Laboratory	**Bangladesh Standards and Testing Institution (BSTI), Chemical Testing Laboratory, 116/A, Tejgaon Industrial Area, Dhaka, Bangladesh**		
Accreditation Standard	**ISO/IEC 17025: 2005**		
Discipline	**Chemical Testing**	**Issue Date**	**15.06.2015**
Certificate Number	**T-1926**	**Valid Until**	**14.06.2017**
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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	**FOODS & AGRICULTURAL PRODUCTS**			
1.	**Fruit juice, Fruit Drinks, Jam, Jelly, Marmalade Pickle, Sauce, Tomato ketchup Chutney, Fruit Squash, Fruit Syrup, Fruit Cordial, Tomato Paste and Edible Jell**		BDS 528: 206, BDS CAC 79: 2008, BDS 513: 2013, BDS 508: 2006	
		Brix level (soluble solids)	AOAC (19th Edition) 932.12: 2012; BDS 519: 2002 Appendix B, ISO 2173: 1978	1.00 to 85.00
		Acidity (as citric/acetic/oleic/malic acid)	AOAC (19th Edition) 942.15: 2012	0.10 % to 10.0 % m/m
		Benzoic Acid content	BDS 520: 2001 Appendix A; AOAC (19th Edition) 963.19: 2012	10 mg/kg to 500 mg/kg
		Sulfur dioxide (SO_2)	AOAC (19th Edition) 812.02: 2012 BDS 1581: 2011 (2nd revision), Appendix C	10 mg/kg to 500 mg/kg
		pH	AOAC (19th Edition) 981.12: 2012	1.00 to 10.00
		Total Sugar	BDS 1089: 1983	1 % to 75 %
		Total Solid	BDS 530: 2002 Appendix B	0.5 % to 60 %
		Fluid portion	BDS 520: 2001 Appendix C	1 % to 60 %
		Specific gravity	BDS 1010: 1982, Sl 9	1.001(.4°) -1.23616(50.8°)
		Total ash	BDS 521: 2011, Appendix B	0.1 % to 10 %
		Acid insoluble ash	BDS 521: 2011, Appendix C	0.01 % to 5 %

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	Fruit juice, Fruit Drinks, Jam, Jelly, Marmalade Pickle, Sauce, Tomato ketchup Chutney, Fruit Squash, Fruit Syrup, Fruit Cordial, Tomato Paste and Edible Jell	Fruit content (Retained on 2mm sieve	BDS 521: 2011, Appendix A	1 % to 60 %
		Arsenic (as As)	AOAC (19th Edition) 986.15: 2012	5 µg/kg to 2000 µg/kg
		Lead (as Pb)	AOAC (19th Edition) 972.25: 2012	5 µg/kg to 2000 µg/kg
		Copper (as Cu)	AOAC (19th Edition) 973.34: 2012	0.5 mg/kg to 10 mg/kg
		Zinc (as Zn)	AOAC (19th Edition) 969.32: 2012	0.25 mg/kg to 10 mg/kg
		Tin (as Sn)	AOAC (19th Edition) 985.16: 2012	5.0 µg/kg to 25000 µg/kg
		Mercury (Hg)	AOAC (19th Edition) 977.22: 2012	0.5 µg/kg to 500 µg/kg
		Iron (Fe)	AOAC (19th Edition) 974.27: 2012	0.25 mg/kg to 50 mg/kg
		Score point	BDS 528: 206, BDS 513: 2013, BDS 530: 2002, BDS 520: 2001, BDS 521: 2011, BDS 512: 2007, BDS 517: 2002, BDS 506: 2002, BDS 527: 2007, BDS 1801: 2011	0 to 100
2.	**Biscuit**	Moisture	BDS 383: 2001 (2nd revision) Appendix B	0.1 % to 10 %
		Acid Insoluble Ash	BDS 383: 2001 (2nd revision) Appendix C	0.01 % to 2 %
		Edible Fat content	BDS 1564: 1997 Appendix D	0.5 % to 50 %
		Acidity of Extracted Fat	BDS 383: 2001 (2nd revision) Appendix D	0.1 % to 10 %

