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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
<b>I.</b>	FOOD & AGRICUL	TURAL PRODUCTS		
1.	Beverages (Non Alcoholic	Coliform	IS 5401(Part 1) 2002 (RA 2007)	≥ 1 cfu/ ml/100 ml Present/ Absent/ml/100m
	Drinks)	Total Bacterial Count	IS 5402: 2002 (RA 2007)	≥1 cfu/ml
		E. coli	IS 5887 (Part I): 1976 (RA 2009) AOAC 991.14	Present/ Absent /ml / 100 ml
		Yeast & Mould	IS 5403: 1999 (RA 2005)	Limits of Detection    Solution   Example   Example   Example
2.	Spices (Whole and Ground)	Aerobic plate count	IS 5402: 2002 (RA 2007)	$\geq 10 \text{ cfu/g}$
		Coliform	IS 5401: 2002 (RA 2007) / AOAC 991.14	
		Yeast & Mould	IS 5403: 1999 (RA 2005)	$\geq 10 \text{ cfu/g}$
		Total Plate Count	IS 5402: 2002 (RA 2007)	≥10 cfu/g
		E. coli	IS 5887 (Part I): 1976 (RA 2009)/ AOAC 991.14	≥1 cfu/g or Present/ Absent per gm
		Salmonella	IS 5887 (Part III): 1999 (RA 2009) AOAC 967.25, 26, 27, 28	Present / Absent per 25g
		S. aureus	IS 5887 (Part II): 1976 (RA 2009) IS 5887 (Part VIII): 2002 (RA 2007)	
	Spices (Whole)	Free From mould /Mould Growth/ Mould Affected	AES/TD/SOP/MIC 30.0 Issue No.01, Issue Date-03.11.2014	Present/Absent

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		Shigella	IS 5887 (Part VII): 1999 (RA 2009)	Present / Absent per 25g
		Faecal streptococci	IS 5887 (Part 2): 1976(RA 2009)	Absent / Present/gm
3.	Honey & Honey Products	Total Plate Count/ Aerobic Plate Count	IS 5402: 2002 (RA 2007)	≥10 cfu/g
		Coliform	IS 5401 (Part I): 2002 (RA 2007)/ AOAC 991.14	≥10 cfu/g Present/ Absent per gm
		Yeast & mould	IS 5403: 1999 (RA 2005)	≥10 cfu/g
4.	Milk & Dairy Products Milk (sterilized,	Aerobic plate count	IS 5402: 2002 (RA 2007)	>1 cfu/ml or >10 cfu/gm
	flavored, pasteurized), cream, butter, ghee, butter milk, kulfi, lassi,	Coliform bacteria	IS 5401: 2002 (RA 2007) / AOAC 991.14	>1 cfu/ml or >10 cfu/gm Absent/Present/gm(ml) / 1 gm(ml)
	sweetened condensed milk, Infant milk food, malted milk food, milk cereal based weaning food, infant milk	E.coli	IS 5887 (Part 1): 1976 (RA 2009) / AOAC 991.14	>1 cfu/ml/ ml or >10 cfu/gm ≥ MPN/gm or per ml Absent/Present/gm (ml) / 1 gm (ml) / 25 gm (ml) / 50 gm (ml)
	substitutes, processed cereal based weaning food, ice cream,	Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2009) / IS 15186: 2002 (RA 2009)	>1 cfu/ml or >10 cfu/gm Absent/Present/gm (ml) / 1 gm (ml) / 25 gm (ml)
	skimmed milk powder, whole milk powder, partly skimmed milk	Listeria monocytogenes	IS 14988 (Part 1): 2001	Absent / Present per 1 gm (ml) / 25 gm (ml)/ 50g/ml
	powder –standard and extra grade, paneer, khoa, burfi,	Listeria monocytogenes	IS 14988 (Part 2): 2002	>1 cfu/ml or >10 cfu/gm

