

Laboratory	Hemshell Services-Testing Division, 903/1, Makarpura G.I.D.C, Makarpura, Vadodara, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Biological Testing	Issue Date	24.10.2016
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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I. FOOD & AGRICULTURAL PRODUCTS				
1.	Milk & Milk Products	Total Plate Count/ Total Viable Count/Standard Plate Count/Aerobic Microbial count	IS 5402: 2012 ISO 4833 -1: 2013 FDA- BAM: 2001 Chapter 3,	≥ 10 cfu/g ≥1 cfu/ml
		Yeast & mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	≥ 10 cfu/g ≥1 cfu/ml Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ 1g or ml
		Coliform	IS 5401 (Part 1): 2012/ ISO 4832: 2006	≥ 10 cfu/g ≥1 cfu/ml Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ 1g or ml
		Detection of Enterobacteriaceae	IS 5401 (Part 2): 2012/ ISO 4831: 2006 ISO 21528 (Part 1): 2004	≥ 0.3 MPN /g or ml Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ 1g or 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
	Milk & Milk Products	Enumeration of Enterobacteriaceae	IS/ISO 7402: 1993 (RA 2012)/ ISO 21528 (Part 2): 2004	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Salmonella	IS 5887 (Part 3): 1999 (RA 2013) ISO 6579: 2002	Qualitative (Present or Absent)/ 25 g or ml
		Detection of Escherichia coli	IS 5887 (Part 1): 1976 (RA 2013) ISO 7251: 2005	Qualitative (Present or Absent)/ 25 g or ml ≥ 0.3 MPN /g or ml
		Detection of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002 (RA 2012) ISO 6888-1: 1999	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Shigella	IS 5887 (Part 7): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Bacillus cereus	IS 5887 (Part 6): 2012/ ISO 7932: 2004	≥ 10 cfu/g ≥1 cfu/ml

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	Milk & Milk Products	Detection of Clostridium perfringens	IS 5887 (Part 4): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Clostridium perfringens	ISO 7937: 2004	≥ 10 cfu/g
		Detection of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	(0.3 MPN to 110 MPN)/g or ml
		Detection of Listeria monocytogenes	IS 14988 (Part 1): 2001 (RA 2012)	Qualitative (Present or Absent)/ 25 g or ml
			ISO 11290-1: 1996/ Amd. 1: 2004	Qualitative (Present or Absent)/ /1g or ml
2.	Bakery & Confectionary Product	Total Plate Count/ Total Viable Count/Standard Plate Count/Aerobic Microbial count	IS 5402: 2012 ISO 4833 -1: 2013 FDA- BAM: 2001 Chapter 3,	≥ 10 cfu/g ≥1 cfu/ml
		Enumeration of Yeast & mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Yeast & mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or ml

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	Bakery & Confectionary Product	Enumeration of Coliform	IS 5401 (Part 1): 2012/ ISO 4832: 2006	≥ 10 cfu/g ≥ 1 cfu/ml
		Detection of Coliform	IS 5401 (Part 1): 2012/ ISO 4832: 2006	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or ml
			IS 5401 (Part 2): 2012/ ISO 4831: 2006	≥ 0.3 MPN /g or ml
		Detection of Enterobacteriaceae	ISO 21528 (Part 1): 2004	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or ml
		Enumeration of Enterobacteriaceae	IS/ISO 7402: 1993 (RA 2012)/ ISO 21528 (Part 2): 2004	≥ 10 cfu/g ≥ 1 cfu/ml
		Detection of Salmonella	IS 5887 (Part 3): 1999 (RA 2013) ISO 6579: 2002	Qualitative (Present or Absent)/ per 25 g or ml
		Detection of Escherichia coli	IS 5887 (Part 1): 1976 (RA 2013) ISO 7251: 2005	Qualitative (Present or Absent)/ 25 g or ml ≥ 0.3 MPN /g or m

