 5 IS 15271:2003 (Gravimetric Method)	1-20 g/100g

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Accr	reditation Standar	rd ISO/IEC 17025: 200	95				
Disc	ipline	Chemical Testing	lss	ue Date	02.12.2014		
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	Food for special dietary uses	Calcium	AOAC,19 th Ed., 2012, Method no.944.03,Ch-32,Page no.4 (Titrimetric Method)	0.1-10	g/100g		
		Loss on Drying	AOAC,19 th Ed., 2012, Method no.934.01, Ch-4,Page no.1 (Gravimetric Method)	0.1-30	g/100g		
		Phosphorous	AOAC,19 th Ed., 2012, Method no.986.24, Ch-50,Page no.13 (Spectrophotometer Method)	0.1-20	g/100g		
		Protein	IS 7219: 1973, (RA 2012 (Kjeldahl Nitrogen Method)	0.5- 50	0 g/100g		
		Crude Fibre	DGHS Lab. Manual 3 (8.9) ,2005 IS 1155: 1968, Ed.3.3, (RA 2010), Amds.3 IS 10226(Part I):1982, (RA 2012) (Gravimetric Method)	0.2-5 ş	g/100g		
22.	Other Food Product and Ingredients						
a.	Baking Powder	Carbon Dioxide	Pearson's Composition and Analysis Foods, Page no. 339 9 th Ed. 1991 WI/SAP-Food/5/72, Issue no.: 03, Issue date: 01.04.2014 (Titrimetric Method)	of 1-50g/	100g		

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b.	Pan Masala	Coal Tar Coloring Matter(Carmosin, Ponceau 4 R , Erythrosin,Brilliant Blue FCF, Tartrazine, Sunset yellow)	DGHS Lab. Manual 8, Page no 7 2005 (Qualitative Test)	77),	Present	i/Absent
		Total Ash	DGHS Lab. Manual 3 (8.3),2005 (Gravimetric Method)	5	0.05 -	10 g/100g
		Ash insoluble in dilute HCl	DGHS Lab. Manual 3 (8.4),2005 (Gravimetric Method)	5	0.05 -	5 g/100g
23.	Food Additives	Colouring Matter (Carmosin, Ponceau 4 R,Erythrosin, Brilliant Blue FCF, Tartrazine, Sunset yellow)	DGHS Lab. Manual 8,2005 (Qualitative Test)		Present	t/Absent
		Sulphur Dioxide (Dry Fruit)	DGHS Lab. Manual 8 (1.5B),200 (Spectrophotometric method)	05	1 -1000) mg/kg
		Saccharin	DGHS Lab. Manual 8 (3.1),2005 (Qualitative Test)	5	Present	t/Absent
		Benzoic acid	DGHS Lab. Manual 8 (1.2),2005 (Qualitative Test)	5	Present	t/Absent
24.	Food & Agriculture Products	Metals and Minerals Residue Lead	DGHS Lab. Manual 9 (2),2005 AOAC,19 th Ed., 2012, Method no.999.11,Ch-9,Page no.19 (AAS Method)		0.2- 200 mg	g/kg or mg/L

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	Food & Agriculture Products	Metals and Minerals Residue	AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no (ICP Method)	.17	0.1-10	0 mg/kg or mg/L
		Iron	DGHS Lab. Manual 9 (2),2005 AOAC,19 th Ed., 2012, Method no.999.11,Ch-9,Page no.1 (AAS Method) AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no (ICP Method)	9 .17	0.2 - 500 mg 0.2- 200 mg	g/kg or mg/L g/kg or mg/L
		Cadmium	DGHS Lab. Manual 9 (2),2005 AOAC,19 th Ed., 2012, Method no.999.11,Ch-9,Page no.1 (AAS Method) AOAC,19 th Ed., 2012, Method no.984.27,Ch-50,Page no. (ICP Method)	9 17	0.1-10	0 mg/kg or mg/L 00 mg/kg or mg/L
		Copper	DGHS Lab. Manual 9 (2),2005 AOAC,19 th Ed., 2012, Method no.999.11,Ch-9,Page no.1 (AAS Method) AOAC,19 th Ed., 2012, Method no.984.27,Ch-50,Page no. (ICP Method)	9 17	0.08- 1	00 mg/kg or mg/L 00 mg/kg or mg/L
		Chromium	DGHS Lab. Manual 9 (2),2005 (AAS Method)		0.1- 1	00 mg/kg or mg/L

