

Laboratory National Collateral Management Services Limited, CommGrade-
Testing & Certification, B 60 (B), 3rd Cross, 1st Stage, Bommasandra,
Jigani Industrial Area, Bangalore, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6895

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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
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BIOLOGICAL TESTING

I.	FOOD AND AGRICULTURAL PRODUCTS			
1	Ready to Eat Foods	Aerobic Colony Count/ Bacterial Count/ Total Plate Count	IS: 5402:2012 ISO:4833(Part -1): 2013	≥10 CFU/g
			ISO:4833(Part-2): 2013	≥10CFU/g
			US FDA BAM-2001 (Chapter-3)	≥10CFU/g
		Yeast & Mould	IS:5403: 1999 RA 2009	≥10CFU/g
			ISO:21527(Part-1):2008	≥10CFU/g
			ISO:21527(Part-2):2008	≥10CFU/g
			US FDA BAM-2001 (Chapter-18)	≥10CFU/g
		<i>Escherichia coli</i> (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥10CFU/g
		<i>Escherichia coli</i> (Detection)	IS:5887(Part-1):1976 RA 2009/ ISO: 7251:2005	Present/Absent per 25g
		<i>Escherichia coli</i> (Enumeration MPN)	IS:5887 (Part-1):1976 RA 2009 / ISO: 7251:2005	0.3 to >110 MPN/g
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO: 4832:2006/ US FDA BAM-2002 (Chapter-4)	≥10 CFU/g
		Coliform	IS:5401(Part-2):2012/	0.3 to >110 MPN/g

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		(Enumeration MPN)	ISO: 4831: 2006	
			US FDA BAM-2002 (Chapter-4)	3 to >1100 MPN/g
		Coliform (Detection)	ISO: 4831: 2006	Present/Absent per g
		<i>Staphylococcus aureus</i> (Enumeration CFU)	IS:5887(Part-2):1976 RA 2009/ IS:5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):1999 US FDA BAM-2001 (Chapter-12)	≥10CFU/g
		<i>Staphylococcus aureus</i> (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888(Part-3):2003	Present/Absent per 25 g
		<i>Salmonella</i>	IS:5887(Part-3):1999 RA 2009/ ISO: 6579:2017/ US FDA BAM(Chapter-5)	Present/Absent per 25 g
		<i>Shigella</i>	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Detection)	ISO:11290(Part-1):2017/ IS:14988(Part-1):2001 RA 2012	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Enumeration CFU)	ISO:11290(Part-2):2017/ IS:14988(Part-2):2002 RA 2012	≥10 CFU/g
		<i>Bacillus cereus</i>	IS:5887(Part-6):2012/ ISO:7932:2004	≥10 CFU/g
		<i>Vibrio cholerae</i>	IS:5887(Part-5):1976	Present/Absent per

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			RA 2009	25 g
		<i>Vibrio parahaemolyticus</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci (Enumeration MPN)	IS:5887(Part-2):1976 RA 2009	0.3 to >110 MPN/g
		Enterobacteriaceae (Enumeration CFU)	ISO:21528:(Part-2):2017 IS/ISO 7402: 1993 RA 2007	≥10 CFU/g
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN/g
		Enterobacteriaceae (Detection)	ISO:21528(Part-1):2017	Present/Absent per 25 g
		<i>Clostridium perfringens</i>	ISO: 7937:2004	≥10 CFU/g
			IS 5887 Part 4: 1999 RA 2009	Present/Absent per 25 g
		Thermophilic anaerobic spore count (55°C)	APHA 5 th Edition: 2015 Chapter 27	Absent / Present per g / ml
		Mesophilic anaerobic spore formers	APHA 5 th Edition: 2015 Chapter 24	≥ 10 spores per g ≥ 1 spore per ml
		Mesophilic aerobic spore count	APHA 5 th Edition: 2015 Chapter 23	1 to 150000 spores / g
2.	Snacks & Instant	Aerobic Colony	IS: 5402:2012	≥10 CFU/g

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	Mixes	Count/ Bacterial Count/ Total Plate Count	ISO:4833(Part -1): 2013	
			ISO:4833(Part-2):2013	≥10CFU/g
			US FDA BAM-2001 (Chapter-3)	≥10CFU/g
		Yeast & Mould	IS:5403: 1999 RA 2009	≥10CFU/g
			ISO:21527(Part-1):2008	≥10CFU/g
			ISO:21527(Part-2):2008	≥10CFU/g
			US FDA BAM-2001 (Chapter-18)	≥10CFU/g
		<i>Escherichia coli</i> (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥10CFU/g
		<i>Escherichia coli</i> (Detection)	IS:5887(Part-1):1976 RA 2009/ ISO: 7251:2005	Present/Absent per 25 g
		<i>Escherichia coli</i> (Enumeration MPN)	IS:5887(Part-1):1976 RA 2009/ ISO: 7251:2005	0.3 to >110 MPN/g
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO: 4832:2006/ US FDA BAM-2002 (Chapter-4)	≥10CFU/g
		Coliform (Enumeration MPN)	IS:5401(Part-2):2012/ ISO: 4831: 2006	0.3 to >110 MPN/g
			US FDA BAM-2002 (Chapter-4)	3 to >1100 MPN/g
		Coliform (Detection)	ISO: 4831: 2006	Present/Absent per g
		<i>Staphylococcus</i>	IS:5887(Part-2):1976	≥10CFU/g

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		<i>aureus</i> (Enumeration CFU)	RA 2009/ IS:5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):1999 US FDA BAM-2001 (Chapter 12)	
		<i>Staphylococcus aureus</i> (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888(Part-3):2003	Present/Absent per 25 g
		<i>Salmonella</i>	IS:5887(Part-3):1999 RA 2009/ ISO: 6579:2017/ US FDA BAM(Chapter-5)	Present/Absent per 25 g
		<i>Shigella</i>	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Detection)	ISO:11290(Part-1):2017/ IS:14988(Part-1):2001 RA 2012	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Enumeration CFU)	ISO:11290(Part-2):2017/ IS:14988(Part-2):2002 RA 2012	≥10 CFU/g
		<i>Bacillus cereus</i>	IS:5887(Part-6):2012/ ISO:7932:2004	≥10 CFU/g
		<i>Vibrio cholerae</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		<i>Vibrio parahaemolyticus</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 g