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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
	Bakery& Confectionary Product	Detection of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Shigella	IS 5887 (Part 7): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Bacillus cereus	IS 5887 (Part 6): 2012/ ISO 7932: 2004	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Clostridium perfringens	IS 5887 (Part 4): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Clostridium perfringens	ISO 7937: 2004	≥ 10 cfu/g
		Detection of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	(0.3 MPN to 110 MPN)/g or ml

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	Bakery & Confectionary Product	Detection of Listeria monocytogenes	IS 14988 (Part 1): 2001 (RA 2012) ISO 11290-1: 1996/ Amd. 1: 2004	Qualitative (Present or Absent)/ 25 g or ml Qualitative (Present or Absent)/ 1g or ml
3.	Spices, Herbs & Condiments	Total Plate Count/ Total Viable Count/Standard Plate Count/Aerobic Microbial count	IS 5402: 2012 ISO 4833 -1: 2013 FDA- BAM: 2001 Chapter 3,	≥ 10 cfu/g ≥ 1 cfu/ml
		Enumeration of Yeast & mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	≥ 10 cfu/g ≥ 1 cfu/ml
		Detection of Yeast & mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or ml
		Enumeration of Coliform	IS 5401 (Part 1): 2012/ISO 4832: 2006	≥ 10 cfu/g ≥ 1 cfu/ml
		Detection of Coliform	IS 5401 (Part 1): 2012/ ISO 4832: 2006	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or ml
			IS 5401 (Part 2): 2012/ ISO 4831: 2006	≥ 0.3 MPN /g or ml

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	Spices, Herbs & Condiments	Detection of Enterobacteriaceae	ISO 21528 (Part 1): 2004	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or ml
		Enumeration of Enterobacteriaceae	IS/ISO 7402: 1993 (RA 2012)/ ISO 21528 (Part 2): 2004	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Salmonella	IS 5887 (Part 3): 1999 (RA 2013) ISO 6579: 2002	Qualitative (Present or Absent)/ /25 g or ml
		Detection of Escherichia coli	IS 5887 (Part 1): 1976 (RA 2013) ISO 7251: 2005	Qualitative (Present or Absent)/ 25 g or ml ≥ 0.3 MPN /g or ml
		Detection of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	Qualitative (Present or Absent)/ 25 g or ml
		Detection of Shigella	IS 5887 (Part 7): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Bacillus cereus	IS 5887 (Part 6): 2012/ ISO 7932: 2004	≥ 10 cfu/g ≥1 cfu/ml

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	Spices, Herbs & Condiments	Detection of Clostridium perfringens	IS 5887 (Part 4): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Clostridium perfringens	ISO 7937: 2004	≥ 10 cfu/g
		Detection of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	(0.3 MPN to 110 MPN)/g or ml
		Detection of Listeria monocytogenes	IS 14988 (Part 1): 2001 (RA 2012)	Qualitative (Present or Absent)/ 25 g or ml
			ISO 11290-1: 1996/ Amd. 1: 2004	Qualitative (Present or Absent)/ /1g or ml
4.	Cereals, Pulses & Cereals Products (Including Malt Foods)	Total Plate Count/ Total Viable Count/Standard Plate Count/Aerobic Microbial count	IS 5402: 2012 ISO 4833 -1: 2013 FDA- BAM: 2001 Chapter 3,	≥ 10 cfu/g ≥1 cfu/ml
		Enumeration of Yeast & mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Yeast & mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	Qualitative (Present or Absent)/ 0.1g or ml
				Qualitative (Present or Absent)/ /1g or ml