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Disc	ipline	Chemical Testing	I	ssue	Date	02.12.2014
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	of Testing / of Detection
	Food & Agriculture Products	Metals and Minerals Residue	AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no. (ICP Method)	.17	0.2-20	0 mg/kg or mg/L
		Nickel	DGHS Lab. Manual 9 (2),2005 (AAS Method) AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no (ICP Method)	.17	0.1- 100 0.5-100	0 mg/kg or mg/L) mg/kg or mg/L
		Arsenic	AOAC,19 th Ed., 2012, Method no.986.15, Ch-9,Page no.1 (AAS Method) AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no (ICP Method)	1	0.1- 10	00 mg/kg or mg/L 0 mg/kg or mg/L
		Mercury	DGHS Lab. Manual 9 (2.1),2005 AOAC,19 th Ed., 2012, Method no.971.21, Ch-9,Page no.3 (Flameless AAS Method) AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no (ICP Method)	35 .17	0.1- 10	00 mg/kg or mg/L 0 mg/kg or mg/L
		Tin	DGHS Lab. Manual 9 (4.1),2005 (Volumetric Method) AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no. (ICP Method)	.17	10-500 0.1-100	mg/kg or mg/L) mg/kg or mg/L

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S.No.	Product / Material of Test	Sp	ecific Test Performed	Test Method Specification against which tests are performed		Rang Limit	e of Testing / s of Detection
	Food & Agriculture Products	Me Zir	tals and Minerals nc	DGHS Lab. Manual 9 (2),2005 AOAC,19 th Ed., 2012, Method no.999.11, Ch-9,Page no. (AAS Method) AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no. (ICP Method)	.19 p.17	1.0- 10 0.5-10	00 mg/kg or mg/L 0 mg/kg or mg/L
		Cal	cium	AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no (ICP Method)	o.17	10- 10	00 mg/kg or mg/L
		Ma	gnesium	AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no (ICP Method)	o.17	10- 10	00 mg/kg or mg/L
		Sele	enium	AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no (ICP Method)	o.17	0.5 - 5	500 mg/kg or mg/L
		Sod	lium	AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no (ICP Method)	o.17	10 - 10	000 mg/kg or mg/L
		Pot	assium	AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no (ICP Method)	o.17	10 - 10 mg/L	0000 mg/kg or
		Ma	nganese	AOAC,19 th Ed., 2012, Method no.984.27, Ch-50,Page no (ICP Method)	o.17	0.5 - 1	00 mg/kg or mg/L
				DGHS Lab. Manual 9 (2),2005 (AAS Method)		1.0 - 1	00 mg/kg or mg/L

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25.	Food and Agricultural Products	Toxins Saffrole	AOAC,19 th Ed.,2012, Method no. 969.13,Ch-29,Page no. 4 WI/SAP-GC/5/19, Issue no.:03, Issue date: 01.04.2014	8-100	0 mg/kg or mg/L
		Hypericine	WI/SAP-HPLC/5/10, Issue no.:03, Issue date: 01.04.2014	0.8-10	000 mg/kg or mg/L
		Agaric acid	WI/SAP-GCMSMS/5/03, Issue no.: 03, Issue date: 01.04.2014	50-10	00 mg/kg or mg/L
		Hydrocyanic acid	DGHS Lab Manual, Page no. 85, 200 AOAC,19 th Ed., Method no.915.03, Ch-49,Page no.106 WI/SAP-Food/5/102)5 Qualit	ative
26.	Food & Agriculture Products (Nut & Nut Products)	Aflatoxins Aflatoxin B1	AOAC, 19 th Ed. 2012, Method No. 991.31,Ch-49,Page no. & Agilent Application note on Determination of Aflatoxins in Food LC-MS/MS WI/SAP-LCMSMS /5/02, Issue no.: 03, Issue date: 01.04.2014	10-50 21 by	μg/kg
		Aflatoxin B2	AOAC, 19 th Ed. 2012, Method No. 991.31,Ch-49,Page no. 2 & Agilent Application note on Determination of Aflatoxins in Food LC-MS/MS WI/SAP-LCMSMS /5/02, Issue no.: 03, Issue date: 01.04.2014	5-25 µ 21 by	ıg/kg

