

Laboratory **SEALAB, Sea food Park (India) Limited, XIV/347, Keltron Road, Aroor, Kerala**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6408 (in lieu of T-1332, T-1333)**

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Validity **18.10.2017 to 17.10.2019**

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
<u>BIOLOGICAL TESTING</u>				
I.	MARINE/AQUA CULTURE FOOD PRODUCTS			
1.	Raw, processed and dried Marine/ Aquaculture Products	Aerobic Plate Count	FDA BAM, Chapter 3,2001 (Pour plate method)	≥10 cfu/g
		Total Plate Count at 30°C	IS 5402:2012; ISO 4833-1:2013	≥10 cfu/g
		Enumeration of Yeast and Mould	FDA BAM, Chapter 18, 2001	≥100 cfu/g
		Total coliform count	USFDA BAM Chapter 4(I), 8 th Ed., 2017	≥10 cfu/g
		Total coliform MPN	FDA BAM, Chapter 4 (I), 8 th ed., 2017	≥ 3 to >1100 MPN/g
		Escherichia coli count	FDA BAM, Chapter 4 (I), 8 th ed., 2017	≥10 cfu/g
		Escherichia coli MPN	FDA BAM, Chapter 4 (I) : 2017	≥ 3 to >1100 MPN/g
		Thermotolerant coliforms / Faecal coliforms MPN	FDA BAM, Chapter 12, 2016	≥ 3 to >1100 MPN/g
		Staphylococcus aureus	FDA BAM, Chapter 12, 2016	≥10 cfu/g
		Enterobacteriaceae count	ISO 21528-2 : 2017	≥10 cfu/g
		Faecal Streptococci count	IS 5887 Part 2: 1976 (RA-2009)	≥10 cfu/g
		Faecal Streptococci MPN	IS 5887 Part 2: 1976 (RA-2009)	≥ 0.3 to >110 MPN/g
		Salmonella spp	FDA BAM, Chapter 5, 2016	Qualitative (Presence/ Absence per 25g)
		Clostridium perfringens (Anaerobic Sulphite Reducing Bacteria)	FDA BAM, Chapter 16, 2001	≥10 cfu/g
	Shigella	FDA BAM, Chapter 6, 2013	Qualitative (Presence/ Absence per 25g)	
	Vibrio cholerae	FDA BAM, Chapter 9, 2004	Qualitative (Presence/Absence per 25g)	

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		Vibrio parahaemolyticus MPN	FDA BAM, Chapter 9, 2004	≥ 0.3 to >1100 MPN/g
		Vibrio vulnificus	FDA BAM, Chapter 9, 2004	≥ 3 to >1100 MPN/g
		Listeria monocytogenes	FDA BAM, Chapter 10, 2017	Qualitative (Presence/Absence per 25g)
		Bacillus cereus	FDA BAM, Chapter 14, 2012	≥ 10 cfu/g
		Canned foods-commercial sterility	USFDA BAM 8th Ed. 2001, Chapter 21A Chapter 61, Microbiological Examination of foods, APHA 4th ed, 2001	Qualitative (Commercially sterile/Non-sterile) (Pass/Fail)
II.	FOOD AND AGRICULTURAL PRODUCTS			
1.	Salt	Staphylococcus aureus	FDA BAM, Chapter 12, 2016	≥ 10 cfu/g
		Clostridium perfringens (Anaerobic Sulphite Reducing Bacteria)	FDA BAM, Chapter 16, 2001	≥ 10 cfu/g
2.	Egg & Egg Products	Aerobic Plate count	USFDA BAM, Chapter 3, 8th Ed., 2001	≥ 10 cfu/g
		Yeast and Moulds	USFDA BAM, Chapter 18, 8th Ed., 2001	≥ 100 cfu/g
		Coliform Count	USFDA BAM Chapter 4 (I), 8th Ed., 2017	≥ 10 cfu/g
		Coliforms MPN	USFDA BAM Chapter 4 (I), 8th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal Coliforms / Thermotolerant coliforms	USFDA BAM Chapter 4 (I), 8th Ed., 2017	≥ 3 to >1100 MPN/g
		E.coli count	USFDA BAM Chapter 4 (I), 8th Ed., 2017	≥ 10 cfu/g
		E.coli MPN	USFDA BAM Chapter 4 (I), 8th Ed., 2017	≥ 3 to >1100 MPN/g

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		Staphylococcus aureus	USFDA BAM Chapter 12, 8 th Ed., 2016	≥10 cfu/g
		Salmonella	USFDA BAM Chapter 5, 8 th Ed., 2016	Qualitative (Present/Absent/25g)
		Shigella	USFDA BAM Chapter 6, 8 th Ed., 2013	Qualitative (Present/Absent/25g)
		V. cholerae	USFDA BAM, Chapter 9, 8 th Ed., 2004	Qualitative (Present/Absent/25g)
		Listeria monocytogenes	USFDA BAM Chapter 10, 8 th Ed., 2017	Qualitative (Present/Absent/25g)
		Clostridium perfringens (Anaerobic Sulphite reducing bacteria)	USFDA BAM Chapter 16, 8 th Ed., 2001	≥10 cfu/g
		Enterobacteriaceae count	ISO 21528-2 : 2004	≥10 cfu/g
		Enterobacteriaceae MPN	ISO 21528-1 : 2004	≥ 0.3 to >110 MPN/g
		Faecal streptococci (Count & MPN)	IS 5887 Part 2 : 1976 (RA-2009)	≥ 10 cfu/g ≥ 0.3 to >110 MPN/g
3.	Milk & Milk Products	Aerobic Plate count	USFDA BAM, Chapter 3, 8 th Ed., 2001	≥ 10 cfu/g or ml
		Yeast and Mould	USFDA BAM, Chapter 18, 8 th Ed., 2001	≥ 100 cfu/g or ml
		Coliform count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g or ml
		Coliform MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal Coliforms / Thermotolerant coliforms	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Enterobacteriaceae count	ISO 21528-2 : 2017	≥ 10 cfu/g
		Faecal streptococci (Count & MPN)	IS 5887 Part 2 : 1976 (RA-2009)	≥10 cfu/g ≥ 0.3 to >110 MPN/g

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		E.coli count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g or ml
		E.coli MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Staphylococcus aureus	USFDA BAM Chapter 12, 8 th Ed., 2016	≥ 10 cfu/g or ml
		Salmonella	USFDA BAM Chapter 5, 8 th Ed., 2016	Qualitative (Present/Absent/25 g or ml)
		Enterococci (Faecal Streptococci) count	IS 5887 Part 2 : 1976 (RA-2009)	≥ 10 cfu/g or ml
		Enterococci (Faecal Streptococci) MPN	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/100 g or ml
		Listeria monocytogenes	USFDA BAM Chapter 10, 8 th Ed., 2017	Qualitative (Present/Absent/25 g or ml)
4.	Meat & Meat Products	Aerobic Plate count	USFDA BAM, Chapter 3, 8 th Ed., 2001	≥ 10 cfu/g
		Coliforms count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		Coliforms MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal Coliforms / Thermotolerant coliforms	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		E.coli count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		E.coli MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal streptococci /Enterococci count	IS 5887 Part 2 : 1976 (RA-2009)	≥ 10 cfu/g
		Faecal streptococci /Enterococci MPN	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/g

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		Staphylococcus aureus	USFDA BAM Chapter 12, 8 th Ed., 2016	≥ 10 cfu/g
		Salmonella	USFDA BAM Chapter 5, 8 th Ed., 2016	Qualitative (Present/Absent/25g or ml)
		Listeria monocytogenes	USFDA BAM Chapter 10, 8 th Ed., 2017	Qualitative (Present/Absent/25g or ml)
		Clostridium perfringens (Anaerobic Sulphite reducing bacteria)	USFDA BAM Chapter 16, 8 th Ed. 2001	≥ 10 cfu/g
5.	Nuts & Nut Products	Aerobic Plate count	USFDA BAM, Chapter 3, 8 th Ed., 2001	≥ 10 cfu/g
		Yeast & Mould	USFDA, Chapter 18, BAM, 8 th Ed., 2001	≥ 100 cfu/g
		Coliforms count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		Coliforms MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal Coliforms / Thermotolerant coliforms	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		E.coli count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		E.coli MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Staphylococcus aureus	USFDA BAM Chapter 12, 8 th Ed., 2016	≥ 10 cfu/g
		Salmonella	USFDA BAM Chapter 5, 8 th Ed., 2016	Present/Absent/25g
		Faecal streptococci /Enterococci count	IS 5887 Part 2 : 1976 (RA-2009)	≥ 10 cfu/g
		Faecal streptococci /Enterococci MPN	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/g
		Clostridium perfringenes (Anaerobic Sulphite reducing bacteria)	USFDA BAM 8 th Ed. 2001	≥ 10 cfu/g

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6.	Herbs, Spices and Condiments	Aerobic Plate count	USFDA BAM, Chapter 3, 8 th Ed., 2001	≥ 10 cfu/g
		Yeast & Moulds	USFDA BAM, Chapter 18, 8 th Ed., 2001	≥ 100 cfu/g
		Coliforms count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		Coliforms MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal Coliforms / Thermotolerant coliforms	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		E.coli count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		E.coli MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Staphylococcus aureus	USFDA BAM Chapter 12, 8 th Ed., 2016	≥ 10 cfu/g
		Salmonella	USFDA BAM Chapter 5, 8 th Ed., 2016	Qualitative (Present/Absent/25 g or ml)
		Faecal streptococci /Enterococci count	IS 5887 Part 2 : 1976 (RA-2009)	≥ 10 cfu/g
		Faecal streptococci /Enterococci MPN	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/g
		Clostridium perfringens (Anaerobic sulphite reducing bacteria)	USFDA BAM Chapter 16, 8 th Ed. 2001	≥ 10 cfu/g
		Shigella	USFDA BAM Chapter 6, 8 th Ed. 2013	Qualitative (Present/Absent/25 g or ml)
Bacillus cereus	FDA BAM, Chapter 14, 2012	≥ 10 cfu/g		
Listeria monocytogenes	USFDA BAM Chapter 10, 8 th Ed. 2017	Qualitative (Present/Absent/25 g or ml)		