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	Biscuit	Protein	BDS 1168: 1987 Appendix A	1.00 % to 25.00 %
		Arsenic (as As)	AOAC (19th Edition) 986.15: 2012	5 µg/kg to 2000 µg/kg
		Lead (as Pb)	AOAC (19th Edition) 972.25: 2012	5 µg/kg to 2000 µg/kg
		Cadmium (as Cd)	AOAC (19th Edition) 973.34: 2012	0.25 µg/kg to 1000 µg/kg
		Nickle (Ni)	AOAC (19th Edition) 971.20: 2012	5 µg/kg to 1000 µg/kg
		Tin (as Sn)	AOAC (19th Edition) 985.16: 2012	0.005 mg/kg to 10 mg/kg
		Organoleptic test	BDS 383: 2001 (2nd revision)	0 to 24
3.	**Chanachur, Noodles and Instant Noodle (Fried and Non-Fried)**	Moisture	BDS 1106: 2001, Appendix A/ BDS 1564: 1997, Appendix A / BDS 1552: 2007, Appendix A	0.1 % to 25 %
		Total ash	BDS 1564: 1997 Appendix B	0.01 % to 10 %
		Acid insoluble ash	BDS 1564: 1997 Appendix C	0.01 % to 2 %
		Fat	BDS 1564: 1997 Appendix D	1 % to 60 %
		Acid value of extracted fat	BDS 1564: 1997 Appendix E	0.5 to 10
		Chloride	BDS 1564: 1997 Appendix F	0.1 % to 10 %
		Acid value	BDS 1552: 2007 Appendix D	0.1 to 10
		Degree of gelatinization	BDS 1106: 2001 Appendix C	1 % to 100 %
		Cooking time in minutes	BDS 1552: 2007 Appendix B	0.5 min to 30 min

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	Chanachur, Noodles and Instant Noodle (Fried and Non-Fried)	Protein content	BDS 1552: 2007 Appendix C	0.5 % to 40 %
		Aflatoxin	SOP-BSTI/CB/P/5.4/222 (ELISA methods)	0.4 µg/kg to 45 µg/kg
		Iron	BDS 1564: 1997 Appendix G	5 mg/kg to 1000 mg/kg
		Arsenic (as As)	AOAC (19th Edition) 986.15: 2012	5 µg/kg to 2000 µg/kg
		Lead (as Pb)	AOAC (19th Edition) 972.25: 2012	5 µg/kg to 2000 µg/kg
		Cadmium (as Cd)	AOAC (19th Edition) 973.34: 2012	0.25 µg/kg to 1000 µg/kg
		Nickel(Ni)	AOAC (19th Edition) 971.20: 2012	5 µg/kg to 1000 µg/kg
		Tin (as Sn)	AOAC (19th Edition) 985.16: 2012	5.0 µg/kg to 25000 µg/kg
4.	**Alcoholic Drinks & Beverages**			
a.	**Soft Drink Powder**	Moisture	BDS 138: 2006, Appendix E	0.1 % to 10 %
		Sulphated ash	BDS 138: 2006, Appendix F	0.05 % to 10 %
		Acid Insoluble ash	BDS 490: 2007 Appendix B	0.002 % to 5 %
		Acidity	BDS 1586: 2007 Appendix C	0.1 % to 30 %
b.	**Carbonated Beverage**	Sugar Content(Brix)	AOAC 932.12: 2012; BDS 1123: 2013 ISO 2173: 1978	0 to 20 %