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		Faecal Streptococci (Enumeration MPN)	IS:5887(Part-2):1976 RA 2009	0.3 to >110 MPN/g
		Enterobacteriaceae (Enumeration CFU)	ISO:21528:(Part-2):2017 IS/ISO 7402: 1993 RA 2007	≥10 CFU/g
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN/g
		Enterobacteriaceae (Detection)	ISO:21528(Part-1):2017	Present/Absent per 25 g
		<i>Clostridium perfringens</i>	ISO:7937:2004	≥10 CFU/g
			IS 5887 Part 4: 1999 RA 2009	Present/Absent per 25 g
		Thermophilic anaerobic spore count (55°C)	APHA 5 th Edition: 2015 Chapter 27	Absent / Present per g / ml
		Mesophilic aerobic spore count	APHA 5 th Edition: 2015 Chapter 23	1 to 150000 spores / g
		Mesophilic anaerobic spore formers	APHA 5 th Edition: 2015 Chapter 24	≥ 10 spores per g ≥ 1 spore per ml
3.	Canned & Processed foods	Aerobic Colony Count/ Bacterial Count/ Total Plate Count	IS: 5402:2012/ ISO:4833(Part-1):2013	≥10 CFU/g
			ISO:4833(Part-2):2013	≥10 CFU/g
			US FDA BAM-2001 (Chapter-3)	≥10 CFU/g
		Yeast & Mould	US FDA BAM-2001 (Chapter-18)	≥10 CFU/g

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			IS:5403:1999 RA 2009	≥10 CFU/g
			ISO:21527(Part-1):2008	≥10 CFU/g
			ISO 21527(Part-2):2008	≥10 CFU/g
		<i>Escherichia coli</i> (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥1 CFU/ml
		<i>Escherichia coli</i> (Detection)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	Present/Absent per 25 g
		<i>Escherichia coli</i> (Enumeration MPN)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	0.3 to >110 MPN/ml
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO:4832:2006/ US FDA BAM-2002 (Chapter-4)	≥10 CFU/g
		Coliform (Enumeration MPN)	IS:5401(Part-2):2012/ ISO:4831:2006	0.3 to >110 MPN/g
			US FDA BAM-2002 (Chapter-4)	3 to >1100 MPN/g
		Coliform (Detection)	ISO 4831:2006	Present/Absent per g
		<i>Staphylococcus aureus</i> (Enumeration CFU)	IS:5887(P-2)1976 RA 2009/ IS:5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):1999/ US FDA BAM-2001 (Chapter-12)	≥10 CFU/g

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		<i>Staphylococcus aureus</i> (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888(Part-3): 2003	Present/Absent per 25 g
		<i>Salmonella</i>	IS:5887(Part-3)1999 RA 2009/ ISO:6579:2017/ US FDA BAM (Chapter- 5)	Present/Absent per 25 g
		<i>Shigella</i>	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Detection)	ISO:11290(Part-1):2017/ IS:14988(Part-1):2001 RA 2012	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Enumeration CFU)	ISO:11290(Part-2):2017/ IS:14988(Part-2):2002 RA 2012	≥10 CFU/g
		<i>Bacillus cereus</i>	IS:5887(Part-6):2012/ ISO:7932:2004	≥10 CFU/g
		<i>Vibrio cholerae</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		<i>Vibrio parahaemolyticus</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci	IS:5887(Part-2):1976	0.3 to >110 MPN/g

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		(Enumeration MPN)	RA 2009	
		Enterobacteriaceae (Enumeration CFU)	ISO:21528(Part-2):2017 IS/ISO 7402:1993 RA 2007	≥10 CFU/g
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN/g
		Enterobacteriaceae (Detection)	ISO:21528(Part-1):2017	Present/Absent per 25 g
		<i>Clostridium perfringens</i>	ISO: 7937:2004	≥10 CFU/g
			IS 5887 Part 4: 1999 RA 2009	Present/Absent per 25 g
		Incubation Test	IS: 2860:1964 RA 2008/ US FDA BAM (Chapter-21A)	Passes / Fails
		Thermophilic anaerobic spore count (55°C)	APHA 5 th Edition: 2015 Chapter 27	Absent / Present per g / ml
		Mesophilic anaerobic spore formers	APHA 5 th Edition: 2015 Chapter 24	≥ 10 spores per g ≥ 1 spore per ml
		Mesophilic aerobic spore count	APHA 5 th Edition: 2015 Chapter 23	1 to 150000 spores / g
4.	Milk & Dairy products	Aerobic Colony Count/ Bacterial Count/ Total Plate Count	IS:5402:2012/ ISO:4833(Part-1):2013	≥10 CFU/g ≥1 CFU/ml
			ISO:4833(Part-2):2013	≥10 CFU/g ≥1 CFU/ml

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			US FDA BAM-2001 (Chapter-3)	≥10 CFU/g ≥1 CFU/ml
		Yeast & Mould	IS: 5403: 1999 RA 2009/ ISO:21527(Part-1):2008/ ISO:21527(Part-2):2008	≥10 CFU/g ≥1 CFU/ml
			US FDA BAM-2001 (Chapter-18)	≥10 CFU/g ≥1CFU/ml
		<i>Escherichia coli</i> (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥10 CFU/g ≥1 CFU/ml
		<i>Escherichia coli</i> (Detection)	IS:5887(Part-1):1976 RA 2009/ ISO: 7251: 2005	Present/Absent per 25 g/ml
		<i>Escherichia coli</i> (Enumeration MPN)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	0.3 to >110 MPN per g/ml
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO:4832: 2006/ US FDA BAM-2002 (Chapter-4)	≥10 CFU/g ≥1 CFU/ml
		Coliform (Enumeration MPN)	IS:5401(Part-2):2012/ ISO:4831:2006	0.3 to >110 MPN per g/ml
			US FDA BAM-2002 (Chapter-4)	3 to >1100 MPN per g/ml
		Coliform (Detection)	ISO:4831:2006	Present/Absent per g/ml
		<i>Staphylococcus aureus</i> (Enumeration CFU)	IS:5887(Part-2):1976 RA 2009/ IS:5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):1999 US FDA BAM-2001	≥10 CFU/g ≥1 CFU/ml

