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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are	Range of Testing / Limits of Detection	7
			performed		l

BIOLOGICAL TESTING

I.	WATER			
1.	Water for Processed Food Industry (IS 4251)	Coliforms Standard Plate Count Proteolytic count	IS 1622-1981 (RA 2014) IS 1622-1981 (RA 2014) IS 4251-1967 (RA 2015)	≥1MPN/100ml ≥1 cfu/ml ≥1 cfu/ml
		Lipolytic Count	(Appendix A) IS 4251-1967 (RA 2015) (Appendix A)	≥1 cfu/ml
2.	Drinking Water (IS 10500)/ Packaged Drinking Water (IS 14543)	Coliforms E.coli E.coli	IS 1622-1981 (RA 2014) IS 1622-1981 (RA 2014) IS 15185:2016 IS 5887(Part 1)-1976 (RA 2013)	≥1MPN/100 ml ≥1MPN/100 ml Absent/Present/250ml
		Coliforms	IS 15185:2016 IS 5401 (Part 1) 2012	Absent/Present/250ml
		Faecal Streptococci	IS 5887 (Part 2)-1976 (RA 2013) IS 15186:2002 (RA 2014)	Absent/Present/250ml
		Vibrio cholerae	IS 5887 (Part 5)-1976 (RA 2013)	Absent/Present/250ml
		Vibrio parahaemolyticus	IS 5887 (Part 5)-1976 (RA 2013)	Absent/Present/250ml
		Staphylococcus aureus	IS 5887 (Part 2)-1976 (RA 2013)	Absent/Present/250ml
		Sulphite reducing anaerobes	IS 13428-2005 (Annex C) (RA 2014)	Absent/Present/50ml
		Pseudomonas aeruginosa	IS 13428-2005(Annex D) (RA 2014)	Absent/Present/250ml

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Aerobic microbial count at 37°C in 24 hrs	IS 5402:2012	≥1 cfu/ml
		Aerobic microbial count at 20-22°C in 72hrs	IS 5402:2012	≥1 cfu/ml
		Yeast and Mould Count	IS 5403:1999 (RA 2013)	Absent/Present/250ml
		Salmonella	IS 5887 (Part 3)-1999 (RA 2013) IS 15187:2016	Absent/Present/250ml
		Shigella	IS 5887 (Part 7)-1999 (RA 2013)	Absent/Present/250ml
3.	Packaged Natural Mineral Water (IS:13428)	E.coli	IS 15185:2016 IS 5887(Part 1)-1976 (RA 2013)	Absent/Present/250ml
		Coliforms	IS 15185:2016 IS 5401 (Part 1) 2012	Absent/Present/250ml
		Faecal Streptococci	IS 5887 (Part 2)-1976 (RA 2013) IS 15186:2002 (RA 2014)	Absent/Present/250ml
		Staphylococcus aureus	IS 5887 (Part 2)-1976 (RA 2013)	Absent/Present/250ml
		Sulphite reducing anaerobes	IS 13428-2005 (Annex C) (RA 2014)	Absent/Present/50ml
		Pseudomonas aeruginosa	IS 13428-2005(Annex D) (RA 2014)	Absent/Present/250ml
		Yeast and Mould Count	IS 5403:1999 (RA 2013)	Absent/Present/250ml
		Salmonella	IS 5887 (Part 3)-1999 (RA 2013), IS 15187:2016	Absent/Present/250ml
		Shigella	IS 5887 (Part 7)-1999 (RA 2013)	Absent/Present/250ml
		Vibrio cholerae	IS 5887 (Part 5)-1976 (RA 2013)	Absent/Present/250ml

