

Laboratory	TUV Sud South Asia Pvt. Ltd., A- 151, 2C Main Road, 2nd Stage, Peenya Industrial Estate, Bangalore		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	25.08.2013
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I. TEXTILES & RELATED PRODUCTS

1.	Textiles	Colour fastness to washing	ISO 105 C06-2010 ISO 105 C08-2010 ISO 105 C09-2001 Amd 1 (2003) ISO 105-C10-2006 AATCC 61-2010	Grade 1 to 5
		Colour fastness to Rubbing	AATCC 8-2007 AATCC-116 – 2010 ISO 105 X12 – 2001 ISO 105 X16 – 2001	Grade 1 to 5
		Colour fastness to Water	ISO 105 E01- 2013 BS EN ISO 105 E01 - 2013 AATCC 107-2012	Grade 1 to 5
		Colour fastness to Perspiration	ISO 105 E01-2013 BS EN IS O105 E04 - 2013 AATCC 15-2009	Grade 1 to 5
		Colour fastness to Light	AATCC 16 Option 3 – 2012	Grade 1 to 8 Grade 1 to 5
		Colour fastness to sea water	ISO 105 E02 -2013 BS EN ISO 105 E02 - 2013 AATCC 106-2009	Grade 1 to 5
		Colour fastness to Chlorinated Water	ISO 105 E03-2010 AATCC 162-2011 BS EN ISO 105 E03 - 2010	Grade 1 to 5

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	Textiles	Colour fastness to Dry-cleaning	ISO 105 D01-2010 AATCC 132-2009 BS EN ISO 105 D01 - 2010	Grade 1 to 5
		Colour fastness to Organic Solvent	ISO 105 X05-1994	Grade 1 to 5
		Colour fastness to Saliva	DIN 53160-1 : 2010	Grade 1 to 5
		Colour fastness to Acid spotting	ISO 105 E05-2010 AATCC 6-2011	Grade 1 to 5
		Colour fastness to Alkaline spotting	ISO 105 E06-2006 AATCC 6-2011	Grade 1 to 5
		Colour fastness to Water spotting	ISO 105 E07-1989 (2010) AATCC 104-2010	Grade 1 to 5
		pH value	ISO 3071-2005 AATCC 81-2012	0 to 14
		Fibre Composition	ISO 1833-I & II : 2006 AATCC 20-2011 AATCC 20A-2012	0 to 100%
		Colorfastness to Chlorine Bleach	ISO 105 N01 – 1993	1 to 5 Grade
		Colorfastness to Non Chlorine Bleach	AATCC 172 – 2010	1 to 5 Grade

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	Textiles	Dimensional Stability to washing	ISO 6330 - 2012, ISO 5077 - 2007 ISO 3759 - 2011 AATCC135-2012, AATCC 150-2012	-80% to 80%
		Appearance Tests after washing (Durable Press Rating)	AATCC 143-2011 AATCC 124-2011	Grade 1 to 5
		Skewness change \ Spirality	AATCC 179-2012 ISO 16322 - 2005	0 to 80%
		Crease Retention	AATCC 88C-2011	Grade 1 to 5
		Smoothness appearance	AATCC 88B-2011	Grade 1 to 5
		Flammability of Textile Clothing	CPSC 16 CFR 1610 ASTM D 1230-1994 (2001)	Upto 99 sec
		Dimensional Stability to Drycleaning	AATCC 158-2011, IS O-3175 - 2010	-40% to 40%
		Appearance after washing / Drycleaning	Washing as per ISO 6330 - 2000 Washing as Per AATCC 135 - 2012 Washing As per AATCC 150 - 2012 Dry-cleaning as per AATCC 158-2011 Dry-cleaning as per ISO 3175-2010	Qualitative

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	Textiles	Colour fastness to Sublimation	IS 975-1988 (RA 2004)	Grade 1 to 5
		Phenolic yellowing of materials	ISO 105 X 18 : 2007	Grade 1 to 5
2.	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Determination of Chlorinated Phenols 2-chlorophenol 3-Chlorophenol 4-Chlorophenol 2, 3-Dichlorophenol 2, 4-Dichlorophenol 2, 5-Dichlorophenol 2, 6-Dichlorophenol 3, 4-Dichlorophenol 3, 5-Dichlorophenol 2, 3, 4- Trichlorophenol 2, 3, 5-Trichlorophenol 2, 3, 6-Trichlorophenol 2, 4, 5- Tri chloro phenol 2, 4, 6- Tri chloro phenol 3, 4, 5- Tri chloro phenol 2, 3, 4, 5-Tetra chloro phenol 2, 3, 5, 6-Tetra chloro phenol 2, 3, 4, 6-Tetra chloro phenol Penta chloro phenol o-Phenyl phenol	LAB_P_SOP_105 (based on LMBG 82.02 part-8 – 2001 DIN 53313-1996 ISO 17070 -2006 EN 71-9/10/11-2005) by GC-MS/ECD	0.05 to 300 mg/kg
		BIS phenol A		0.1 to 300 mg/kg

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Determination of Banned Aryl Amines O-Toluidine 3, 3 Dimethyl benzidine 2 Methoxy 5 methyl aniline 3, 3' Dichloro benzidine 4 Chloro aniline 2, 4, 5 Trimethyl aniline 4, 4 Diamino 3, 3, dimethyl diphenyl Methane 4 Amino azo benzene 4 Amino phenylthio ether 4 Amino phenyl ether 3, 3 Dimethoxy benzidine 4, 4' Benzidine BIS 4 (amino phenyl) methane 2 AnIS idine 4 Amino 2' 3 Dimethyl azo benzene 4 Amino bi phenyl 4 chloro 2 methyl aniline 2, 4 Diamino toluene 4, 4 Methylene bis (2 chloroaniline) 2 Amino naphthalene 2 Amino 4 nitro toluene 2, 4-Xylidine 2, 6-Xylidine Aniline	LAB_P_SOP_70 Part 1 & 2 (based on LFGB 82.02 part 2- 2004 LFGB 82.02 part3- 2004 LFGB 82.02 part4 - 2004 EN-14362 part1 - 2012 EN 14362 part3 -2012 LFGB 82.02 part 9 GB/T 17592-2006: GB/T 23344-2009 ISO 17234 1 &2 - 2010 EN 71-9/10/11-2005) by GC-MS/UPLC-DAD	5 to 1000 mg/kg

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Determination of Carcinogenic Dyes & Allergenic Dyes DIS perse blue-106 DIS perse orange-37 DIS perse blue-124 DIS perse orange-1 DIS perse orange11 Basic violet-14 Direct black-38 Direct red -28 Acid red -26 Basic red- 9 DIS perse blue-102 DIS perse blue-7 DIS perse blue-3 DIS perse orange -3 DIS perse yellow-49 DIS perse yellow-1 DIS perse orange149 DIS perse yellow-3 DIS perse red- 17 DIS perse red- 1 DIS perse red-11 DIS perse yellow-23 Direct blue 26 DIS perse yellow-9 DIS perse yellow-39 DIS perse yellow -7 DIS perse brown-1 DIS perse blue -35 DIS perse blue -1	LAB_P_SOP_71 (based on DIN 54231 – 2005 DIN EN ISO 16373-2 2012 EN 71-9/10/11-2005) by LC-MS/MS	1.0 to 500 mg/L

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Direct Blue -6	LAB_P_SOP_71 (based on DIN 54231 – 2005 DIN EN ISO 16373-2 2012 EN 71-9/10/11-2005) by LC-MS/MS	1.0 to 500 mg/L
		DIS perse yellow-56 DIS perse red 151 Solvent red 23		
		Blue Colorant (Navy Blue)	LAB_P_SOP_135 (based on DIN 54231 – 2005 DIN EN ISO 16373-2 2012) by LC-MS/MS	1.0 to 500 mg/L
		Determination of Phthalate Esters Di ethyl phthalate Di N-Octyl phthalate Di ISO nonyl phthalate Benzyl butyl phthalate Di Butyl phthalate Di ISO decyl phthalate BIS (2 Ethyl hexyl) phthalate Di N-Butyl phthalate BIS -IS o-pentylphthalates N-pentyl-IS opentyl ester Dicycloexyl phthalates Dipentyl phthalates BIS -methyl glycol phthalates Di ISO butyl phthalates	LAB_P_SOP_104 (based on EN 14372-2004, EN 15777-2009 EPA 506-1995 CPSC-CH-C-1001-09.3 F963-11) by GC-MS	50 to 10000 mg/kg

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	1, 2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	LAB_P_SOP_104 (based on EN 14372-2004, EN 15777-2009	50 to 10000 mg/kg
		1, 2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	EPA 506-1995 CPSC-CH-C-1001-09.3 F963-11) by GC-MS	
		Determination of Flame Retardants	LAB_P_SOP_53 (based on	0.5 to 50 mg/kg
		Poly Brominated Biphenyl	EPA 8270 C – 1996,	
		3-Bromobiphenyl	EPA 527.0-2005	
		2, 2'-dibromobiphenyl	EN 71-9/10/11-2005)	
		2, 2', 5-tribromobiphenyl		
		2, 2', 4, 5'-tetrabromobiphenyl		
		2, 2', 4, 6, 6'-pentabromobiphenyl		
		2, 2', 4, 4', 5, 5'-hexabromobiphenyl		
		2, 3, 3', 4, 4', 5, 5'-heptabromobiphenyl		
		Octabromobiphenyl		
		2, 2', 3, 3', 4, 4', 5, 5', 6-nonabromobiphenyl		
		Decabromobiphenyl		

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Poly Brominated Diphenyl Ethers 4-bromodiphenylether 4, 4'dibrmodiphenylether 2, 2', 4, 4', 5-pentabromodiphenylether 2, 4, 4'-tribromodiphenylether 2, 2', 4, 4', 5, 6-hexabromodiphenylether 2, 2', 4, 4'-tetrabromodiphenylether 2, 2', 3, 4, 4', 5, 6'-heptabromodiphenylether 2, 2', 3, 4, 4', 5, 5', 6-octabromodiphenylether 2, 2', 3, 4, 4', 5, 5', 6, 6'-nonabromodiphenylether Decabromodiphenylether Hexa bromo cyclo dodecane-HBCDD Tri- (2, 3-dibromopropyl)-phosphate-TRIS TrIS -(Aziridiny)-phosphinoxide)-TEPA TrIS (2-Chloethyl)phosphate-TCEP Tetra bromo bIS phenol A-TBBPA Tri (2, 3 dichloropropyl) phosphate – TDCPP Triphenyl phosphate Tri o, m, p -cresyl phosphate	LAB_P_SOP_53 (based on EPA 8270 C – 1996, EPA 527.0-2005 EN 71-9/10/11-2005)	0.5 to 50 mg/kg