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Discipline Certificate Number		Chemical Testing	ls	sue Date	02.12.2014	
		T-1188	Va	lid Until	01.12.2016	
Last	Amended on	19.12.2014	Pa	ge	116 of 134	
S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection	
	Food & Agriculture Products (Nut & Nut Products)	Aflatoxins Aflatoxin G1	AOAC, 19 th Ed. 2012, Method No. 991.31,Ch-49,Page no. & Agilent Application note on Determination of Aflatoxins in Food LC-MS/MS WI/SAP-LCMSMS/5/02, Issue no.: 03, Issue date: 01.04.2014	10-50 21 by	μg/kg	
		Aflatoxin G2	AOAC, 19 th Ed. 2012, Method No. 991.31,Ch-49,Page no. & Agilent Application note on Determination of Aflatoxins in Food LC-MS/MS WI/SAP-LCMSMS /5/02, Issue no : 03 Issue date: 01 04 2014	5-25 µ 21 by	ı g/kg	
27.	Food & Agriculture Products	Pesticides residues	155uc 110 03, 155uc uate. 01.04.2014			
	Products Pesticide Residues Al Organochlorine & Organophosphous (Fruits and	Alpha HCH	NRCG SOP for the Residue Analysis of Agrochemicals WI/SAP-GCMSMS/5/01 Issue No. 03, Issue date: 01.04.2014	s 0.01 –	0.2 mg/kg	
	Vegetables)	Gamma HCH	NRCG SOP for the Residue Analysis of Agrochemicals WI/SAP-GCMSMS/5/01, Issue no.03,Issue date:01.04.2014	s 0.01 –	0.2 mg/kg	
		Aldrin	NRCG SOP for the Residue Analysis of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	s 0.01 –	0.2 mg/kg	

Laboratory Ashwamedh E Laboratory Se Pathardi Road		Ashwamedh Engin Laboratory Service Pathardi Road, Indi	eers & Consultants Co-op. S s Division, Survey No. 102, I ira Nagar, Nashik, Maharash	Soc. Li Plot N tra	td., o. 26,	Wadala
Acci	reditation Standa	rd ISO/IEC 17025: 200	5			
Disc	ipline	Chemical Testing	I	ssue	Date	02.12.2014
Cert	ificate Number	T-1188	N	Valid (Jntil	01.12.2016
Last	Amended on	19.12.2014	F	Page 117 of		117 of 134
S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / s of Detection
	Food & Agriculture Products	Pesticides residues Alachlor	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.01 –().2 mg/kg
	Pesticide Residues Organochlorine & Organophosphous (Fruits and Vegetables)	Beta -HCH	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.01 –().2 mg/kg
	0 /	Delta-HCH	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.01 –().2 mg/kg
		2,4 DDE	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03, Issue date: 01.04.2014	vsis 4	0.01 –0).2 mg/kg
		Alpha Endosulfan	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03, Issue date: 01.04.2014	vsis 4	0.01 –().2 mg/kg
		4,4 DDE	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03, Issue date: 01.04.2014	vsis 4	0.01 –().2 mg/kg
		Dieldrin	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.01 –().2 mg/kg

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Accreditation Standard		rd ISO/IEC 17025: 200	5				
Disc	ipline	Chemical Testing	I	Issue	Date	02.12.2014	
Certificate Number Last Amended on		T-1188	,	Valid (Jntil	01.12.2016	
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / s of Detection	
	Food & Agriculture Products	Pesticides residues 2,4 DDD	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	ysis 4	0.01 –().2 mg/kg	
	Pesticide Residues Organochlorine & Organophosphous (Fruits and Vegetables)	2,4 DDT	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	ysis 4	0.01 –().2 mg/kg	
		Beta Endosulfan	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01 Issue No.03,Issue date: 01.04.2014	ysis 4	0.01 –().2 mg/kg	
		4,4 DDD	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	ysis 4	0.01 –().2 mg/kg	
		4,4 DDT	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	ysis 4	0.01 –().2 mg/kg	
		Atrazine	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	ysis 4	0.01 –().2 mg/kg	
		Endosulfan Sulphate	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	ysis 4	0.01 –().2 mg/kg	