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	peda, whey, chesse, casein) (sterilized, flavored,	Pseudomonas aeruginosa	IS 13428 (Annexure D): 2005 (RA 2009)	Absent / Present per 1 gm (ml) / 25 gm (ml)
	pasteurized), cream, butter, ghee, butter milk, kulfi, lassi, sweetened	Salmonella	IS 5887 (Part 3): 1999 (RA 2009) / AOAC 967.25, 26, 27, 28	Absent / Present per 25 gm (ml) / 375 gm/ 50 gm (ml)/ 250 gm (ml)
	condensed milk, Infant milk food, malted milk food, milk cereal based	Shigella	IS 5887 (Part 7): 1999 (RA 2009)	Absent / Present per gm (ml) /25 gm(ml) / 50 gm (ml)/ 250 gm (ml)
	weaning food, infant milk substitutes, processed cereal based weaning	Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2009) IS 5887 (Part 8): 2002 (RA 2007)	>1 cfu/ml or >10 cfu/gm Absent/Present/ 1.0 gm (ml)
	food, ice cream, skimmed milk powder, whole milk powder, partly skimmed milk	Sulphite reducing anaerobes	IS 13428 (Annexure C): 2005 / IS 5887 (Part IV):1999 (RA 2005)	Absent/Present/gm (ml) / 25 gm (ml)
	powder –standard and extra grade, paneer, khoa, burfi,	Vibrio cholerae	IS 5887 (Part 5): 1976 (RA 2005)	Absent/Present/gm (ml) / 25 gm (ml)
	peda, whey, chesse, casein)	Vibrio parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2005)	Absent/Present/gm (ml) / 25 gm (ml)
		Yeast & Mould	IS 5403: 1999 (RA 2005)	>1 cfu/ml or >10 cfu/gm
		Aerobic Spore formers	Canada-Laboratory Procedure MFLP-44 APHA:ED17:2004	≥ 10 cfu /gm Absent / Present

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		Anaerobic Spore formers	Canada-Laboratory Procedure MFLP-44/ ISO 15213:2003/ APHA:ED17:2004	≥ 10 cfu /gm Absent / Present
		Bacillus cereus	IS 5887 (P art VI): 1999 AOAC 980.31	>10 cfu/gm Absent/ Present per gm
		Clostridium Pefringenes	IS 5887 (Part IV): 1999 (RA 2005)	Absent / Present/25gm/gm
		Clostridium Botulinum	IS 5887 (PartIV): 1999 (RA 2005)	Absent / Present/25gm/gm
5.	Ready to Eat/ Cooked Food/ Processed Food	Total Bacterial Count / Total Plate Count/ Aerobic Plate Count	IS 5402-2002 ( RA 2007)	≥ 10 cfu/g
	Products	Coliform	IS 5401(Part1): 2002 (RA 2007)/ AOAC 991.14	≥ 10 cfu/g Present/ Absent/gm (ml)
		E. coli	IS 5887(Part I): 1976 (RA 2009) / AOAC 991.14	Present/ Absent/gm/25g ≥ 10 cfu/g
		Salmonella	IS 5887(Part III): 1999 (RA 2005) AOAC 967.26	Present/ Absent/25g
		Listeria monocytogenes	IS 14988 (Part1): 2001 AOAC 993.12	Absent / Present per 1 gm (ml) /25 gm (ml)
		Listeria monocytogenes	IS 14988 (Part 2): 2002	>1 cfu/ml or >10 cfu/gm

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		S. aureus	IS 5887(Part II): 1976 (RA 2005) IS 5887(VIII): 2002 AOAC 975.55	≥ 1 cfu or ≥ 10cfu Present/ Absent/ 1.0 gm (ml)
		Bacillus cereus	IS 5887 (Part VI): 1999 AOAC 980.31	Absent/ Present per gm
		Yeast & mould	IS 5403: 1999 (RA 2005) AOAC 995.81	≥10 cfu/g
		Shigella	IS 5887 (VII): 1999 (RA 2005)	Present / Absent per 25g
		Vibrio cholerae	IS 5887 (Part 5): 1976 IS 15188:2002 (RA 2009)	Absent / Present/ 25gm/gm
		Vibrio parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2005) / IS 15188: 2002 (RA 2009)	Absent / Present / 25 gm / gm
		Faecal Streptococci	IS 5887 (Part2): 1976 (RA 2005) IS 15186:2002 (RA 2009)	≥10 cfu/g Present/ Absent/ 1.0 gm (ml)
		Pseudomonas Aeruginosa	IS 13428 (Annexure D) :2005 (RA 2009)	Present / Absent per gm
		Sulphite reducing anaerobes	IS 13428 (Annexure C): 2005/ IS 5887 (Part IV):1999 (RA 2005)	Absent/Present/gm (ml) 25 gm (ml)
		Clostridium Pefringenes	IS 5887 (Part IV):1999 (RA 2005)	Absent / Present/ 25gm/gm
		Clostridium Botulinum	IS 5887 (Part IV):1999 (RA 2005)	Absent / Present/ 25gm/gm