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Determination of Chlorinated organic careers	LAB_P_SOP_54 (based on EPA 612-2008, EPA 8121-1994 DIN 54232-2010) (by GC-MS)	0.1 to 300 mg/kg
		Determination of Chlorinated benzenes and Toluenes 2-Chloro Toluene 3-Chloro Toluene 4-Chloro Toluene 1, 3-Dichloro Benzene 1, 4-Dichloro Benzene 1, 2-Dichloro Benzene 2, 4-Dichloro Toluene 2, 5&2, 6-Dichloro Toluene 1, 3, 5-Trichloro Benzene 3, 4&2, 3-Dichloro Toluene 1, 2, 4-Trichloro Benzene 1, 2, 3-Trichloro Benzene 2, 4, 5-Trichloro Toluene 1, 2, 3, 5-Tetra Chloro Benzene 1, 2, 4, 5-Tetra Chloro Benzene 1, 2, 3, 4-Tetra Chloro Benzene Tetra Chloro Toluene Penta Chloro Benzene Hexa Chloro Benzene		
		Determination of Organo Tin compounds DBT TBT MBT MOT DOT	LAB_P_SOP_119 (based on EN 71-3-2012 ISO 17353-2005 DIN 38407-13-2001) (by GC-MS)	0.025 to 300 mg/kg

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	TeBT	LAB_P_SOP_119	0.025 to 300 mg/kg
		TPT	(based on EN 71-3-2012	
		TPhT	ISO 17353-2005	
		TcyhT	DIN 38407-13-2001)	
		BIS -(Tributyl tin)Oxide	(by GC-MS)	
		Determination of Poly Aromatic Hydrocarbons	LAB_P_SOP_52	0.2 to 1000 mg/kg
		Dibenz (a, h) anthracene	(based on ISO 18287-2006	
		Benzo (g, h, i) perylene	ZEK 01.4-08)	
		Indeno (1, 2, 3-cd) pyrene	By GC-MS	
		Benzo (a) pyrene		
		Benzo (k) flouranthene		
		Benzo (b) flouranthene		
		Chrysene		
		Benzo (a) Anthracene		
		Pyrene		
		Flouranthene		
		Anthracene		
		Phenanthrene		
		Flourene		
		Acenaphthene		
		Acenaphthylene		
		Naphthtalene		
		Benzo[j]fluoranthene		
		Benzo[e]pyrene		

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Determination of Polychlorinated Bi Determination of phenyls 2-Chlorobiphenyl 2, 3-Dichlorobiphenyl 2, 2, 5-Trichlorobiphenyl 2, 4, 5-Trichlorobiphenyl 2, 2, 3, 5-Tetrachlorobiphenyl 2, 2, 5, 5-Tetrachlorobiphenyl 2, 3, 4, 4-Tetrachlorobiphenyl 2, 2, 3, 4, 5-Pentachlorobiphenyl 2, 2, 4, 5, 5-Pentachlorobiphenyl 2, 3, 3, 4, 6-Pentachlorobiphenyl 2, 2, 3, 4, 4, 5-Hexachlorobiphenyl 2, 2, 3, 4, 5, 5-Hexachlorobiphenyl 2, 2, 3, 5, 5, 6-Hexachlorobiphenyl 2, 2, 4, 4, 5, 5-Hexachlorobiphenyl 2, 2, 3, 3, 4, 4, 5-Heptachlorobiphenyl 2, 2, 3, 4, 4, 5, 5-Heptachlorobiphenyl 2, 2, 3, 4, 4, 5, 6-Heptachlorobiphenyl 2, 2, 3, 4, 5, 5, 6-Heptachlorobiphenyl 2, 2, 3, 3, 4, 4, 5, 5, 6-Nonachlorobiphenyl	LAB_P_SOP_51 (based on EPA-508.A-1989) by GC-MS	0.1 to 500 mg/kg

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Determination of Pesticide Residues Organo chlorine pesticides 2, 4, 5-T 2, 4-D 2, 4-DDD 2, 4-DDE 2, 4-DDT Alachlor Aldrin 4, 4-DDE 4, 4-DDD 4, 4-DDT Hexachlorcyclohexane-alpha Hexachlorcyclohexane-beta Hexachlorcyclohexane-gamma(Lindane) Hexachlorcyclohexane-Delta Hexachlorobenzene Alpha-endosulfan Beta-endosulfan Heptachlor Heptachlorepoxyde Endrin Dieldrin Dicofol Chlordane Methoxy chlor chlorothalonil Perthane	LAB_P_SOP_59 (By EPA-508-1995, EPA-8080A, -1994 EN 71-9/10/11-2005)	0.05 to 100 mg/kg

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Organo Phosphours Malathion Parathion Methyl parathion Ethyl parathion Chlorpyrifos Chlorpyrifos-methyl Diazinon Quinalphos Monocrotophos Dimethyoate Methamidophos Ethion Chlorfenvinphos Pyrethroids Cypermethrin Permethrin Deltamethrin Lambda-cyhalothrin Fenvalarate Esfenvelarate Cyfluthrin Etofenprox	LAB_P_SOP_59 (By EPA-508-1995, EPA-8080A, -1994 EN 71-9/10/11-2005)	0.05 to 100 mg/kg

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Others Carbaryl Carbofuran Captafol Tolyl fluanide Pentachloroanosole Dichlofluanide Mirex Trifluralin	LAB_P_SOP_59 (By EPA-508-1995, EPA-8080A, -1994 EN 71-9/10/11-2005)	0.05 to 100 mg/kg
		Determination of Volatile organic Compounds Carbon tetrachloride Benzene Toluene 1, 1', 2, 2-tetra chloroethane o-Xylene m, p-Xylene pentachloroethane Tri chloromethane Dichloromethane Tetrachloro ethylene Tri chloro ethylene Methyl phenol Cyclohexane Phenol Tetra Hydro Furan Di methyl formamide Vinyl chloride Styrene Acrylonitrile	LAB_P_SOP_124 & 172 (by GCMS Head Space/GC-FID)	1 to 10 mg/kg

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Others		
		Determination of 2-Phenyl 2-propanol	LAB_P_SOP_169 (by GC-MS analysis)	1 to 10 mg/kg
		Determination of Acetophenone	LAB_P_SOP_168 (by GC-MS analysis)	1 to 10 mg/kg
		Determination of 2-Methoxyethanol	LAB_P_SOP_171 (by GC-MS analysis)	1 to 10 mg/kg
		Determination of 2-Ethoxyethanol	LAB_P_SOP_171 (by GC-MS analysis)	1 to 10 mg/kg
		Determination of Acrylamide	EN 71-10 & 11 (by LC-MS/MS)	1 to 1000mg/kg
		Determination of 2, 4-Dinitrotoluene	EPA_8330B (by UPLC-DAD)	1 to 1000 mg/kg
		Determination of 5-tert-Butyl-2, 4, 6-trinitrom- xylene (Musk xylene)	LAB_P_SOP_170 (by GC-MS)	1 to 1000 mg/kg
		Determination of Vinyl chloride monomer	ASTM D 3749-95 (by GCMS head space)	1 to 10 mg/kg
	Determination of Short chain chlorinated paraffin (C10-13)	LAB_P_SOP_120 (by GC-ECD)	10 to 2000 mg/kg	

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Determination of Alkyl Phenols and its Ethoxylates Nonyl Phenol Ethoxylates(NPEO) Octyl Phenol Ethoxylates(OPEO) Nonyl Phenol(NP) Octyl Phenol(OP)	LAB_P_SOP_122 (by LC-MS/MS)	10 to 100 mg/kg
		Determination of Fluoro surfactants Per Fluoro Octane Sulphonates(PFOS) Per Fluoro Octanoic acid (PFOA)	LAB_P_SOP_118 (based on LC-MS/MS)	1 to 100 mg/kg
		Determination of Identification of Poly vinyl Chloride	LAB_P_SOP_163 (based on FT-IR)	Qualitative test
		Determination of Odour	LAB_P_SOP_134 (based on DIN 10955-2004 SNV 195651-1968)	Qualitative test
	Determination of Preserving agents n-OctylIS othiazolinone 2- Thiocyanomethylthiobenzothiazol P-chloro-m-cresol Triclosan 1, 2 Benzyl ISO thizoline 3 one 2 methyl 4-ISO thiozoline 3 one 5 chloro 2 methyl 4 ISO thiazoline 3 one	LAB_P_SOP_206 (Based on DIN EN ISO 13365, Solvent extraction with KOH, DIN EN ISO 17070, EN 71-9 -2005 Solvent extraction (GC-MS/UPLC-DAD)	10 to 500 mg/kg	

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	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Determination of Phenols others 2, 6 di methyl phenol p-phenyl phenol Tri bromo phenol Phenol Octyl phenol	LAB_P_SOP_203 (Based on solvent extraction by GC-MS)	1 to 500 mg/kg
		Determination of Di Methyl Fumarate	LAB_P_SOP_162 (By GC-MS)	0.1 to 300 mg/kg
		Determination of Di-Methyl Formamide	LAB_P_SOP_161 (By GC-MS)	1 to 1000 mg/kg
		Determination of pH of aqueous Extract	ISO 3071-2005 GB/T7573-2009 AATCC 81 – 2006 ISO 4045-2008	1 to 14
		Determination of Free Formaldehyde	LAB_P_SOP_84 (based on IS O-14184- Part1 – 2011 LFGB 82.02-1 – 1985 JIS L 1041 – 2000 GB/T 2912.1-2009 EN 645-1994, EN 1541-2001, DIN EN 717-3-1996 EN 71-9/10/11-2005)	10 to 350 mg/kg

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3.	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories and Chemicals)	Determination of Formaldehyde content	LAB_P_SOP_88 (based on BS EN ISO 17226 – 2011)	10 to 500 mg/kg
		Determination of Releasable Formaldehyde	LAB_P_SOP_84 (based on AATCC 112 – 2003 ISO – 14184 part2 – 2011 EN 71-9/10/11-2005)	10 to 350 mg/kg
4.	Textiles, Leather, Toys, Polymers	Determination of 2-Mercapto Benzo thiozole(2-MBT)	LAB_P_SOP_167 (based on UPLC-DAD)	10 to 100 mg/kg
5.	Textiles, Leather, Toys, Polymers (Fibers, Yarns, Fabrics, Garments and Their Accessories, Coatings paints metals and Chemicals)	Determination of Extractable Heavy Metals	LAB_P_SOP_160 (based on	
		Antimony	EN 71 part 3 – 2012	1 to 700 mg/kg
		Arsenic	ASTM-F-963-2012)	0.2 to 500 mg/kg
		Lead	by AAS / ICP-OES	1 to 500 mg/kg
		Cadmium		0.25 to 500 mg/kg
		Chromium		1 to 500 mg/kg
		Mercury		1 to 250 mg/kg
		Barium		10 to 60000 mg/kg
		Selenium		10 to 500 mg/kg
		Aluminum		10 to 80000 mg/kg
		Cobalt		10 to 500 mg/kg
		Copper		10 to 8000 mg/kg
		Manganese		10 to 20000 mg/kg
Nickel		10 to 1000 mg/kg		
Strontium		1 to 60000 mg/kg		
Tin		10 to 20000 mg/kg		
Zinc		10 to 50000 mg/kg		
Boron		5 to 20000 mg/kg		