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	Cereals, Pulses & Cereals Products (Including Malt Foods)	Detection of Coliform	IS 5401 (Part 1): 2012/ ISO 4832: 2006	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or ml
		Enumeration of Coliform	IS 5401 (Part 1): 2012/ ISO 4832: 2006	≥ 10 cfu/g ≥1 cfu/ml
			IS 5401 (Part 2): 2012/ ISO 4831: 2006	≥ 0.3 MPN /g or ml
		Enumeration of Enterobacteriaceae	IS/ISO 7402: 1993 (RA 2012)/ ISO 21528 (Part 2): 2004	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Enterobacteriaceae	ISO 21528 (Part 1): 2004	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or ml
		Detection of Salmonella	IS 5887 (Part 3): 1999 (RA 2013) ISO 6579: 2002	Qualitative (Present or Absent)/ per 25 g or ml
		Detection of Escherichia coli	IS 5887 (Part 1): 1976 (RA 2013) ISO 7251: 2005	Qualitative (Present or Absent)/ 25 g or ml ≥ 0.3 MPN /g or 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
	Cereals, Pulses & Cereals Products (Including Malt Foods)	Detection of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Shigella	IS 5887 (Part 7): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Bacillus cereus	IS 5887 (Part 6): 2012/ ISO 7932: 2004	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Clostridium perfringens	IS 5887 (Part 4): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Clostridium perfringens	ISO 7937: 2004	≥ 10 cfu/g
		Detection of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	(0.3 MPN to 110 MPN)/g or ml

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	Cereals, Pulses & Cereals Products (Including Malt Foods)	Detection of Listeria monocytogenes	IS 14988 (Part 1): 2001 (RA 2012) ISO 11290-1: 1996/ Amd. 1: 2004	Qualitative (Present or Absent)/ 25 g or ml Qualitative (Present or Absent)/ /1g or ml
5.	Ready To Eat Food (Cooked Veg & Non-Veg Items, Snacks & Instant Mixes, Extruded Snacks, Protein Rich Extruded Foods, Raw/ Processed/ Sem-Processed/ Canned/ Thermally Processed food products)	Total Plate Count/ Total Viable Count/Standard Plate Count/Aerobic Microbial count Enumeration of Yeast & mould Detection of Yeast & mould Detection of Coliform	IS 5402: 2012 ISO 4833 -1: 2013 FDA- BAM: 2001 Chapter 3, IS 5403: 1999 (RA 2013) ISO 21527-1: 2008 IS 5403: 1999 (RA 2013) ISO 21527-1: 2008 IS 5401 (Part 1): 2012/ ISO 4832: 2006	 ≥ 10 cfu/g ≥1 cfu/ml ≥ 10 cfu/g ≥1 cfu/ml Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ 1g or ml Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or ml
		Enumeration of Coliform	IS 5401 (Part 1): 2012/ ISO 4832: 2006 IS 5401 (Part 2): 2012/ ISO 4831: 2006	≥ 10 cfu/g ≥1 cfu/ml ≥ 0.3 MPN /g or ml

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	Ready To Eat Food (Cooked Veg & Non-Veg Items, Snacks & Instant Mixes, Extruded Snacks, Protein Rich Extruded Foods, Raw/ Processed/ Sem-Processed/ Canned/ Thermally Processed food products)	Detection of Enterobacteriaceae	ISO 21528 (Part 1): 2004	≥ 10 cfu/g ≥ 1 cfu/ml
		Enumeration of Enterobacteriaceae	IS/ISO 7402: 1993 (RA 2012)/ ISO 21528 (Part 2): 2004	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ 1g or ml
		Detection of Salmonella	IS 5887 (Part 3): 1999 (RA 2013) ISO 6579: 2002	Qualitative (Present or Absent)/ 25 g or ml
		Detection of Escherichia coli	IS 5887 (Part 1): 1976 (RA 2013) ISO 7251: 2005	Qualitative (Present or Absent)/ 25 g or ml
		Detection of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	≥ 0.3 MPN /g or ml Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	≥ 10 cfu/g ≥ 1 cfu/ml
		Detection of Shigella	IS 5887 (Part 7): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml