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II.	**WATER**			
1.	**Water**	TDS	AOAC (19th Edition) 920.193: 2012/ AOAC 973.40: 2012	1.00 mg/l to 1000.00 mg/l
		Conductivity	AOAC (19th Edition) 973.40: 2012	0 to 199.9 µs/cm
		pH	AOAC (19th Edition) 973.41: 2012	1.00 to 10.00
		Total Hardness as $CaCO_3$	BDS 1414: 2000 Appendix N	1 mg/l to 500 mg/l
		Lead (as Pb)	BDS 1414: 2000 Appendix F / AOAC (19th Edition) 974.27: 2012	5 µg/l to 25 µg/l
		Cadmium (as Cd)	BDS 1414: 2000 Appendix F / AOAC (19th Edition) 974.27: 2012	0.25 µg/l to 2.5 µg/l
		Mercury (Hg)	AOAC (19th Edition) 977.22: 2012	0.5 µg/l to 2 µg/l
		Copper (as Cu)	BDS 1414: 2000 Appendix F / AOAC (19th Edition) 974.27: 2012	0.5 mg/l to 7.0 mg/l
		Zinc (as Zn)	BDS 1414: 2000 Appendix F / AOAC (19th Edition) 985.16: 2012	0.25 mg/l to 1.5 mg/l
		Chromium (as Cr)	AOAC (19th Edition) 974.27: 2012	1.25 µg to 6.25 µg
		Chlorides (Cl)	AOAC (19th Edition) 973.51: 2012	1 µg/l to 500 mg/l
		Arsenic (as As)	AOAC (19th Edition) 986.15: 2005	5 µg/l to 30 µg/l
		Iron (Fe)	AOAC (19th Edition) 974.27: 2012	0.25 µg/l to 1.5 mg/l
		Selenium(Se)	AOAC (19th Edition) 986.15: 2012	5 µg/l to 25 µg/l
		Nickel(Ni)	BDS 1414: 2000 Appendix F	5 µg/l to 25 µg/l

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	Water	Barium (Ba)	AOAC (19th Edition) 920.201: 2012	0.5 mg/l to 10 mg/l
		Manganese (Mn)	AOAC (19th Edition) 974.27: 2012	0.5 mg/l to 30 mg/l
		Calcium(Ca)	BDS 1240: 2011 Appendix C	1 mg/l to 500 mg/l
		Sodium (Na)	AOAC (19th Edition) 973.54: 2012	0.2 mg/l to 100 mg/l
		Colour	BDS 1240: 2011, Appendix B	0.5 Hazen to 10 Hazen unit
		Odour	BDS 1414: 2000, Appendix B	Qualitative
		Taste	APHA 2160 (22nd Edition): 2012	Qualitative
		Turbidity	BDS 1414: 2000, Appendix U Instruction Manual of Turbidimeter	0.1 NTU to 10 NTU
		Nitrates	APHA (22nd Edition) 4500-NO_3: 2012	0 to 50 mg/l
		Nitrite	APHA (22nd Edition) 4500-NO_2: 2012	0.005 mg/l to 1 mg/l
		Fluoride	BSTI/Water/P/5.4/216	0.10 mg/l to 5 mg/l
		Borate	AOAC (19th Edition) 11.1.41 (Part 25): 2012 AOAC (9th Edition) 31.050	1 mg/l to 50 mg/l
		Free Carbon dioxide	APHA (22nd Edition) 4500: 2012	0.5 mg/l to 500 mg/l
		Organic matter	BDS 1414: 2000 Appendix S	0.1 mg/l to 10 mg/l

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	Water	Hydrogen Sulphite	BDS 1414: 2000 Appendix J/ APHA (22nd Edition) 4500: 2012	0.02 mg/l to 5 mg/l
III.	**BUILDING MATERIALS**			
1.	**Cement**	Loss on ignition	BDS EN 196 (Part 2)	0.10 % to 10 %m/m
		Insoluble residue	BDS EN 196 (Part 2)	0.10 % to 35 %m/m
		Sulphate(SO_3)	BDS EN 196 (Part 2)	0.1 % to 5 %m/m
		Chloride (Cl)	BDS EN 196 (Part 21)	0.003 % to 0.5 %m/m
IV.	**SOAP DETERGENTS AND TOILETRIES**			
1.	**Soap**	Total fatty matter	BDS 406: 1990, Clause. 9, IS 286: 1978 Clause. 15	20 % to 90 %
		Rosin acid,	BDS 406: 1990 Clause. 14, IS 286: 1978 Clause. 14	0.5% to 10 %
		Free caustic alkali, as sodium hydroxide (NaOH)	BDS 406: 1990 Clause. 6.2, IS 286: 1978 Clause. 6.2	0.01% to 0.5 %
		Matter insoluble in Alcohol	BDS 406: 1990 Clause. 5, IS 286: 1978 Clause. 5	0.05% to 20 %
		Chlorides, as sodium Chloride (NaCl)	BDS 406: 1990 Clause. 10, IS 286: 1978 Clause. 10	0.01 to 3.00
		Lather	IS 13498: 1997 Annexure B	10 ml to 500 ml