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7.	Fruits and Vegetables / Fruits and vegetable products	Aerobic Plate count	USFDA BAM, Chapter 3, 8 th Ed., 2001	≥ 10 cfu/g
		Yeast & Moulds	USFDA BAM, Chapter 18, 8 th Ed., 2001	≥ 100 cfu/g
		Coliform count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		Coliforms MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal Coliforms / Thermotolerant coliforms	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		E.coli count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		E.coli MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Staphylococcus aureus	USFDA BAM Chapter 12, 8 th Ed., 2016	≥ 10 cfu/g
		Salmonella	USFDA BAM Chapter 5, 8 th Ed., 2016	Qualitative (Present/Absent/25 g or ml)
		Faecal streptococci /Enterococci count	IS 5887 Part 2 : 1976 (RA-2009)	≥ 10 cfu/g
		Faecal streptococci /Enterococci MPN	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/g
		Clostridium perfringens (Anaerobic sulphite reducing bacteria)	USFDA BAM Chapter 16, 8 th Ed. 2001	≥ 10 cfu/g
		Shigella	USFDA BAM Chapter 6, 8 th Ed. 2013	Qualitative (Present/Absent/25 g or ml)
Vibrio cholerae	USFDA BAM Chapter 9, 8 th Ed. 2004	Qualitative (Present/Absent/25 g or ml)		

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8.	Cereals, Pulses and Cereal products	Aerobic Plate count	USFDA BAM, Chapter 3, 8 th Ed., 2001	≥ 10 cfu/g
		Yeast & Moulds	USFDA BAM, Chapter 18, 8 th Ed., 2001	≥ 100 cfu/g
		Coliforms count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		Coliforms MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2013	≥ 3 to >1100 MPN/g
		Faecal Coliforms / Thermotolerant coliforms	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		E.coli count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		E.coli MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Staphylococcus aureus	USFDA BAM Chapter 12, 8 th Ed., 2016	≥ 10 cfu/g
		Salmonella	USFDA BAM Chapter Chapter 5, 8 th Ed., 2016	Qualitative (Present/Absent/25 g or ml)
		Faecal streptococci/ Enterococci count	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/g ≥ 10 cfu/g
		Faecal streptococci /Enterococci MPN	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/g
		Clostridium perfringens (Anaerobic sulphite reducing bacteria)	USFDA BAM Chapter 16, 8 th Ed. 2001	≥ 10 cfu/g
		Shigella	USFDA BAM Chapter 6, 8 th Ed. 2013	Qualitative (Present/Absent/25 g or ml)
		Vibrio cholerae	USFDA BAM Chapter 9, 8 th Ed. 2004	Qualitative (Present/Absent/25 g or ml)
V.parahaemolyticus	USFDA BAM Chapter 9, 8 th Ed. 2004	≥ 0.3 to >1100 MPN/g		

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9.	Bakery, Sweets and Confectionaries	Aerobic Plate count	USFDA BAM, Chapter 3, 8 th Ed., 2001	≥10 cfu/g
		Yeast & Moulds	USFDA BAM, Chapter 18, 8 th Ed., 2001	≥ 100 cfu/g
		Coliforms count	USFDA BAM Chapter 4 (I), 8 th Ed., 2013	≥ 10 cfu/g
		Coliforms MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal Coliforms / Thermotolerant coliforms	USFDA BAM Chapter 4 (I), 8 th Ed., 2013	≤3 to >1100 MPN/g
		E.coli count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		E.coli MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Staphylococcus aureus	USFDA BAM Chapter 12, 8 th Ed., 2016	≥ 10 cfu/g
		Salmonella	USFDA BAM Chapter 5, 8 th Ed., 2016	Qualitative (Present/Absent/25 g or ml)
		Faecal streptococci/ Enterococci count	IS 5887 Part 2 : 1976 (RA-2009)	≥ 10 cfu/g
		Faecal streptococci /Enterococci MPN	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/g
10.	Non alcoholic beverages a)Tea & Tea products	Aerobic Plate count	USFDA BAM, Chapter 3, 8 th Ed., 2001	≥ 10 cfu/g
		Yeast & Moulds	USFDA BAM, Chapter 18, 8 th Ed., 2001	≥ 100 cfu/g
		Coliforms count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		Coliforms MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal Coliforms / Thermotolerant coliforms	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g

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		E.coli count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		E.coli MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Staphylococcus aureus	USFDA BAM Chapter 12, 8 th Ed., 2016	≥ 10 cfu/g
		Salmonella	USFDA BAM Chapter 5, 8 th Ed., 2016	Qualitative (Present/Absent/25 g or ml)
		Faecal streptococci/ Enterococci count	IS 5887 Part 2 : 1976 (RA-2009)	≥ 10 cfu/g
		Faecal streptococci/ Enterococci MPN	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/g
		Clostridium perfringens (Anaerobic sulphite reducing bacteria)	USFDA BAM Chapter 16, 8 th Ed. 2001	≥ 10 cfu/g
		Listeria monocytogenes	USFDA BAM Chapter 10, 8 th Ed. 2017	Qualitative (Present/Absent/25 g or ml)
	b) Coffee and Cocoa powder	Aerobic Plate count	USFDA BAM, Chapter 3, 8 th Ed., 2001	≥ 10 cfu/g
		Yeast & Moulds	USFDA BAM, Chapter 18, 8 th Ed., 2001	≥ 100 cfu/g
		Coliforms count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		Coliforms MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal coliforms / Thermotolerant Coliforms	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		E.coli count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		E.coli MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Staphylococcus aureus	USFDA BAM Chapter 12, 8 th Ed., 2016	≥ 10 cfu/g

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		Salmonella	USFDA BAM Chapter 5, 8 th Ed., 2016	Present/Absent/25g
		Faecal streptococci/ Enterococci count	IS 5887 Part 2 : 1976 (RA-2009)	≥ 10 cfu/g
		Faecal streptococci / Enterococci MPN	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/g
		Clostridium perfringens (Anaerobic sulphite reducing bacteria)	USFDA BAM Chapter 16, 8 th Ed. 2001	≥ 10 cfu/g or ml
		L.monocytogenes	USFDA BAM Chapter 10,8 th Ed. 2017	Present/Absent/25g
11.	Canned and Processed food	Aerobic Plate count	USFDA BAM, Chapter 3, 8 th Ed., 2001	≥ 10 cfu/g
		Yeast & Moulds	USFDA BAM, Chapter 18, 8 th Ed., 2001	≥ 100 cfu/g
		Coliforms count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g
		Coliforms MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal Coliforms / Thermotolerant coliforms	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥3 to >1100 MPN/g
		E.coli count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥10 cfu/g
		E.coli MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥3 to >1100 MPN/g
		Staphylococcus aureus	USFDA BAM Chapter 12,8 th Ed., 2016	≥ 10 cfu/g
		Salmonella	USFDA BAM Chapter 5, 8 th Ed., 2016	Qualitative (Present/Absent/25 g or ml)
		Faecal streptococci / Enterococci count	IS 5887 Part 2 : 1976 (RA-2009)	≥ 10 cfu/g
		Faecal streptococci/ Enterococci MPN	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/g

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		Clostridium perfringens/ Anaerobic sulphite reducers	USFDA BAM Chapter 16, 8 th Ed. 2001	≥ 10 cfu/g
		Commercial Sterility	USFDA BAM 8 th Ed. 2001, Chapter 21A Chapter 61, Microbiological Examination of foods, APHA 4 th ed, 2001	Qualitative
12.	Jam, Juices, Sauces and Concentrates	Aerobic Plate count	USFDA BAM, Chapter 3, 8 th Ed., 2001	≥ 10 cfu/g or ml
		Yeast & Moulds	USFDA BAM Chapter 18, 8 th Ed., 2001	≥ 100 cfu/g or ml
		Coliform count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g or ml
		Coliforms MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Faecal Coliforms / Thermotolerant coliforms	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		E.coli Count	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 10 cfu/g or ml
		E.coli MPN	USFDA BAM Chapter 4 (I), 8 th Ed., 2017	≥ 3 to >1100 MPN/g
		Staphylococcus aureus	USFDA BAM Chapter 12, 8 th Ed., 2016	≥ 10 cfu/g or ml
		Salmonella	USFDA BAM Chapter 5, 8 th Ed., 2016	Qualitative (Present/Absent/25 g or ml)
		Faecal streptococci /Enterococci count	IS 5887 Part 2 : 1976 (RA-2009)	≥ 10 cfu/g or ml
		Faecal streptococci/ Enterococci MPN	IS 5887 Part 2 : 1976 (RA-2009)	≥ 0.3 to >110 MPN/g
		Clostridium perfringens (Anaerobic sulphite reducing bacteria)	USFDA BAM Chapter 13, 8 th Ed. 2001	≥ 10 cfu/g or ml