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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
		Determination of Extractable Heavy Metals	LAB_P_SOP_60 (based on	0.5 to 300 mg/kg
		Antimony	ISO 105 EO4 - 1995	
		Arsenic	ISO 17072-1-2011	0.1 to 500 mg/kg
		Lead	IUC-27-1 2009)	0.2 to 500 mg/kg
		Cadmium	AAS/ICP –OES analysis	0.05 to 500 mg/kg
		Copper		0.25 to 500 mg
		Cobalt		0.25 to 500 mg/kg
		Chromium		0.25 to 500 mg/kg
		Nickel		0.25 to 500 mg/kg
		Mercury		0.01 to 100 mg/kg

II. FOOD AND AGRICULTURAL PRODUCTS

1. Animal Feed/ Pet Foods	Moisture	IS 7874(Part I)- 1975 RA 2009/ 934.01, Chapter 4, AOAC 19 th Edtn.	2.0 to 15%
	Acid insoluble ash	IS 7874(Part I)- 1975 RA 2009	0.01 to 10%
	Total ash	942.05, Chapter 4 AOAC 19th Edtn. / IS 7874(Part I)- 1975, RA 2009	0.5 to 20%
	Crude Protein	984.13, Chapter 4, AOAC 19 th Edtn. / IS 7874(Part I)- 1975 RA 2009	1 to 70%
	Crude fiber	IS 7874(Part I)- 1975 RA 2009	2 to 20%

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		Crude fat	920.39, chapter 4 AOAC 19th Edtn./ IS 7874(Part I)- 1975 RA 2009	1 to 20%
		Urea nitrogen	IS 7874(Part I)- 1975 RA 2009 / 941.04, Chapter 4, AOAC 19 th Edtn.	0.1 to 10%
		Salt	IS 7874(Part II)- 1975, RA 2009	0.2 to 5%
		Phosphorus	IS 7874(Part II)- 1975, RA 2009	0.05 to 5%
		Calcium	IS 7874(Part II)- 1975, RA 2009	0.05 to 5%
		Total Sugar	974.06, Chapter 4, AOAC 19th Edtn.	0.5 to 20%
		Sucrose	925.05, Chapter 4, AOAC 19th Edtn.	0.5 to 20%
		Ethoxyquine	996.13, Chapter 4; AOAC 19 th Edtn.	10 to 1000 mg/kg / 5 mg/kg
		Histamine	LAB_P_SOP_119	5 to 500 mg/kg / 1.0 mg/kg
		Total volatile base nitrogen	LAB_P_SOP_129	5 to 200 mg/ 100g

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2.	Cereals, Pulses and by Products Malt and Malted foods	Moisture	925.10, Chapter 32, AOAC 19th Edtn. / IS 4333 Part- 2, 2002 IS 1155:1968, RA 2010/ IS 1158:1973, RA 2010	1 to 25%
Total ash		923.03, Chapter 32, AOAC 19th Edtn. / IS 1155:1968, RA 2010	0.5 to 20%	
Calcium		944.03, Chapter 32, AOAC 19th Edtn.	0.05 to 5%	
Total fat		922.06, Chapter 32, AOAC 19th Edtn.	1 to 20%	
Crude fiber		IS 10226(Part-1) : 1982	1 to 25%	
Total sugar		939.03, Chapter 32, AOAC 19 th Edtn.	5 to 200 mg/ 10gm	
Protein		920.87, Chapter 32, AOAC 19 th Edtn. / IS 7219:1973, RA 2010	5 to 25%	
Gluten		1155-1968 RA 2010 IS 1009:1979 RA 2010	5 to 20%	

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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
		Pigment	950.34, Chapter 32, AOAC 19 th Edtn.	1.5 to 25 mg/kg
		Dietary Fiber	IS 11062:1984, RA 2005; 985.29 Chapter 45, AOAC 19 th Edtn.	1 to 30%
		Acid insoluble ash	IS 1155 : 1968, RA 2010 / IS 1158:1968, RA 2010 / IS 1155: 1968, RA 2010 / IS 1009: 1979, RA 2010	0.05 to 10%
		Determination of Alcoholic Acidity	IS 1158: 1973	0.01 to 1%
		Uric acid	Lab_P_SOP_196	1.5 to 100 mg/kg / 1 mg/kg
		Total Ash excluding Salt	IS 1155:1968 RA 2010/ IS 1797:1985	0.5 to 20%
		Oxalic acid	IS 6108:1971	0.1 to 5.0%
		Benzoyl peroxide	AACC pat 2, 10 th Edtn.; 935.34; Chapter 32, AOAC 19th Edtn.	10 to 100 mg/kg
		Foreign Matter, Other Edible Grains, Weevil Led Grains, Damaged Grains	IS 4333(part I);1996	0.1 to 10%

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3.	Coffee, Tea, Cocoa and By Products	Total ash	920.93, Chapter 30-31, AOAC 19th Edtn. IS 13860:1993, RA 2010 IS 13854:2009, RA 2009 IS 3077:1992, RA 2009 IS 1164; 1986, RA 2012 IS 612: 1992, RA 2009 IS 3633: 2003, RA 2008	0.5 to 15%
		Acid insoluble ash	975.12, Chapter 30-31, AOAC 19th Edtn. IS 13857:1993 RA 2009 / IS 3077: 1992 RA 2009 / IS 1164; 1986 RA 2007 / IS 612:1992 RA 2009 / IS 3633: 2003 RA 2008 / IS 2791:1992 RA 2009	0.05 to 2%
		Water soluble ash	975.11, Chapter 30-31, AOAC 19th Edtn. / IS 3077: 1992 RA 2009 / IS 13855:1993 RA 2009	1 to 20%
		Alkalinity of ash	975.11, Chapter 30-31, AOAC 19th Edtn. IS 3077: 1992 RA 2009 / IS 1164; 1986 RA 2007 / IS 13856:1993 RA 2009 / IS 3633: 2003 RA 2008	0.5 to 10%

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Total fat (Ether Extract)	963.15, Chapter 30-31, AOAC 19th Edtn. / IS 3077: 1992 RA 2009	1 to 20%
		Moisture	979.12, Chapter 30-31, AOAC 19th Edtn. / IS 6762:1986 RA 2007 / IS 3309:1992RA 2009 / IS 3077: 1992RA 2009 / IS 13859:1993 RA -2009 / IS 3802:1992 RA 2009 / IS 1164: 1986, RA 2007 / IS 13853:1994, RA 2009 / IS 2791: 1992, RA 2009	1 to 25%
		Crude fiber	920.98, Chapter 30-31, AOAC 19th Edtn. IS 1164: 1986 RA 2007, IS 10226 (Part-1)1982 RA 2010	1 to 20%
		Acidity	920.92, Chapter 30-31, AOAC 19th Edtn.	0.05 to 10%
		Caffeine content	Lab_P_ITP_07	0.5 to 5 mg/kg / 0.1 mg/kg
		Water soluble Extract	IS 13862:1999 RA :2010	10 to 50%
		Total polyphenols	ISO 14502:2005	0.5 to 25 %

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
4.	Dairy Products - (Raw Milk and pasteurized Milk, Cream, curd, Paneer, condensed milk, cheese, Ice Cream, Milk powder, Butter, Ghee, Milk fat, Shrikhand, Yoghurt, Whey powder, Edible casein products)	Total fat / Milk Fat	952.06, Chapter 33, AOAC 19th Edtn. 938.06, Chapter 33, AOAC 19th Edtn.; IS 1479(Part1)-1960 IS 11721:1986; IS 3509:1966 ; IS 10484:1983; IS 2785:1979, RA 2000; IS 2802:1964; IS 1165:2002; IS 3507:1966, RA 2003; IS 11762:1986; IS 13688-1999, RA 2010	0.5 to 99 %
		Total Solids/Milk solids/ Milk Solid Not Fat	925.23, Chapter 33, AOAC 19th Edtn. / IS 1986 RA 2009 IS 2802:1964 RA 2009 ; IS 11622:1986 RA 2003; IS 1165:2002; AOAC, 990.21, Chapter 33, 19 th Edtn.; IS 13688:1999 RA 2010, By calculation	5 to 50%

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		Titration Acidity	947.05, Chapter 33, AOAC 19th Edtn. / IS 2802: 1964 RA 2009; IS 3507: 1966 RA 2009; IS 10484; 1983 RA 2010; IS 1165: 2002 RA 2009, IS 11766: 1986 RA 2008; IS 1166:198	0.1 to 5.0%
		pH	IS 4238-1967 RA 2010	2 to 14
		Adulterants	IS 1479;(part 1)-1960;RA 2009	Qualitative
		Total Nitrogen	991.20, Chaptre 33, AOAC 19 th Edtn.	0.05 to 10 %
		Sucrose/Sugar	IS 2802: 1964 RA 2009; Appendix C of IS 4079: 1967 RA 2009	5 to 50%
		Wt / Vol	IS 2802: 1964 RA 2009	NA
		Milk Protein/ Milk protein in milk solids not fat/ Casein protein, Whey protein, non protein nitrogen	930.33, Chapter 33, AOAC 19 th Edtn. ; 930.29, Chapter 33, AOAC 19 th Edtn. / IS 7219: 1973, RA 2010; AOAC, 991.23, 19 th Edtn. ; 998.07, Chapter 33, AOAC 19 th Edtn.	10 to 50%

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		Moisture	920.116, Chapter 33, AOAC 19th Edtn. / IS 3507 (Method II): 1966 RA 2009/ IS 3508:1966 IS 2785:1979 RA 2009/ IS 10484: 1983 RA 2010 / 926.08, Chapter 33, AOAC 19 th Edtn. IS 1165: 2002 RA 2009; IS 11623: 2008; IS 10484:1983	1 to 60 %
		Curd	IS 3507:1966	0.1 to 2%
		Salt	960.29, Chapter 33, AOAC 19th Edtn. / IS 3507: 1966 RA 2009; IS 2785:1979 RA 2000	0.5 to 10%
		Acid Value	969.17, Chapter 33, AOAC 19th Edtn.	1 to 10
		Preservative /Neutralizers	920.120, Chapter 33, AOAC 19th Edtn. ; IS 1479 (Part I)- 1960 RA 2009, / 960.27 Chapter 33, AOAC 19th Edtn.	Qualitative
		Refractive index at 40°C	IS 3508:1966	1.300 to 1.700