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Vibrio parahaemolyticus	IS 5887 (Part 5)-1976 (RA 2013)	Absent/Present/250ml
4.	Water for Ice Manufacture (IS 3957)	Coliforms Total Plate Count	IS 1622-1981 (RA 2014) IS 1622-1981 (RA 2014)	≥1MPN/100 ml ≥1 cfu/ml
II.	FOOD AND AGRICU	JLTURAL PRODUCTS		
1.	Bakery and Confectionery	Total Coliform Count	IS 5401 (part 1)-2012	≥10 cfu/g/ml
		Aerobic Plate Count/Total microbial count	IS 5402:2012	≥10 cfu/g/ml
		Yeast and Mould Count	IS 5403-1999 (RA 2013)	≥10 cfu/g/ml
		Enterobacteriaceae	IS/ISO 7402:1993 (RA 2012)	≥10 cfu/g/ml
		E.coli	IS 5887 (Part 1)-1976 (RA 2013)	Absent/Present/g/ml
		Salmonella	IS 5887 (Part 3)-1999 (RA 2013)	Absent/Present/25g/25 ml
		Shigella	IS 5887 (Part 7)-1999 (RA 2013)	Absent/Present/25g/25 ml
		Staphylococcus aureus	IS 5887 (Part 2)-1976 (RA 2013)	Absent/Present/25g/25 ml
		Bacillus cereus	IS 5887 (Part 6)-2012	≥100 cfu/g/ml
		Clostridium perfringens	IS 5887 (Part 4):1999 (RA 2013)	≥100 cfu/g/ml
2.	Cereals, Pulses	Total Coliform Count	IS 5401(part 1)-2012	≥10 cfu/g/ml
	and Cereal Products	Aerobic Plate Count/ Total microbial count	IS 5402:2012	≥10 cfu/g/ml
		Yeast and Mould Count	IS 5403-1999 (RA 2013)	≥10 cfu/g/ml

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Enterobacteriaceae	IS/ISO 7402:1993 (RA 2012)	≥10 cfu/g/ml
		E.coli	IS 5887 (Part 1)-1976 (RA 2013)	Absent/Present/g
		Salmonella	IS 5887 (Part 3)-1999 (RA 2013)	Absent/Present/25g
		Shigella	IS 5887 (Part 7) 1999 (RA 2013)	Absent/Present/25g
		Staphylococcus aureus	IS 5887 (Part 8 Sec. 2)- 2002 (RA 2018)	≥100 cfu/g/ml
		Bacillus cereus	IS 5887 (Part 6)-2012	≥100 cfu/g/ml
		Clostridium perfringens	IS 5887 (Part 4):1999 (RA 2013)	≥100 cfu/g/ml
3.	Milk and Dairy Products	Total Coliform Count	IS 5401(part 1)-2012	≥10 cfu/g/ml
		Aerobic Plate Count/ Total microbial count	IS 5402:2012	≥10 cfu/g/ml
		Enterobacteriaceae	IS/ISO 7402:1993 (RA 2012)	≥10 cfu/g/ml
		Yeast and Mould Count	IS 5403-1999 (RA 2013)	≥10 cfu/g/ml
		Lactic acid bacteria	ÌS 16068:2013	≥10 cfu/g/ml
		E.coli	IS 5887 (Part 1)-1976 (RA 2013)	Absent/Present/g/ml
		Salmonella	IS 5887 (Part 3)-1999 (RA 2013)	Absent/Present/25g/25ml
		Shigella	IS 5887 (Part 7)-1999 (RA 2013)	Absent/Present/25g/25ml
		Staphylococcus aureus	IS 5887 (Part 2)-1976 (RA 2013)	Absent/Present/25g/25ml
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Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Bacillus cereus	IS 5887 (Part 6) 2012	≥100 cfu/g/ml
	Clostridium perfringens	IS 5887 (Part 4):1999 (RA 2013)	≥100 cfu/g/ml
	Listeria monocytogenes	IS 14988 (Part 1):2001 (RA 2018)	Absent/Present/25g/25ml
Fruits ,Vegetables and Its products	Enterobacteriaceae	IS/ISO 7402:1993 (RA 2012)	≥10 cfu/g/ml
	Yeast and Mould Count	IS 5403-1999 (RA 2013)	≥10 cfu/g/ml
	Lactic acid bacteria	IS 16068:2013	≥10 cfu/g/ml
	E.coli	IS 5887 (Part 1)-1976 (RA 2013)	Absent/Present/g/ml
	Salmonella	IS 5887 (Part 3)-1999 (RA 2013)	Absent/Present/25g/ml
	Shigella	IS 5887 (Part 7)-1999 (RA 2013)	Absent/Present/25g/ml
	Staphylococcus aureus	IS 5887 (Part 8 Sec. 2)- 2002 (RA 2018)	≥100 cfu/g/ml
	Bacillus cereus	IS 5887 (Part 6)-2012	≥100 cfu/g/ml
	Clostridium perfringens	IS 5887 (Part 4):1999 (RA 2013)	≥100 cfu/g/ml
	Listeria monocytogenes	IS 14988 (Part 1) 2001 (RA 2018)	Absent/Present/25g/25ml
Herbs, Spices and Condiments	Total Coliform Count	IS 5401(part 1)-2012	≥10 cfu/g/ml
	Aerobic Plate Count/ Total microbial count	IS 5402:2012	≥10 cfu/g/ml
	Enterobacteriaceae	IS/ISO 7402:1993 (RA 2012)	≥10 cfu/g/ml
	Fruits ,Vegetables and Its products Herbs, Spices and	Bacillus cereus Clostridium perfringens	of Test Performed against which tests are performed Bacillus cereus IS 5887 (Part 6) 2012 Clostridium perfringens IS 5887 (Part 4):1999 (RA 2013) Listeria monocytogenes IS 14988 (Part 1):2001 (RA 2018) Fruits ,Vegetables and Its products Enterobacteriaceae IS/ISO 7402:1993 (RA 2012) Yeast and Mould Count Lactic acid bacteria IS 5403-1999 (RA 2013) Lactic acid bacteria IS 16068:2013 E.coli IS 5887 (Part 1)-1976 (RA 2013) Salmonella IS 5887 (Part 3)-1999 (RA 2013) Shigella IS 5887 (Part 3)-1999 (RA 2013) Staphylococcus aureus IS 5887 (Part 8 Sec. 2)-2002 (RA 2018) Bacillus cereus IS 5887 (Part 6)-2012 Clostridium perfringens (RA 2013) Listeria monocytogenes (RA 2013) Listeria monocytogenes (RA 2018) Herbs, Spices and Condiments Total Coliform Count (RA 2018) Aerobic Plate Count/ Total microbial count IS 5401(part 1)-2012 Total microbial count IS 5402:2012