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			(Chapter-12)	
		<i>Staphylococcus aureus</i> (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888(Part-3):2003	Present/Absent per 25 g/ml
		<i>Salmonella</i>	IS:5887(Part-3):1999 RA 2009/ ISO:6579:2017/ US FDA BAM (Chapter-5)	Present/Absent per 25 g/ml
		<i>Shigella</i>	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 g/ml
		Lactic Acid Bacteria	ISO: 15214:1998 IS 16068: 2013	≥10 CFU/g ≥1 CFU/ml
		<i>Listeria monocytogenes</i> (Detection)	ISO:11290(Part-1):2017/ IS:14988(Part-1):2001 RA 2012	Present/Absent per 25 g/ml
		<i>Listeria monocytogenes</i> (Enumeration)	ISO:11290(Part-2):2017/ IS:14988(Part-2):2002 RA 2012	≥10 CFU/g ≥1 CFU/ml
		<i>Bacillus cereus</i>	IS:5887(Part-6):2012/ ISO:7932:2004	≥10 CFU/g ≥1 CFU/ml
		<i>Vibrio cholerae</i>	IS:5887(Part -5):1976 RA 2009	Present/Absent per 25 g/ml
		<i>Vibrio parahaemolyticus</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g/ml
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 g/ml
		Faecal Streptococci (Enumeration MPN)	IS:5887(Part-2):1976 RA 2009	0.3 to >110 MPN/g/ml
		Enterobacteriaceae	ISO:21528(Part-2):2017	≥10 CFU/g

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		(Enumeration cfu)	IS/ISO 7402: 1993 RA 2007	≥1 CFU/ml
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN per g/ml
		Enterobacteriaceae (Detection)	ISO:21528(Part-1):2017	Present/Absent per 25 g/ml
		Enterococcus (Enumeration CFU)	APHA 5 th Edition:2015 Chapter 10	≥10 CFU/g ≥1 CFU/ml
		<i>Clostridium perfringens</i>	ISO: 7937:2004	≥10 CFU/g ≥1 CFU/ml
			IS 5887 Part 4: 1999 RA 2009	Present/Absent per 25 g/ml
		Thermophilic anaerobic spore count (55°C)	APHA 5 th Edition: 2015 Chapter 27	Absent / Present per g / ml
		Mesophilic anaerobic spore formers	APHA 5 th Edition: 2015 Chapter 24	≥ 10 spores per g ≥ 1 spore per ml
		Mesophilic aerobic spore count	APHA 5 th Edition: 2015 Chapter 23	1 to 150000 spores per g / ml
5.	Cereal, Pulses and cereal products	Aerobic Colony Count/ Bacterial Count/ Total Plate Count	IS:5402 :2012 / ISO:4833(Part-1):2013	≥10 CFU/g
			ISO: 4833(Part-2):2013	≥10 CFU/g
			US FDA BAM-2001 (Chapter-3)	≥10 CFU/g
		Yeast & Mould	IS:5403:1999 RA 2009/ ISO:21527(Part-1):2008/	≥10 CFU/g

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			ISO 21527(Part-2):2008	
			US FDA BAM-2001 (Chapter-18)	≥10 CFU/g
		<i>Escherichia coli</i> (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥10 CFU/g
		<i>Escherichia coli</i> (Detection)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	Present/Absent per 25 g
		<i>Escherichia coli</i> (Enumeration MPN)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	0.3 to >110 MPN/g
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO:4832:2006/ US FDA BAM-2002 (Chapter-4)	≥10 CFU/g
		Coliform (Enumeration MPN)	IS:5401(Part-2):2012 / ISO:4831:2006	0.3 to >110 MPN/g
			US FDA BAM-2002 (Chapter-4)	3 to >1100 MPN/g
		Coliform (Detection)	ISO:4831:2006	Present/Absent per g
		<i>Staphylococcus aureus</i> (Enumeration CFU)	IS:5887(Part-2):1976 RA 2009/ IS:5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):1999/ US FDA BAM-2001 (Chapter-12)	≥10 CFU/g
		<i>Staphylococcus aureus</i> (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888 (Part-3):2003	Present/Absent per 25 g

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		<i>Salmonella</i>	IS:5887(Part-3):1999 RA 2009/ ISO:6579:2017/ US FDA BAM (Chapter-5)	Present/Absent per 25 g
		<i>Shigella</i>	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Detection)	ISO:11290(Part-1):2017/ IS:14988(Part-1):2001 RA 2012	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Enumeration CFU)	ISO:11290(Part-2):2017/ IS:14988(Part-2):2002 RA 2012	≥10 CFU/g
		<i>Bacillus cereus</i>	IS:5887(Part-6):2012/ ISO:7932:2004	≥10 CFU/g
		<i>Vibrio cholerae</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		<i>Vibrio parahaemolyticus</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci (Enumeration MPN)	IS:5887(Part-2):1976 RA 2009	0.3 to >110 MPN/g
		Enterobacteriaceae (Enumeration CFU)	ISO:21528(Part-2):2017 IS/ISO 7402: 1993 RA 2007	≥10 CFU/g
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN/g
		Enterobacteriaceae	ISO:21528(Part-1):2017	Present/Absent per

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		(Detection)		25 g
		<i>Clostridium perfringens</i>	ISO:7937:2004	≥10 CFU/g
			IS 5887 Part 4: 1999 RA 2009	Present/Absent per 25 g
		Thermophilic anaerobic spore count (55°C)	APHA 5 th Edition: 2015 Chapter 27	Absent / Present per g / ml
		Mesophilic anaerobic spore formers	APHA 5 th Edition: 2015 Chapter 24	≥ 10 spores per g ≥ 1 spore per ml
		Mesophilic aerobic spore count	APHA 5 th Edition: 2015 Chapter 23	1 to 150000 spores / g
6.	Jams, Juices, Sauces & Concentrates	Aerobic colony count/ Bacterial count/ Total Plate Count	IS:5402:2012/ ISO:4833(Part-1):2013	≥10 CFU/g
			ISO:4833(Part-2):2013	≥10 CFU/g
			US FDA BAM-2001 (Chapter-3)	≥10 CFU/g
		Yeast & Mould	IS:5403:1999 RA 2009/ ISO:21527(Part-1):2008/ ISO 21527(Part-2):2008	≥10 CFU/g
			US FDA BAM-2001 (Chapter-18)	≥10 CFU/g
		<i>Escherichia coli</i> (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥10 CFU/g
		<i>Escherichia coli</i> (Detection)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	Present/Absent per 25 g
		<i>Escherichia coli</i>	IS:5887(Part-1):1976	0.3 to >110 MPN/g