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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
		RM value	IS 3508:1966	2.0 to 50
		Free fatty acids	IS 3508:1966	0.1 to 10%
		Total Ash	930.30, Chapter 33, AOAC 19 th Edtn. / IS 1165: 2002 RA 2009; 935.42, Chapter 33, AOAC 19th Edtn. ; 945.46' Chapter 33; AOAC 19 th Edtn.	0.5 to 10%
		Insolubility Index	IS 12758 : 1989	0.1 to 5.0 ml
		Total Antibiotic residue, as beta - Lactum in Milk	Delvo test Kit	Qualitative
5.	Edible Starches And Starchy Products	Moisture	IS 4706 (Part II): 1978, RA 2010	1 to 15 %
		Total ash	IS 4706 (Part II): 1978, RA 2010	0.5 to 10 %
		Acid insoluble ash	IS 4706 (Part II): 1978, RA 2010	0.1 to 5%
		Alkalinity of ash	IS 4706 (Part II): 1978, RA 2010	0.05 to 5%
		Sulphated ash	IS 4706 (Part II): 1978, RA 2010	0.1 to 10%

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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
		Starch	IS 4706 (Part II): 1978, RA 2010	60 to 99%
		Protein	IS 4706 (Part II): 1978, RA 2010	0.1 to 10%
		pH of aqueous extract	IS 4706 (Part II): 1978, RA 2010	2 to 14
		Acidity of extracted fat	IS 4706 (Part II): 1978, RA 2010	0.05 to 5%
		Sulphur dioxide	IS 4706 (Part II): 1978, RA 2010	10 to 100 mg/kg / 10 mg/kg
		Alcoholic acidity	IS 4706 (Part II): 1978 RA 2010	0.01 to 5%
		Crude Fibre	IS 4706 (Part II): 1978 RA 2010	1 to 20 %
6.	Fish And Marine Products	Total solids/Moisture	952.08, Chapter 35, AOAC 19th Edtn.	50 to 100%
		Total fat	948.15, Chapter 35, AOAC 19th Edtn.	0.5 to 25%
		Total Nitrogen	940.25, Chapter 35, AOAC 19th Edtn.	0.05 to 25%

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		Total ash	938.08, Chapter 35, AOAC 19th Edtn.	0.1 to 20%
		Sodium chloride	937.09, Chapter 35, AOAC 19th Edtn.	2 to 50%
		Total volatile base nitrogen	LAB_P_SOP_129	1.0 to 150 mg/kg
		Acid insoluble Ash	IS 14950:2001	0.1 to 5%
		HIS tamine	LAB_P_SOP_199	1 to 100 mg/kg/ 0.5 mg/kg
		Indole	981.07, ch.35, AOAC 19 th Edtn.	20 to 500 µg/kg/ 10 µg/kg
7.	Food Colors	Water insoluble matter	IS 1694: 1994, RA 2012 / IS 1695: 1994, RA 2012 / IS 2558: 1994, RA 2008 / IS 1698: 1994, RA 2008	0.05 to 5%
		Loss on drying	IS 1694: 1994, RA 2012 / IS 1695: 1994, RA 2012 / IS 2558: 1994, RA 2008 / IS 1698: 1994, RA 2008	0.5 to 20%
		combined ether extract	IS 1694: 1994, RA 2012 / IS 1695: 1994, RA 2012 / IS 2558: 1994, RA 2008 / IS 1698: 1994, RA 2008	0.05 to 1.0 %

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Total dye content of various food colours, (Tartrazine, sunset yellow, ponceau 4r)	IS 1694: 1994, RA 2012 / IS 1695: 1994, RA 2012 / IS 2558: 1994, RA 2008 / IS 1698: 1994, RA 2008	60 to 99%
8.	Fruits And Vegetable Products/ Canned Vegetables, Dried Vegetables, Frozen Vegetables	Total soluble solids	AOAC 19th Edtn. Chapter 37 / IS 13815: 1993 RA 2008	1 to 50%
		pH	IS 2860-1964 RA 2008	2 to 14
		Calcium	IS 2860-1964 RA 2008	0.1 to 5%
		Protein	920.151, 920.152, Chapter 37, AOAC 19th Edtn.	0.05 to 10%
		Starch	925.38, Chapter 37, AOAC 19th Edtn.	1.0 to 10%
		Salt	IS 3881: 1993 RA 2008 IS 2860: 1994 RA 2008	0.05 to 5%
		Reducing Sugars	925.36, Chapter 37, AOAC 19th Edtn. / IS 6287: 1985 RA 2010	5 to 50%
		Benzoic acid	994.11, Chapter 37, AOAC, 19th Edtn.	10 to 1000 mg /kg 1 mg/kg
		Water Insoluble solids	922.10, Chapter 37, AOAC 19th Edtn.	1 to 10%

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		Soluble solids	932.12, Chapter 37, AOAC 19th Edtn.	1 to 15%
		Total Ash	940.26, Chapter 37, AOAC 19th Edtn.	0.5 to 15%
		Titrateable Acidity	942.15, Chapter 37 AOAC 19th Edtn. / IS 2860-1964 RA 2008 ; IS 13844-2003, RA 2008	0.1 to 5%
		Hydroxy Methyl Furfural	IFU-69	10 to 100 mg/kg / 1 mg/kg
		Patulin	995.10; Chapter 49; AOAC 19 th Edtn.	0.1 to 10 mg/kg
		Fruit juice content	Ranganna Book	50 to 90 %
		Sulphur dioxide	AOAC, 990.28, Chapter 47, 19 th Edtn.	15 to 1000mg/kg/ 10 mg/kg
		Drained weight	IS 2860 : 1964	NA
		Dry matter	IS 5781-1993 RA 2008	0.1 to 60%
		Acid Insoluble ash	IS 13846-1993 RA 2008	0.01 to 0.5%

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9.	Spices And Condiments	Water Insoluble Ash	IS 1797-1985 RA 2009	1 to 10%
		Total ash	941.12, Chapter 43, AOAC 19 th Edtn. / IS 1797-1985 RA 2009	1 to 20%
		Calcium	IS 1797-1985 RA 2009	0.05 to 5%
		Alcohol Soluble extract	IS 1797-1985 RA 2009	1 to 10%
		Cold water Soluble extract	IS 1797-1985 RA 2009	1 to 30%
		Crude fibre	IS 1797-1985 RA 2009	1 to 25%
		Salt	IS 1797-1985 RA 2009	0.05 to 10%
		Non volatile ether extract	IS 1797-1985 RA 2009	5 to 25%
		Acid Insoluble Ash	IS 1797-1985 RA 2009	0.1 to 5%
		Moisture	IS 1797-1985 RA 2009 / 941.11, Chapter 43 AOAC 19 th Edtn.	0.5 to 15%
		Volatile Oil	IS 1797-1985 RA 2009	1 to 10%
		Heat unit	995.03, Chapter 43, AOAC 19 th Edtn.	1000 to 500000 SHU
		Curcumin	IP-2010/HPLC; IS 10925:1984	1 to 99%
		Allyliso Thiocyanate	IS 2323 : 2011	0.1 to 5%

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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
		Piperine content	AOAC 987.07, Chapter 43, 19 th Edtn.	0.5 to 10%
		Bulk Density	LAB_P_SOP_16	NA
10.	Saffron	Bitterness expressed as direct reading of absorbance at 257 nm	IS 5453 (Part 2) 1996	25 to 80%
		Safranal expressed as direct reading of absorbance at 330 nm	IS 5453 (Part 2) 1996	15 to 60%
		Colouring strength expressed as direct reading at 440 nm	IS 5453 (Part 2) 1996	60 to 90%
		Total Nitrogen	IS 5453 (Part 2) 1996	0.05 to 25%
		Lead Chromate	IS 3576:2010	NA
		Starch	IS 3576:2010	2 to 10%
		Volatile organic sulphur compound	ISO 5567:1982	1.0 to 5.0%
11.	Meat And Poultry Products	Moisture	950.46 Chapter 39, AOAC 19 th Edtn.	1 to 60 %
		Crude fat	960.39 Chapter 39 AOAC 19 th Edtn.	1 to 20%

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		Salt	935.47, Chapter 39, AOAC 19th Edtn.	0.2 to 5%
		Total ash	920.153, Chapter 39, AOAC 19th Edtn. IS 6747:1981	1 to 15%
		Nitrogen	928.08, Chapter 39, AOAC 19th Edtn.	2 to 25%
12.	Sugar and Sugar Products, Confectionary (Includes Honey)	Sulphated ash	IS 6287: 1985 RA 2010; IS 6747:1981	0.5 to 20%
		Moisture	925.45 Chapter 44, AOAC 19th Edtn.	1 to 10%
		Nitrogen	920.176, Chapter 44, AOAC 19th Edtn.	0.5 to 5%
		Total ash	900.02, Chapter 44, AOAC 19th Edtn. / IS 12711: 1989 RA 2010 ; IS 6747:1981	1 to 10%
		Reducing sugar	IS 6287: 1985 RA 2010; IS 6747:1981 4941:1994	5 to 80%
		Total fat	IS 1163: 1992 RA 2009/ IS 6287: 1985 RA 2010	1 to 10%

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		Milk solids	IS 1163: 1992 RA 2009	5 to 50%
		Acid Insoluble ash	IS 1163: 1992 RA 2009/ IS 12711: 1989 RA 2010/ IS 6287: 1985 RA 2010	0.1 to 5%
		Sulphur dioxide	990.28 Chapter 47, AOAC 19 th Edtn. / IS 6287: 1985 RA 2010	15 to 1000 mg/kg / 10 mg/kg
		Soluble & Insoluble Ash	900.02 D, Chapter 44, AOAC 19 th Edtn.	0.05 to 5%
		Alkalinity of soluble Ash	900.02E Chapter 44, AOAC 19 th Edtn.	0.05 to 5%
		Alkalinity of insoluble ash	900.02 F, Chapter 44, AOAC 19 th Edtn.	0.05 to 5%
		Milk Fat	IS 1163: 1992 RA 2009	10 to 35%
		Gum Content	IS 6747:1981	10 to 25%
		Sugar (Sucrose)	IS 1163: 1992 RA 2009; IS 6747:1981	20 to 80%
		Cocoa Solids	IS 1163: 1992 RA 2009	2 to 20 %
		Protein	IS 7219:1973	1 to 40%