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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
6.	Raw Food (Fruit & Vegetables)	Total Bacterial Count /Total Plate Count/ Aerobic Plate Count	IS 5402-2002 (RA 2007)	≥ 10 cfu/g
		Coliform	IS 5401(Part 1): 2002 (RA 2007)/ AOAC 991.14	≥ 10 cfu/g Present/ Absent/gm (ml)
		E. coli	IS 5887(Part 1): 1976 (RA 2005) AOAC 991.14,	Present/ Absent/gm/25g ≥ 1 cfu
		Salmonella	IS 5887(Part 3): 1999 (RA 2005) AOAC 967.25	Present/ Absent/25g
		Yeast & mould	IS 5403: 1999 (RA 2005)	≥10 cfu/g
		Shigella	IS 5887 (Part 7): 1999 (RA 2005)	Present / Absent per 25g
		S. aureus	IS 5887 (Part II): 1976 (RA 2009) IS 5887 (VIII):1976	Present/Absent/1.0 gm ≥ 1 cfu/or ≥ 10 cfu
		Vibrio cholerae	IS 5887 (Part 5): 1976 IS 15188:2002	Absent / Present/ 25gm/gm
		Vibrio parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2005) /IS 15188:2002(RA 2009)	Absent / Present / 25 gm/ gm
		Faecal Streptococci	IS 5887 (Part 2): 1976 (RA 2005) IS 15186: 2002 (RA 2009)	≥10 cfu/g Present/ Absent/ 1.0 gm (ml)
		Bacillus cereus	IS 5887 ((Part 6): 1999 AOAC 980.31	≥10 cfu/g Absent/ Present per gm

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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
7.	Cereals, Pulses & Cereal Products (Including Maize, Rice, brown,	Aerobic plate count	IS 5402: 2002 ( RA 2007)	≥ 10 cfu/g
		Coli form	IS 5401(Part1): 2002(RA 2007)/ AOAC 991.14	≥ 10 cfu/g Present/ Absent/gm
	polished, Wheat flour and other	Yeast & Mould	IS 5403-1999 (RA 2005)	$\geq 10 \text{ cfu/g}$
	flours)	E. coli	IS 5887(Part I): 1976(RA 2009)/ AOAC 991.14	Present/ Absent/25g ≥ 10 cfu/g
		Salmonella	IS 5887(Part 3): 1999 (RA 2005) / AOAC 998.09,	Present/ Absent/25g
	S. aureus  IS 5887(Part 2): 1976 (RA 20 IS 5887(VIII):1976  Listeria monocytogenes  IS 14988 (Part 1): 2001  Listeria monocytogenes  IS 14988 (Part 2): 2002  Shigella  IS 5887 (Part 7) 1999 (RA 20	S. aureus	IS 5887(Part 2): 1976 (RA 2005) / IS 5887(VIII):1976	Present/Absent/1.0 gm ≥ 10 cfu
		Listeria monocytogenes	IS 14988 (Part1): 2001	Absent / Present per 1 gm (ml) /25 gm (ml)
		Listeria monocytogenes	IS 14988 (Part 2): 2002	>1 cfu/ml or >10 cfu/gm
		IS 5887 (Part 7) 1999 (RA 2005)	Present / Absent/ 25g	
		Bacillus cereus	IS 5887(Part 6) :1999 (RA 2005)	Present/ Absent/gm
8.	Nut & Resin Products	Total Bacterial Count / Total Plate Count/ Aerobic Plate Count	IS 5402: 2002 ( RA 2007)	≥ 10 cfu/g
		Coliform	IS 5401(Part1): 2002(RA 2007)/ AOAC 991.14	Present/ Absent/gm  ≥ 10 cfu/g  Present/ Absent/25g  ≥ 10 cfu/g  Present/ Absent/25g  Present/Absent/1.0 gm  ≥ 10 cfu  Absent / Present per 1 gm (ml) /25 gm (ml)  >1 cfu/ml or >10 cfu/g  Present/ Absent/25g  Present/ Absent/gm  ≥ 10 cfu/g  ≥ 10 cfu/g  Present/ Absent per gm
		E. coli	IS 5887((Part 1): 1976 (RA 2009) / AOAC 991.14	_

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		S. aureus	IS 5887(II): 1976 (RA 2005) IS 5887(VIII): 2002 AOAC 975.55	≥ 10cfu Present/ Absent/gm
		Yeast & mould	IS 5403: 1999 (RA 2005) AOAC 995.81	≥10 cfu/g
	Dry Fruit & Nuts (Whole)	Free From mould /Mould Growth/ Mould Affected	AES/TD/SOP/MIC 31.0 Issue No.01, Issue Date-03.11.2014	Present/Absent
9.	Fish & Sea Foods	Total Bacterial Count / Total Plate Count/ Aerobic Plate Count	IS 5402: 2002( RA 2007)	≥ 10 cfu/g
		Coliform	IS 5401(Part1): 2002(RA 2007)/ AOAC 991.14	≥ 10 cfu/g Present/ Absent per gm
		E. coli	IS 5887 (Part I): 1976 (RA 2009) / AOAC 991.14	Present/ Absent/gm/25g ≥ 10 cfu/g
		Salmonella	IS 5887(Part 3): 1999 (RA 2005) AOAC 967.26	Present/ Absent/25g
		Shigella	IS 5887 (Part 7): 1999 (RA 2005)	Present / Absent per 25g
		S. aureus	IS 5887 (Part 2): 1976 (RA 2005) IS 5887 (Part 8): 2002 AOAC 975.55	≥ 1 cfu or ≥ 10 cfu Present/ Absent/gm
		Faecal streptococci	IS 5887 (Part 2): 1976(RA 2009)	Absent / Present/gm
		Listeria monocytogenes	IS 14988 (Part 1): 2001 AOAC 993.12	Absent / Present / 1 gm /25 gm
		Listeria monocytogenes	IS 14988 (Part 2): 2002	>10 cfu/gm