Laboratory Ashwam Laborato Pathardi		Ashwamedh Engin Laboratory Service Pathardi Road, Indi	eers & Consultants Co-op. S s Division, Survey No. 102, I ira Nagar, Nashik, Maharash	Soc. L' Plot N tra	td., Io. 26,	Wadala
Acci	reditation Standar	rd ISO/IEC 17025: 200	5			
Disc	ipline	Chemical Testing	I	ssue	Date	02.12.2014
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limite	e of Testing / s of Detection
	Food & Agriculture Products	Pesticides residues Ethion	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03, Issue date: 01.04.2014	vsis 4	0.01 –	0.2 mg/kg
	Pesticide Residues Organochlorine & Organophosphous (Fruits and Vegetables)	Phorate Sulphone	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 4	0.01 –	0.2 mg/kg
	0 /	Phorate Sulfoxide	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 4	0.01 –	0.2 mg/kg
		Malathion	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01 Issue No.03,Issue date: 01.04.2014	vsis 4	0.01 –	0.2 mg/kg
		Malaoxon	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 4	0.01 –	0.2 mg/kg
		Methyl Parathion	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue no.03,Issue date: 01.04.2014	vsis	0.01 –	0.2 mg/kg
		Chlorpyrifos	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 4	0.01 –(0.2 mg/kg

Laboratory Ashv Labo Patha		Ashwamedh Engin Laboratory Service Pathardi Road, Indi	Ashwamedh Engineers & Consultants Co-op. Soc. Ltd., Laboratory Services Division, Survey No. 102, Plot No. 26, Wadala Pathardi Road, Indira Nagar, Nashik, Maharashtra			
Accreditation Standard ISO/IEC 17025:		d ISO/IEC 17025: 200	5			
Disc	ipline	Chemical Testing	I	ssue [Date	02.12.2014
Certificate Number		T-1188	N	Valid U	Jntil (01.12.2016
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range (Limits (of Testing / of Detection
	Food & Agriculture Products	Pesticides residues Methyl Paraoxon	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01 Issue No.03,Issue date: 01.04.2014	vsis 1	0.1 – 0.5	∫ mg/kg
	Pesticide Residues Organochlorine & Organophosphous (Fruits and Vegetables)	Monocrotophos	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.01 –0.2	2 mg/kg
		Phorate	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.01 –0.2	2 mg/kg
		Dichlorvos	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 4	0.01 –0.2	2 mg/kg
		Formothion	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 4	0.1 – 0.5	i mg/kg
		Heptachlor	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.01 –0.2	2 mg/kg
		Fenitrothion	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.01 –0.2	2 mg/kg

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Disc	ipline	Chemical Testing	ŀ	ssue	Date	02.12.2014
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / of Detection
	Food & Agriculture Products	Pesticides residues Fenthion	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.01 –().2 mg/kg
	Pesticide Residues Organochlorine & Organophosphous (Fruits and Vegetables)	Heptachlor epoxide	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.01 –().2 mg/kg
		Chlorienvinphos	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1,	0.01 –().2 mg/kg
		Butachlor	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.01 –().2 mg/kg
		Captan	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	vsis 1	0.1 – 0	.5 mg/kg
		Chlorobenzilate	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03, Issue date: 01.04.2014	vsis 4	0.01 –().2 mg/kg
		Dicofol	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03, Issue date: 01.04.2014	vsis 4	0.1 – 0	.5 mg/kg