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III.	WATER			
1.	Water for food processing industry	Total Plate Count	IS 1622:1981 (RA-2009)	≥1 cfu/ml
		Total coliforms (MPN)	IS 1622:1981 (RA-2009) APHA 22 nd Ed.2012, Chapter 9221B	≥1 to >161 MPN/100ml ≥1.1 to >1100 MPN/100ml
		Proteolytic bacteria	IS 4251:1967-Appendix A-1 (RA-2009)	≥1 cfu/ml
		Lipolytic bacteria	IS 4251:1967-AppendixA-2 (RA-2009)	≥1 cfu/ml
		Total Plate Count at 22°C for 72 hrs	ISO 6222:1999	≥1 cfu/ml
		Total Plate Count at 37°C for 48 hrs	ISO 6222:1999	≥1 cfu/ml
		Total coliforms (MF)	ISO 9308-1 : 2014/ Amd-1-2016	Qualitative (Presence/ Absence per 100 ml)
		Escherichia coli (MF)	ISO 9308-1:2014/ Amd-1-2016	Qualitative (Presence/ Absence per 100 ml)
		Faecal Streptococci or Enterococci (MF)	ISO 7899-2:2000	Qualitative (Presence/ Absence per 100 ml)
		Pseudomonas Aeruginosa	ISO 16266:2006	Qualitative (Presence/ Absence per 100 ml)
		Clostridium perfringens (including spores)	ISO 14189 : 2013	Qualitative (Presence/ Absence per 100 ml)
2.	Drinking water	Total coliforms (MF)	ISO 9308-1 : 2016	Qualitative (Presence/ Absence per 100ml)

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3.	Packaged Drinking Water	Aerobic Microbial Count @ 37°C	IS 5402:2012 ISO 4833:2003	20 cfu/ml
		Aerobic Microbial Count @ 22°C	IS 5402:2012 ISO 4833:2003	100 cfu/ml
		E.coli	IS 15185: 2002 ISO 9308-1:2000	Qualitative (Presence/ Absence per 250 ml)
		Coliforms	IS 15185: 2002 ISO 9308-1:2000	Qualitative (Presence/ Absence per 250 ml)
		Faecal Streptococci or Enterococci	IS 15186 :2002 ISO 7899-2 : 2000	Qualitative (Presence/ Absence per 250 ml)
		Staphylococcus aureus	IS 5887 Part 2 : 1976 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)
		Sulphite reducing anaerobes	IS 13428:2005 Annex C/Amd2011	Presence/ Absence per 50 ml
		Pseudomonas aeruginosa	IS 13428 Annex D : 2005/ Amd2011	Qualitative (Presence/ Absence per 250 ml)
		Yeast and Moulds	IS 5403 : 1999 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)
		Salmonella spp.	IS 15187:2002	Qualitative (Presence/ Absence per 250 ml)
		Shigella	IS 5887 Part 7: 1999 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)
		Vibrio cholerae	IS 5887 Part5 : 1976 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)

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		Vibrio parahaemolyticus	IS 5887 Part 5 : 1976 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)
4.	Packaged natural mineral water	E.coli	IS 5887 Part 1 : 1976 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)
		Coliforms	IS 5401 Part 1:2012	Qualitative (Presence/ Absence per 250 ml)
		Faecal Streptococci or Enterococci	IS 5887 Part 2 : 1976 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)
		Staphylococcus aureus	IS 5887 Part 2 : 1976 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)
		Sulphite reducing anaerobes	IS 13428:2005 Annex C/Amd-2011	Qualitative (Presence/ Absence per 250 ml)
		Pseudomonas Aeruginosa	IS 13428 Annex D : 2005/Amd-2011	Qualitative (Presence/ Absence per 250 ml)
		Yeast and Moulds	IS 5403 : 1999 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)
		Salmonella spp.	IS 5887 Part : 1999 (RA-2009)	Qualitative (Presence/ Absence per 250 ml of water)
		Shigella	IS 5887 Part 7: 1999 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)
		Vibrio cholerae	IS 5887 Part5 : 1976 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)

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		Vibrio parahaemolyticus	IS 5887 Part 5 : 1976 (RA-2009)	Qualitative (Presence/ Absence per 250 ml)
5.	Swimming Pool water	Total Plate Count	IS 1622:1981 (RA-2009)	≥1 cfu/ml
		Total coliforms (MPN)	IS 1622:1981 (RA-2009)	≥ 1 to >161 MPN per 100ml ≥ 1.1 to >1100 MPN per 100ml

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<u>CHEMICAL TESTING</u>				
I.	MARINE/AQUA CULTURE FOOD PRODUCTS			
1.	Crustaceans	Crystal Violet	SLC/QSOP 073	0.2 µg/kg to 4.0 µg/kg
		Leuco Crystal Violet	Issue No.03	0.2 µg/kg to 4.0 µg/kg
		Malachite Green	Dated 30.06.2016	0.2 µg/kg to 4.0 µg/kg
		Leuco Malachite Green		0.2 µg/kg to 4.0 µg/kg
		Sudan I	SLC/QSOP 077,	5.0 µg/kg to 20 µg/kg
		Sudan II	Issue No. 02	5.0 µg/kg to 20 µg/kg
		Sudan III	Dated 20.04.2014	5.0 µg/kg to 20 µg/kg
		Sudan IV		5.0 µg/kg to 20 µg/kg
		Indole	SLC/QSOP 054 Issue No. 03Dated.30.01.12	4.38 µg/kg to 200 µg/kg
		Cholesterol	SLC/QSOP/FP-094 Issue No.01 & Date: 05.07.13	25 mg/100g to 1000 mg/100g
		Total Carbohydrate	IS 1656:2007, (RA 2009) SLC/QSOP 050	1% to 5%
		Citric Acid	SLC/QSOP 091 -- IssueNo.01 Dated 28.03.2017	0.013% to 0.5%
		Added polyphosphate as P ₂ O ₅	SLC/QSOP-090— Issue No. 01 Dated :31.03.2017)	0.05% to 0.5%

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		Total Sugar	SLC/QSOP049 – Issue No.01 Dated 31.03.2017	1% to 10%
		Moisture	AOAC 20 th edn 2016, 950.46	0.1% to 90%
		Total Ash	AOAC 20 th edn 2016, 938.08	0.1% to 20%
		Residual Sulfite (as SO ₂)	SLC/QSOP 038 – Issue No. 03 Dated:29.02.2016	10 mg/kg to 500 mg/kg
		Total Salt (as NaCl)	AOAC 20 th edn 2016, 937.09	0.1% to 30%
		Total Phosphate as P ₂ O ₅	SLC/QSOP 043 Issue No.02 Dated: 31.03.2017	500 mg/kg to 15000 mg/kg
		TVBN	SLC/QSOP 037, -- Issue No.02 Dated:29.02.2016	5 mg/100g to 1000 mg/100g
		TMA	SLC/QSOP 037, -- Issue No.02 Dated:29.02.2016	5mg/100g to 1000 mg/100g
		Total Fat	AOAC 20 th edn 2016, 960.39	0.1% to 50%
		Protein	AOAC 20 th edn 2016, 928.08	5% to 70%
		pH	FSSAI Manual 2016 (Meat & meat products & Fish & fish products) 3.1	1 units to 14 units
2.	Cephalopods	Indole	SLC/QSOP 054, -- Issue No.01, Dated.18.02.16	15 µg/kg to 200 µg/kg

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		Total Carbohydrate	IS 1656:2007, (RA 2009)	1% to 10%
		Moisture	AOAC 20 th edn 2016, 950.46	0.1% to 95%
		Total Ash	AOAC 20 th edn 2016, 938.08	0.1% to 20%
		Total Phosphate as P ₂ O ₅	SLC/QSOP 043 – Issue No.02 Dated:31.03.2017	500 mg/kg to 15000 mg/kg
		Total Salt as NaCl	AOAC 20 th edn 2016, 937.09	0.1% to 30%
		TVBN	SLC/QSOP 037, -- Issue No.01 Dated:31.03.2017	5 mg/100g to 1000 mg/100g
		TMA	SLC/QSOP 037, - IssueNo.01 Dated:31.03.2017	5 mg/100g to 1000 mg/100g
		Total Fat	AOAC 20 th edn 2016, 960.39	0.1% to 50%
		Total Sugar	SLC/QSOP 049 – Issue No.01 Dated31.03.2017	1% to 10%
		Protein	AOAC 20 th edn 2016, 928.08	5% to 70%
		pH	FSSAI Manual 2016 (Meat &meat products & Fish & fish products) 3.1	1 units to 14 units
3.	Fish and fish products	Histamine	SLC/QSOP 064 -- Issue No.04, Dated.15.02.16	15 mg/kg to 200 mg/kg
		Total Carbohydrate	IS 1656:2007, (RA 2009)	1% to 10 %
		Moisture	AOAC 20 th edn 2016, 950.46	0.1% to 95%

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		Total Ash	AOAC 20 th edn 2016, 938.08	0.1% to 20%
		Total Phosphate as P ₂ O ₅	SLC/QSOP 043- Issue No.02 Dated:31.03.2017	500 mg/kg to 15000 mg/kg
		Total Salt as NaCl	AOAC 20 th edn 2016, 937.09	0.1% to 10%
			IS 1797:1985 (RA 2009)	1% to 30%
		TVBN	SLC/QSOP 037, -- Issue No.02 Dated:29.02.2016	5 mg/100g to 1000 mg/100g
		TMA	SLC/QSOP 037, -- Issue No.02 Dated:29.02.2016	5 mg/100g to 1000 mg/100g
		Total Fat	AOAC 20 th edn 2016, 960.39	0.1% to 50%
		Protein	AOAC 20 th edn 2016, 928.08	0.1% to 70%
		Acidity as Acetic acid	AOAC 20 th edn 2016, 942.15	0.1% to 30%
		Total Sugar	(SLC/QSOP 049) – Issue No.01, Dated 31.03.2017	1% to 5%
		pH	FSSAI Manual 2016 (Meat & meat products & Fish & fish products) 3.1	1 units to 14 units
			AOAC 20 th edn 2016, 981.12	1 units to 14 units
4.	Salt	Purity as NaCl	IS 797:1982 (RA-2012)	1% to 100%
5.	Sodium Tripoly Phosphate	Purity as P ₂ O ₅	IS :6100-1984(RA-2010)	1% to 58%