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		Vibrio cholerae	IS 5887 (Part 5): 1976 (RA 2009)/ IS 15188:2002 (RA 2009)	Absent / Present/ 25gm/gm
		Vibrio parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2009)/ IS 15188:2002(RA 2009)	Absent / Present/ 25gm/gm
		Clostridium Pefringenes	IS 5887 (Part 4:1999 (RA 2005)	Absent / Present/ 25gm/gm
		Clostridium Botulinum	IS 5887 (Part V):1999 (RA 2005)	Absent / Present/ 25gm/gm
		Bacillus cereus	IS 5887(VI): 1999 AOAC 980.31	>10 cfu/gm Absent/ Present per gm
		Yeast & mould	IS 5403: 1999 (RA 2005) AOAC 995.81	≥10 cfu/g
		Pseudomonas Aeruginosa	IS 13428 (Annexure D) :2005 (RA 2009)	Present / Absent per gm
10.	Poultry & Poultry Products	Total Bacterial Count / Total Plate Count/ Aerobic Plate Count	IS 5402: 2002 (RA 2007)	$\geq 10 \text{ cfu/g}$
		Coliform	IS 5401(Part1): 2002 (RA 2007)/ AOAC 991.14	≥ 10 cfu/g Present/ Absent per gm
		E. coli	IS 5887 (Part 1): 1976 (RA 2009) / AOAC 991.14	Present/ Absent/gm/25g ≥ 10 cfu/g
		Salmonella	IS 5887(Part 3): 1999 (RA 2005) AOAC 967.26	Present/ Absent/25g
		Shigella	IS (Part 7): 1999 (RA 2005)	Present / Absent per 25g

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		S. aureus	IS 5887(Part 2): 1976 (RA 2005) IS 5887(Part 8): 2002 AOAC 975.55	≥ 10cfu Present/ Absent/gm
		Faecal streptococci	IS 5887 (Part 2): 1976(RA 2009)	Absent / Present/gm
		Listeria monocytogenes	IS 14988 (Part 1): 2001 AOAC 993.12	Absent / Present / 1 gm /25 gm
		Listeria monocytogenes	IS 14988 (Part 2): 2002	>10 cfu/gm
		Vibrio cholerae	IS 5887 (Part 5): 1976 (RA 2009)/ IS 15188:2002(RA 2009)	Absent / Present/ 25gm/gm
		Vibrio parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2009)/ IS 15188:2002(RA 2009)	Absent / Present/ 25gm/gm
		Clostridium Pefringenes	IS 5887 (Part 4:1999 (RA 2005)	Absent / Present/ 25gm/gm
		Clostridium Botulinum	IS 5887 (Part 4):1999 (RA 2005)	Absent / Present/ 25gm/gm
		Bacillus cereus	IS 5887(Part 6): 1999 AOAC 980.31	≥10 cfu/g Absent/ Present per gm
		Yeast & mould	IS 5403: 1999 (RA 2005) AOAC 995.81	≥10 cfu/g
		Pseudomonas Aeruginosa	IS 13428 (Annexure D) :2005 (RA 2009)	Present / Absent per gm

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11.	Egg & Egg Products	Total Bacterial Count / Total Plate Count/ Aerobic Plate Count	IS 5402: 2002 (RA 2007)	≥ 10 cfu/g
		Coliform	IS 5401(Part1): 2002(RA 2007)/ AOAC 991.14	≥ 10 cfu/g Present/ Absent per gm
		E. coli	IS 5887(Part I): 1976 (RA 2009) / AOAC 991.14	Present/ Absent/25g ≥ 10 cfu/g
		Salmonella	IS 5887(Part 3): 1999 (RA 2005) AOAC 967.26	Present/ Absent/25g
		Shigella	IS 5887 (Part 7): 1999 (RA 2005)	Present / Absent per 25g
		S. aureus	IS 5887 (Part 2): 1976 (RA 2005) IS 5887 (VIII): 2002 AOAC 975.55	≥ 10cfu Present/ Absent/gm
		Faecal streptococci	IS 5887 (Part 2): 1976(RA 2009)	Absent / Present/gm
		Listeria monocytogenes	IS 14988 (Part 1): 2001 AOAC 993.12	Absent / Present / 1 gm /25 gm
		Listeria monocytogenes	IS 14988 (Part 2): 2002	>10 cfu/gm
		Vibrio cholerae	IS 5887 (Part 5): 1976 (RA 2009)/ IS 15188: 2002 (RA 2009)	Absent / Present/ 25gm/gm
		Vibrio parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2009)/ IS 15188:2002 (RA 2009)	Absent / Present/ 25gm/gm
		Clostridium Pefringenes	IS 5887 (Part 4):1999 (RA 2005)	Absent / Present / 25gm/gm