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	Ready To Eat Food (Cooked Veg & Non-Veg Items, Snacks & Instant Mixes, Extruded Snacks, Protein Rich Extruded Foods, Raw/ Processed/ Sem-Processed/ Canned/ Thermally Processed food products)	Enumeration of Bacillus cereus	IS 5887 (Part 6): 2012/ ISO 7932: 2004	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Clostridium perfringens	IS 5887 (Part 4): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Clostridium perfringens	ISO 7937: 2004	≥ 10 cfu/g
		Detection of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Faecal Streptococci	IS 5887 (Part 2): 1976 (RA 2013)	(0.3 MPN to 110 MPN)/g or ml
		Detection of Listeria monocytogenes	IS 14988 (Part 1): 2001 (RA 2012)	Qualitative (Present or Absent)/ 25 g or ml
			ISO 11290-1: 1996/ Amd. 1: 2004	Qualitative (Present or Absent)/ /1g or ml
6.	Fruits & Vegetable Products	Total Plate Count/ Total Viable Count/Standard Plate Count/Aerobic Microbial count	IS 5402: 2012 ISO 4833 -1: 2013 FDA- BAM: 2001 Chapter 3,	≥ 10 cfu/g ≥1 cfu/ml
		Enumeration of Yeast & mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	≥ 10 cfu/g ≥1 cfu/ml

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	Fruits & Vegetable Products	Detection of Yeast & mould	IS 5403: 1999 (RA 2013)	Qualitative (Present or Absent)/ 0.1g or ml
			ISO 21527-1: 2008	Qualitative (Present or Absent)/ /1g or ml
		Detection of Coliform	IS 5401 (Part 1): 2012/	Qualitative (Present or Absent)/ 0.1g or ml
			ISO 4832: 2006	Qualitative (Present or Absent)/ 1g
		Enumeration of Coliform	IS 5401 (Part 1): 2012/ ISO 4832: 2006	≥ 10 cfu/g ≥1 cfu/ml
			IS 5401 (Part 2): 2012/ ISO 4831: 2006	≥ 0.3 MPN /g or ml
		Detection of Enterobacteriaceae	ISO 21528 (Part 1): 2004	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ 1g
	Enumeration of Enterobacteriaceae	IS/ISO 7402: 1993 (RA 2012)/ ISO 21528 (Part 2): 2004	≥ 10 cfu/g ≥1 cfu/ml ≥0.3 to 110 MPN/g/ml	
	Detection of Salmonella	IS 5887 (Part 3): 1999 (RA 2013) ISO 6579: 2002	Qualitative (Present or Absent)/ 25 g or ml	

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	Fruits & Vegetable Products	Detection of Escherichia coli	IS 5887 (Part 1): 1976 (RA 2013) ISO 7251: 2005	Qualitative (Present or Absent)/ 25 g or ml ≥ 0.3 MPN /g or ml
		Detection of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Shigella	IS 5887 (Part 7): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Bacillus cereus	IS 5887 (Part 6): 2012/ ISO 7932: 2004	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Clostridium perfringens	IS 5887 (Part 4): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Clostridium perfringens	ISO 7937: 2004	≥ 10 cfu/g
		Detection of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml

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	Fruits & Vegetable Products	Enumeration of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	(0.3 MPN to 110 MPN)/g or ml
		Detection of Listeria monocytogenes	IS 14988 (Part 1): 2001 (RA 2012) ISO 11290-1: 1996/ Amd. 1: 2004	Qualitative (Present or Absent)/ 25 g or ml Qualitative (Present or Absent)/ /1g or ml
7.	Nutraceutical Products & Special Dietary Products	Salmonella	IS 5887 (Part 3): 1999 (RA 2013) ISO 6579: 2002	Qualitative (Present or Absent)/ 25 g or ml Qualitative (Present or Absent)/ x g or ml
		Coliform	IS 5401 (Part 1): 2012/ ISO 4832: 2006	≥ 10 cfu/g ≥1 cfu/ml
			IS 5401 (Part 1): 2012/ ISO 4832: 2006	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or ml
			IS 5401 (Part 2): 2012/ ISO 4831: 2006	≥ 0.3 MPN /g or ml
		Aerobic Mesophilic Microorganisms	IS 5402: 2012 ISO 4833 -1: 2013 FDA- BAM: 2001 Chapter 3,	≥ 10 cfu/g ≥1 cfu/ml
		Yeasts & Mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	≥ 10 cfu/g ≥1 cfu/ml