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		(Enumeration MPN)	RA 2009/ ISO:7251:2005	
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO:4832:2006/ US FDA BAM-2002 (Chapter-4)	≥10 CFU/g
		Coliform (Enumeration MPN)	IS:5401(Part-2):2012/ ISO:4831:2006	0.3 to >110 MPN/g
			US FDA BAM-2002 (Chapter-4)	3 to >1100 MPN/g
		Coliform	ISO:4831:2006	Present/Absent per g
		<i>Staphylococcus aureus</i> (Enumeration CFU)	IS:5887(Part-2):1976 RA 2009/ IS:5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):1999	≥10 CFU/g
		<i>Staphylococcus aureus</i> (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888(Part-3):2003	Present/Absent per 25 g
		<i>Salmonella</i>	IS:5887(Part-3):1999 RA 2009/ ISO:6579:2017/ US FDA BAM (Chapter- 5)	Present/Absent per 25 g
		<i>Shigella</i>	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Detection)	ISO:11290(Part-1):2017/ IS:14988 (Part-1):2001 RA 2012	Present/Absent per 25 g

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		<i>Listeria monocytogenes</i> (Enumeration)	ISO:11290(Part-2):2017/ IS:14988(Part-2):2002 RA 2012	≥10 CFU/g
		<i>Bacillus cereus</i>	IS:5887(Part 6):2012/ ISO:7932:2004	≥10 CFU/g
		<i>Vibrio cholerae</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		<i>Vibrio parahaemolyticus</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci (MPN)	IS:5887(Part-2):1976 RA 2009	0.3 to >110 MPN/g
		Enterobacteriaceae (Enumeration CFU)	ISO:21528(Part-2):2017 IS/ISO 7402: 1993 RA 2007	≥10 CFU/g
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN/g
		Enterobacteriaceae (Detection)	ISO:21528(Part-1):2017	Present/Absent per 25 g
		<i>Clostridium perfringens</i>	ISO:7937:2004	≥10 CFU/g
			IS 5887 Part 4: 1999 RA 2009	Present/Absent per 25 g
		Thermophilic anaerobic spore count (55°C)	APHA 5 th Edition: 2015 Chapter 27	Absent / Present per g / ml
		Mesophilic anaerobic spore	APHA 5 th Edition: 2015 Chapter 24	≥ 10 spores per g ≥ 1 spore per ml

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		formers		
		Mesophilic aerobic spore count	APHA 5 th Edition: 2015 Chapter 23	1 to 150000 spores per g/ml
		Thermophilic Flat sour Spore formers	APHA 5 th Edition: 2015, Chapter 26	≥ 5 spores / 10g
7.	Beverages (Alcoholic & Non-alcoholic)	Aerobic Colony Count/ Bacterial Count/ Total Plate Count	IS:5402:2012/ ISO:4833(Part-1):2013	≥1 CFU/ml
			ISO:4833(Part-2):2013	≥1 CFU/ml
			US FDA BAM-2001 (Chapter-3)	≥1 CFU/ml
		Yeast & Mould	IS:5403:1999 RA 2009/ ISO:21527(Part-1):2008/ ISO:21527(Part-2):2008	≥1CFU/ml
			US FDA BAM-2001 (Chapter18)	≥1 CFU/ml
		<i>Escherichia coli</i> (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥1 CFU/ml
		<i>Escherichia coli</i> (Detection)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	Present/Absent per 25 ml
		<i>Escherichia coli</i> (MPN)	IS:5887(Part-1):1976 RA 2009, ISO:7251:2005	0.3 to >110 MPN/ml
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO:4832:2006/ US FDA BAM-2002 (Chapter-4)	≥1CFU/ml
		Coliform (Enumeration MPN)	IS:5401(Part-2):2012/ ISO:4831:2006	0.3 to >110 MPN/ml

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			US FDA BAM-2002 (Chapter-4)	3 to >1100 MPN/ml
		Coliform (Detection)	ISO:4831:2006	Present/Absent per ml
		<i>Staphylococcus aureus</i> (Enumeration CFU)	IS:5887(Part-2):1976 RA 2009/ IS:5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):1999/ US FDA BAM-2001 (Chapter-12)	≥1 CFU/ml
		<i>Staphylococcus aureus</i> (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888(Part-3):2003	Present/Absent per 25 ml
		<i>Salmonella</i>	IS:5887(Part-3):1999 RA 2009/ ISO:6579:2017/ US FDA BAM (Chapter-5)	Present/Absent per 25ml
		<i>Shigella</i>	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 ml
		<i>Bacillus cereus</i>	IS:5887(Part-6):2012/ ISO:7932:2004	≥1 CFU/ml
		<i>Vibrio cholerae</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 ml
		<i>Vibrio parahaemolyticus</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 ml
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 ml
		Faecal Streptococci	IS:5887(Part-2):1976	0.3 to >110 MPN/ ml