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Accreditation Standard ISO/IEC 17025: 200		5				
Disc	ipline	Chemical Testing	I	ssue	Date	02.12.2014
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / s of Detection
	Food & Agriculture Products	Pesticides residues Iprodoin	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03, Issue date: 01.04.201	vsis 4	0.01 –	0.2 mg/kg
	Pesticide Residues Organochlorine & Organophosphous (Fruits and Vegetables)	Captafol	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03, Issue date: 01.04.201	vsis 4	0.1 - 0	.5 mg/kg
	6 /	Fenvalerate	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03, Issue date: 01.04.201	vsis 4	0.01 –	0.2 mg/kg
		Cypermethrin	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03, Issue date: 01.04.201	vsis 4	0.01 –	0.2 mg/kg
		Deltamethrin	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-GCMSMS/5/01, Issue No.03, Issue date: 01.04.201	vsis 4	0.01 –	0.2 mg/kg
		Chlormequat chloride	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03, Issue date: 01.04.201	vsis 4	0.01 –	0.2 mg/kg
		Carbendazim	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03, Issue date: 01.04.201	vsis 4	0.01 –	0.2 mg/kg

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Accreditation Standard ISO/IEC 1		rd ISO/IEC 17025: 200	C 17025: 2005					
Disc	ipline	Chemical Testing	ŀ	ssue Dat	e 02.12.2014			
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Ra Lin	nge of Testing / hits of Detection			
	Food & Agriculture Products	Pesticides residues Trichlorfon	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03, Issue date: 01.04.2014	sis 0.0	l −0.2 mg/kg			
	Pesticide Residues Organochlorine & Organophosphous (Fruits and Vegetables)	Dimethoate	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No. 03, Issue date: 01.04.201	sis 0.0 4	l –0.2 mg/kg			
	9 /	3-Hydroxy carbofuran	NRCG SOP for Residue Analysis of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No. 03, Issue date: 01.04.201	0.0	l –0.2 mg/kg			
		Cymoxanil	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No. 03,Issue date: 01.04.2014	sis 0.0 4	l –0.2 mg/kg			
		Phosphamidon	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No. 03,Issue date: 01.04.2014	sis 0.0 4	l –0.2 mg/kg			
		Simazine	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No. 03,Issue date: 01.04.2014	sis 0.0 4	l −0.2 mg/kg			
		Carbofuran	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No. 03,Issue date: 01.04.2014	sis 0.0	l –0.2 mg/kg			

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Acc	reditation Standa	rd ISO/IEC 17025: 200	5				
Disc	cipline	Chemical Testing	l	ssue	Date	02.12.2014	
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / s of Detection	
	Food & Agriculture Products	Pesticides residues Carbaryl	NRCG SOP for the Residue Analys of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No. 03,Issue date: 01.04.2014	sis 4	0.01 –	0.2 mg/kg	
	Pesticide Residues Organochlorine & Organophosphous (Fruits and Vegetables)	Diuron	NRCG SOP for the Residue Analys of Agrochemicals WI/SAP-LCMSMS/5/01 Issue No.03,Issue date: 01.04.2014	sis	0.01 –	0.2 mg/kg	
		Dimethomorph	NRCG SOP for the Residue Analys of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	sis L	0.01 –	0.2 mg/kg	
		Myclobutanil	NRCG SOP for the Residue Analys of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	sis	0.01 –	0.2 mg/kg	
		Triadimefon	NRCG SOP for the Residue Analys of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	sis	0.01 –	0.2 mg/kg	
		Triazophos	NRCG SOP for the Residue Analys of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	sis	0.01 –	0.2 mg/kg	
		Phenthoate	NRCG SOP for the Residue Analys of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	sis	0.01 –	0.2 mg/kg	

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Discipline		Chemical Testing	I	lssue	Date	02.12.2014
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / s of Detection
	Food & Agriculture Products	Pesticides residues Thiameton	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg
	Pesticide Residues Organochlorine & Organophosphous (Fruits and Vegetables)	Tridemorph	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg
		Quinolphos	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg
		Penconazole	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg
		Edifenphos	NRCG SOP for Residue Analysis of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	4	0.01 –	0.2 mg/kg
		Diazinon	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg
		Phosalone	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg