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Yeast and Mould Count	IS 5403:1999 (RA 2013)	≥10 cfu/g/ml
		E.coli	IS 5887 (Part 1)-1976 (RA 2013)	Absent/Present/g/ml
		Salmonella	IS 5887 (Part 3)-1999 (RA 2013)	Absent/Present/25g/25ml
		Shigella	IS 5887 (Part 7)-1999 (RA 2013)	Absent/Present/25g/25ml
		Staphylococcus aureus	IS 5887 (Part 2)-1976 (RA 2013)	Absent/Present/25g/25ml
6.	Nuts and Nut	Total Coliform Count	IS 5401(part 1)-2012	≥10 cfu/g/ml
	Products	Aerobic Plate Count/ Total microbial count	IS 5402:2012	≥10 cfu/g/ml
		Enterobacteriaceae	IS/ISO7402:1993 (RA 2012)	≥10 cfu/g/ml
		Yeast and Mould Count	IS 5403-1999 (RA 2013)	≥10 cfu/g/ml
		E.coli	IS 5887 (Part 1)-1976 (RA 2013)	Absent/Present/g/ml
		Salmonella	IS 5887 (Part 3)-1999 (RA 2013)	Absent/Present/25g/25ml
		Shigella	IS 5887 (Part 7)-1999 (RA 2013)	Absent/Present/25g/25ml
		Staphylococcus aureus	IS 5887 (Part 2)-1976 (RA 2013)	Absent/Present/25g/25ml
		Bacillus cereus	IS 5887 (Part 6)-2012	≥100 cfu/g/ml
		Clostridium perfringens	IS 5887 (Part 4):1999 (RA 2013)	≥100 cfu/g/ml
		Listeria monocytogenes	IS 14988 (Part 1) 2001 (RA 2018)	Absent/Present/25g/25ml