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		(Enumeration MPN)	RA 2009	
		Enterobacteriaceae (Enumeration cfu)	ISO:21528(Part-2):2017 IS/ISO 7402: 1993 RA 2007	≥1 CFU/ml
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN/ ml
		Enterobacteriaceae (Detection)	ISO:21528(Part-1):2017	Present/Absent per 25 ml
		<i>Clostridium perfringens</i>	ISO:7937:2004	≥1 CFU/ml
			IS 5887 Part 4: 1999 RA 2009	Present/Absent per 25 ml
8.	Tea	Aerobic colony count/ Bacterial Count/ Total Plate Count	IS:5402:2012/ ISO:4833(Part-1):2013	≥10 CFU/g ≥1 CFU/ml
			ISO:4833(Part-2):2013	≥10 CFU/g ≥1 CFU/ml
			US FDA BAM-2001 (Chapter-3)	≥10 CFU/g ≥1 CFU/ml
		Yeast & Mould	IS:5403:1999 RA 2009/ ISO:21527(Part-1):2008/ ISO 21527(Part-2):2008	≥10 CFU/g ≥1 CFU/ml
			US FDA BAM-2001 (Chapter-18)	≥10 CFU/g ≥1 CFU/ml
		<i>Escherichia coli</i> (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥10 CFU/g ≥1 CFU/ml
		<i>Escherichia coli</i>	IS:5887(Part-1):1976	Present/Absent per

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		(Detection)	RA 2009/ ISO:7251:2005	25 g/ml
		<i>Escherichia coli</i> (MPN)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	0.3 to >110 MPN per g/ml
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO:4832:2006/ US FDA BAM-2001 (Chapter-4)	≥10 CFU/g ≥1 CFU/ml
		Coliform (Enumeration MPN)	IS:5401(Part-2):2012/ ISO:4831:2006	0.3 to >110 MPN per g/ml
			US FDA BAM-2002 (Chapter-4)	3 to >1100 MPN per g/ml
		Coliform (Detection)	ISO:4831:2006	Present/Absent per g/ml
		<i>Staphylococcus aureus</i> (Enumeration CFU)	IS:5887(Part-2):1976 RA 2009/ IS:5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):999 US FDA BAM-2001 (Chapter-12)	≥10 CFU/g ≥1 CFU/ml
		<i>Staphylococcus aureus</i> (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888(Part-3):2003	Present/Absent per 25 g/ml
		<i>Salmonella</i>	IS:5887(Part-3):1999 RA 2009/ ISO:6579:2017/ US FDA BAM (Chapter-	Present/Absent per 25 g/ml

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			5)	
		<i>Shigella</i>	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 g/ml
		<i>Listeria monocytogenes</i> (Detection)	ISO:11290(Part-1):2017/ IS:14988(Part-1):2001 RA 2012	Present/Absent per 25 g/ml
		<i>Listeria monocytogenes</i> (Enumeration)	ISO:11290(Part-2):2017/ IS:14988(Part-2): 2002 RA 2012	≥10 CFU/g ≥1 CFU/ml
		<i>Bacillus cereus</i>	IS:5887(Part-6):2012/ ISO:7932:2004	≥10 CFU/g ≥1 CFU/ml
		<i>Vibrio cholerae</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g/ml
		<i>Vibrio parahaemolyticus</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g/ml
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 g/ml
		Faecal Streptococci (Enumeration MPN)	IS:5887(Part-2):1976 RA 2009	0.3 to >110 MPN per g/ml
		Enterobacteriaceae (Enumeration CFU)	ISO:21528(Part-2):2017 IS/ISO 7402: 1993 RA 2007	≥10 CFU/g ≥1 CFU/ml
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN per g/ml
		Enterobacteriaceae (Detection)	ISO:21528(Part-1):2017	Present/Absent per 25 g/ml
		<i>Clostridium perfringens</i>	ISO:7937:2004	≥10 CFU/g ≥1 CFU/ml
			IS 5887 Part 4: 1999	Present/Absent per 25

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			RA 2009	g/ml
		Thermophilic anaerobic spore count (55°C)	APHA 5 th Edition: 2015 Chapter 27	Absent / Present per g / ml
		Mesophilic anaerobic spore formers	APHA 5 th Edition: 2015 Chapter 24	≥ 10 spores per g ≥ 1 spore per ml
		Mesophilic aerobic spore count	APHA 5 th Edition: 2015 Chapter 23	1 to 150000 spores per g/ml
9.	Coffee & Cocoa Products	Aerobic Colony Count/ Bacterial Count/ Total Plate Count	IS:5402:2012/ ISO:4833(Part-1):2013	≥10 CFU/g ≥1 CFU/ml
			ISO:4833(Part-2):2013	≥10 CFU/g ≥1 CFU/ml
			US FDA BAM-2001 (Chapter-3)	≥10 CFU/g ≥1 CFU/ml
		Yeast and Mould	IS:5403:1999 RA 2009/ ISO:21527(Part-1):2008/ ISO 21527(Part-2):2008	≥10 CFU/g ≥1 CFU/ml
			US FDA BAM-2001 (Chapter-18)	≥10 CFU/g ≥1 CFU/ml
		Escherichia coli (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥10 CFU/g ≥1 CFU/ml
		Escherichia coli (Detection)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	Present/Absent per 25 g/ml
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO:4832: 2006 US FDA BAM-2001	≥10 CFU/g ≥1 CFU/ml

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			(Chapter-4)	
		Coliform (Enumeration MPN)	IS:5401(Part-2):2012/ ISO:4831:2006	0.3 to >110 MPN per g/ml
			US FDA BAM-2002 (Chapter-4)	3 to >1100 MPN per g/ml
		Coliform (Detection)	ISO:4831:2006	Present/Absent per g/ml
		Staphylococcus aureus (Enumeration CFU)	IS:5887(Part-2):1976 RA 2009/ IS:5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):1999/ US FDA BAM-2001 (Chapter 12)	≥10 CFU/g ≥1 CFU/ml
		Staphylococcus aureus (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888(Part-3):2003	Present/Absent per 25 g/ml
		Salmonella	IS:5887(Part-3):1999 RA 2009/ ISO:6579:2017/ US FDA BAM (Chapter-5)	Present/Absent per 25 g/ml
		Shigella	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 g/ml
		Listeria monocytogenes (Detection)	ISO:11290(Part-1):2017/ IS:14988(Part-1):2001 RA 2012	Present/Absent per 25 g/ml
		Listeria monocytogenes (Enumeration)	ISO:11290(Part-2):2017/ IS:14988(Part-2):2002 RA 2012	≥10 CFU/g ≥1 CFU/ml
		Bacillus cereus	IS:5887(Part-6):2012/	≥10 CFU/g