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Accı	Accreditation Standard ISO/IEC 17025: 200		5			
Disc	ipline	Chemical Testing	I	lssue	Date	02.12.2014
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range Limits	e of Testing / s of Detection
	Food & Agriculture Products	Pesticides residues Pirimiphos methyl	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg
	Pesticide Residues Organochlorine & Organophosphous (Fruits and Vegetables)	Indoxacarb	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01 Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg
	0 /	Novaluron	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01 Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg
		Isoproturon	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	7sis 4	0.01 –	0.2 mg/kg
		Benomyl	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg
		Ethephon	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01 Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg
		2,4-D	NRCG SOP for the Residue Analy of Agrochemicals WI/SAP-LCMSMS/5/01, Issue No.03,Issue date: 01.04.2014	zsis 4	0.01 –	0.2 mg/kg

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Discipline		Chemical Testing		Issue Date	02.12.2014	
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection	
V.	COAL, COKE & (OTHER SOLID FUEL				
1.	Coal/Coke,	Total Moisture	IS 1350 (Part I) :1984, (RA 2007) Ed. 2.1,Amds.1 (Gravimetric Method)) 0.1 to	40g/100g	
2.	Coal carbonization products,	Ash	IS 1350 (Part I) :1984, (RA 2007) Ed. 2.1,Amds.1 (Gravimetric Method)), 0.1 to	80g/100g	
	Briquette, Solid fuels	Gross Calorific Value	IS 1350 (Part II) :1970, (RA 2009 Amds.1 (Bomb Calorimeter)	9) 100-9	000 kcal/kg	
		Fixed Carbon	IS 1350 (Part I) :1984, (RA 2007) Ed. 2.1,Amds.1 (By Calculation)) 10-99	g/100g	
		Volatile Matter	IS 1350 (Part I) :1984, (RA 2007) Ed. 2.1,Amds.1 (Gravimetric Method)) 0.4-60)g/100g	
		Total Sulphur	IS 1350 (Part III): 1969,(RA 2009 (Gravimetric Method)	9) 0.1 to	5 g/100g	
		Nitrogen	IS 1350 (Part IV): Sec. 1: 1974, (RA 2009) (Kjeldhal Nitrogen)	0.1-10) g/100g	
		Mercury	ASTM D 6414-14,2014 (Cold Vapour AAS Method)	0.04-5	50 mg/kg	

Laboratory Accreditation Standard		Ashwamedh Engine Laboratory Service Pathardi Road, Indi rd ISO/IEC 17025: 200	Ashwamedh Engineers & Consultants Co-op. Soc. Ltd., Laboratory Services Division, Survey No. 102, Plot No. 26, Wadala Pathardi Road, Indira Nagar, Nashik, Maharashtra ISO/IEC 17025: 2005				
Disc	ipline	Chemical Testing		Issue D	ate 02.12.2014		
Certificate Number Last Amended on		T-1188		Valid U	ntil 01.12.2016		
		19.12.2014		Page	128 of 134		
S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	F	Range of Testing / .imits of Detection		
VI	FERTILIZERS						
1.	Nitrogeneous, Phosphatic, Mixed, Potash & Micronutrients	Moisture	FCO,2013,Schedule II, Part B-2, Page no. 56 (Gravimetric Method)	0	0.1-10 g/100g		
		Total Nitrogen	FCO,2013,Schedule II ,Part B- iv Page no. 58 (Kjeldhal Nitrogen)	<i>v</i> , 0	0.1-40 g/100g		
		Ammonia Nitrogen	FCO, Schedule II, Part B-vii, Page no. 62 (Distillation cum Titration)	0	0.1-25 g/100g		
		Nitrogen as Urea	FCO,2013,Schedule II, Part B-xi, Page no. 64 (Kjeldhal Nitrogen)	,, 0	0.1-50 g/100g		
		Free Acidity	FCO,2013,Schedule II, Part B-xii Page no. 66 (Titration Method)	ii, O	0.1-10 g/100g		
		Water Insoluble Nitrogen	FCO,2013, Schedule II, Part B-x, Page no. 63 (Gravimetric Method)	, 0	0.1-30 g/100g		