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	Nutraceutical Products & Special Dietary Products	Yeasts & Mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ 1g or ml
		Staphylococcus aureus (Coagulase Positive Staphylococci Enumeration)	IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	≥1 cfu /g or ml ≥10 cfu /g
		Detection of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013)	Qualitative (Present or Absent)/ g/ml Qualitative (Present or Absent)/ 25 g or ml
		Detection of Enterobacteriaceae	ISO 21528 (Part 1): 2004	Qualitative (Present or Absent)/ g or ml
		Enumeration of Enterobacteriaceae	IS/ISO 7402: 1993 (RA 2012)/ ISO 21528 (Part 2): 2004	≥10 cfu /g or ml ≥0.3 MPN/g or ml
		Detection of Listeria Monocytogenes	ISO 11290-1: 1996 / Amd. 1: 2004 IS 14988 (Part 1): 2001 (RA 2012)	Qualitative (Present or Absent) in 25 g/ml Qualitative (Present or Absent)/ /g or ml

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	Nutraceutical Products & Special Dietary Products	Detection of Escherichia Coli	IS 5887 (Part 1): 1976 (RA 2013)	Qualitative (Present /Absent) in g or ml, Qualitative (Present /Absent)/25 g or ml
		Enumeration of Escherichia Coli	ISO 7251: 2005	≥0.3 MPN/g or ml
		Sulfite Reducing Anaerobic Bacteria and Spores	ISO 15213: 2003	≥1 cfu/g or ml ≥10 cfu/g
		Bacillus cereus Enumeration	ISO 7932: 2004 IS 5887 (Part 6): 2012	≥1 cfu/g or ml ≥10 cfu/g
		Detection of Shigella Spp.	IS 5887 (Part 7): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g/ml
8.	Beverages (Non-Alcoholic) Carbonated/ Non-Carbonated Beverages	Total Plate Count	IS 5402: 2012 ISO 4833 -1: 2013	≥1 cfu /ml
		Coliforms	IS 5401 (Part 1 and Part 2): 2012	≥1 cfu /ml (0.3 MPN to 110 MPN)/ml
		Yeasts and Mould	IS 5403: 1999 (RA 2013)	≥1 cfu /ml
9.	Jams, Juices, Sauces & Concentrates	Total Plate Count/ Total Viable Count/Standard Plate Count/Aerobic Microbial count	IS 5402: 2012 ISO 4833 -1: 2013 FDA- BAM: 2001 Chapter 3,	≥ 10 cfu/g ≥1 cfu/ml
		Yeast & mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	≥ 10 cfu/g ≥1 cfu/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	
	Jams, Juices, Sauces & Concentrates	Yeast & mould	IS 5403: 1999 (RA 2013)	Qualitative (Present or Absent)/ 0.1g or ml	
			ISO 21527-1: 2008	Qualitative (Present or Absent)/ /1g or ml	
		Coliform	IS 5401 (Part 1): 2012/ ISO 4832: 2006	≥ 10 cfu/g ≥1 cfu/ml	
				IS 5401 (Part 1): 2012/ ISO 4832: 2006	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or ml
			IS 5401 (Part 2): 2012/ ISO 4831: 2006		≥ 0.3 MPN /g or ml
				Detection of Enterobacteriaceae	ISO 21528 (Part 1): 2004
			Enumeration of Enterobacteriaceae	IS/ISO 7402: 1993 (RA 2012)/ ISO 21528 (Part 2): 2004	≥ 10 cfu/g ≥1 cfu/ml
			Detection of Salmonella	IS 5887 (Part 3): 1999 (RA 2013) ISO 6579: 2002	(≥0.3 MPN to 110 MPN) /g or ml Qualitative (Present or Absent)/ 25 g or ml