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			ISO:7932:2004	≥1 CFU/ml
		Vibrio cholerae	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g/ml
		Vibrio parahaemolyticus	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g/ml
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 g/ml
		Faecal Streptococci (Enumeration MPN)	IS:5887(Part-2):1976 RA 2009	0.3 to >110 MPN per g/ml
		Enterobacteriaceae (Enumeration CFU)	ISO:21528(Part-2):2017 IS/ISO 7402: 1993 RA 2007	≥10 CFU/g ≥1 CFU/ml
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN per g/ml
		Enterobacteriaceae (Detection)	ISO:21528(Part-1):2017	Present/Absent per 25 g/ml
		Clostridium perfringens	ISO:7937:2004	≥10 CFU/g ≥1 CFU/ml
			IS 5887 Part 4: 1999 RA 2009	Present/Absent per 25 g/ml
		Thermophilic anaerobic spore count (55°C)	APHA 5 th Edition: 2015 Chapter 27	Absent / Present per g / ml
		Mesophilic anaerobic spore formers	APHA 5 th Edition: 2015 Chapter 24	≥ 10 spores per g ≥ 1 spore per ml
		Mesophilic aerobic spore count	APHA 5 th Edition: 2015 Chapter 23	1 to 150000 spores per g/ml
10.	Animal food &	Aerobic Colony	IS:5402:2012/ISO:4833	≥10CFU/g

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	feed	Count/ Bacterial Count/ Total Plate Count	(Part -1):2013	
			ISO:4833(Part-2):2013	≥10CFU/g
			US FDA BAM-2001 (Chapter-3)	≥10CFU/g
		Yeast & Mould	IS:5403:1999 RA 2009/ ISO:21527(Part-1):2008/ ISO:21527(Part-2):2008	≥10CFU/g
			US FDA BAM-2001 (Chapter-18)	≥10CFU/g
		Escherichia coli (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥10CFU/g
		Escherichia coli (Detection)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	Present/Absent per 25 g
		Escherichia coli (Enumeration MPN)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	0.3 to >110 MPN/g
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO:4832:2006/ US FDA BAM-2002 (Chapter-4)	≥10CFU/g
		Coliform (Enumeration MPN)	IS:5401(Part-2):2012/ ISO:4831:2006	0.3 to >110 MPN/g
			US FDA BAM-2002 (Chapter-4)	3 to >1100 MPN/g
		Coliform (Detection)	ISO:4831:2006	Present/Absent per g
		<i>Staphylococcus aureus</i>	IS:5887(Part-2):1976 RA 2009/	≥10CFU/g

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		(Enumeration CFU)	IS:5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):1999 US FDA BAM-2001 (Chapter 12)	
		<i>Staphylococcus aureus</i> (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888(Part-3):2003	Present/Absent per 25 g
		<i>Salmonella</i>	IS:5887(Part-3):1999 RA 2009/ ISO:6579:2017/ US FDA BAM(Chapter-5)	Present/Absent per 25 g
		<i>Shigella</i>	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Detection)	ISO:11290(Part-1):2017/ IS:14988(Part-1):2001 RA 2012	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Enumeration)	ISO:11290(Part-2):2017/ IS:14988(Part-2):2002 RA 2012	≥10CFU/g
		<i>Bacillus cereus</i>	IS:5887(Part-6):2012/ ISO:7932:2004	≥10CFU/g
		<i>Vibrio cholerae</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci (Enumeration MPN)	IS:5887(Part-2):1976 RA 2009	0.3 to >110 MPN/g
		Enterobacteriaceae	ISO:21528(Part-2):2017	≥10CFU/g

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		(Enumeration CFU)	IS/ISO 7402: 1993 RA 2007	
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN/g
		Enterobacteriaceae(Detection)	ISO:21528(Part-1):2017	Present/Absent per 25 g
		<i>Clostridium perfringens</i>	ISO:7937:2004	≥10 CFU/g
			IS 5887 Part 4: 1999 RA 2009	Present/Absent per 25 g
11.	Herbs, Spices & Condiments	Aerobic Colony Count/ Bacterial Count/ Total Plate Count	IS:5402:2012/ ISO:4833(Part-1):2013	≥10 CFU/g
			ISO:4833(Part-2):2013	≥10 CFU/g
			US FDA BAM-2001 (Chapter-3)	≥10 CFU/g
		Yeast & Mould	IS:5403:1999 RA 2009/ ISO:21527(Part-1):2008/ ISO:21527(Part-2):2008	≥10 CFU/g
			US FDA BAM-2001 (Chapter-18)	≥10 CFU/g
		<i>Escherichia coli</i> (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥10 CFU/g
		<i>Escherichia coli</i> (Detection)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	Present/Absent per 25 g
		<i>Escherichia coli</i>	IS:5887(Part-1):1976	0.3 to >110 MPN/g

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		(MPN)	RA 2009/ ISO:7251:2005	
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO:4832:2006	≥10 CFU/g
			US FDA BAM-2002 (Chapter-4)	≥10 CFU/g
		Coliform (Enumeration MPN)	IS:5401(Part-2):2012/ ISO:4831:2006	0.3 to >110 MPN/g
			US FDA BAM-2002 (Chapter 4)	3 to >1100 MPN/g
		Coliform (Detection)	ISO:4831:2006	Present/Absent per g
		<i>Staphylococcus aureus</i> (Enumeration CFU)	IS:5887(Part-2):1976 RA 2009/ IS:5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):1999/ US FDA BAM-2001 (Chapter-12)	≥10 CFU/g
		<i>Staphylococcus aureus</i> (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888(Part-3):2003	Present/Absent per 25 g
		<i>Salmonella</i>	IS:5887(Part-3):1999 RA 2009/ ISO:6579:2017/ US FDA BAM (Chapter- 5)	Present/Absent per 25 g
		<i>Shigella</i>	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 g
		<i>Listeria monocytogenes</i>	ISO:11290(Part-1):2017/ IS:14988(Part-1):2001	Present/Absent per 25 g