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II.	FOOD AND AGRICULTURAL PRODUCTS			
1.	Oils, Fats and By products	Iodine Value	IS 548 (Part 1): 1964 (RA 2015)	5 to 300
		Boudouins Test	IS 548 (Part 1): 1964 (RA 2015)	Qualitative (Pass/Fail)
		Peroxide Value	IS 548 (Part 1): 1964 (RA 2015)	0.1 to 30 millieq/Kg
		Saponification Value	IS 548 (Part 1): 1964 (RA 2015)	50 to 300
		Refractive Index @ 40°C	IS 548 (Part 1): 1964 (RA 2015)	1.3 to 1.7
		Polenske Value	IS 548 (Part 1): 1964 (RA 2015)	5 to 20
		Unsaponifiable Matter	IS 548 (Part 1): 1964 (RA 2015)	0.1% to 10%
		Acid Value	IS 548 (Part 1): 1964 (RA 2015)	0.1 to 50
		Bellier Test	IS 548 (Part 2): 1976 (RA 2010)	15 ° to 50°
		Hydrocyanic Acid	IS 548 (Part 2): 1976 (RA 2010)	Qualitative (Present/Absent)
		Moisture and Volatile Matter	IS 548 (Part 1): 1964 (RA 2015)	0.01% to 4.0%
		Free Fatty Acids as Oleic Acid	IS 548 (Part 1): 1964 (RA 2015)	0.01% to 10%
		Mineral oil	IS 548 (Part 2): 1976 (RA 2010)	Qualitative (Present/Absent)
		Rancidity	FSSAI Manual 2016 (Oils & Fats) : 37.2.1	Qualitative (Present/Absent)
	Admixture with other oils	IS 548 (Part 2): 1976 (RA 2010)	Qualitative (Present/Absent)	
	Insoluble Impurities	IS 548 (Part 1): 1964 (RA 2015)	0.1% to 10%	

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		Reichert Meissel Value	IS 548 (Part 1): 1964 (RA 2015)	1.0 to 25
		Specific Gravity	IS 548 (Part 1): 1964 (RA 2015)	0.8 to 1
		Saturated Fatty Acids	AOAC 20 th Edition, 2016, 996.06	0.5% to 100%
		Unsaturated Fatty Acids	AOAC 20 th Edition, 2016, 996.06	0.5% to 100%
2.	Cereals, Pulses & By Products	Acid Insoluble Ash	IS 1155:1968 (RA 2010)	0.01% to 10%
		Moisture	IS 1155:1968 (RA 2010)	0.1% to 20%
		Total Ash	IS 1155:1968 (RA 2010)	0.1% to 20%
		Gluten	IS 1155:1968 (RA 2010)	1% to 12%
		Alcoholic Acidity as H ₂ SO ₄	IS 1155:1968 (RA 2010)	0.01% to 0.5%
		Total Fat	AOAC 20 th edn., 2016, 920.85	0.1% to 10%
		Total protein	AOAC 20 th edn., 2016, 984.13A	1% to 30%
		Carbohydrate	IS 1656-2007 (RA 2009)	5% to 80%
		Crude Fibre	IS 1155:1968 (RA 2010)	0.1% to 20%
		Starch	IS 4706, Part 2:1978 (RA 2005)	1% to 80%
		Calcium	AOAC 20 th edn., 2016, 990.23	15 mg/100g to 1000 mg/100g
		Sodium	AOAC 20 th edn., 2016, 990.23	10 mg/100g to 1500 mg/100g
		Potassium	AOAC 20 th edn., 2016, 990.23	10 mg/100g to 1500 mg/100g
		Acidity of extracted fat expressed as Oleic Acid	IS 12711:1989 (RA 2010)	0.01% to 10%
		Vitamin C	AOAC 20 th edn., 2016, 967.21	1 µg/g to 10 µg/g
		Energy Value	SLC/QSOP/FP 035— Issue No.01 Date.30.04.2013	10 kcal/100g to 1000 kcal/100g

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		Vitamin A	(SLC/QSOP/FP 036), No.01, Date.30.04.2013	2.33 mg/100g to 20 mg/100g
3.	Spices & Condiments	Moisture	IS 1797:1985(RA-2009)	0.3% to 20%
		Total Ash	IS 1797:1985(RA-2009)	0.1% to 7%
		Acid Insoluble Ash	IS 1797:1985(RA-2009)	0.1% to 2%
		Extraneous Matter	IS 1797:1985(RA-2009)	Qualitative (Present/Absent)
		Crude Fibre	IS 1797:1985(RA-2009)	0.1% to 20%
		Starch	IS4706:1978(Part II)	0.1% to 60%
		Non-Volatile Ether Extract	IS 1797:1985(RA-2009)	0.1% to 10%
		Volatile Oil	IS 1797:1985(R-2009)	0.1% to 15%
		Cold Water Soluble Extract	IS 1797:1985(RA-2009)	0.1% to 20%
		Alcohol Soluble Extract	IS 1797:1985(RA-2009)	0.1% to 20%
		Light Berries	IS 1798:2010	0.03% to 10%
		Bulk Density	IS 1797:1985 (RA-2009)	100 g/l to 1000 g/l
		Piperine Content	ASTA Analytical Manual 4 th Edn Method No. 12.1	0.1% to 20%
		Test for Lead Chromate	IS 3576:2010	Qualitative (Present/Absent)
		Curcumin	ASTA Analytical Manual 4 th Edn Method No. 18	0.1% to 10%
		Sodium Chloride	IS 1797:1985(RA-2009)	0.1% to 20%
		Sudan I	(SLC/QSOP/FP 054), Issue No. 02	10 µg/kg to 25 µg/kg
		Sudan II	Date 28.01.2013	10 µg/kg to 25 µg/kg
		Sudan III		10 µg/kg to 25 µg/kg
		Sudan IV		10 µg/kg to 25 µg/kg
4.	Non Alcoholic Beverages Tea & Tea Products	Moisture	IS 13853:1994(RA-2009)	0.3% to 12%
		Total ash	IS 13854:1994 (RA-2009)	0.1% to 20%
		Acid insoluble ash	IS 13857:1993(RA-2009)	0.1% to 20%
		Water soluble ash	IS 13855:1993(RA-2009)	1% to 80%
		Alkalinity of water soluble ash	IS 13856:1993(RA-2009)	0.1% to 20%

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		Crude fibre	IS 10226 (Part I) -1982 (RA-2010)	0.1% to 50%
		Water extract	IS 13862:1999(R-2009)	0.1% to 50%
		Caffeine	(SLC/QSOP/FP-065) -- Issue No. 01 Date.30.04.2013	0.075% to 10%
		Iron Particles	IS 3633:2003 (RA 2008)	10 mg/kg to 300 mg/kg
5.	Coffee, Cocoa and By products	Moisture	IS3077:1992 (RA-2009)	0.3% to 12%
		Total Ash	IS3077:1992(RA-2009)	0.1% to 20%
		Acid Insoluble Ash	IS3077:1992(RA-2009)	0.1% to 20%
		Water soluble ash	IS3077:1992(RA-2009)	1% to 80%
		Alkalinity of water soluble ash	IS3077:1992(RA-2009)	0.1% to 20%
		Caffeine	(SLC/QSOP/FP 065)— Issue No.01 Date.30.04.2013	0.04% to 10%
		Petroleum Ether Extract	IS 3077:1992(RA 2009)	0.1% to 20%
6.	Nuts and Nut products	Moisture	(SLC/QSOP/FP-075)- Issue No.01 Date.30.04.2013	0.1% to 20%
		Protein	AOAC 20 th Edition, 2016, 954.01	5% to 50%
		Fat	AOAC 20 th Edition, 2016, 948.2	1% to 60%
		Crude fibre	IS 10226 (Part 1): 2010	0.1% to 20%
		Salt	AOAC 20 th Edition, 2016, 950.52	0.5% to 20%
		Total Ash	AOAC 20 th Edition, 2016, 950.49	0.01% to 10%
		Peroxide Value	IS 12711:1989 (RA 2010)	0.1 millieq/kg to 20 millieq/k
		Acid Insoluble Ash	IS 1155:1968 (RA 2010)	0.01% to 5%
		Acidity of extracted fat	IS 12711:1989 (RA 2010)	0.01% to 20%

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		Energy Value	SLC/QSOP/FP 035 Issue No.01 Date.30.04.2013	10 Kcal/100g to 1000 Kcal/100g
		Carbohydrate	IS 1656:2007, (RA2009)	5 % to 50%
7.	Bakery and Confectionery Products	Moisture	IS 12711:1989 (RA 2010)	0.1% to 75%
		Total Ash	IS 12711:1989 (RA 2010)	0.1% to 15%
		Acid Insoluble Ash	IS 12711:1989 (RA 2010)	0.01% to 5%
		Protein	AOAC 20 th Edition, 2016, 954.01	0.5% to 40%
		Fat	IS 12711:1989 (RA 2010)	0.1% to 50%
		Carbohydrate	IS 1656:2007 (RA 2009)	5% to 80%
		Energy value	SLC/QSOP/FP 035- Issue No.01 Date.30.04.2013	10 Kcal/100g to 1000 Kcal/100g
		Sodium	AOAC 20 th Edition, 2016, 990.23	10 mg/100g to 1500 mg/100g
		Potassium	AOAC 20 th Edition, 2016, 990.23	10 mg/100g to 1500 mg/100g
		Calcium	AOAC 20 th Edition, 2016, 990.23	15 mg/100g to 1000 mg/100g
		Crude Fibre	IS 12711:1989 (RA 2010)	0.1% to 30%
		Peroxide Value	IS 12711:1989 (RA 2010)	0.1 millieq/kg to 20 millieq/kg
		Acidity of Extracted Fat	IS 12711:1989 (RA 2010)	0.01% to 20%
		Vitamin A	(SLC/QSOP/FP 036)- Issue No. 01 Date.30.04.2013	0.0465 mg/100g to 20 mg/100g
		Vitamin C	AOAC 20 th Edition, 2016, 967.21	0.05% to 20%
		Cholesterol	(SLC/QSOP/FP-094) Issue No.01 & Dated: 05.07.13	25 mg/100g to 1000 mg/100g
		Saturated Fatty Acids	AOAC 20 th Edition, 2016, 996.06	0.5% to 100%