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
7.	Canned & Processed Foods	Total Coliform Count Aerobic Plate Count/ Total microbial count	IS 5401(part 1)-2012 IS 5402:2012	≥10 cfu/g/ml ≥10 cfu/g/ml
		Enterobacteriaceae	IS/ISO 7402:1993 (RA 2012)	≥10 cfu/g/ml
		Yeast and Mould Count	ÌS 5403-1999 (RA 2013)	≥10 cfu/g/ml
		Lactic acid bacteria	IS 16068:2013	≥10 cfu/g/ml
		E.coli	IS 5887 (Part 1)-1976 (RA 2013)	Absent/Present/g/ml
		Salmonella	IS 5887 (Part 3)-1999 (RA 2013)	Absent/Present/25g/25ml
		Shigella	IS 5887 (Part 7)-1999 (RA 2013)	Absent/Present/25g/25ml
		Staphylococcus aureus	IS 5887 (Part 8 Sec. 2)- 2002 (RA 2018)	≥100 cfu/g/ml
		Bacillus cereus	IS 5887 (Part 6)-2012	≥100 cfu/g/ml
		Clostridium perfringens	IS 5887 (Part 4):1999 (RA 2013)	≥100 cfu/g/ml
		Listeria monocytogenes	IS 14988 (Part 1) 2001 (RA 2018)	Absent/Present/25g/25ml
8.	Cooked Food	Total Coliform Count	IS 5401(part 1)-2012	≥10 cfu/g/ml
		Aerobic Plate Count/ Total microbial count	IS 5402:2012	≥10 cfu/g/ml
		Enterobacteriaceae	IS/ISO7402:1993 (RA 2012)	≥10 cfu/g/ml
		Yeast and Mould Count	ÌS 5403-1999 (RA 2013)	≥10 cfu/g/ml
		Salmonella	IS 5887 (Part 3)-1999 (RA 2013)	Absent/Present/25g/25ml
		Shigella	IS 5887 (Part 7)-1999 (RA 2013)	Absent/Present/25g/25ml

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Vibrio cholerae	IS 5887 (Part 5) 1976 (RA 2013)	Present/Absent/25g/25ml
		V.parahaemolyticus	IS 5887 (Part 5) 1976 (RA 2013)	Present/Absent/25g/25ml
		E.coli	IS 5887 (Part 1)-1976 (RA 2013)	Absent/Present/g/ml
		Staphylococcus aureus	IS 5887 (Part 2)-1976 (RA 2013)	Present/Absent/25g/25ml
		Bacillus cereus	IS 5887 (Part 6)-2012	≥100 cfu/g/ml
		Clostridium perfringens	IS 5887 (Part 4):1999 (RA 2013)	≥100 cfu/g/ml
		Listeria monocytogenes	IS 14988 (Part 1) 2001 (RA 2018)	Absent/Present/25g/25ml

NOTE: The Laboratory has demonstrated competence for the stated scope for WATER. This however <u>does</u> <u>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.

Ashok Kumar Pankaj Johri
Convenor Program Manager

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SI.	Product / Material	Specific Test	Test Method Specification	Range of Testing /
	of Test	Performed	against which tests are	Limits of Detection
			performed	

CHEMICAL TESTING

I.	FOOD AND AGRIC	ULTURAL PRODUCTS		
1.	Bakery products	Moisture	IS 12711:1989,(RA 2015)	0.1 g/100g to 30 g/100g
		Total Ash	IS 12711:1989,(RA 2015)	0.1 g/100g to 5 g/100g
		(On Dry Weight Basis)		<u> </u>
		Total Fat	IS 12711:1989,(RA 2015)	0.1 g/100g to 30 g/100g
		Crude Fiber	IS 12711:1989,(RA 2015)	0.1 g/100g to 4.0 g/100g
		(On Dry Weight Basis)		<u> </u>
		Protein (N x 6.38)	IS 7219:1973, (RA 2015)	0.1 g/100g to 40.0 g/100g
		Acid insoluble Ash (On Dry Weight Basis)	IS 12711:1989,(RA 2015)	0.01 g/100g to 2.0 g/100g
		Acidity of Extracted fat as oleic acid	IS 12711:1989,(RA 2015)	0.05 g/100g to 1.5 g/100g
2.	Oils and Fats	Insoluble impurities	IS 548(Part-I)-1964, (RA 2015)	0.05 g/100g to 2.0g/100g
		Melting Point	IS 548(Part-I)-1964, (RA 2015)	5 °C to 50 °C
		Acid Value	IS 548 (Part I):1964, (RA 2015)	0.1 to 50
		Saponification Value	IS 548 (Part I):1964, (RA 2015)	1 to 300
		Peroxide Value	IS 548 (Part I):1964 , (RA 2015)	0.1 meq/kg to 50 meq/kg
		Unsaponifiable matter	IS 548 (Part I):1964, (RA 2015)	0.1 g/100g to 5 g/100g
		Refractive Index	IS 548 (Part I):1964, (RA 2015)	1.100 to 1.800