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		Clostridium Botulinum	IS 5887 (Part 4):1999 (RA 2005)	Absent / Present/ 25gm/gm
		Bacillus cereus	IS 5887(Part 6): 1999 AOAC 980.31	>10 cfu/gm Absent/ Present / gm
		Yeast & mould	IS 5403: 1999 (RA 2005) AOAC 995.81	≥10 cfu/g
		Pseudomonas Aeruginosa	IS 13428 (Annexure D) :2005 (RA 2009)	Present / Absent per gm
II.	POLLUTION & EN	VIRONMENT		
1.	Effluents / Waste Water	Aerobic plate count / Total Plate Count	IS 5402: 2002 (RA 2007)	≥1 cfu/ml
		Coliform bacteria	IS 5401(Part1):2002 (RA 2007) IS 1622: 1981(RA 2009) AOAC 989.10	≥1 cfu/ml ≥1MPN /100 ml Absent / Present/ 100 ml
		E.coli	IS 5887 (Part 1): 1976 (RA 2009) IS 1622: 1981(RA 2009) AOAC 991.14	≥1 cfu/ml ≥1MPN /100 ml Absent/Present / ml / 100 ml/ 250 ml
		Faecal strepococci	IS 5887 (Part 2): 1976 (RA 2009) IS 15186: 2002 RA 2009)/ IS 1622: 1981(RA 2009)	≥1 cfu/ml Absent/Present/ml / 100 ml / 250 ml ≥1MPN /100 ml

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		Faecal coliform	IS 1622: 1981(RA 2009) APHA 9221 E	≥1 cfu/ml Absent / Present/ml/ 100 ml/ 250 ml/ MPN/100ml
2.	SWAB (Hand Swab,	Aerobic plate count / Total Plate Count	IS 5402: 2002 (RA 2007)	≥1 cfu/cm <sup>2</sup>
	Surface Swab, Equipment Swab)	Coliform bacteria	IS 5401(Part1): 2002 (RA 2007) IS 1622: 1981(RA 2009) AOAC 989.10	≥1 cfu/ cm <sup>2</sup> Absent / Present / cm <sup>2</sup>
		E.coli	IS 5887 (Part1): 1976 (RA 2009) IS 1622: 1981(RA 2009) AOAC 991.14	Absent/Present per cm <sup>2</sup>
		Yeast & mould	IS 5403: 1999 (RA 2005) AOAC 995.81	$\geq 1 \text{ cfu/ cm}^2$
		S. aureus	IS 5887 (Part 2): 1976 (RA 2005) IS 5887 (Paert 8): 2002 AOAC 975.55	≥1 cfu/ cm <sup>2</sup> Absent / Present / cm <sup>2</sup>
		Faecal Streptococci	IS 5887 (Part 2): 1976 (RA 2005) IS 15186:2002 (RA 2009)	≥1 cfu/ cm <sup>2</sup> Absent / Present / cm <sup>2</sup>
		Salmonella	IS 5887 (Part 3): 1999 (RA 2005) AOAC 967.26	Absent / Present per cm²/100 cm²/Full Surface
		Shigella	IS 5887 (Part 7): 1999 (RA 2005)	Present / Absent per cm <sup>2</sup>
		Listeria monocytogenes	IS 14988 (Part1): 2001 AOAC 993.12	Absent / Present per cm <sup>2</sup> /100 cm <sup>2</sup> /Full Surface