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		Conductivity of Ash	IS 15279:2003	0.01 to 5%
		Fiehe's Test	IS 4941:1994	NA
		Hydroxy Methyl Furfural	980.23, chapter 44, AOAC, 19 th Edtn.	20 to 200 mg/kg
		Fructose Glucose ratio	IS 4941:1994	0.5 to 2.0
		Acidity	IS 4941:1994	0.05 to 2.0%
		Specific Gravity	IS 4941:1994	NA
		Total Solids	IS 8847:1978	80 to 100%
		Synthetic Food colours	Lab SOP -181 /HPLC; FSSAI Manual (Draft copy)	5 to 100 mg/kg / 2mg/kg
		Artificial Sweeteners (Acesulphame K, Aspartame, Saccharine)	LAB_P_SOP_ 193/ HPLC	10 to 500 mg/kg / 5 mg/kg
13.	Oils And Fats	Insoluble impurities	IS :548 (Part-I) 1964 RA 2009	0.05 to 5%
		RM Value	IS :548 (Part-I)- 1964 RA 2009	10 to 60
		Melting Point	IS :548 (Part-I)- 1964 RA 2009	30 to 200 °C

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		Acid Value (FFA)	IS 548 (Part I): 1964 RA 2009 / 940.28 Chapter 41 AOAC 19 th Edtn.	0.50 to 5%
		Iodine Value	993.2 Chapter 41, AOAC 19 th Edtn. / IS :548 (Part I) : 1964 RA 2009	5 to 250
		Saponification Value	IS 548 (Part I): 1964 RA 2009/ 920.160 Chapter 41, AOAC 19 th Edtn.	100 to 250
		Peroxide Value	IS 548 (Part I) : 1964 RA 2009, 965.33 Chapter 41 AOAC 19 th Edtn.	1 to 20 me/kg
		Unsaponifiable Value	IS 548 (Part I): 1964 RA 2009 / 933.08, Chapter 41, AOAC, 19 th Edtn.	1 to 5%
		Refractive Index	IS 548 (Part I): 1964 RA 2009	1.3 to 1.7
		Moisture and volatile matter	IS 548 (Part I): 1964 RA 2009	0.05 to 2%
		Polenske Value	IS 548 (Part I): 1964 RA 2009	10 to 15
		P-Anisidien value	AOCS Cd, 3a-63	1 to 30
		Argemone oil	IS 548 (Part I): 1964 re	Qualitative

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		Bellier test	IS 548 (Part I): 1964 re	Qualitative
		Semi Saccative oil	AOAC, 936.12, Chapter 41, 19 th Edtn. (Qualitative)	Qualitative
		Olive Pomace oil test	FSSAI Manual	Qualitative
		Cotton seed oil test	IS 548 (Part II): 1964 re	Qualitative
		Teaseed oil test	FSSAI Manual	Qualitative
		Sesame seed oil test	IS 548 (Part II): 1964 re	Qualitative
		Antioxidants (Ethoxyquine, BHA, BHT and TBHQ)	983.15, Chapter 47, AOAC 19 th Edtn. 996.13, Ch.4; AOAC 19 th Edtn.	100 to 500 mg /kg / 1 mg/kg
14.	Food and Agricultural Products and Animal Feeds	Saffrole	LAB_P_SOP_114	1 to 10 mg/kg / 0.5 mg/kg
		Hypericine	LAB_P_SOP_115	1.0 to 10 mg/kg / 0.5 mg/kg
		Agaric acid	LAB_P_SOP_116	10 to 500 mg/kg / 5 mg/kg
		Hydrocyanic acid	915.03, Ch 49, AOAC 19 th Edtn.	1.0 to 5 mg/kg / 0.5 mg/kg
		Inorganic bromide as total bromide	IS 14626:1999	10 to 100 mg/kg

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		Aflatoxins B1, B2, G1 & G2	TLC method (993.17, Chapter 49, AOAC 19th Edtn./ 990.33, Chapter 49, AOAC 19th Edtn.	Qualitative 5.0 to 100 µg/kg / 1µg/kg
15.	Non -Alcoholic Beverages (Including Carbonated Beverages)	Moisture	950.2, Chapter 29, AOAC 19 th Edtn.	80 to 99%
		protein	IS 9038-1979 RA 2005	0.1 to 5 %
		Total acidity	IS 3752 -2005 RA 2009	0.05 to 5%
		Volatile acidity	IS 3752 -2005 RA 2009	0.05 to 5%
		Benzoate, Sorbic acid	979.08 Chapter 29, AOAC 19 th Edtn. Lab_SOP_183	100 to 1000 mg/l / 5 mg/kg
		Caffeine	979.08, chapter 29 AOAC 19th Edtn.	0.1 to 10%
		Total solids	950.27, chapter 29 AOAC 19th Edtn.	0.5 to 20%
		Fat	IS 9038 -1979	0.1 to 1%
		Synthetic Food Colours (Carmosine, Ponceau4r, Erythrosine, Green FCF, Indigo Carmine, Brilliant Blue, Tartrazine, Sunset Yellow	Lab SOP -181 /HPLC	10 to 100 mg/l 5mg/l

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		Artificial Sweeteners (Acesulphame K, Aspartame, Saccharine)	Lab_SOP_ 193/ HPLC	10 to 500 mg/kg / 5 mg/kg
16.	Alcoholic beverages	Total ash	IS 3752 -2005 RA 2009	0.1 to 5%
		Total acidity	IS 3752 -2005 RA 2009	0.05 to 5%
		Volatile acidity	IS 3752 -2005 RA 2009	0.05 to 5%
		Fixed acidity	IS 3752 -2005 RA 2009	0.05 to 5%
		Aldehydes	IS 3752 -2005 RA 2009/ 972.08, chapter 26, AOAC19th Edtn.	10 to 100 mg/ 100 ml
		Residue on Evaporation	IS 3752 -2005 RA 2009	0.05 to 5%
		Methyl Alcohol	958.04, Chapter 26, AOAC19th Edtn. / IS 3725-2005 RA 2009	10 to 1000 mg /l
		Specific gravity	950.28, chapter 28, AOAC 19th Edtn.	0.7 to 1.0 g/ml
17.	Animal Feeds	Lead	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.4 to 25mg/kg/ 0.4mg/kg
		Cadmium	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.1 to 10 mg/kg / 0.1mg/kg

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		Arsenic	Chapter 9 AOAC 19 th Edtn. 986.15/LAB_P_SOP_36	100 to 10000 µg/kg / 100 µg/kg
		Mercury	Chapter 9 AOAC 19 th Edtn.971.21/LAB_P_SOP_36	50 to 500 µg/kg / 50 µg/kg
18.	Cereals, Pulses and By products	Copper	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.2 to 200mg/kg/ 0.2 mg/kg
		Zinc	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.9 to 200mg/kg/ 0.9 mg/kg
		Tin	Chapter 9 AOAC 19 th Edtn. 985.16/LAB_P_SOP_36	4.0 to 500mg/kg/ 4.0 mg/kg
		Mercury	Chapter 9 AOAC 19 th Edtn. 971.21/LAB_P_SOP_36	20 to10000µg/kg / 20 µg/kg
		Arsenic	Chapter 9 AOAC 19 th Edtn. 986.15/LAB_P_SOP_36	200 to 1000 µg/kg / 200 µg/kg
		Lead	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.2 to 25mg/kg/ 0.2 mg/kg
		Cadmium	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.2 to 10mg/kg/ 0.2mg/kg

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19.	Spices and Condiments	Copper	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.5 to 200mg/kg/ 0.5mg/kg
		Zinc	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.1 to 200mg/kg/ 0.1 mg/kg
		Tin	Chapter 9 AOAC 19 th Edtn. 985.16/LAB_P_SOP_36	5.0 to 500mg/kg/ 5.0 mg/kg
		Mercury	Chapter 9 AOAC 19 th Edtn. 971.21/LAB_P_SOP_36	30to10000 µg/kg / 30 µg/kg
		Arsenic	Chapter 9 AOAC 19 th Edtn. 986.15/LAB_P_SOP_36	70to10000 µg/kg / 70 µg/kg
		Lead	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.3 to 25mg/kg/ 0.3 mg/kg
		Cadmium	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.05 to 0mg/kg/ 0.05 mg/kg
20.	Meat and Poultry Product	Copper	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.1 to 200mg/kg/ 0.1mg/kg
		Zinc	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.8 to 200mg/kg/ 0.8 mg/kg
		Tin	Chapter 9 AOAC 19 th Edtn. 985.16/LAB_P_SOP_36	4.0 to 500mg/kg/ 4.0 mg/kg

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		Mercury	Chapter 9 AOAC 19 th Edtn. 971.21/LAB_P_SOP_36	20 to 10000 µg/kg / 20 µg/kg
		Arsenic	Chapter 9 AOAC 19 th Edtn. 986.15/LAB_P_SOP_36	100 to 10000 µg/kg / 100 µg/kg
		Lead	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.7 to 25mg/kg/ 0.7 mg/kg
		Cadmium	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.1 to 10mg/kg/ 0.1 mg/kg
		Selenium	Chapter 9 AOAC 19 th Edtn. 986.15/LAB_P_SOP_36	0.1 to 200mg/kg/ 0.1mg/kg
21.	Coffee, Tea, Cocoa and By Products	Copper	Chapter 9 AOAC 19 th Edtn. 971.20/LAB_P_SOP_36	0.1 to 200mg/kg/ 0.1mg/kg
		Zinc	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.1 to 200mg/kg/ 0.1mg/kg
		Tin	Chapter 9 AOAC 19 th Edtn. 985.16/LAB_P_SOP_36	6.0 to 500mg/kg/ 6.0mg/kg
		Mercury	Chapter 9 AOAC 19 th Edtn. 971.21/LAB_P_SOP_36	50 to 10000 µg/kg / 50 µg/kg
		Arsenic	Chapter 9 AOAC 19 th Edtn. 986.15/LAB_P_SOP_36	300 to 10000 µg/kg / 300 µg/kg

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		Lead	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.4 to 10mg/kg/ 0.4 mg/kg
		Cadmium	Chapter 9 AOAC 19 th Edtn. 999.11/LAB_P_SOP_36	0.2 to 10mg/kg/ 0.2 mg/kg
		Selenium	Chapter 9 AOAC 19 th Edtn.986.15/LAB_P_SOP_36	0.15 to 10 mg/kg/ 0.15 mg/kg
		Manganese	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.5 to 200 mg/kg/ 0.5 mg/kg
		Chromium	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.3 to 200mg/kg/ 0.3 mg/kg
		Iron	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200mg/kg/ 0.1 mg/kg
		Nickel	Chapter 9 AOAC 19 th Edtn.971.20/LAB_P_SOP_36	0.7 to 200mg/kg/ 0.7 mg/kg
22.	Ayurvedic Medicine	Lead	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.2 to 100mg/kg/ 0.2 mg/kg
		Cadmium	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 10mg/kg/ 0.1 mg/kg
		Arsenic	Chapter 9 AOAC 19 th Edtn.986.15/LAB_P_SOP_36	200 to 10000 µg/kg / 200 µg/kg