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Acc	reditation Standar	d ISO/IEC 17025: 200	ISO/IEC 17025: 2005					
Disc	cipline	Chemical Testing	I	Issue Date	02.12.2014			
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range Limits	e of Testing / s of Detection			
	Nitrogeneous, Phosphatic, Mixed, Potash & Micronutrients	Particle Size	FCO,2013,Schedule II, Part B-20, Page no. 117 (Sieving cum Gravimetric Method	0 to 10	00 g/100g			
		Free Phosphoric Acid	FCO,2013,Schedule II, Part B-vii, Page no. 74 (Titration Method)	. 0.01-7	g/100g			
		Water Soluble Phosphates	FCO,2013,Schedule II, Part B-iii, Page no. 71 (Gravimetric Method)	0.01-2	0 g/100g			
		Total Phosphates	FCO,2013,Schedule II, Part B- ii, Page no. 71 (Gravimetric Method)	0.01-5	0 g/100g			
		Potash content	FCO,2013, Schedule II, Part B- 5, Page no. 77 (Titration Method)	0.01-5	0 g/100g			
		Total Chlorides	FCO,2013,Schedule II, Part B-18, Page no. 114 (Titration Method)	0.01-3	0 g/100g			
		Sodium	FCO,2013,Schedule II, Part B-17, Page no.113 (AAS Method)	20mg/	kg-50 g/100g			

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Discipline Chemic		Chemical Testing		Issue Date	02.12.2014		
Certificate NumberT-1188Last Amended on19.12.2014		T-1188		Valid Until	01.12.2016		
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limits	e of Testing / s of Detection		
	Nitrogeneous, Phosphatic, Mixed, Potash & Micronutrients	Zinc	FCO,2013,Schedule II, Part B-22 A,Page no. 119 (AAS Method)	2- 1mg/k	g -25g/100g		
		Iron	FCO,2013,Schedule II, Part B-22 A,Page no. 119 (AAS Method)	8mg/k	g -25g/100g		
		Manganese	FCO,2013,Schedule II, Part B-22 A,Page no.119 (AAS Method)	2- 5mg/k	g -25g/100g		
		Copper	FCO,2013,Schedule II, Part B-22 A,Page no.119 (AAS Method)	- 4mg/k	g -25g/100g		
		Boron	FCO,2013,Schedule II, Part B-23 Page no.120 (Titration Method)	e, 0.01-2	5 g/100g		
		Total Sulphur	FCO,2013,Schedule II, Part B-24 Page no.122 (Gravimetric Method)	·, 0.1 – 1	0 g/100g		
		Elemental Sulphur	FCO,2013,Schedule II, Part B-24 Page no.123 (Gravimetric Method)	·, 0.1 – 1	0 g/100g		

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Accreditation Standard		rd ISO/IEC 17025: 200	SO/IEC 17025: 2005					
Disc	ipline	Chemical Testing	ls	ssue Date	02.12.2014			
Certificate Number		T-1188	v	/alid Until	01.12.2016			
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection			
	Nitrogeneous, Phosphatic, Mixed, Potash & Micronutrients	Arsenic	FCO,2013,Schedule II, Part B-B- xiv,Page no.66 (Gutzeit apparatus method)	1 mg/ł	xg-25g/100g			
	I	Lead	FCO,2013,Schedule II, Part B-V, Page no.93 (AAS Method)	2 -10	00 mg/kg			
		Mercury	FCO, 2013,Schedule III, Part D- 11,Page no.144G (Cold Vapour AAS Method & Instrument Manufacturer Instructio	0.1 -1 m)	00 mg/kg			
		Cadmium	FCO, 2013, Schedule II, Part B- (X),Page no.95 (AAS Method)	0.2 -1	00 mg/kg			
		Water Insoluble Matter	FCO, 2013, Schedule II, Part B- x, Page no. 109 (Gravimetric Method)	0.1 –	10 g/100g			
2.	Bio-fertilizers, Organic Fertilizers,	рН	FCO, 2013, Schedule IV, Part D-1, Page no. 144 D (By pH meter)	, 1-14	Ĺ			
	City Compost, Vermicompost	Moisture	FCO, 2013,Schedule IV, Part D-2, Page no. 144 E (Gravimetric Method)	2 - 50) g/100g			
		Colour	In-house qualitative method (Visual appearance) WI/SAP-OF/5/6, Issue No. 03, Issue date: 01.04.2014	Quali	tative			