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		(Detection)	RA 2012	
		<i>Listeria monocytogenes</i> (Enumeration)	ISO:11290(Part-2):2017/ IS:14988(Part-2):2002 RA 2012	≥10 CFU/g
		<i>Bacillus cereus</i>	IS:5887(Part-6):2012/ ISO:7932:2004	≥10 CFU/g
		<i>Vibrio cholerae</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		<i>Vibrio parahaemolyticus</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci (MPN)	IS:5887(Part-2):1976 RA 2009	0.3 to >110 MPN/g
		Enterobacteriaceae (Enumeration CFU)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	≥10 CFU/g
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN/g
		Enterobacteriaceae (Detection)	ISO:21528(Part-1):2017	Present/Absent per 25 g
		<i>Clostridium perfringens</i>	ISO:7937:2004	≥10 CFU/g
			IS 5887 Part 4: 1999 RA 2009	Present/Absent per 25 g
		Thermophilic anaerobic spore count (55°C)	APHA 5 th Edition: 2015 Chapter 27	Absent / Present per g / ml
		Mesophilic	APHA 5 th Edition: 2015	≥ 10 spores per g

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		anaerobic spore formers	Chapter 24	≥ 1 spore per ml
		Mesophilic aerobic spore count	APHA 5 th Edition: 2015 Chapter 23	1 to 150000 spores / g
12.	Bakery & Confectionery	Total Plate Count	IS:5402:2012/ ISO:4833(Part-1):2013	≥10CFU/g
			ISO:4833(Part-2):2013	≥10CFU/g
			US FDA BAM-2001 (Chapter-3)	≥10CFU/g
		Yeast & Mould	IS:5403:1999 RA 2009/ ISO:21527(Part-1):2008/ ISO 21527(Part-2):2008	≥10CFU/g
			US FDA BAM-2001 (Chapter-18)	≥10CFU/g
		<i>Escherichia coli</i> (Enumeration CFU)	IS:5887(Part-1):1976 RA 2009	≥10CFU/g
		<i>Escherichia coli</i> (Detection)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	Present/Absent per 25 g
		<i>Escherichia coli</i> (MPN)	IS:5887(Part-1):1976 RA 2009/ ISO:7251:2005	0.3 to >110 MPN/g
		Coliform (Enumeration CFU)	IS:5401(Part-1):2012 / ISO:4832:2006/ US FDA BAM-2002 (Chapter-4)	≥10CFU/g
		Coliform (Enumeration MPN)	IS:5401(Part-2):2012/ ISO:4831:2006	0.3 to >110 MPN/g
			US FDA BAM-2002	3 to >1100 MPN/g

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			(Chapter-4)	
		Coliform (Detection)	ISO:4831:2006	Present/Absent per g
		<i>Staphylococcus aureus</i> (Enumeration CFU)	IS:5887(Part-2):1976 RA 2009/ IS: 5887(Part-8):2002 RA 2012/ ISO:6888(Part-1):1999/ US FDA BAM-2001 (Chapter-12)	≥10CFU/g
		<i>Staphylococcus aureus</i> (Detection)	IS:5887(Part-2):1976 RA 2009/ ISO:6888(Part-3):2003	Present/Absent per 25 g
		<i>Salmonella</i>	IS:5887(Part-3):1999 RA 2009/ ISO:6579:2017/ US FDA BAM (Chapter-5)	Present/Absent per 25 g
		<i>Shigella</i>	IS:5887(Part-7):1999 RA 2009	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Detection)	ISO:11290(Part-1):2017/ IS:14988(Part-1):2001 RA 2012	Present/Absent per 25 g
		<i>Listeria monocytogenes</i> (Enumeration)	ISO:11290(Part-2):2017/ IS:14988(Part-2):2002 RA 2012	≥10CFU/g
		<i>Bacillus cereus</i>	IS:5887(Part-6):2012/ ISO:7932:2004	≥10CFU/g
		<i>Vibrio cholerae</i>	IS:5887(Part-5):1976 RA 2009	Present/Absent per 25 g
		Vibrio	IS:5887(Part-5):1976	Present/Absent per

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		parahaemolyticus	RA 2009	25 g
		Faecal Streptococci	IS:5887(Part-2):1976 RA 2009	Present/Absent per 25 g
		Faecal Streptococci (Enumeration MPN)	IS:5887(Part-2):1976 RA 2009	0.3 to >110 MPN/g
		Enterobacteriaceae (Enumeration CFU)	ISO:21528(Part-2):2017 IS/ISO 7402: 1993 RA 2007	≥10CFU/g
		Enterobacteriaceae (Enumeration MPN)	ISO:21528(Part-1):2017 IS/ISO 7402: 1993 RA 2007	0.3 to >110 MPN/g
		Enterobacteriaceae (Detection)	ISO:21528(Part-1):2017	Present/Absent per 25 g
		Clostridium perfringens	ISO:7937: 2004	≥10 CFU/g
			IS 5887 Part 4: 1999 RA 2009	Present/Absent per 25 g
		Thermophilic anaerobic spore count (55°C)	APHA 5 th Edition: 2015 Chapter 27	Absent / Present per g / ml
		Mesophilic anaerobic spore formers	APHA 5 th Edition: 2015 Chapter 24	≥ 10 spores per g ≥ 1 spore per ml
		Mesophilic aerobic spore count	APHA 5 th Edition: 2015 Chapter 23	1 to 150000 spores / g