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	Ayurvedic Medicine	Mercury	Chapter 9 AOAC 19 th Edtn.971.21/LAB_P_SOP_36	100 to10000 µg/kg / 100µg/kg
23.	Nut and Nut product	Copper	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.3 to 200mg/kg/ 0.3 mg/kg
		Zinc	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200mg/kg/ 0.1 mg/kg
		Tin	Chapter 9 AOAC 19 th Edtn.985.16/LAB_P_SOP_36	5 to 500mg/kg/ 5 mg/kg
		Mercury	Chapter 9 AOAC 19 th Edtn.971.21/LAB_P_SOP_36	30 to10000 µg/kg / 30 µg/kg
		Arsenic	Chapter 9 AOAC 19 th Edtn.986.15/LAB_P_SOP_36	40 to10000 µg/kg / 40 µg/kg
		Lead	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.2 to 10mg/kg/0.2 mg/kg
		Cadmium	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.2 to 10mg/kg/ 0.2 mg/kg
24.	Alcoholic and Non-Alcoholic Beverages (including Carbonated beverages)	Copper	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200mg/kg/ 0.1 mg/kg
		Zinc	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200 mg/kg/ 0.1 mg/kg

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		Tin	Chapter 9 AOAC 19 th Edtn.985.16/LAB_P_SOP_36	2 to 500 mg/kg/ 2 mg/kg
		Mercury	Chapter 9 AOAC 19 th Edtn.971.21/LAB_P_SOP_36	20 to10000 µg/kg / 20 µg/kg
		Arsenic	Chapter 9 AOAC 19 th Edtn.986.15/LAB_P_SOP_36	50 to10000 µg/kg / 50 µg/kg
		Lead	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.2 to 10 mg/kg/ 0.2 mg/kg
		Cadmium	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 10 mg/kg/ 0.1 mg/kg
25.	Fruits and Vegetables	Copper	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.02 to 200 mg/kg/ 0.02 mg/kg
		Zinc	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200 mg/kg/ 0.1 mg/kg
		Tin	Chapter 9 AOAC 19 th Edtn.985.16/LAB_P_SOP_36	14.0 to 500 mg/kg/ 14 mg/kg
		Mercury	Chapter 9 AOAC 19 th Edtn.971.21/LAB_P_SOP_36	60 to10000 µg/kg / 60 µg/kg
		Arsenic	Chapter 9 AOAC 19 th Edtn.986.15/LAB_P_SOP_36	20 to10000 µg/kg / 20 µg/kg

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		Lead	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.03 to 10 mg/kg/ 0.03 mg/kg
		Cadmium	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.02 to 10 mg/kg/ 0.02 mg/kg
26.	Sugar and sugar products	Copper	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200 mg/kg/ 0.1 mg/kg
		Zinc	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200 mg/kg/ 0.1 mg/kg
		Tin	Chapter 9 AOAC 19 th Edtn.985.16/LAB_P_SOP_36	2 to 500 mg/kg/ 2 mg/kg
		Mercury	Chapter 9 AOAC 19 th Edtn.971.21/LAB_P_SOP_36	20 to10000 µg/kg / 20 µg/kg
		Arsenic	Chapter 9 AOAC 19 th Edtn.986.15/LAB_P_SOP_36	100 to10000 µg/kg / 100 µg/kg
		Lead	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 10 mg/kg/ 0.1 mg/kg
		Cadmium	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 10mg/kg/ 0.1 mg/kg
		Chromium	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.01 to 5 mg/kg/ 0.01 mg/kg

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27.	Nutritional labeling of food Products	Iron	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.3 to 200 mg/kg/ 0.3 mg/kg
		Copper	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200 mg/kg/ 0.1 mg/kg
		Zinc	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200 mg/kg/ 0.1 mg/kg
		Tin	Chapter 9 AOAC 19 th Edtn.985.16/LAB_P_SOP_36	6.0 to 500 mg/kg/ 6.0 mg/kg
		Calcium	Chapter 9 AOAC 19 th Edtn.990.08/LAB_P_SOP_36	1 to 2000 mg/kg/ 1 mg/kg
		Magnesium	Chapter 9 AOAC 19 th Edtn.990.08/LAB_P_SOP_36	1 to 2000 mg/kg/ 1 mg/kg
		Mercury	Chapter 9 AOAC 19 th Edtn.971.21/LAB_P_SOP_36	50 to 10000 µg/kg/ 50 µg/kg
		Arsenic	Chapter 9 AOAC 19 th Edtn.986.15/LAB_P_SOP_36	300 to 10000 µg/kg / 300 µg/kg
		Lead	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.4 to 10 mg/kg/ 0.4 mg/kg
	Cadmium	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.2 to 10 mg/kg/ 0.2 mg/kg	

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		Selenium	Chapter 9 AOAC 19 th Edtn.986.15/LAB_P_SOP_36	150 to10000 µg/kg / 150 µg/kg
		Manganese	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.5 to 200 mg/kg/ 0.5 mg/kg
		Chromium	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.3 to 200 mg/kg/ 0.3 mg/kg
		Iron	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200 mg/kg/ 0.1 mg/kg
28.	Dairy Products	Copper	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.2 to 200 mg/kg/ 0.2 mg/kg
		Zinc	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200 mg/kg/ 0.1 mg/kg
		Tin	Chapter 9 AOAC 19 th Edtn.985.16/LAB_P_SOP_36	4 to 500 mg/kg/ 4 mg/kg
		Mercury	Chapter 9 AOAC 19 th Edtn.971.21/LAB_P_SOP_36	40 to10000 µg/kg / 40 µg/kg
		Arsenic	Chapter 9 AOAC 19 th Edtn.986.15/LAB_P_SOP_36	100 to10000 µg/kg / 100 µg/kg
		Lead	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.3 to 10mg/kg/ 0.3 mg/kg

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		Cadmium	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 10mg/kg/ 0.1 mg/kg
		Selenium	Chapter 9 AOAC 19 th Edtn.986.15/LAB_P_SOP_36	100 to10000 µg/kg / 100 µg/kg
		Manganese	Chapter 9 AOAC 19 th Edtn.999.11/LAB_P_SOP_36	0.1 to 200mg/kg/ 0.1mg/kg
29.	Animal feeds, Cereals, Pulses and by Products, Spices and Condiments, Coffee, Tea Cocoa and by Products, Fish and Marine Products, Meat, poultry and products, Nut and Nut products, Alcoholic and Non - Alcoholic Beverages, Sugar and Sugar Products, Fruit and Vegetable Products, Dairy Products, Ayurvedic Medicine and All Food Products	Sodium	966.16, Chapter 37, AOAC 19 th Edtn. / Flame Photometer	0.01 to 10%
		Potassium	966.16, Chapter 37, AOAC 19 th Edtn./Flame Photometer	0.01 to10%

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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
30.	Nut and Nut Products	Moisture	925.40 chapter 40 AOAC 19 th Edtn.	5 to 15%
		Protein	950.48 chapter 40 AOAC 19 th Edtn.	2 to 50%
		Fat	948.22 chapter 40 AOAC19 th Edtn.	1 to 30%
		Crude fiber	935.53 chapter 40 AOAC 19 th Edtn.	1 to 20%
		Salt	950.52 chapter 40 AOAC 19 th Edtn.	0.05 to 10%
		Total ash	950.49, Chapter 40 AOAC 19 th Edtn	0.1 to 10%
		Acid insoluble Ash	IS :1155 : 1968 RA 2010	0.05 to 3.0%
		Acidity of Extracted fat	IS 10619 : 1983	0.01 to 5.0%
31.	Specific Nutritional Labeling Parameters	Cholesterol	976.26, Chapter 45, AOAC 19 th Edtn.	10 to 3000 mg/kg/ 2 mg/kg
		Saturated fats	996.06, Chapter 41, AOAC 19 th Edtn	0.5 to 25% / 0.001%
		Transfat (Eladic acid, Linoeladic acid, accenic acid)	996.06, Chapter 45, AOAC 19 th Edtn.	10 to 50 mg/kg/ 2 mg/kg

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		MUFA	996.06, Chapter 41, AOAC 19th Edtn.	0.5 to 25% / 0.001%
		PUFA	996.06, Chapter 45 AOAC 19 th Edtn.	1 to 25% / 0.001%
		Dietary Fiber	IS 11062:1984; 985.29 Chapter 45, AOAC 19th Edtn.	0.5 to 30%
32.	Vitamin Premixes and Vitamin Mixtures/Supplements Vitamins in Food and Agricultural Products	Vitamin A	2001.13, Chapter 45, AOAC 19 th Edtn.	1 to 500 mg/kg / 0.5 mg/kg
		Niacin, Thiamine, Riboflavin, Pyridoxine	LAB_P_SOP_180	5 to 500 mg/kg / 1 mg/kg
		Vitamin A, E and D	LAB_P_SOP_182	5 to 5000 mg/kg / 0.5 mg/kg
		Vitamin C	967.21, Chapter 45, AOAC 19 th Edtn. (titration)	0.1 to 5.0 %
			In house method HPLC / Lab_P_ITP_03	5 to 500 mg/kg
33.	Vanilla Beans	Moisture	925.04, Chapter 4, AOAC 19 th Edtn.	5 to 50%
		Vanillin content	LAB_P_SOP_78	0.2 to 5%
34.	Biscuits	Moisture	IS 1011 -2002 RA 2009	1 to 10%
		Acid insoluble ash	IS 1011 -2002 RA 2009	0.01 to 0.5%
		Acidity as oleic acid	IS 1011 -2002 RA 2009	0.1 to 2%

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35.	Ferrous Sulphate Dried	Identification Assay Insoluble substance	FCC V Page No 178-179	NA 70 to 95% 0.02 to 0.5%
36.	Tricalcium Phosphate	Identification Assay Fluoride (Colour Comparison)	FCC V Page No 77	NA 30 to 50% NA
37.	Rice Base (Rice Bran Wax)	Identification FFA Iodine value Saponification value	FCC V TH EDTN. page no 386	NA 2 to 15% 10 to 30 70 to 130
38.	Choline Chloride/ Bitartrate	Identification Assay Residue on ignition Water	FCC V Page No 112-113	NA 80 to 100% 0.01 to 0.1% 0.1 to 1%
39.	Wheat Base (Wheat Protein Isolate)	Identification Assay Ash Crude Fat Loss on drying pH	FCC V Page No 500-501	NA 60 to 90% 2.0 to 10% 4 to 10% 5.0 to 15% 2 to 10
40.	Vitamin D2 (Dry Powder)	Identification Assay Optical rotation	FCC V Page No 497-498	NA 85 to 110% + 100° to +110°