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	Soap	Free carbonated alkali	BDS 406: 1990 Clause. 28, IS 286: 1978 Clause. 28	0.1 % to 3 %
		Unsaponified fatty matter	SOP-BSTI//SD//P/5.4/232	0.1 % to 3 %
		Matter insoluble in water	BDS 406: 1990 Clause. 7/ IS 286: 1978 Clause. 7	0.1 % to 10 %
		Odour	BDS 12: 2006	Qualitative
		Lathering properties	SOP-BSTI//SD//P/5.4/232	Qualitative
V.	**METALS AND ALLOYS**			
1.	**MS Rod**	Silicon(Si)	ASTM-350: 2012, Section 46	0.01 % to 1 %
		Manganese(Mn)	ASTM-350: 2012, Section 164	0.05 % to 3 %
		Sulphur (S)	IS 228 (Part 9): 1989 Evolution method	0.01 % to 0.1 %
		Phosphorus (P)	ASTM-350: 2012, Section 172 Alkalimetric method	0.01 % to 0.1 %
VI.	**TEXTILE & TEXTILE AUXILIARIES**			
1.	**Textiles and Garments**	Blend Composition of different fibres present	ISO 1833-1: 2006 (Cor 1 :2009) ISO 1833(2 to 5 and 7,8,11,12): 2006 BDSISO 1833 (1 to 5and 7,8,11,12): 2012 AATCC 20A: 2014	2 % to 100 %

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	Textiles and Garments	pH of aqueous extract	ISO 3071: 2005 BDS ISO 3071: 2006 AATCC 81: 2012	1 to 14
		Colour Fastness to Washing/Laundering	ISO 105 C 10: 2006 ISO 105 C 06: 2010 BDS ISO 105 C 06: 2009 BDS ISO 105 C 10: 2010 AATCC 61: 2013	Qualitative (Grade 1 to 5)
		Colour Fastness to Rubbing/Crocking	ISO 105 X 12: 2002 BDS ISO X 12: 2006 AATCC 8: 2013	Qualitative (Grade 1 to 5)
		Colour Fastness to Water	ISO 105 E 01: 2013 BDS ISO 105 E 01: 2011 AATCC 107: 2013	Qualitative (Grade 1 to 5)
		Colour Fastness to Sea Water	ISO 105 E 02: 2013 BDS 43: 2000 AATCC 106: 2013	Qualitative (Grade 1 to 5)
		Colour Fastness to Perspiration	ISO 105 E 04: 2013 BDS ISO 105 E 04: 2011 AATCC 15: 2013	Qualitative (Grade 1 to 5)
		Colour Fastness to Dry cleaning	ISO 105 D 01: 2010 BDS ISO 105 D 01: 2011	Qualitative (Grade 1 to 5)
		Test for Water Repellency-Spray test	ISO 4920: 2012 BDS ISO 4920: 2012 AATCC 22: 2014	(0 to 100) 0 to 5