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III.	TOXICOLOGY			
1.	ENVIRONMENT BIOLOGY (Industrial Effluents and Waste Waters)	Toxicity to fish	IS 6582 :1971 (RA 2009)	TLM
IV.	WATER			
1.	Drinking Water/ Potable Water	Aerobic plate count / Total Plate Count	IS 5402: 2002(RA 2007)	≥1 cfu/ml
		Coliform bacteria	IS 5401(Part 1):2002 (RA 2007) IS 1622: 1981(RA 2009) AOAC 989.10	≥1 cfu/ml ≥1MPN /100 ml Absent / Present/100 ml
		E.coli	IS 5887 (Part 1): 1976 (RA 2009) IS 1622: 1981(RA 2009) AOAC 991.14	≥1 cfu/ml ≥1MPN /100 ml Absent/Present/ ml / 100 ml/ 250 ml
		Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2009) IS 15186: 2002 (RA 2009) IS 1622: 1981(RA 2009)	≥1 cfu/ml Absent/Present/ml/ 100 ml/ 250 ml ≥1MPN /100 ml
		Faecal coliform	IS 1622: 1981(RA 2009) APHA:9221 E	≥1MPN /100 ml Absent / Present/ml/ 100ml/ 250 ml
		Pseudomonas aeruginosa	IS 13428 (Annexure D): 2005 (RA 2009)	Absent/Present / ml / 100 ml / 250 ml
		Salmonella	IS 5887 (Part 3): 1999 (RA 2009) / IS 15187:2002(RA 2009) / AOAC 967.25, 26, 27, 28	Absent / Present/ml/ 100 ml/ 250 ml

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		Shigella	IS 5887 (Part 7): 1999 (RA 2009) / IS 15187:2002	Absent / Present/ml/ 100ml/250 ml
		Standard Plate Count	IS 1622:1981(RA 2009)/ IS 3328:1993 (RA 2008)	≥1 cfu/ml
		Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2009) /IS 15186:2002 (RA 2009) / IS 5887 (Part 8): 2002	Absent / Present /ml/ 100ml/ 250 ml
		Sulphite reducing anaerobes	IS 13428 (Annexure C): 2005 (RA 2009) / IS 15188:2002(RA 2009)	Absent / Present /ml/ 50 ml
		Sulphate Reducing Bacteria	IS 1622:1981(RA 2009)	Absent / Present / ml
		Vibrio cholerae	IS 5887 (Part 5): 1976 (RA 2005)/ IS 15188: 2002(RA 2009)	Absent / Present /ml/ 250 ml/100ml
		Vibrio parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2009)/ IS 15188:2002(RA 2009)	Absent / Present/ml/100 ml/ 250 ml
		Yeast & Mould	IS 5403: 1999 (RA 2009)/ IS 15188:2002(RA 2009)	≥1 cfu/ml /100ml Absent / Present /ml / 250ml
		Heterotrophic Plate Count	APHA 9215 A	≥1 cfu/ml
2.	Water For Swimming Pool and Spas	Aerobic plate count / Total Plate Count	IS 5402: 2002 (RA 2007)	≥1 cfu/ml
	ани эраѕ	Coliform bacteria	IS 5401(Part 1):2002 (RA 2009) IS 1622: 1981(RA 2009 AOAC 989.10	≥1 cfu/ml ≥1MPN /100 ml Absent / Present/ 250 ml

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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
		E.coli	IS 5887 (Part 1): 1976 (RA 2009) IS 1622: 1981(RA 2009) AOAC 991.14	≥1 cfu/ml ≥1MPN /100 ml Absent/Present per ml / 100 ml/ 250 ml
		Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2009) IS 15186: 2002 (RA 2009) IS 1622: 1981(RA 2009)	≥1 cfu/ml Absent/Present per ml / 100 ml / 250 ml ≥1MPN /100 ml
		Faecal coliform	IS 1622: 1981(RA 2009) APHA : 9221 E	≥1MPN /100 ml Absent / Present/ml/ 100 ml/250 ml
		Standard Plate Count	IS 1622:1981(RA 2009)/ IS 3328:1993 (RA 2008)	≥1 cfu/ml
		Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2009) /IS 15186:2002/ IS 5887 (Part 8): 2002 (RA 2007)	Absent / Present /ml/ 100ml/ 250 ml
		Yeast & Mould	IS 5403: 1999 (RA 2009)/ IS 15188:2002 (RA 2009)	≥1 cfu/ml /100ml Absent / Present /ml/ 100ml/250ml
		Heterotrophic Plate Count	APHA 9215 A	≥1 cfu/ml
3.	Ground Water/ Surface Water	Aerobic plate count / Total Plate Count	IS 5402: 2002 (RA 2007)	≥1 cfu/ml
		Coliform bacteria	IS 5401(Part 1):2002 (RA 2009) IS 1622: 1981(RA 2009) AOAC 989.10	≥1 cfu/ml ≥1MPN /100 ml Absent / Present/100 ml/ 250ml