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Moisture	IS 548 (Part I):1964, (RA 2015)	0.05 g/100g to 1.0 g/100g
		Polenske Value	IS 548 (Part I):1964, (RA 2015)	0.1 g/100g to 20 g/100g
		Free Fatty acids as oleic acid	IS 548 (Part I):1964, (RA 2015)	0.1 g/100g to 2 g/100g
		Argemone oil	IS 548 (Part II):1976, (RA 2015)	Qualitative (Present/Absent)
		Mineral Oil	IS 548 (Part II):1976, (RA 2015)	Qualitative (Present/Absent)
3.	Ghee	Moisture	IS 3508:1966, (RA 2012)	0.05 g/100g to 2 g/100g
		Refractive Index	IS 3508:1966, (RA 2012)	1.100 to 1.800
		Insoluble Impurities	IS 3508:1966, (RA 2012)	0.05 g/100g to 0.2 g/100g
		Reichert Meissl Value	IS 3508:1966, (RA 2012)	1.0 to 40.0
		Baudouin test	IS 3508:1966, (RA 2012)	Qualitative (Present/Absent)
4.	Milk Powder,Skimmed	Moisture	IS1165:2002, (RA 2012)/ IS11623:2008 (RA 2012)	0.1 g/100g to 20 g/100g
	milk powder,Semi skimmed milk	Fat	IS 1165:2002 (RA 2012)/ IS 11721:2005	0.1 g/100g to 25 g/100g
	Powder	Total Ash (On dry Weight basis)	IS 1165:2002 (RA 2012)	0.1 g/100g to 10 g/100g
II.	WATER			
1.	Packaged Natural Mineral Water/	Colour	IS 3025 (Part 4):1983, (RA 2012)	1.0 Hazen units to 25 Hazen units
	Packaged	Odour	IS3025 (Part 5):2018	Agreeable/disagreeable
	Drinking Water/	Taste	IS3025 (Part 7&8):2017	Agreeable/disagreeable
	Drinking Water/Raw water	Turbidity	IS 3025 (Part 10):1984, (RA 2012)	0.1 NTU to 15 NTU

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Total Dissolved Solids	IS 3025 (Part-16):1984, (RA 2012)	1.0 mg/l to 2000 mg/l
		рН	IS 3025 (Part 11):1983, (RA 2012)	2 to 10
		Nitrate(as NO₃)	IS 3025 (Part 34):1988, (RA 2014)	0.5 mg/l to 200 mg/l
		Nitrite (as NO ₂)	IS 3025 (Part 34):1988, (RA 2014)	0.01 mg/l to 50 .0 mg/l
		Fluoride (as F)	IS 3025 (Part 60):2013	0.1 mg/l to 5.0 mg/l
		Chloride (as Cl)	IS 3025 (Part32):1988, (RA 2014)	1.0 mg/l to 1000 mg/l
		Sulphate (as SO ₄)	IS 3025 (Part 24):1986, (RA 2014)	1 mg/l to 500 mg/l
		Alkalinity(as HCO ₃)	IS 3025 (Part 23):1986, (RA 2014)	1.0 mg/l to 1000 mg/l
		Calcium (as Ca)	IS 3025 (Part-40):1991, (RA 2014)	1.0 mg/l to 1000 mg/l
		Magnesium (as Mg)	IS 3025 (Part 46):1994, (RA 2014)	1 mg/l to 1000 mg/l
		Sodium(as Na)	IS 3025 (Part 45):1993, (RA 2014)	1 mg/l to 500 mg/l
		Residual Free Chlorine	IS 3025 (Part 26):1986, (RA 2014)	0.1 mg/l to 100 mg/l
		Anionic surface active agents (as MBAS)	Annexure-K,IS 13428:2005, (RA 2014)	0.1 mg/l to 5.0 mg/l
		Sulphide (as H ₂ S)	IS 3025 (Part 29):1986, (RA 2014)	0.05 mg/l to 10 mg/l
		Borates/Boron(as B)	IS 3025 (part57) 2005: (RA 2010)	0.1 mg/l to 10.0 mg/l
		Total Hardness (as CaCO _{3,})	IS 3025 (Part 21):2009 (RA 2014)	1 mg/l to 5000 mg/l