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	Jams, Juices, Sauces & Concentrates	Detection of Escherichia coli	IS 5887 (Part 1): 1976 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Escherichia coli	ISO 7251: 2005	≥ 0.3 MPN /g or ml (3 MPN to 1100 MPN) /ml
		Detection of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	≥ 10 cfu/g ≥ 1 cfu/ml
		Detection of Shigella	IS 5887 (Part 7): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Bacillus cereus	IS 5887 (Part 6): 2012/ ISO 7932: 2004	≥ 10 cfu/g ≥ 1 cfu/ml
		Detection of Clostridium perfringens	IS 5887 (Part 4): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Clostridium perfringens	ISO 7937: 2004	≥ 10 cfu/g

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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
	Jams, Juices, Sauces & Concentrates	Detection of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Faecal Streptococci	IS 5887 (Part 2): 1976 (RA 2013)	(0.3 MPN to 110 MPN)/g or ml
		Detection of Listeria monocytogenes	IS 14988 (Part 1): 2001 (RA 2012) ISO 11290-1: 1996/ Amd. 1: 2004	Qualitative (Present or Absent)/ 25 g or ml Qualitative (Present or Absent)/g or ml
10.	Meat & Poultry Products	Total Plate Count/ Total Viable Count/Standard Plate Count/Aerobic Microbial count	IS 5402: 2012 ISO 4833 -1: 2013 FDA- BAM: 2001 Chapter 3,	≥ 10 cfu/g ≥1 cfu/ml
		Yeast & mould	IS 5403: 1999 (RA 2013) ISO 21527-1: 2008	≥ 10 cfu/g ≥1 cfu/ml
		Detection of Coliform	IS 5401 (Part 1): 2012/ISO 4832: 2006	≥ 10 cfu/g ≥1 cfu/ml
		Enumeration of Coliform	IS 5401 (Part 2): 2012/ ISO 4831: 2006	≥ 0.3 MPN /g or ml
		Detection of Enterobacteriaceae	ISO 21528 (Part 1): 2004	Qualitative (Present or Absent)/ 0.1g or ml Qualitative (Present or Absent)/ /1g or 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
	Meat & Poultry Products	Enumeration of Enterobacteriaceae	IS/ISO 7402: 1993 (RA 2012)/ ISO 21528 (Part 2): 2004	≥ 10 cfu/g ≥ 1 cfu/ml ≥ 0.3 to 110 MPN/g or ml
		Detection of Salmonella	IS 5887 (Part 3): 1999 (RA 2013) ISO 6579: 2002	Qualitative (Present or Absent)/ per 25 g or ml
		Detection of Escherichia coli	IS 5887 (Part 1): 1976 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Escherichia coli	ISO 7251: 2005	≥ 0.3 MPN /g or ml
		Detection of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013) IS 5887 (Part 8/Sec I): 2002, (RA 2012) ISO 6888-1: 1999	≥ 10 cfu/g ≥ 1 cfu/ml
		Detection of Shigella	IS 5887 (Part 7): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Bacillus cereus	IS 5887 (Part 6): 2012/ ISO 7932: 2004	≥ 10 cfu/g ≥ 1 cfu/ml