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	Textiles and Garments	Dimensional Stability to machine Washing/ Laundering	ISO 6330: 2012 ISO 3759: 2011& ISO 5077: 2007 BDS ISO 6330: 2006 BDS ISO 3759: 2006 & BDS ISO 5077: 2008	(-)50 % to 20 %
		Colour Fastness to Saliva	DIN 53160-1: 2010	Qualitative (Grade 1 to 5)
		Absorbency of Textiles	AATCC 79: 2014	1 s to 60 s
		Colour Fastness to domestic and commercial laundering oxidative bleach response using a non phosphate reference detergent incorporating a low temperature leach activator	ISO 105-C 09: 2001 (Amd. 1: 2003) BDS ISO 105–C 09: 2009	Qualitative (Grade 1 to 5)
		Colour Fastness to Phenolic Yellowing	ISO 105 X 18: 2007 BDS ISO 105 X 18: 2012	Qualitative (Grade 1 to 5)
		Determination of Cadmium content in plastics	BSEN 1122: 2001	Cd: 0.2 µg/kg to 10.0µg/kg
		Colour Fastness to Spotting : Acid	ISO 105 E05: 2010 BDS ISO 105 E05: 2011	Qualitative (Grade 1 to 5)
		Colour Fastness to Spotting : Alkali	ISO 105 E06: 2006 BDS ISO 105 E06: 2011	Qualitative (Grade 1 to 5)
		Colour Fastness to Spotting : Water	ISO 105 E07: 2010 BDS ISO 105 E07: 2011	Qualitative (Grade 1 to 5)

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2.	**Toys, Textile and textile Accessories**	Total Lead Content in Surface Coating or paint	ASTM E1645: 2007 ASTM E 1613: 2012	1.0 mg/kg to 10.0 mg/kg
		Determination of Extractable Heavy Metals Antimony Arsenic Lead Cadmium Mercury Copper Chromium Cobalt Nickel	Acid/Alkali sweat extract as per ISO 105 EO4: 2013 and Analysis by AAS As per ASTM E 1613: 2012	 Sb:1.0 mg/kg to 10.0 mg/kg As: 5.0 µg/kg to 10.0 µg/kg Pb: 5.0 µg/kg to 10.0 µg/kg Cd: 2.0 µg/kg to 8.0 µg/kg Hg: 5.0 µg/kg to 10.0 µg/kg Cu: 0.5 mg/kg to 10 mg/kg Cr-Total:1 µg/kg to 4 µg/kg Co: 1.0 mg/kg to 5.0 mg/kg Ni: 5.0 µg/kg to 10.0 µg/kg
3.	**Toys, Textile and textile Accessories**	Determination of Soluble Heavy Metals Antimony Arsenic Barium Cadmium Chromium Lead Mercury Selenium	ASTM F963: 2011 (4.3.5 & 8.3) Analysis Method and analysis by AAS As per ASTM E 1613: 2012	 Sb:1.0 mg/kg to 10.0mg/kg As:5.0 µg/kg to 10.0 µg/kg Pb: 5.0 µg/kg to 10.0 µg/kg Cd: 2.0 µg/kg to 8.0 µg/kg Hg: 5.0 µg/kg to 10.0 µg/kg Cu.: 0.5 mg/kg to 10 mg/kg Cr-Total:1 µg/kg to 4 µg/kg Ba: 1.0 mg/kg to 5.0 mg/kg Se: 5.0 µg/kg to 10.0 µg/kg
		Determination of Migration of Heavy Metals Antimony Arsenic Barium Cadmium Chromium Lead Mercury Selenium	EN 71 (Part 3): 1995 and analysis by AAS As per ASTM E 1613: 2012	 Sb:1.0 mg/kg to 10.0mg/kg As: 5.0 µg/kg to 10.0 µg/kg Pb: 5.0 µg/kg to 10.0 µg/kg Cd: 2.0 µg/kg to 8.0 µg/kg Hg: 5.0 µg/kg to 10.0 µg/kg Cu: 0.5 mg/kg to 10 mg/kg Cr-Total:1 µg/kg to 4 µg/kg Ba:1.0 mg/kg to 5.0 mg/kg Se:5.0 µg/kg to 10.0 µg/kg

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	Toys, Textile and textile Accessories	Colour Fastness to bleaching - Hypochlorite	ISO 105-N 01: 1993 BDS ISO 105-N 01: 2007	Qualitative (Grade 1 to 5)
4.	**Zippers and Fasteners**	Durability of Finish of Zippers to Laundering	ASTM D 2051: 2014	Negligible-Severe

-X-X-X-X-X-X-X-X-X-X-X-X-X-X-