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Cyanide (as CN)	IS 3025 (Part 27):1986, (RA 2014)	0.01 mg/l to 5.0 mg/l
III.	RESIDUES IN WAT	ER		
1.	Packaged Natural Mineral Water/	Organo chlorine pesticides		
	Packaged Drinking Water/ Drinking	α-НСН	FSSAI Manual of water 2016 pg no 211-215	0.01 μg/l to 100 μg/l
	Water/Raw water	β-НСН	FSSAI Manual of water 2016 pg no 211-215	
		δ-HCH	FSSAI Manual of water 2016 pg no 211-215	
		γ-HCH (Lindane)	FSSAI Manual of water 2016 pg no 211-215	
		2,4-DDD	FSSAI Manual of water 2016 pg no 211-215	
		2.4-DDE	FSSAI Manual of water 2016 pg no 211-215	
		2,4-DDT	FSSAI Manual of water 2016 pg no 211-215	
		4,4-DDD	FSSAI Manual of water 2016 pg no 211-215	

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		4,4-DDE	FSSAI Manual of water	T
			2016	
			pg no 211-215	
		4,4-DDT	FSSAI Manual of water	
			2016	
			pg no 211-215	
		Endosulphan-α	FSSAI Manual of water	
ļ			2016	
l			pg no 211-215	
		Endosulphan-β	FSSAI Manual of water	
ļ			2016	
İ			pg no 211-215	
		Endosulphan-sulphate	FSSAI Manual of water	
			2016	
1		<u> </u>	pg no 211-215	
		Aldrin	FSSAI Manual of water	
			2016	
		<u> </u>	pg no 211-215	<u> </u>
		Dieldrin	FSSAI Manual of water	
			2016	
<u> </u>			pg no 211-215	
ŀ		Alachlor	FSSAI Manual of water	0.01 μg/l to 50 μg/l
ŀ			2016	
			pg no 211-215	
		Organo Phosphorus Pesticide		
		Monocrotophos	FSSAI Manual of water	0.025 μg/l to 1000 μg/l
			2016	
		<u> </u>	pg no 211-215	
		2,4-D	IADFAC/V/C06	0.025 μg/l to 1000 μg/l
		Isoproturon	IADFAC/V/C07	0.01 μg/l to 1000 μg/l
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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Ethion	FSSAI Manual of water 2016	0.01 μg/l to 1000 μg/l
		Atrazine	pg no 211-215 FSSAI Manual of water	0.01 μg/l to 1000 μg/l
		Attazino	2016 pg no 211-215	υ.ο τ μg/τ το τουο μg/τ
		Methyl Paraxon	FSSAI Manual of water 2016	0.01 μg/l to 1000 μg/l
		Methyl Parathion	pg no 211-215 FSSAI Manual of water 2016	0.01 µg/l to 1000 µg/l
		Malathion	pg no 211-215 FSSAI Manual of water 2016	0.01 μg/l to 1000 μg/l
		Malaoxan	pg no 211-215 FSSAI Manual of water 2016	0.01 μg/l to 1000 μg/l
		Phorate Sulphone	pg no 211-215 FSSAI Manual of water 2016	0.01 μg/l to 1000 μg/l
		Butachlor	pg no 211-215 FSSAI Manual of water 2016	0.01 μg/l to 1000 μg/l
		Chlorpyrifos	pg no 211-215 FSSAI Manual of water 2016	0.01 μg/l to 1000 μg/l
		Phorate	pg no 211-215 FSSAI Manual of water 2016 pg no 211-215	0.01 μg/l to 1000 μg/l