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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
		E.coli	IS 5887 (Part 1): 1976 (RA 2009) IS 1622: 1981(RA 2003) AOAC 991.14	≥1 cfu/ml ≥1MPN /100 ml Absent/Present per ml / 100 ml/ 250 ml
		Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2009) IS 15186: 2002 (RA 2009) IS 1622: 1981(RA 2009)	≥1 cfu/ml Absent/Present per ml / 100 ml / 250 ml ≥1MPN /100 ml
		Faecal coliform	IS 1622: 1981(RA 2009) APHA:9221 E	≥1MPN /100 ml Absent / Present/ml/ 100 ml/250 ml
		Pseudomonas aeruginosa	IS 13428 (Annexure D): 2005 (RA 2009)	Absent/Present / ml / 100 ml / 250 ml
		Salmonella	IS 5887 (Part 3): 1999 (RA 2009) / IS 15187:2002 / AOAC 967.25,26,27,28	Absent / Present/ml/ 100 ml/ 250 ml
		Shigella	IS 5887 (Part 7): 1999 (RA 2009) /IS 15187:2002	Absent / Present /ml/ 100ml/ 250 ml
		Standard Plate Count	IS 1622:1981(RA 2009)/ IS 3328:1993(RA 2008)	≥1 cfu/ml
		Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2009) / IS 15186:2002 (RA 2009)/ IS 5887 (Part -8): 2002 (RA 2007)	Absent / Present / ml/ 100ml/ 250 ml

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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
		Sulphite reducing anaerobes	IS 13428 (Annexure C): 2005 (RA 2009) / IS 15188:2002(RA 2009)	Absent / Present /ml/ 50 ml
		Sulphate Reducing Bacteria	IS 1622:1981 (RA 2009)	Absent / Present / ml
		Slime forming organism	IS 4251: 1967/ IS 1622: 1981(RA 2009)	Absent / Present / ml
		Thermophyllic Bacteria	IS 4251: 1967 (Appendix-B)	Absent / Present / ml
		Vibrio cholerae	IS 5887 (Part 5): 1976 (RA 2009)/ IS 15188:2002(RA 2009)	Absent / Present /ml/ 250 ml/100ml
		Vibrio parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2009)/ (RA 2009) IS 15188:2002(RA 2009)	Absent / Present/ml/ 100 ml/ 250 ml
		Yeast & Mould	IS 5403: 1999 (RA 2005)/ IS 15188:2002(RA 2009)	≥1 cfu/ml /100ml Absent / Present /ml/ 250ml
		Heterotrophic Plate Count	APHA 9215 A	≥1 cfu/ml
4.	Water for Dialysis	Aerobic plate count / Total Plate Count	IS 5402: 2002	≥1 cfu/ml
		Coliform bacteria	IS 5401(Part 1): 2002 (RA 2007) IS 1622: 1981(RA 2009) AOAC 989.10	≥1 cfu/ml ≥1MPN /100 ml Absent / Present/100 ml 250ml
		E.coli	IS 5887 (Part 1): 1976 (RA 2009) IS 1622: 1981(RA 2009) AOAC 991.14	≥1 cfu/ml Absent/Present per ml / 100 ml/ 250 ml

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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
		Faecal coliform	IS 1622: 1981(RA 2009) APHA:9221 E	≥1MPN /100 ml Absent / Present/ml/ 100 ml/250 ml
		Standard Plate Count	IS 1622:1981(RA 2009)/ IS 3328:1993/ ISO13959:2009(E)	≥1 cfu/ml
		Yeast & Mould	IS 5403: 1999 (RA 2005)/ IS 15188:2002	≥1 cfu/ml /100ml Absent / Present / ml/ 250ml
		Heterotrophic Plate Count	APHA 9215 A	≥1 cfu/ml
		Endotoxins	IP 2010 (2.2.3), Vol 1, Page No.28	Less than 0.25 EU/ml
5.	Water for Processed Food	Aerobic plate count / Total Plate Count	IS 5402: 2002	≥1 cfu/ml
	Industries	Coliform bacteria	IS 5401(Part 1):2002 (RA 2007) IS 1622: 1981(RA 2009) AOAC 989.10	≥1 cfu/ml ≥1MPN /100 ml Absent / Present/100 m
		Lypolytic bacteria	IS 4251: 1967 (Appendix-A) (RA 1992)	≥1 cfu/ml Absent/Present / ml / 100 ml / 250 ml
		Proteolytic bacteria	IS 4251:1967 (Appendix-A) (RA 1992)	≥1 cfu/ml Absent/Present / ml / 100 ml/ 250 ml
		Standard Plate Count	IS 1622:1981(RA 2009)/ IS 3328:1993(RA 2008)	≥1 cfu/ml
		Slime forming organism	IS 4251:1967/ IS 1622:1981(RA 2009)	Absent / Present / ml
		Thermophyllic Bacteria	IS 4251:1967 (Appendix-B)	Absent / Present / ml