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		Unsaturated Fatty Acids	AOAC 20 th Edition, 2016, 996.06	0.5% to 100%
		Alcoholic Acidity	IS 12711:1989(RA-2010)	0.01% to 1%
8.	Fruits, Vegetables & Byproducts	Drained weight	FSSAI Manual 5, 2012-1.4	45% to 70%
		Total Sugar	IS 2650:1975 (RA 2010)	2% to 80%
		Moisture	FSSAI Manual 5, 2012-1.4	0.05% to 95%
		Acid Insoluble ash	IS 13846:2009	0.01% to 5%
		Starch	IS 4079:1967	0.1% to 80%
		Extraneous Matter	FSSAI Manual 3, 2012-1.2	0.1% to 10%
		Reducing Sugar	IS 4079:1967	2% to 80%
		Fill of the Container	FSSAI Manual 5, 2012-1.3	80% to 100%
		SO ₂	AOAC 20 th Edition, 2016, 990.28	10 mg/kg to 300 mg/kg
		Total Ash	FSSAI Manual 5, 2012-1.3	0.1% to 15%
		Total Soluble Solids	IS 13815:1998	Upto 80 % max
		Acidity as Citric Acid, Acetic Acid	FSSAI Manual 5, 2012-2.4	1% to 20%
		pH	FSSAI Manual 5, 2012-2.3	2 to 6
		Sodium Chloride Content	FSSAI Manual 5, 2012-1.7	0.5% to 50%
		Oil Content	FSSAI Manual 5, 2012-2.7	0.1% to 60%
		Acidity of Extracted Fat Expressed as Oleic Acid	FSSAI Manual 3, 2012, 14.4	1% to 40%
		Total Solids	FSSAI Manual 5, 2012, 14.3	1% to 98%
		Peroxidase Test	FSSAI Manual 5, 2012-17.5	Qualitative (Present/Absent)
		Vitamin C	AOAC 20 th Edition, 2016, 967.21	0.01% to 10%

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III.	RESIDUES IN FOOD PRODUCTS			
1.	Antibiotics			
	a) Crustaceans	Chloramphenicol	SLC/QSOP 001, - Issue No.03 Dated 10.04.2016	0.12 µg/kg to 0.75 µg/kg
		Nitrofurans metabolites-	SLC/QSOP002 Issue No. 03 Dated 28.01.2016,	
		AMOZ	SLC/QSOP002, Issue No. 04 Dated April 2017	0.3 µg/kg to 2.5 µg/kg
		AOZ		0.3 µg/kg to 2.5 µg/kg
		SEM		0.3 µg/kg to 2.5 µg/kg
		AHD		0.3 µg/kg to 2.5 µg/kg
		Nitrofurans Parents		
		Furaltadone	SLC/QSOP082, Issue No.02 Date 30.04.2013	0.25 µg/kg to 2.5 µg/kg
		Furazolidone		0.25 µg/kg to 2.5 µg/kg
		Nitrofurantoin		0.25 µg/kg to 2.5 µg/kg
		Nitrofurazone		0.25 µg/kg to 2.5 µg/kg
		Tetracyclines and its epimers		
		Oxytetra-cycline	SLC/QSOPto 092 - Issue No. 01 Dated 15.04.2017	25 µg/kg to 200 µg/kg
		Epi-oxytetracycline		25 µg/kg to 200 µg/kg
		Tetracycline		25 µg/kg to 200 µg/kg
		Epi-tetra-cycline		25 µg/kg to 200 µg/kg
		Chlortetra-cycline		25 µg/kg to 200 µg/kg
		Epi-chlortetra-cycline		25 µg/kg to 200 µg/kg

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		Oxytetra-cycline	SLC/QSOP 079 – Issue No.05 Dated.29.01.2014	50 µg/kg to 200 µg/kg
		Epi-oxytetra-cycline		50 µg/kg to 200 µg/kg
		Tetracycline		50 µg/kg to 200 µg/kg
		Epi-tetra-cycline		50 µg/kg to 200 µg/kg
		Chlortetra-cycline		50 µg/kg to 200 µg/kg
		Epi –chlortetra-cycline	SLC/QSOP 056, - Issue No.02 Dated 10.04.2012	50 µg/kg to 200 µg/kg
		Sulphonamids		
		Sulfadiazine		50 µg/kg to 200 µg/kg
		Sulfathiazole		50 µg/kg to 200 µg/kg
		Sulfamerazine		50 µg/kg to 200 µg/kg
		Sulfamethizole		50 µg/kg to 200 µg/kg
		Sulfadimidine/ Sulfamethazine		50 µg/kg to 200 µg/kg
		Sulfamethoxy pyridazine		50 µg/kg to 200 µg/kg
		Sulfachloropyridazine		50 µg/kg to 200 µg/kg
		Sulfa-methoxazole		50 µg/kg to 200 µg/kg
		Sulfapyridine		50 µg/kg to 200 µg/kg
		Sulfadoxin		50 µg/kg to 200 µg/kg
		Sulfadi-methoxin		50 µg/kg to 200 µg/kg
		Quinolones		
		Oxolinic Acid	SLC/QSOP 055 – Issue No. 03 Dated.02.02.2012	50 µg/kg to 200 µg/kg
		Ciprofloxacin	SLC/QSOP 089 - Issue No.01 Dated 30.06.2016	25 µg/kg to 200 µg/kg
		Enrofloxacin	SLC/QSOP 076, Issue No. 02 Dated 17.06.2014	25 µg/kg to 200 µg/kg
		Difloxacin		75 µg/kg to 600 µg/kg
		Flumequin		50 µg/kg to 400 µg/kg

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	b)Cephalopods	Chloramphenicol	SLC/QSOP 001- Issue No. 01 Dated 28.02.2016	0.10 µg/kg to 0.75 µg/kg
		Nitrofurans metabolites		
		AMOZ	SLC/QSOP 002, - Issue No. 01 Dated 30.05.2016	0.3 µg/kg to 2.5 µg/kg
		AOZ		0.3 µg/kg to 2.5 µg/kg
		SEM		0.3 µg/kg to 2.5 µg/kg
		AHD		0.3 µg/kg to 2.5 µg/kg
		Tetra-cyclines and its epimers		
		Oxytetracycline	SLC/QSOP 079- Issue No. 01 Dated.08.04.2015	105.16 µg/kg to 200 µg/kg
		Epi-oxytetracycline		106.21 µg/kg to 200 µg/kg
		Tetracycline		105.91 µg/kg to 200 µg/kg
		Epi-tetra-cycline		104.52 µg/kg to 200 µg/kg
		Chlortetra-cycline		106.14 µg/kg to 200 µg/kg
		Epi-chlortetra-cycline		105.95 µg/kg to 200 µg/kg
		Quinolones		
		Oxolinic Acid	SLC/QSOP 055 – Issue No. 01 Dated.15.03.16	103.514 µg/kg to 200 µg/kg
2.	Pesticide residues			
	a)Crustaceans	Organo-chlorine pesticides		
		Alpha-BHC	SLC/QSOP 084, - Issue No. 2, Dated:30.04.2016	0.01 mg/kg to 5 mg/kg
		Beta-BHC		0.01 mg/kg to 5 mg/kg
		Lindane		0.01 mg/kg to 5 mg/kg
		Aldrin		0.01 mg/kg to 5 mg/kg
		Heptachlor		0.01 mg/kg to 5 mg/kg
		Endosulfan I		0.01 mg/kg to 5 mg/kg
		pp' DDT		0.01 mg/kg to 5 mg/kg
		pp' DDE		0.01 mg/kg to 5 mg/kg

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		pp' DDD		0.01 mg/kg to 5 mg/kg
		cis-Chlordane		0.01 mg/kg to 5 mg/kg
		Dieldrin		0.01 mg/kg to 5 mg/kg
		Endrin		0.01 mg/kg to 5 mg/kg
		Hexachlorobenzene		0.01 mg/kg to 5 mg/kg
		Organophosphorous compounds		
		Fenthion	SLC/QSOP 084, - Issue No.2 Dated:30.04.2016	0.01 mg/kg to 5 mg/kg
		Disulfoton		0.01 mg/kg to 5 mg/kg
		Malathion		0.01 mg/kg to 5 mg/kg
		Prothiophos		0.01 mg/kg to 5 mg/kg
		Ethion		0.01 mg/kg to 5 mg/kg
		Chlorpyrifos		0.01 mg/kg to 5 mg/kg
		Diazinon		0.01 mg/kg to 5 mg/kg
		Pendimethalin	SLC/QSOP 072, - Issue No.1 Dated:25.02.2014	0.005 mg/kg to 5 mg/kg
			SLC/QSOP 084, - Issue No.2 Dated:30.04.2016	0.005 mg/kg to 5 mg/kg
		Trifluralin	SLC/QSOP 072, - Issue No.1 Dated:25.02.2014	0.005 mg/kg to 5 mg/kg
			SLC/QSOP 084, - Issue No.2 Dated:30.04.2016	0.005 mg/kg to 5 mg/kg
		Ethoxyquin	SLC/QSOP 080 – Issue No. 02 Dated.10.06.16	2 µg/kg to 20 µg/kg