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Phorate sulphoxide	FSSAI Manual of water 2016 pg no 211-215	0.01 μg/l to 1000 μg/l
		Trace Metal Element		
		Barium (as Ba)	Annexure F of IS 13428:2005, (RA 2014)	0.1 mg/l to 20.0 mg/l
		Copper (as Cu)	IS 3025 (Part 42):1992, (RA 2014)	0.05 mg/l to 10.0 mg/l
		Iron (as Fe)	IS 3025 (Part 53):2003, (RA 2014)	0.05 mg/l to 10.0 mg/l
		Manganese (as Mn)	IS 3025 (Part 59):2006 (RA 2012)	0.05 mg/l to 10.0 mg/l
		Zinc (as Zn)	IS 3025 (Part 49):1994, (RA 2014)	0.02 mg/l to 100 mg/l
		Silver (as Ag)	Annexure J of IS 13428:2005, (RA 2014)	0.01 mg/l to 10.0 mg/l
		Aluminium (as Al)	IS 3025 (Part 55):2003, (RA 2014)	0.02 mg/l to 5.0 mg/l
		Selenium (as Se)	IS 3025 (Part 56):2003, (RA 2014)/IS 15303:2003 (RA 2009)	0.005 mg/l to 20.0 mg/l
		Antimony (as Sb)	Annexure G of IS 13428:2005, (RA 2009)	0.005 mg/l to 5.0 mg/l
		Cadmium (as Cd)	IS 3025 (Part 41):1992, (RA 2014)	0.003 mg/l to 5 mg/l
		Arsenic (as As)	IS 3025 (Part 37):1988 (RA 2014)	0.005 mg/l to 1mg/l
		Lead (as Pb)	IS 3025 (Part 47):1994 (RA 2014)	0.005 mg/l to 10 mg/l
		Chromium (as Cr)	Annexure-J, IS 13428:2005, (RA 2014)	0.05 mg/l to 10.0 mg/l

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Nickel (as Ni)	Annexure L of IS 13428:2005, (RA 2014)	0.01 mg/l to 5.0 mg/l
		Mercury (as Hg)	IS 3025 (Part 48):1994, (RA 2014)	0.0005 mg/l to 5 mg/l
		Polynuclear Aromatic Hydrocarbons (PAH)		
		Napthalene	FSSAI Manual of water 2016 pg no 211-215	0.05 μg/l to 100 μg/l
		Anthracene	FSSAI Manual of water 2016 pg no 211-215	
		Phenanthrene	FSSAI Manual of water 2016 pg no 211-215	
		Chrysene	FSSAI Manual of water 2016 pg no 211-215	
		benzo (a) anthracene	FSSAI Manual of water 2016 pg no 211-215	
		Fluoranthene	FSSAI Manual of water 2016 pg no 211-215	
		benzo (a) pyrene	FSSAI Manual of water 2016 pg no 211-215	
		benzo (K) fluoranthene	FSSAI Manual of water 2016 pg no 211-215	
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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		indeno (1, 2, 3-cd)	FSSAI Manual of water	T
		pyrene	2016	
			pg no 211-215	
		benzo (ghi) perylene	FSSAI Manual of water	
			2016	
			pg no 211-215	
		Acenaphthylene	FSSAI Manual of water	
			2016	
			pg no 211-215	
		Acenaphthene	FSSAI Manual of water	
			2016	
			pg no 211-215	
		Fluorene	FSSAI Manual of water	
			2016	
			pg no 211-215	
		Pyrene	FSSAI Manual of water	
			2016	
			pg no 211-215	<u> </u>
		benzo (b) fluoranthene	FSSAI Manual of water	
			2016	
			pg no 211-215	
		dibenzo(a,h)	FSSAI Manual of water	
		anthracene	2016	
			pg no 211-215	
		Poly Chlorinated Biphenyls (PCB)		
		2,6-Di chloro bi phenyl	FSSAI Manual of water 2016	0.05 μg/l to 100 μg/l
			pg no 211-215	
		2,4,4 Tricholoro bi	FSSAI Manual of water	<u> </u>
		phenyl	2016	
			pg no 211-215	