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41.	Sucrose	Identification Assay Color (ICUMSA) Invert sugar Loss on drying Optical rotation Residue on ignition	FCC V Page No 455-456	NA 90 to 105% 40 to 80 0.0 to 0.50% 0.01 to 0.5% 60 to 70 ° 0.01 to 0.5%
42.	Maltodextrin	Identification Assay (as reducing sugar) Residue on ignition Sulphur dioxide Total solids	FCC V Page No 272-273	NA 10 to 25% 0.01 to 1% 10 to 50 mg/kg 75 to 100 %
43.	Whey protein concentrate	Identification Ash Fat Loss on drying pH Protein	FFC V Page No 502	NA 1 to 20 % 0.1 to 15% 2 to 10% 5 to 8 20 to 95 %
44.	Isolated Soy Protein (Concentrate)	Identification Ash Fat Loss on drying pH Protein	FCC V Page No 445	NA 5 to 15 % 2 to 10 % 5 to 15 % 4 to 10 50 to 95 %

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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
45.	Fructose	Identification Chloride HMF Loss on drying Sulfate	FCC V Page No 185-186	NA 0.01 to 0.05% 0.05 to 0.5% 0.1 to 2.0% 0.01 to 0.05 %
46.	Sunflower Oil	Identification Free Fatty acid Iodine value Peroxide Value Unsaponifiable matter Linolenic acid	FCC V Page No 462-463	NA 0.01 to 0.5% 100 to 160 2 to 20 meq/kg 0.5 to 5% 0.5 to 5.0%
47.	Coconut Oil	Identification Free Fatty Acid Iodine value Peroxide Value Unsaponifiable matter Water	FCC V Page No 119 -120	NA 0.05 to 0.5 % 2 to 15 5 to 20 meq/kg 0.05 to 10% 0.01 to 0.5 %
48.	Edible common salt/ Iodized salt	Moisture Sodium chloride Iodine content Matter insoluble in water Matter soluble in water other than NaCl	IS 253:1985 IS 7224:2006 IS 7224:2006 IS 7224:2006 IS 7224:2006	0.1 to 5% 75 to 100% 5 to 50 mg/kg 0.01 to 5% 0.01 to 10%
49.	Food Products	Water Activity	LAB_P_SOP_207	0.1 to 1.0

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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
50.	Ascorbic Acid	Identification Assay Optical rotation Residue on ignition	FCC V Page No 36	NA 95 to 105 % 15 to 25 ° 0.05 to 1.0 %
51.	Ascorbyl Palmitate	Identification Assay Optical rotation Residue on ignition Loss on drying	FCC V Page No 36-37	NA 80 to 100% 15 to 25° 0.05 to 1.0 % 0.5 to 5%
52.	Sodium Ascorbate	Identification Assay Optical rotation Loss on drying	FCC V Page No 404-405	NA 90 to 105 % +100° to +110° 0.05 to 1.0 %
53.	Potassium Citrate	Identification Assay Alkalinity Loss on drying	FCC V Page No 359-360	NA 90 to 105% NA 1 to 10 %
54.	Magnesium Chloride	Identification Assay Ammonium Sulfate	FCC V Page No 259	NA 90 to 110 % 0.001 to 0.5 % 0.01 to 0.5%
55.	Potassium Chloride	Identification Assay Acidity Loss on drying Sodium	FCC V Page No 357-358	NA 90 to 110 % NA 0.05 to 5.0% 0.5 to 200 mg/kg

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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
56.	Sodium Citrate	Assay Water	FCC V Page No 410	95 to 105 % 5 to 15 %
57.	Zinc Sulfate	Identification Assay Acidity	FCC V Page No 513	NA 95 to 105 % NA
58.	Manganese Sulfate	Identification Assay Loss on Heating	FCC V Page No 277	NA 95 to 105 % 5 to 15 %
59.	Potassium Phosphate Dibasic	Identification Assay Loss on drying Insoluble substances	FCC V Page No 367-368	NA 90 to 105 % 0.05 to 5% 0.05 to 1.0 %
60.	Potassium Hydroxide	Identification Assay Insoluble substances	FCC V Page No 362	NA 80 to 105 % NA
61.	Magnesium Sulphate 7 H ₂ O	Identification Assay Loss on ignition	FCC V Page No 266	NA 90 to 105 % 30 to 60 %
62.	Sodium Phosphate Monobasic Mono Hydrate	Identification Assay Loss on drying Insoluble substances	FCC V Page No 428	NA 90 to 105 % 5 to 20 % 0.05 to 1.0 %

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63.	Sodium Sulfate	Identification Assay Loss on drying	FCC V Page No 437	NA 85 to 105 % 0.1 to 5.0 %
64.	Calcium Carbonate	Identification Assay Loss on drying Acid Insoluble substances. Magnesium and alkali salts	FCC V Page No 62-63	NA 90 to 105 % 0.05 to 5% 0.05 to 1.0% 0.1 to 2.0 %
65.	Sodium Chloride	Identification Assay Loss on drying	FCC V Page No 407-410	NA 90 to 105 % 0.05 to 2.0%
66.	Magnesium carbonate	Identification Assay Acid insoluble substances Soluble salts Assay Readily carbonizable substances Water	FCC V Page No 258-259	NA 30 to 50 % 0.01 to 1.0% 0.01 to 2.0 % 90 to 105% NA 2 to 10%
67.	Acetic acid / Vinegar	Assay Non volatile residue Total ash content Acidity Total Solids	FCC V Page No 10-11 IS 14703 :1999	90 to 105 % 0.001 to 0.5 % 0.05 to 20% 1 to 30 % 0.1 to 5%

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III. WATER

1. Drinking Water/ Packaged Drinking Water / Mineral Water/ Process Water	Colour		IS 3025 (Part 4) :1983 / 2120 B of APHA 22 nd Edtn. 2012	2-15 units
	Total Dissolved solids		IS 3025 Part 16) :1984 / 2540 C of APHA 22 nd Edtn. 2012	1.0 to 2000 mg/l
	Odour		IS 3025 (Part 5):1983 / 2150 B of APHA 22 nd Edtn. 2012	NA
	Turbidity		IS 3025 (Part 10):1984 / 2130 B of APHA 22 nd Edtn. 2012	0.02 to 10 NTU
	Taste		IS 3025 (Part 8):1984 / 2160 C of APHA 22 nd Edtn. 2012	Organoleptic
	Aluminium		IS 3025 (Part 55) -2003 RA 2009/ 3120 B, APHA 22 nd Edtn./LAB_P_SOP_37	0.02 to 0.6 mg/l/ 0.02 mg/l
	Boron		IS 3025 (Part 57) : 2005 / 3120 B, APHA 22 nd Edtn./ LAB_P_SOP_37	0.03 to 100 mg/l/ 0.03 mg/l
	Residual free chlorine		IS 3025 (Part 26):1986 / 4500 Cl – B of APHA 22 nd Edtn. 2012	0.1 to 1.0 mg/l

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		Hexavalent chromium	IS 3025 (Part 52) : 2003 / 3500 Cr B of APHA 22 nd Edtn. 2012	0.05 to 10.0 mg/l
		Nitrites	IS 3025 (Part 34): 1988 / 4500 NO ₂ B of APHA 22 nd Edtn. 2012	0.02 to 1.0 mg/l
		pH value	IS 3025 (Part 11) : 1983 / 4500 H+ B of APHA 22 nd Edtn. 2012	1 to 14 units
		Total hardness (as CaCO ₃)	IS 3025 (Part 21) : 2009 / 2340 C of APHA 22 nd Edtn. 2012	1 to 600 mg/l
		Copper (as Cu)	3025 (Part 42) 1992 RA 2009/ 3120 B, APHA 22 nd Edtn./ LAB_P_SOP_37	0.02 to 50 mg/l/ 0.02mg/l
		Iron (as Fe)	3025 (Part 53)2003 RA 2009/ 3120 B APHA 22 nd Edtn./ LAB_P_SOP_37	0.02 to 0.6 mg/l/ 0.02 mg/l
		Manganese (as Mn)	35 of 3025: 1964 RA 2009/ 3120 B, APHA 22 nd Edtn./ LAB_P_SOP_37	0.005 to 0.1 mg/l/ 0.005 mg/l
		Nitrate (as NO ₃)	IS 3025 (Part 34) : 1988 / 4500 NO ₃ B of APHA 22 nd Edtn. 201	0.1 to 50 mg/l
		Flouride (as F)	IS 3025 (Part 60) : 2008 / 4500- F D of APHA 22 nd Edtn. 2012 / LAB_P_SOP_37	0.1 to 1.5 mg/l

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	Zinc (as Zn)		3025 (Part 49) 1994 RA 2009/ 3120 B APHA 22 nd Edtn./ LAB_P_SOP_37	0.050 to 25 mg /l/ 0.05 mg/l
	Nickel (as Ni)		Annexure F of IS 13428 ; 2005 RA 2009/ 3120 B, APHA 22 nd Edtn./ LAB_P_SOP_37	2 to 100µg/l/ 2 µg/l
	Chloride (as Cl)		IS 3025 (Part 32) : 1988 / 4500 Cl B of APHA 22 nd Edtn. 2012	1.0 to 1000 mg/l
	Selenium (as Se)		56 of 3025 : 2003 RA 2009/ 3114 C, APHA 22 nd Edtn./ LAB_P_SOP_37	1 to 50µg/L/ 1µg/L
	Sulphate (as SO ₄)		IS 3025 (Part 24): 1986 / 4500- SO ₄ – E of APHA 22 nd Edtn. 2012	1.0 to 400 mg/l
	Alkalinity (as CaCO ₃)		IS 3025 (Part 23) : 1986 / 2320 B of APHA 22 nd Edtn. 2012	1.0 to 600 mg/l
	Calcium (as Ca)		IS 3025 (Part 40) : 1991 / 3500 Ca B of APHA 22 nd Edtn. 2012	1 to 200 mg/l
	Phenolic compounds (as C ₆ H ₅ OH)		IS 3025 (Part 43) : 1992 / 5530 D of APHA 22 nd Edtn. 2012	0.001 to 0.002 mg/l