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	b)Spices & Condiments	<u>Organophosphorous Pesticides</u>	SLC/QSOP/FP 057-- Issue No. 01 Date 30.04.2013	10 µg/kg to 50 µg/kg
		Ethion		
		Phorate Sulfoxide		10 µg/kg to 50 µg/kg
		Phorate Sulfone		10 µg/Kg to 50 µg/Kg
		Monochrotophos		10 µg/Kg to 50 µg/Kg
		Triazophos		10 µg/Kg to 50 µg/Kg
		Profenophos		10 µg/Kg to 50 µg/Kg
		Phosalone		10 µg/Kg to 50 µg/Kg
		<u>Organophosphorus & Organochlorine pesticides</u>		50 µg/kg to 1000 µg/kg
		Alpha BHC		
		Beta BHC		50 µg/kg to 1000 µg/kg
		Chlorpyrifos		50 µg/kg to 1000 µg/kg
		Cis-Chlordane		50 µg/kg to 1000 µg/kg
		Diazinon		50 µg/kg to 1000 µg/kg
		Dieldrin		50 µg/kg to 1000 µg/kg
		Gamma BHC(Lindane)		50 µg/kg to 1000 µg/kg
		Heptachlor		50 µg/kg to 1000 µg/kg
		Malathion		50 µg/kg to 1000 µg/kg
		Pendimethalin		50 µg/kg to 1000 µg/kg
		Prothiophos		50 µg/kg to 1000 µg/kg
pp'-DDT	50 µg/kg to 1000 µg/kg			
pp'-DDD	50 µg/kg to 1000 µg/kg			
pp'-DDE	50 µg/kg to 1000 µg/kg			
HCB	50 µg/kg to 1000 µg/kg			
Trifluralin	50 µg/kg to 1000 µg/kg			
	c)Non Alcoholic Beverages- Tea & Tea Products	<u>Organophosphorous Pesticides</u>	SLC/QSOP/FP 067, -- Issue No. 01 Date 30.03.2013	10 µg/kg to 50 µg/kg
		Cypermethrin		
		Ethion		10 µg/kg to 50 µg/kg
		Phorate Sulfone		10 µg/kg to 50 µg/kg
		Phorate Sulfoxide		10 µg/kg to 50 µg/kg
Monochrotophos	10 µg/kg to 50 µg/kg			

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		Triazophos		10 µg/kg to 50 µg/kg
		Profenophos		10 µg/kg to 50 µg/kg
		Phosalone		10 µg/kg to 50 µg/kg
	d)Nuts & Nut Products	<u>Organophosphorus and Organochlorine Pesticides</u>	SLC/QSOP/FP 056- Issue No. Date	10 µg/kg to 1000 µg/kg
		Alpha BHC		
		Beta BHC		10 µg/kg to 1000 µg/kg
		Gamma BHC		10 µg/kg to 1000 µg/kg
		Chlorpyrifos		10 µg/kg to 1000 µg/kg
		Cis-Chlordane		10 µg/kg to 1000 µg/kg
		Bifenthrin		10 µg/kg to 1000 µg/kg
		Bendiocarb		10 µg/kg to 1000 µg/kg
		Thiobencarb		10 µg/kg to 1000 µg/kg
		Tetraconazole		10 µg/kg to 1000 µg/kg
		Pyrimethanil		10 µg/kg to 1000 µg/kg
		Propatamphos		10 µg/kg to 1000 µg/kg
		Phenthoete		10 µg/kg to 1000 µg/kg
		Penconazole		10 µg/kg to 1000 µg/kg
		Oxadiazone		10 µg/kg to 1000 µg/kg
		Diniconazole		10 µg/kg to 1000 µg/kg
		Trifluralin		10 µg/kg to 1000 µg/kg
		Prothiophos		10 µg/kg to 1000 µg/kg
		Pendimethalin		10 µg/kg to 1000 µg/kg
		HCB		10 µg/kg to 1000 µg/kg
		Ethion		10 µg/kg to 1000 µg/kg
		Endrin		10 µg/kg to 1000 µg/kg
		Disulfoton		10 µg/kg to 1000 µg/kg
		Diazinon		10 µg/kg to 1000 µg/kg
		Heptachlor		10 µg/kg to 1000 µg/kg
		Malathion		10 µg/kg to 1000 µg/kg
		pp-DDE		10 µg/kg to 1000 µg/kg
		pp-DDD		10 µg/kg to 1000 µg/kg
		pp-DDT		10 µg/kg to 1000 µg/kg

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	e)Fruits, Vegetables & Byproducts	<u>Organochlorine&Organo phosphorous Pesticides</u>	SLC/QSOP/FP 109- Issue No.1	
		Alachlor	Date: July 2017	50 µg/kg to 1000 µg/kg
		Aldrin		50 µg/kg to 1000 µg/kg
		Alpha BHC	SLC/QSOP/FP 109- Issue No.1	50 µg/kg to 1000 µg/kg
		Bendiocarb	Date: July 2017	50 µg/kg to 1000 µg/kg
		Beta BHC		50 µg/kg to 1000 µg/kg
		Bifenthrin		50 µg/kg to 1000 µg/kg
		Butachlor		50 µg/kg to 1000 µg/kg
		Chlorfenapyr		50 µg/kg to 1000 µg/kg
		Chlorpyrifos		50 µg/kg to 1000 µg/kg
		Chlorpyrifos methyl		50 µg/kg to 1000 µg/kg
		Cis-Chlordane		50 µg/kg to 1000 µg/kg
		pp'-DDT		50 µg/kg to 1000 µg/kg
		Diazinon		50 µg/kg to 1000 µg/kg
		Dieldrin		50 µg/kg to 1000 µg/kg
		Diethofencarb		50 µg/kg to 1000 µg/kg
		Dimethoate		50 µg/kg to 1000 µg/kg
		Disulfoton		50 µg/kg to 1000 µg/kg
		Endosulfan 1		50 µg/kg to 1000 µg/kg
		Endrin		50 µg/kg to 1000 µg/kg
		Ethion		50 µg/kg to 1000 µg/kg
		Fenpropathrin		50 µg/kg to 1000 µg/kg
		Flucythrinate 1		50 µg/kg to 1000 µg/kg
		Gamma BHC(Lindane)		50 µg/kg to 1000 µg/kg
		Heptachlor		50 µg/kg to 1000 µg/kg
		Malathion		50 µg/kg to 1000 µg/kg
		Pendimethalin		50 µg/kg to 1000 µg/kg
	pp' DDD		50 µg/kg to 1000 µg/kg	
	pp' DDE		50 µg/kg to 1000 µg/kg	
	Propetamphos		50 µg/kg to 1000 µg/kg	
	Prothiophos		50 µg/kg to 1000 µg/kg	
	Tebuconazole		50 µg/kg to 1000 µg/kg	
	Tetraconazole		50 µg/kg to 1000 µg/kg	

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		Thiobencarb(Benthiocarb)		50 µg/kg to 1000 µg/kg
		Trifluralin		50 µg/kg to 1000 µg/kg
3.	Mycotoxins			
	a)Cereals and pulses	Aflatoxin (total)	SLC/QSOP/FP 048-- Issue No. 01 Date 03.03.2017	2 µg/kg to 100 µg/kg
	b) Spices and Condiments	Aflatoxin (total)	SLC/QSOP/FP 048-- Issue No. 01 Date 30.04.13	2 µg/kg to 100 µg/kg
	c) Nuts and nut products	Aflatoxin (total)	SLC/QSOP/FP 074- Issue No.01, Date 30.04.13	2 µg/kg to 100 µg/kg
4.	Trace Metal Elements			
	a)Crustaceans	Cadmium	SLC/QSOP 003b - Issue No. :01 Dated: 09.03.2016	0.02 mg/kg to 1.0 mg/kg
			SLC/QSOP 003a - Issue No. :01 Dated: 31.03.2017	0.1 mg/kg to 10 mg/kg
			SLC/QSOP 085, - Issue No.1 Dated:04.06.2014	0.1 mg/kg to 5 mg/kg
		Lead	SLC/QSOP 003b - Issue No. :01 Dated:26.02.2016	0.06 mg/kg to 5.0 mg/kg
			SLC/QSOP 085, - Issue No.1 Dated:04.06.2014	0.1 mg/kg to 5 mg/kg
		Mercury	SLC/QSOP 003c - Issue No.:01 Dated: 09.03.2016	0.1 mg/kg to 5.0 mg/kg

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			SLC/QSOP 085, - Issue No.1 Dated:04.06.2014	0.1 mg/kg to 5 mg/kg
		Arsenic	SLC/QSOP 085, - Issue No.1 Dated:04.06.2014	0.1 mg/kg to 5 mg/kg
		Chromium	SLC/QSOP 003a, -- Issue No.01 Dated:31.03.2017	0.5 mg/kg to 10 mg/kg
		Nickel	SLC/QSOP 003a, -- Issue No.01 Dated:31.03.2017	0.2 mg/kg to 15 mg/kg
	a)Crustaceans	Copper	LC/QSOP 003a), -- Issue No.01 Dated:31.03.2017	0.5 mg/kg to 20 mg/kg
		Zinc	SLC/QSOP003a,-- Issue No.01 Dated:31.03.2017	1.0 mg/kg to 30 mg/kg
	b) Cephalopods	Cadmium	SLC/QSOP 003a – Issue No. 03 Dated: 10.02.2016	0.1 mg/kg to 10 mg/kg
			SLC/QSOP 085, - Issue No.1 Dated:04.06.2014	0.03 mg/kg to 5 mg/kg
		Lead	SLC/QSOP 003b Issue No. :02 Dated: 26.02.2016	0.06 mg/kg to 5 mg/kg
			SLC/QSOP 085, - Issue No.1 Dated:04.06.2014	0.03 mg/kg to 5 mg/kg
		Mercury	SLC/QSOP 003c – Issue No.:03 Dated:09.03.2016	0.1 mg/kg to 5 mg/kg