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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
6.	Water for Industrial Purpose	Aerobic plate count / Total Plate Count	IS 5402: 2002	≥1 cfu/ml
		Coliform bacteria	IS 5401(Part 1):2002 (RA 2007) IS 1622: 1981(RA 2009) AOAC 989.10	≥1 cfu/ml ≥1MPN /100 ml Absent / Present/100 ml/ 250ml
		E.coli	IS 5887 (Part 1): 1976 (RA 2009) IS 1622: 1981(RA 2009) AOAC 991.14	≥1 cfu/ml ≥1MPN /100 ml Absent/Present per ml / 100 ml/ 250 ml
		Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2009) IS 15186: 2002(RA 2009) IS 1622: 1981(RA 2009)	≥1 cfu/ml Absent/Present per ml / 100 ml / 250 ml ≥1MPN /100 ml
		Faecal coliform	IS 1622: 1981(RA 2009) APHA 9221E	Absent / Present/ml/ 100 ml/250 ml/ MPN/100ml
		Standard Plate Count	IS 1622:1981(RA 2009)/ IS 3328:1993	≥1 cfu/ml
		Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2009) /IS 15186:2002 RA 2009)/ IS 5887 (Part 8): 2002 (RA 2007)	Absent / Present /ml/ 100ml/ 250 ml
		Sulphite reducing anaerobes	IS 13428 (Annexure C): 2005 (RA 2009) / IS 15188:2002(RA 2009) IS 1622:1981(RA 2009)	Absent / Present /ml/ 50 ml
		Sulphate Reducing Bacteria		Absent / Present / ml
		Slime forming organism	IS 4251:1967/ IS 1622:1981(RA 2009)	Absent / Present / ml

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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
		Yeast & Mould	IS 5403: 1999 (RA 2005)/ IS 15188:2002(RA 2009)	≥1 cfu/ml /100ml Absent / Present /ml/ 100ml
		Heterotrophic Plate Count	APHA 9215 A	≥1 cfu/ml
7.	Packaged Drinking Water	Aerobic plate count at 22°C,	IS 5402: 2002(RA 2007)	≥1 cfu/ml
		37°C	IS 5402: 2002 (RA 2007)	≥1 cfu/ml
		Coliform bacteria	IS 5401 (Part1): 2002 (RA 2007)/ IS 15185::2002/ AOAC 989.10	≥1 cfu/ml Absent / Present/100ml/250 ml
		E.coli	IS 5887 (Part 1): 1976(RA 2009)/ IS 15185::2002/ AOAC 991.14	≥1 cfu/ml Absent / Present/100ml/250 ml
		Faecal streptococci	IS 5887 (Part 2): 1976(RA 2009)/ IS 15186: 2002	Absent / Present/ 100ml/250 ml
		Pseudomonas aeruginosa	IS 13428 (Annexure D): 2005 / IS 15188:2002(RA 2009)	Absent / Present/ 100ml/250 ml
		Salmonella	IS 5887 (Part 3): 1999 (RA 2009) / IS 15187:2002 / AOAC 967.25,26,27,28	Absent / Present / 100ml/250 ml
		Shigella	IS 5887 (Part 7): 1999 (RA 2009) / IS 15187:2002	Absent / Present / 100ml/250 ml

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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
		Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2009) / IS 15186:2002 RA 2009)/ IS 5887 (Part 8): 2002	Absent / Present/100 ml/250 ml
		Sulphite reducing anaerobes	IS 13428 (Annexure C): 2005 (RA 2009) / IS 15188:2002(RA 2009)	Absent / Present/50 ml
		Vibrio cholerae	IS 5887 (Part 5): 1976 (RA 2009)/ IS 15188:2002(RA 2009)	≥1 cfu/ml Absent / Present /100ml/ 250 ml
		Vibrio parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2009)/ IS 15188:2002(RA 2009)	≥1 cfu/ml Absent / Present/100ml/ 250 ml
		Yeast & Mould	IS 5403: 1999 (RA 2005)/ IS 15188:2002	≥1 cfu/ml Absent / Present /100ml 250 ml
8.	Water For Industrial Purpose (Rinse Water)	Salmonella	IS 5887 (Part 3): 1999 (RA 2009) / IS 15187:2002 / AOAC 967.25, 26, 27, 28	Absent / Present/ml/ 100 ml/ 250 ml
		Shigella	IS 5887 (Part 7): 1999 (RA 2009) / IS 15187:2002	Absent / Present / ml/ 100ml/ 250 ml
		Listeria monocytogenes	IS 14988 (Part 1) : 2001 AOAC 993.12	Absent / Present / ml/ 100ml/ 250 ml
		Listeria monocytogenes	IS 14988 (Part 2): 2002	>1 cfu/ml

Laboratory	AES Laboratories Pvt. Ltd., B-118, Phase-II, Noida, Uttar Pradesh		
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V.	PETROLEUM			
1.	Aircraft Turbine Fuel (ATF)	Total viable count	IP 385-1999	1-4000 cfu/lit
		Fungal count	IP 385-1999	1-10 cfu/ lit

## 

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

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