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		Mercury (as Hg)	3025 (Part 48) 1994 RA 2009 / 3112 B, APHA 22nd Edtn./ LAB_P_SOP_37	0.2 to 25 µg/L/ 0.2 µg/L
		Cadmium (as Cd)	3025 (Part 41): 1992 RA 2009/ 3120 B, APHA 22nd Edtn./ LAB_P_SOP_37	0.5 to 25 µg/L/ 0.5 µg/L
		Arsenic (as)	3025(Part 37) 1988 RA 2009/ 3114 B APHA 22nd Edtn./ LAB_P_SOP_37	1 to 50 µg /L/ 1 µg/L
		Lead (as Pb)	3025 (Part 47): 1994 RA 2009 / 3120 B, APHA 22nd Edtn./LAB_P_SOP_37	1 to 50 µg/L/ 1 µg/L
		Chromium (as Cr)	Annexure J of IS 13428:2005 RA 2009 / 3120 B APHA 22nd Edtn./LAB_P_SOP_37	0.005 to 0.1 mg/L/ 0.005 mg/L
		Barium (as Ba)	Annexure F of IS 13428: 2005 RA 2009// 3120 B APHA 22nd Edtn. / LAB_P_SOP_37	0.05 to 5.0 mg/L/ 0.05 mg/L
		Magnesium (as Mg),	IS 3025 Part (46) : 1994 / 3500-Mg B of APHA 22 nd Edtn. 2012	1 to 100 mg/l
		Sodium (as Na)	IS 3025 Part (45) : 1993 / 3120 B, APHA 22nd Edtn./ LAB_P_SOP_37	1 to 500 mg/L/ 1mg/L

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		Silver as Ag	Annex J IS 13428 -2005: Reaffirmed 2009/ LAB_P_SOP_37/3120 B, APHA 22 nd Edtn.	0.01 to 3.0 mg/L/ 0.01 mg/L
		Molybdenum as Mo	IS 3025 part(2):2004/3120 B, APHA 22 nd Edtn./ LAB_P_SOP_37	0.05 to 3.0 mg/L/ 0.05 mg/L
		Mineral oil	Clause 6 of IS 3025 (Part39) 1991/ 5520 C of APHA 22 nd Edtn. 2012	0.5 to 100 mg/l
		Anionic Surface Active Agents as MBAS	Annex K of IS 13428 / 5540 C of APHA 22 nd Edtn. 2012	0.1 to 1.0 mg/l
		Sulphide as H ₂ S	IS 3025 Part (29) : 1986/ 4500 S ²⁻ - F of APHA 22 nd Edtn. 2012	0.05 to 5.0 mg/l
		Antimony as Sb	Annex G IS 13428 - 2005;Reaffirmed 2009/3113 A, APHA 22 nd Edtn./LAB_P_SOP_37	1.25 to 50 µg/L/ 1.25 µg/L
		Cyanide as CN	IS 3025 Part (27) :1986 / 4500 CN ⁻ E of APHA 22 nd Edtn. 2012	0.01 to 1.0 mg/l
		Borates as B	Annex H of IS 13428	0.1 to 5 mg/l

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		Chloramines as Cl ₂	APHA 22 nd Edtn. 2012 4500 CL-G	0.1 to 4.0 mg/l
		Ammonia as(Total Ammonia –N)	IS 3025 Part (34) : 1988 / 4500 –NH ₃ C of APHA 22 nd Edtn. 2012	0.5 to 5.0 mg/l
		Specific conductance	IS 3025 Part (14) : 1984 / 2510 B of APHA 22 nd Edtn. 2012	1 to 2500 µs/cm
VI. POLLUTION & EFFLUENTS				
1.	Effluent Water	Biological Oxygen Demand	IS 3025 Part (44) :1993 / 5210 B of APHA 22 nd Edtn. 2012	2.0 to 50 mg/l
		Chemical Oxygen Demand	IS 3025 Part (58) : 2006/ 5220 B of APHA 22 nd Edtn. 2012	5.0 to 250 mg/l
V. COSMETICS & ESSENTIAL OILS				
1.	Plant Extracts	Acid insoluble Ash	IS 7159:1984	0.05 to 5%
	Henna	Crude Fibre	IS 7159:1984	1 to 50%
		Extraneous sand	IS 7159:1984	0.5 to 20 %
		Lawsone content	IS 7159:1984	2 to 5 %
		Mineral Matter	IS 7159:1984	1 to 20 %
		Moisture	IS 7159:1984	1 to 15%
		Water soluble extract	IS 7159:1984	5 to 50%

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VI. LEATHER AND LEATHER PRODUCTS

1.	Leather and Related Products	Determination of Extractable Metals (Soluble Mineral Tanning Agents) Aluminum Zirconium Titanium Chromium	IS O-17072-1-2011 IUC-27-1-2009 by AAS/ICP-OES	1 to 500 mg/kg
2.	Leather, Packaging and Related products	Determination of Chromium VI (Normal and After Ageing)	LAB_P_SOP_103 (based on EN 420 – 2003 IUC – 18 – 1997, DIN 53314 – 1996 ISO – 17075-2007	3 to 100 mg/kg
3.	Leather	Determination of Lead Content Determination of Cadmium Content Determination of Arsenic content Determination of Mercury content Determination of Chromium vi content	LAB_P_SOP_160 (based on EPA 3052 by AAS/ ICP -OES,	10 -1000 mg/kg

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VII. PLASTIC

1. Plastics	Determination of Cadmium content	LAB_P_SOP_12 (based on DIN EN 1122 – 2001) by AAS/ ICP –OES	2 to 1000 mg/kg
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VIII. METALS & ALLOYS

1. Metals	Determination of Nickel Qualitative test	Pr EN 12471-2002	Qualitative
	Determination of Nickel Release	LAB_P_SOP_90 (based on EN 1811 – 2011 DIN EN 1811-2012 BS EN 12472 – 2005+A1 2009) by AAS/ ICP –OES	0.2 to 50 µg/cm ² /week

IX. PAINTS & SURFACE COATING

CPSC –Paint and painted articles	Determination of Lead Content Determination of Cadmium content	LAB_P_SOP_113 & 160 (based on CPSC CH E1001-08.1, CPSC CH E1002-08.1, CPSC CH E1003-09.1 16 CFR-1303, ASTM E1613-04, ASTM E1645-01, ASTM -F-963-11, EPA-3052) by AAS/ ICP –OES	20 to 5000 mg/kg for Surface Coating 10 to 5000 mg/kg for Substrate
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X. RUBBER

1.	Polymer, Leather rubber and packaging materials	Determination of Lead Content Determination of Cadmium Content Determination of Arsenic content Determination of Mercury content Determination of Chromium vi content	LAB_P_SOP_160 (based on EPA 3052 by AAS/ ICP -OES,	10 to 1000 mg/kg
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XI. PULP & PAPER

1.	Paper, Wood	Determination of pH of aqueous Extract	ISO 3071-2005 GB/T7573-2009 AATCC 81 – 2006 ISO 4045-2008	1 to 14
		Determination of Free Formaldehyde	LAB_P_SOP_84 (based on IS O-14184- Part1 – 2011 LFGB 82.02-1 – 1985 JIS L 1041 – 2000 GB/T 2912.1-2009 EN 645-1994, EN 1541-2001, DIN EN 717-3-1996 EN 71-9/10/11-2005)	10 to 350 mg/kg
		Determination of Formaldehyde content	LAB_P_SOP_88 (based on BS EN ISO 17226 – 2011)	10 to 500 mg/kg

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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
	Paper, Wood	Determination of Releasable Formaldehyde	LAB_P_SOP_84 (based on AATCC 112 – 2003 ISO – 14184 part2 – 2011 EN 71-9/10/11-2005)	10 to 350 mg/kg
XII.	Plastic Material, Paperboards	Migration Tests	IS 9845: 1998 RA 2004; 176.10 US FDA	1 to 10 mg/dm ²
XIII	Children metal products, Metal jewellery and non metal children products) Paint, Textile, Leather, Polymer, Paper, metallic accessories and other similar surface coatings	Determination of Lead Content Determination of Cadmium content	LAB_P_SOP_113 & 160 (based on CPSC CH E1001-08.1, CPSC CH E1002-08.1, CPSC CH E1003-09.1 16 CFR-1303, ASTM E1613-04, ASTM E1645-01, ASTM -F-963-11 EPA-3052) by AAS/ ICP –OES	20 to 5000 mg/kg for Surface Coating 10 to 5000 mg/kg for Substrate
XIV.	RoHs (Restriction of Hazardous Substances) as per 2002 / 95/ EC (Electrical and Electro technical materials, Wastes and related products)	Determination of Lead content (Pb), Determination of Cadmium content (Cd), Determination of Mercury content (Hg), Determination of Hexavalent Chromium (Cr VI)	LAB_P_SOP_08 LAB_P_SOP_09 LAB_P_SOP_10 (based on IEC /TC 111/54/CD IEC 62321-2008) By AAS/ICP-OES	2 to 50000 mg/kg 2 to 10000 mg/kg 2 to 5000 mg/kg 2 to 5000 mg/kg

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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
		Determination of Flame Retardants	LAB_P_SOP_13 (based on	2 to 10000 mg/kg
		Poly Brominated Biphenyl	IEC /TC 111/54/CD	
		3-Bromobiphenyl	IEC 62321-2008	
		2, 2'-dibromobiphenyl		
		2, 2', 5-tribromobiphenyl		
		2, 2', 4, 5'-tetrabromobiphenyl		
		2, 2', 4, 6, 6'-pentabromobiphenyl		
		2, 2', 4, 4', 5, 5'-hexabromobiphenyl		
		2, 3, 3', 4, 4', 5, 5'-heptabromobiphenyl		
		Octabromobiphenyl		
		2, 2', 3, 3', 4, 4', 5, 5', 6-nonabromobiphenyl		
		Decabromobiphenyl		
		Poly Brominated diphenyl Ethers	LAB_P_SOP_13 (based on	2 to 10000 mg/kg
		4-bromodiphenylether	IEC /TC 111/54/CD	
		4, 4'dibrmodiphenylether	IEC 62321-2008	
		2, 4, 4'-tribromodiphenylether		
		2, 2', 4, 4'-tetrabromodiphenylether		
		2, 2', 4, 4', 5-pentabromodiphenylether		
		2, 2', 4, 4', 5, 6-hexabromodiphenylether		
		2, 2', 3, 4, 4', 5, 6'-heptabromodiphenylether		
		2, 2', 3, 4, 4', 5, 5', 6-octabromodiphenylether		

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		2, 2', 3, 4, 4', 5, 5', 6, 6'-nonabromodiphenylether Decabromodiphenylether	LAB_P_SOP_13 (based on IEC /TC 111/54/CD IEC 62321-2008	2 to 10000 mg/kg
		Hexa bromo cyclo dodecane-HBCDD Tri-(2, 3-dibromopropyl)-phosphate-TRIS TrIS -(Aziridiny)-phosphinoxide)-TEPA TrIS (2-chloroethyl)phosphate-TECP Tetra bromo bis phenol A-TBBPA Tri (2, 3 dichloropropyl) phosphate – TDCPP		2 to 5000 mg/kg

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