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			SLC/QSOP 085, - Issue No.1 Dated:04.06.2014	0.08 mg/kg to 5 mg/kg
		Arsenic	SLC/QSOP 085, - Issue No.1 Dated:04.06.2014	0.5 mg/kg to 5 mg/kg
		Chromium	SLC/QSOP 003a, -- Issue No.03 Dated:10.02.2016	0.5 mg/kg to 10 mg/kg
		Nickel	SLC/QSOP 003a, -- Issue No.03 Dated:10.02.2016	0.2 mg/kg to 15 mg/kg
		Copper	SLC/QSOP 003a, -- Issue No.03 Date: 10.02.2016	0.5 mg/kg to 20 mg/kg
		Zinc	SLC/QSOP 003a, -- Issue No:03 Dated:10.02.2016	1.0 mg/kg to 30 mg/kg
	c) Fish and Fish products	Cadmium	SLC/QSOP 003b, -- Issue No.:01 Dated:09.03.201	0.02 mg/kg to 1.0 mg/kg
			SLC/QSOP 085, - Issue No.1 Dated:04.06.2014	0.02 mg/kg to 5 mg/kg
		Lead	SLC/QSOP 003b -- Issue No.01 Dated:26.02.2016	0.06 mg/kg to 5 mg/kg
			SLC/QSOP 085, - Issue No.1 Dated:04.06.2014	0.06 mg/kg to 5 mg/kg
		Mercury	SLC/QSOP 003c, -- Issue No .01 Dated:09.03.2016	0.1 mg/kg to 5 mg/kg

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			SLC/QSOP 085, - Issue No.1 Dated:04.06.2014	0.2 mg/kg to 5 mg/kg
		Arsenic	SLC/QSOP 085 - Issue No.1 Dated:04.06.2014	0.5 mg/kg to 5 mg/kg
	d) Spices and Condiments	Cadmium	SLC/QSOP/FP-055, Issue No. – 02 & Date 03.07.17 AAS	0.05 mg/kg to 0.5 mg/kg
		Lead	SLC/QSOP/FP-055 Issue No. – 02 & Date 03.07.17 AAS	2.0 mg/kg to 100 mg/kg
		Chromium	SLC/QSOP/FP-055 Issue No. – 01 & Date01.04.13 AAS	2.7 mg/kg to 100 mg/kg
		Zinc	SLC/QSOP/FP-055 Issue No. – 02 & Date 03.07.17 AAS	5.0 mg/kg to 100 mg/kg
		Copper	SLC/QSOP/FP-055 Issue No. – 02 & Date 03.07.17 AAS	5.0 mg/kg to 100 mg/kg
	e) Non Alcoholic Beverages-Tea & Tea products	Lead	SLC/QSOP/FP-055 Issue No– 02. & Date 19.06.17	2 mg/kg to 100 mg/kg
		Copper	SLC/QSOP/FP-055 Issue No– 02. & Date 19.06.17	5 mg/kg to 100 mg/kg
		Nickel	SLC/QSOP/FP-055 Issue No– 02. & Date 19.06.17	2 mg/kg to 100 mg/kg

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	f) Non Alcoholic Beverages- Coffee, Cocoa & byproducts	Lead	SLC/QSOP/FP-055 Issue No- 02. & Date 19.06.17	2 mg/kg to 100 mg/kg
		Copper	SLC/QSOP/FP-055 Issue No- 02. & Date 19.06.17	5 mg/kg to 100 mg/kg
		Nickel	SLC/QSOP/FP-055 Issue No- 02. & Date 19.06.17	2 mg/kg to 100 mg/kg
5.	Polychlorinated Biphenyls a)Crustaceans	PCB 28	SLC/QSOP 072, - Issue No. 01 Dated:05.11.2013	0.005mg/kg to 5 mg/kg
		PCB 52		0.005mg/kg to 5 mg/kg
		PCB 101		0.005mg/kg to 5 mg/kg
		PCB 138		0.005mg/kg to 5 mg/kg
		PCB 153		0.005mg/kg to 5 mg/kg
		PCB 180		0.005mg/kg to 5 mg/kg
IV.	WATER			
1.	Drinking Water	Colour	APHA 2017,23 rd Ed. 2120B IS 3025 Part 4 1983 (RA 2002)	5 Hazen units to 500 Hazen units
		Odour	IS 3025 (Part 5), 1983 (RA-2002)	Qualitative (Pass/Fail)
		Taste	APHA 2017,23 rd Ed.2160 C IS 3025 Part 7& 8, 1984 RA-2002	Qualitative (Pass/Fail)
		Turbidity, NTU	APHA 2017,23 rd Ed.2130 B IS 3025 Part 10, 1984 RA-2006	0.2 NTU to 1000 NTU

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		pH	APHA 2017,23 rd Ed.4500 H ⁺ B, IS 3025 Part 11, 1983, RA-2012	4 units to 11 units
		Conductivity at 20°C	APHA 2017,23 rd Ed. 2510 B, IS 3025 (Part 14):2013	1 µS/cm to 1000 µS/cm
		Oxygen absorbed in 4hrs (oxidisability)	IS 3025 Part 63,2007	0.5 mg/l to 10 mg/l
		Ammonium as NH ₄ ⁺	APHA 2017,23 rd Ed.; 4500NH ₃ F, IS 3025 (Part34) 1988 RA 2003	0.05 mg/l to 1000mg/l
		Nitrate as NO ₃ ⁻	APHA 2017,23 rd Ed., 4500 NO ₃ ⁻ B, IS 3025(Part 34)1988 RA 2003	0.4 mg/l to 50 mg/l
			SLC/ QSOP -067- Issue No. 02 Date18.06.14	1.0 mg/l to 50 mg/l
		Nitrite as NO ₂ ⁻	APHA 2017,23 rd Ed. 4500 NO ₂ ⁻ B IS 3025(Part 34) 1988 R 2003	0.02 mg/l to 5mg/l
			SL C/ QSOP-067 Issue No. 02 Date18.06.14	0.1 mg/l to 5mg/l
		Fluoride as F ⁻	APHA 2017,23 rd Ed. 4500 F ⁻	0.4 mg/l to 10mg/l
			SL C/ QSOP-067- Issue No. 02 Date18.06.14	0.3 mg/l to 10mg/l

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Sulphate as SO ₄ ²⁻	APHA 2017,23rd Ed. 4500 SO ₄ ²⁻ E	4 mg/l to 200 mg/l
			SL C/QSOP-06)- Issue No. 02 Date 18.06.14	1.0 mg/l to 200 mg/l
		Chloride as Cl ⁻	APHA 2017,23rd Ed.4500 Cl ⁻ B, IS3025 Part 32, 1988, R-2007	5 mg/l to 1000 mg/l
			SL C/ QSOP-067- Issue No. 02 Date18.06.14	1.0 mg/l to 1000 mg/l
		Cyanide as CN ⁻	APHA 2017,23rd Ed. 4500CN ⁻	0.01mg/l to 0.1mg/l
			SL C / QSOP-068- Issue No. 01 Date10.02.11	5 µg/l to100 µg/l
		Bromate as BrO ₃ ⁻	SL C/QSOP-067- Issue No.02 Date 15.10.15	5 µg/l to 100 µg/l
		Acrylamide	SLC/QSOP-088- Issue No.1, Date : 10.06.16	0.08 µg/L to 100 µg/L
2.	Water (Drinking Water, Packaged Drinking water , Packaged natural mineral water, Swimming pool water, Water for processing Industry)	Colour	APHA 2017,23rd Ed., 2120B, IS 3025 Part 4 1983 (RA 2002)	5 Hazen units to 500 Hazen units
Odour		IS 3025 (Part 5), 1983 (RA-2002)	Qualitative (Pass/Fail)	
Taste		APHA 2017,23rd ,2160 C , IS 3025 Part 7&8, 1984 RA-2002	Qualitative (Pass/Fail)	

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Turbidity, NTU	APHA 2017,23rd Ed, 2130 B, IS 3025 Part 10, 1984 RA-2006	0.2 NTU to1000 NTU
		pH	APHA 2017,23rd Ed. 4500 H + B, IS 3025 Part 11, 1983, RA-2012	4 units to 11 units
		Total dissolved solids	APHA 2017,23rd Ed., 2540 C IS 3025 (Part16) 1984 RA 2006	25 mg/l to1000 mg/l
		Ammonia (as total ammonia-N)	APHA 2017,23rd Ed.NH ₃ F IS 3025(Part34)1988 RA 2003	0.05 mg/l to 1000 mg/l
		Anionic detergents(as MBAS)	APHA 2017,23rd edn 5540 C	0.1 mg/l to 5mg/l
		Calcium as Ca	APHA 2017,23rd Ed Ca B IS 3025 (Part 40):1991 (RA 2003)	0.8 mg/l to1000 mg/l
		Chloride as Cl ⁻	APHA 2017,23rd Ed. method No 4500 Cl ⁻ B IS3025 Part 32, 1988, RA-2007	5 mg/l to 1000 mg/l
			SL C/QSOP-067- Issue No. 02 Date18.06.14	1.0 mg/l to 1000 mg/l
		Fluoride as F ⁻	APHA 2017,23rd Ed. 4500 F- D	0.4 mg/l to 10mg/l
			SL C/QSOP-067- Issue No. 02 Date18.06.14	0.3 mg/l to 10mg/l

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		Sulphate as SO ₄ ²⁻	APHA 2017,23rd Ed. 4500 SO ₄ ²⁻ E	4 mg/l to 200 mg/l
			SL C/QSOP-067- Issue No. 02 Date18.06.14	1.0 mg/l to 200 mg/l
		Nitrate as NO ₃ ⁻	APHA 2017,23rd Ed., 4500 NO ₃ ⁻ B , IS 3025(Part 34) 1988 RA 2003	0.4 mg/l to 50 mg/l
			SL C/QSOP-067- Issue No. 02 Date18.06.14	1.0 mg/l to 50 mg/l
		Residual free chlorine	APHA 2017,23rd edn., 4500Cl ⁻ B, IS 3025 Part 26, 1986 RA-2003	0.20 mg/l to 25 mg/l
		Magnesium as Mg	APHA 2017,23rd Ed., 3500 Mg B, IS 3025 Part 46 :1994 (RA 2009)	0.5 mg/l to 1000mg/l
		Total hardness as CaCO ₃	APHA 2017,23rd Ed. 2340 C, IS 3025 Part 21 :2009	1.0 mg/l to 1000 mg/l
		Total Alkalinity as CaCO ₃	IS-3025, Part 23, 1986, RA-2003	1 mg/l to 1000 mg/l
		Sulphide as H ₂ S	APHA 2017,23rd edn. 4500 S ²⁻ F, IS 3025 Part 29 1986	5 mg/l to 10 mg/l
		Cyanide as CN ⁻	APHA 2017,23rd Ed.4500CN ⁻	0.01mg/l to 0.1mg/l
			SL C/QSOP-068- Issue No. 01 Date10.02.11	0.005 mg/l to 0.05 mg/l