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Acc	reditation Standa	rd ISO/IEC 17025: 200	2 17025: 2005				
DisciplineChemical TestinCertificate NumberT-1188		Chemical Testing		Issue E	Date 02.12.2014		
		T-1188		Valid U	Intil 01.12.2016		
Last	Amended on	19.12.2014		Page	132 of 134		
S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		Range of Testing / Limits of Detection		
	Bio-fertilizers, Organic Fertilizers, City Compost, Vermicompost	Odour	In-house qualitative method WI/SAP-OF/5/6, Issue No. 03, Issue date: 01.04.2014	,	Qualitative		
		Particle Size	In-house method WI/SAP-OF/5/3, Issue No. 03, Issue date: 01.04.2014,		1.0 to 100 %		
		Bulk Density	FCO, 2013,Schedule IV, Part D-3 Page no. 144E (Gravimetric Method)	3,	0.1 -30 g/cm3		
		Electrical Conductivity	FCO, 2013, Schedule IV, Part D-4 Page no. 144 E (Conductivity Meter)	4,	1 – 20 dSm -1		
		Total Organic Carbon	FCO, 2013, Schedule IV Part D-5 Page no.144 E (Gravimetric Method)	, ,	1 – 35 g/100g		
		Total Nitrogen	FCO, 2013,Schedule IV, Part D-6 Page no.144 F (Kjeldhal Nitrogen)	5,	0.1 –25 g/100g		
		Carbon:Nitrogen Ratio	FCO, 2013,Schedule IV, Part D-7 Page no.144 F (By Calculation Method)	Ϊ,	0.2 -25		

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Acc	reditation Standa	rd ISO/IEC 17025: 200	5					
DisciplineChemical TestingCertificate NumberT-1188Last Amended on19.12.2014		Is	sue Date	02.12.2014				
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Rang Limit	e of Testing / s of Detection			
	Bio-fertilizers, Organic Fertilizers, City Compost, Vermicompost	Total Phosphate	FCO, 2013,Schedule IV Part D-8, Page no. 144 F (Spectrophotometer Method)	0.05 -	0.05 –25 g/100g			
		Total Potassium	FCO, 2013,Schedule IV, Part D-9, Page no.144 F (Flame Photometry Method)	0.05 –	0.05 – 10 g/100g			
		Cadmium	FCO, 2013,Schedule IV, Part D-10, Page no.144 G (AAS Method)	0.2 –1	0.2 –100 mg/kg			
		Copper	FCO, 2013,Schedule IV, Part D-10, Page no. 144 G (AAS Method)	1 –500	1 –5000 mg/kg			
		Chromium	FCO, 2013,Schedule IV, Part D-10, Page no.144 G (AAS Method)	10, 2 – 200 mg/kg				
		Lead	FCO, 2013,Schedule IV, Part D- 10,Page no.144 G (AAS Method)	2 – 150 mg/kg				
		Nickel	FCO, 2013,Schedule IV, Part D-10, Page no.144 G (AAS Method)	0, 1.2 – 100 mg/kg				
		Zinc	FCO, 2013,Schedule IV, Part D-10, Page no.144 G (AAS Method)	0.2-1	0.2–1000 mg/kg			
		Mercury	FCO, 2013,Schedule IV, Part D-11, Page no.144 G (Cold Vapour AAS Method &Instrument Manufacturer Instruction	0.1 – on)	10 mg/kg			

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Accreditation Standard		d ISO/IEC 17025: 200	ISO/IEC 17025: 2005				
Discipline		Chemical Testing	Chemical Testing		Date	02.12.2014	
Certificate Number		T-1188	T-1188 Vali		Until	01.12.2016	
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	n Range Limits		e of Testing / s of Detection	
	Bio-fertilizers, Organic Fertilizers, City Compost, Vermicompost	Arsenic	FCO, 2013,Schedule IV, Part D- Page no.144 H (Hydride AAS Method)	12,	0.2 -10	00 mg/kg	

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