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	Meat & Poultry Products	Detection of Clostridium perfringens	IS 5887 (Part 4): 1999 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Clostridium perfringens	ISO 7937: 2004	≥ 10 cfu/g
		Detection of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	Qualitative (Present or Absent)/ 25 g or ml
		Enumeration of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013)	(0.3 MPN to 110 MPN)/g or ml
		Detection of Listeria monocytogenes	IS 14988 (Part 1): 2001 (RA 2012) ISO 11290-1: 1996/ Amd. 1: 2004	Qualitative (Present or Absent)/ 25 g or ml
II. WATER				
1.	Drinking Water	Coliform Bacteria	IS 1622: 1981 (RA 2014)	(2 MPN to 1600 MPN) /100ml
		Escherichia coli	IS 1622: 1981 (RA 2014)	Qualitative (Present or Absent)/ 100 ml
			IS 1622: 1981 (RA 2014)	(2 MPN to 1600 MPN) /100ml

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2.	Packaged Drinking Water (other than packaged natural water)/Packaged Natural Mineral Water	Detection of Escherichia coli (Thermotolerant bacteria)	IS 5887 (Part 1): 1976 (RA 2013) IS 15185: 2002 (RA 2014)	Qualitative (Present or Absent)/ 250 ml
		Detection of Coliforms	IS 5401 (Part 1): 2012 IS 15185: 2002 (RA 2014)	Qualitative (Present or Absent)/ 250 ml Qualitative (Present or Absent)/ 250 ml
		Detection of Faecal streptococci	IS 5887 (Part 2): 1976 (RA 2013) IS 15186: 2002 (RA 2014)	Qualitative (Present or Absent)/ 250 ml Qualitative (Present or Absent)/ 250 ml
		Detection of Sulphite reducing anaerobes	IS 13428: 2005 (RA 2014) (Annexure C)	Qualitative (Present or Absent)/ 50 ml
		Detection of Pseudomonas aeruginosa	IS 13428: 2005 (RA 2014) (Annexure D)	Qualitative (Present or Absent)/ 250 ml
		Aerobic microbial count at 37°C in 24 hrs 20 to 22°C in 72 hrs	IS 5402: 2012, ISO 4833-1: 2013	≥1 cfu /ml
		Detection of Yeast & mould	IS 5403: 1999 (RA 2013)	Qualitative (Present or Absent)/ 250 ml
		Detection of Salmonella .spp	IS 15187: 2002	Qualitative (Present or Absent)/ 250 ml
		Detection of Shigella .spp	IS 5887 (Part 7): 1999 (RA 2013)	Qualitative (Present or Absent)/ 250 ml

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	Packaged Drinking Water (other than packaged natural water)/Packaged Natural Mineral Water	Detection of Vibrio cholerae	IS 5887 (Part 5): 1976 (RA 2013)	Qualitative (Present or Absent)/ 250 ml
		Detection of Vibrio parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2013)	Qualitative (Present or Absent)/ 250 ml
		Detection of Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2013)	Qualitative (Present or Absent)/ 250 ml
3.	Water For Processed Food Industry	Coliform bacteria	IS 1622: 1981 (RA 2014)	(2 MPN to 1600 MPN) /100ml
		Standard plate count	IS 1622: 1981 (RA 2014)	1 cfu/ml to 300 cfu/ml
		Lipolytic organisms	IS 4251: 1967 (RA 2009)	1 cfu/ml to 300 cfu/ml
		Proteolytic organisms	IS 4251: 1967 (RA 2009)	1 cfu/ml to 300 cfu/ml
4.	Purified Water	MLT testing	USP 39 version 8/IP 2014	1 cfu/ml to 300 cfu/ml
III. ENVIRONMENT & POLLUTION				
1.	Surface Swab And Hand Swab	Total Plate Count	ISO 4833-1: 2013 ISO 5402: 2012	≥1 cfu/g or ml or per swab ≥10 cfu/g or per swab
		Coliform Count	IS 5401 (Part 1): 2012/ ISO 4832: 2006 IS 5401 (Part 2): 2012/ ISO 4831: 2006	≥1 cfu/g or ml or per swab ≥10 cfu/g or per swab
		Yeast & Mould count	IS 5403: 1999 (RA 2013)	≥1 cfu/g or ml or per swab ≥10 cfu/g or per swab

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