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Phenolic compounds	APHA 2017,23rd Ed.5530 C IS 3025 Part 43 :1992 (RA 2003)	0.001mg/l to 1mg/l
		Nitrite as NO ₂ ⁻	APHA 2017,23rd Ed. 4500 NO ₂ ⁻ B IS 3025(Part 34)1988 RA 2003	0.02 mg/l to 5mg/l
			SL C/QSOP-067- Issue No. 02 Date18.06.14	0.1 mg/l to 5mg/l
		Bromate as BrO ₃ ⁻	SL C/QSOP-067- Issue No. 02 Date15.10.15	5 µg/l to 100 µg/l
		Total solids	APHA 2017,23rd Ed., 2540 B, IS 3025 (Part 15)-1984	25 mg/l to 1000 mg/l
		Nitrate as N	APHA 2017,23rd Ed.,4500 NO ₃ ⁻ B , IS 3025 (Part 34) 1988 RA 2003	0.09 mg/l to 50 mg/l
			SLC/QSOP-067 – Issue No. 02 Date18.06.2014	0.23 mg/l to 50 mg/l
		Oxygen absorbed in 4 hrs at 27°C	IS 3025 Part 63,2007 (SL C/QSOP-024)	0.5 mg/l to 10 mg/l
		Soluble phosphorous as PO ₄ ³⁻	APHA 2017,23rd Ed. 4500 PC	0.4 mg/l to 10 mg/l
V.	POLLUTION & ENVIRONMENT			
1.	Waste Water & Effluent water	BOD for 5 days at 20°C	APHA 2017,23rd Ed.5210B	2 mg/l to 1000 mg/l
		BOD for 3 days at 27°C	IS 3025 (Part 44): 1993 (RA 2009)	2 mg/l to 1000 mg/l
		COD	APHA 2017,23rd Ed. 5220 B	4 mg/l to 2000 mg/l

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		pH	APHA 2017,23rd Ed 4500 H + B, IS 3025 Part 11, 1983, RA-2012	4 units to 11 units
		Conductivity	APHA 2017,23rd Ed., 2510 B , IS 3025 (Part 14):2013	1 µS/cm to 2500 µS/cm
		Total hardness as CaCO ₃	APHA 2017,23rd Ed. 2340 C, IS 3025 Part 21 :2009	1.0 mg/l to 1000 mg/l
		Total solids	APHA 2017,23rd Ed. 2540 B, IS 3025 (Part 15)-1984 RA 2009	25 mg/l to 1000 mg/l
		Suspended Solids	APHA 2017,23rd Ed. 2540 D, IS 3025 (Part 17) 1984, RA-2012	1.0 mg/l to 1000 mg/l
		Total dissolved solids	APHA 2017,23rd Ed. 2540 C , IS 3025 (Part16) 1984 RA 2006	25 mg/l to 1000 mg/l
		Oil and Grease	IS3025part 39, 1991 (RA-2003)	1.0 mg/l to 20 mg/l
		Dissolved oxygen	APHA 2017,23rd Ed. 4500 O C IS 3025 (Part 38) 1989 (RA 2003)	0.5 mg/l to 8.5 mg/l
		Soluble phosphorous as PO ₄ ³⁻	APHA 2017,23rd Ed. 4500 PC	0.4mg/l to 10 mg/l
		Ammoniacal Nitogen as NH ₃ -N	APHA 2017,23rd Ed.4500NH ₃ C, IS 3025(Part34)1988 RA2003	1.0 mg/l to 1000 mg/l

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection		
		Phenolic compounds	APHA 2017,23rd Ed. 5530 C , IS 3025 Part 43 :1992 (RA 2003)	0.001 mg/l to 1mg/l		
VI.	RESIDUES IN WATER					
1.	Pesticides Water for Food Processing Industry, Drinking Water ,Packaged drinking water, Packaged natural mineral water	<u>Pesticides Individual</u>	APHA 2017,23rd Ed. method No 6630 C	0.008 µg /l to 100 µg/l		
		<u>Organochlorine Pesticides</u>				
		Alpha-BHC				
		Beta-BHC				
		Gamma-BHC				
		Delta-BHC				
		Endosulfan I				
		Endosulfan II				
		Endosulfan Sulphate				
		Aldrin				
		Dieldrin				
		o,p DDT				
		p,p' DDT				
		o,p DDE				
		p,p' DDE				
		o,p DDD				
		p,p' DDD				
		<u>Organophosphorous Pesticides</u>			SL C/QSOP-081, - Issue No. 01 Date 28.02.13	0.051 µg/l to 0.251 µg/l
		Phorate				
		Phorate Sulphone				
	Phorate Sulphoxide					
	Chlorpyrifos					
	Malathion					
	Methyl Paraoxon					
	Methyl parathion					

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Atrazine		0.05 µg/l to 0.25 µg/l
		Butachlor		0.05 µg/l to 0.25 µg/l
		Monocrotophos		0.05 µg/l to 0.25 µg/l
		Ethion		0.05 µg/l to 0.25 µg/l
		Isoproturon		0.05 µg/l to 0.25 µg/l
		2,4 D		0.05 µg/l to 0.25 µg/l
		Malaoxon		0.05 µg/l to 0.25 µg/l
		Alachlor		0.05 µg/l to 0.25 µg/l
2.	Trace metal elements			
	Water for Food Processing Industry, Drinking Water, Packaged drinking water, Packaged natural mineral water	Zinc as Zn	APHA 2017, 23rd edn., 3125 B,	0.004 mg/l to 0.5 mg/l
		Barium as Ba		0.001 mg/l to 0.5 mg/l
		Copper as Cu		0.01 mg/l to 0.5 mg/l
		Iron as Fe		0.02 mg/l to 0.5 mg/l
		Chromium as Cr		
		Nickel as Ni		0.005 mg/l to 0.5 mg/l
		Manganese as Mn		0.005 mg/l to 0.5 mg/l
		Cadmium as Cd		0.001 mg/l to 0.5 mg/l
		Lead as Pb		0.002 mg/l to 0.5 mg/l
		Mercury as Hg		0.0006mg/l to 0.5 mg/l
		Arsenic as As		0.005 mg/l to 0.5 mg/l
		Selenium as Se		0.005 mg/l to 0.5 mg/l
		Aluminium as Al		0.01 mg/l to 0.5 mg/l
		Molybdenum as Mo		0.002 mg/l to 0.5 mg/l
		Boron		0.01 mg/l to 0.5 mg/l
		Silver as Ag		0.005 mg/l to 0.5 mg/l
		Sodium as Na		0.011 mg/l to 1 mg /L
		Magnesium as Mg		0.005 mg/l to 0.5 mg/l
		Mercury as Hg		0.0006 mg/l to 0.5 mg/l
		Arsenic as As		0.005 mg/l to 0.5 mg/l
	Antimony as Sb	0.002 mg/l to 0.500 mg /L		

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3.	Halogenated hydrocarbons Drinking Water	<u>Volatile Organic Compounds</u>	USEPA 524.2, 1992, APHA 2017,23rd edn ,6200 Issue No:01 Date:24.03.10 (SLC/QSOP-069)	0.5 µg/l to 100 µg/l
		1,2 dichloroethane		0.08 µg/l to 200 µg/l
		Epichlorhydrin		0.7µg/l to 200 µg/l
		Benzene		0.36 µg/l to 100 µg/l
		Tetrachloroethene		0.24 µg/l to 100 µg/l
		Trichloroethene		
		<u>Trihalomethanes-total</u>		
		Chloroform		0.32 µg/l to 1000µg/l
		Bromodichloromethane		0.7 µg/l to 1000 µg/l
		Dibromochloromethane		0.5 µg/l to 1000 µg/l
		Bromoform		0.65 µg/l to 1000 µg/l
Vinyl Chloride	0.4 µg/l to 1000 µg/l			
4.	Polycyclic aromatic hydrocarbons			
a.	Water for Food Processing Industry, Drinking Water ,Packaged drinking water, Packaged natural mineral water	<u>Polycyclic aromatic hydrocarbons</u>	APHA 2017,23rd edn.,6440 (SLC/QSOP-070) Issue no.02 Issue date.25.04.2017	0.01 µg/Lto 200 µg/l
		Benzo-a-pyrene		0.01 µg/l to 200 µg/l
		Benzo-b-fluranthene		0.01 µg/l to 200 µg/l
		Benzo-k-fluranthene		0.01 µg/l to 200 µg/l
		Benzo-ghi-perylene		0.01 µg/l to 200 µg/l
Indenopyrene	0.01 µg/l to 200 µg/l			

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5.	Polychlorinated Biphenyls			
a.	Drinking Water, Packaged drinking water other than Packaged natural mineral water, Packaged natural mineral water	PCB 28 PCB 52 PCB 138 PCB 153 PCB 180	APHA 2017, 23rd Ed. method No 6630 C (SL C/QSOP-004)	0.0002 mg/l to 0.001 mg/l 0.0002 mg/l to 0.001 mg/l 0.0002 mg/l to 0.001 mg/l 0.0002 mg/l to 0.001 mg/l 0.0002 mg/l to 0.001 mg/l

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