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		2,2,5,5-Tetrachloro bi phenyl	FSSAI Manual of water 2016 pg no 211-215	
		2,2,4,4,5,5 Hexa chloro bi phenyl	FSSAI Manual of water 2016 pg no 211-215	
		2,2,3,4,4,5Hexa chloro bi phenyl	FSSAI Manual of water 2016 pg no 211-215	
		2,2,3,4,4,5,5-Hepta chloro bi phenyl	FSSAI Manual of water 2016 pg no 211-215	
		Phenols Phenolic compounds (as C ₆ H ₅ OH)	IS 3025 (Part 43):1992, (RA 2014)	0.001 mg/l to 10 mg/l
III.	POLLUTION & ENV	IRONMENT		
1.	Waste Water (Effluents/	Colour	IS 3025 (Part 4):1983, (RA 2012)	1 Hazen Unit to 25 Hazen Unit
	Sewage)	Odour	IS3025 (Part 5):1983, (RA 2012)	Agreeable/Disagreeable
		Temperature pH	APHA 23 rd Edition 2550B I S3025 (Part 11):1983, (RA 2006)	Ambient to 50°C 2 to 10
		Total suspended Solids	IS 3025 (Part 15):1984, (RA 2014)	1 mg/l to 1000 mg/l
		BOD@27°C For 3 days	IS 3025 (part 44:1993 (RA 2014)	1 mg/l to 150 mg/l
		COD	IS 3025 (Part 58):2006 (RA 2012)	1 mg/l to 500 mg/l

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Phenolic compounds (as C ₆ H ₅ OH)	IS 3025 (Part 43):1992, (RA 2014)	0.01 mg/l to 10.0 mg/l
		Sulphide (as H ₂ S)	IS 3025 (Part 29):1986, (RA 2014)	0.05 mg/l to 10 mg/l
		Residual Free Chlorine	IS 3025 (Part 26):1986, (RA 2014)	0.1 mg/l to 1000 mg/l
		Ammoniacal Nitrogen as NH₃-N	IS 3025 (part34):1988, (RA 2009)	5 mg/l to 100 mg/l
		Total Kjeldalhl Nitrogen as N	IS 3025 (part 34):1988, (RA 2014)	1 mg/l to 250 mg/l
		Nitrite (as NO ₂)	IS 3025 (Part 34):1988, (RA 2014)	0.01 mg/l to 50 .0 mg/l
		Fluoride (as F)	IS 3025 (Part 60):2008 (RA 2013)	0.1 mg/l to 5.0 mg/l
		Copper (as Cu)	IS 3025 (Part 42):1992, (RA 2014)	0.02 mg/l to 5.0 mg/l
		Iron (as Fe)	IS 3025 (Part 53):2003, (RA 2014)	0.02 mg/l to 5.0 mg/l
		Manganese (as Mn)	IS 3025 (Part 59):2006 (RA 2012)	0.01 mg/l to 5 .0 mg/l
		Zinc (as Zn)	IS 3025 (Part49):1994, (RA 2014)	0.01 mg/l to 100 mg/l
		Cadmium (as Cd)	IS 3025 (Part 41):1992, (RA 2014)	0.001 5 mg/l
		Arsenic (as As)	IS 3025 (Part 37):1988 (RA 2014)	0.005 mg/l to 1mg/l
		Cyanide (as CN)	IS 3025 (Part 27):1986, (RA 2014)	0.01 mg/l to 5.0 mg/l
		Lead (as Pb)	IS 3025 (Part 47):1994 (RA 2014)	0.01 mg/l to 10 mg/l
		Chromium (as Cr)	Annexure-J, IS 13428:2005, (RA 2014)/	0.01 mg/l to 10.0 mg/l

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			IS 3025(Part-52):2003, (RA 2014)	
		Nickel (as Ni)	IS 3025 (Part 54):2003 (RA 2014)/,Annexure L of IS 13428:2005, (RA 2014)	0.01 mg/l to 5.0 mg/l

NOTE: The Laboratory has demonstrated competence for the stated scope for WATER. This however <u>does</u> <u>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.