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<u>CHEMICAL TESTING</u>				
I.	FOOD AND AGRICULTURAL PRODUCTS			
1.	Milk & Dairy Products	Moisture	IS 11623: 2008 (RA 2013)	0.1% to 90%
		Milk fat	IS 11721: 2013 / IS 2802:1964 (RA 2011)	0.05 % to 30 %
		Milk solids not fat	IS 1479 (Part 2): 1961 (RA 2013)	1 % to 90 %
		Total Solids	AOAC (20th Edition) 925.10 32.2.03/ IS 11622: 1986 (RA 2013)/ IS 13334 (Part 1): 2014	1 % to 100 %
		Insolubility Index	IS 12759: 1989 (RA 2010)	0.1 ml to 1.0 ml
		Acidity of Milk	AOAC (20 th Edition) 947.0533.2.06	0.1 % to 5 %
		Milk Protein	IS 7219: 1973 (RA 2010)	1 % to 40 %
		Total Ash	IS 14433: 2007 (RA 2012)	1 % to 10 %
		Titrateable Acidity	IS 11766: 1986 (RA 2012)	0.1 % to 5 %
		Sugar	IS 6287: 1985 (RA 2010)	1% to 90%
2.	Cereal, Pulses & Cereal Products	Moisture	IS 4333 (Part 2): 2002 (RA 2012)/ IS 1009:1979 (RA 2010)/ IS 1010:1968 (RA 2010)/ IS 1155: 1968 (RA 2010)	1% to 20%
		Foreign Matter (Extraneous Matter)	IS 4333 (Part 1): 1996 (RA 2012)	0.1% to 20%
		Damaged Grains	IS 4333 (Part 1): 1996 (RA 2012)	0.1% to 15%
		Weevilled Grains	IS 4333 (Part 1): 1996 (RA 2012)	0.1% to 15%

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		Other food grains	IS 4333 (Part 1): 1996 (RA 2012)	0.1% to 15%
		Insect Damaged	IS 4333 (Part 1): 1996 (RA 2012)	0.1% to 15%
		Fragments	IS 4333 (Part 1): 1996 (RA 2012)	0.1% to 15%
		Brokens, Splits	IS 4333 (Part 1): 1996 (RA 2012)	0.1% to 15%
		Red grains	IS 4333 (Part 1): 1996 (RA 2012)	0.1% to 15%
		Kernals with husk	IS 4333 (Part 1): 1996 (RA 2012)	0.1% to 15%
		Green, Immature, Shrunken, Shrivelled Seeds	IS 4333 (Part 1): 1996 (RA 2012)	0.1% to 15%
		Varietal Admixture	IS 4333 (Part 1): 1996 RA 2012)	0.1% to 15%
		Total Ash	IS 1009:1979 (RA 2010)/ IS 1010:1968 (RA 2010)/ IS 1155: 1968 (RA 2010)	0.1% to 25%
		Acid insoluble ash	IS 1009:1979 (RA 2010)/ IS 1010:1968 (RA 2010)/ IS 1155: 1968 (RA 2010)	0.01% to 10%
		Crude fibre	IS 1155: 1968 RA 2010	0.5% to 50%
		Alcoholic acidity	IS 1009:1979 (RA 2010)/ IS 1010:1968 (RA 2010)/ IS 1155: 1968 (RA 2010)	0.01% to 10%
		Total fat	IS 12711: 1989 (RA 2010)	0.1% to 90%
		Protein	IS 7219: 1973 (RA 2010)	0.5% to 50%
		Gluten	IS 1009:1979 (RA 2010)/ IS 1010:1968 (RA 2010) / IS 1155: 1968 (RA 2010)	0.01% to 50%

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3.	Fruit and Vegetable products (Jams, Juices, Sauces & Concentrates)	Moisture	FSSAI Manual, Fruit and Vegetable products , 2016, Method No.4.1	0.1% to 90%
		Acidity as acetic acid	FSSAI Manual, Fruit and Vegetable products, 2016, Method No.2.4	0.1% to 10%
		Acidity as citric acid	FSSAI Manual , Fruit and Vegetable products , 2016, Method No.2.4	0.1% to 10%
		Benzoic acid	FSSAI Manual, Food Additives, 2016, Method No.2.1 &2.2	10mg/kg-1000mg/kg
		Total Ash	FSSAI Manual, Fruit and Vegetable products , 2016, Method No.11.3/ IS 13846:2009	0.1% to 20%
		Acid insoluble ash	FSSAI Manual, Fruit and Vegetable products , 2016, Method No.5.3/ IS 13846:2009	0.01% to 10%
		pH	IS 2860: 1964 RA 2008/ FSSAI Manual Fruit and Vegetable products , 2016, Method No.2.3	1 to 14
		Salt as NaCl	FSSAI Manual, Fruit and Vegetable products , 2016, Method No.1.7	0.1% to 50%
		Sugar	IS 6287: 1985 (RA 2010)	1% to 80%
		Protein	IS 7219: 1973 (RA 2010) / FSSAI Manual, Fruit and Vegetable products , 2016, Method No.14.9	0.1% to 50%
Fat	IS 12711: 1989 RA 2010	0.1% to 50%		

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4.	Tea	Moisture	IS 13853: 1994(RA 2009)	0.1% to 25%
		Total Ash	IS 13854 :1994 (RA 2009)/ AOAC (20th Edition) 900.02-D (900.02-E) 44.1.05/ IS 3633: 2003(RA 2008)	0.1% to 10%
		Water insoluble Ash	IS 13854 :1994 (RA 2009)/ AOAC (20th Edition) 900.02-B 44.1.05/ IS 3633: 2003 (RA 2008)	1 % to 50%
		Alkalinity of water soluble ash	IS 13856 :1993 (RA 2009)/ AOAC (20th Edition) 900.02-D (900.02-E) 44.1.05/ IS 3633: 2003(RA 2008)	0.1% to 5%
		Acid insoluble ash	IS 13857 :1993 (RA 2009)/ IS 3633: 2003 (RA 2008)	0.02 % to 5 %
		Water extract	IS 13862 :1999 (RA 2009)/ AOAC (20 th Edition) (920.104) 30.1.34/ IS 3633: 2003 (RA 2008)	0.1 % to 90 %
		Crude fibre	IS 10226: 1982 (2015)Part- 1/ IS 3633: 2003 (RA 2008)	1 % to 30 %
		Water soluble ash	IS 13854 :1994 (RA 2009)/ AOAC (20 th Edition) 900.02 B44.1.05/ IS 3633: 2003 (RA 2008)	1 % to 80%
		Petroleum ether extract	AOAC (20 th Edition) 920.97 ,30.1.17	0.1% to 5%
5.	Coffee & Cocoa Products	Moisture	IS 2791: 1992 (RA 2009)/ IS 3077: 1992 RA 2011	0.1 % to 10 %

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		Total Ash	IS 2791: 1992(RA 2009)/ IS 3077: 1992 RA 2011	1 % to 10 %
		Acid insoluble ash	IS 3077: 1992 (RA 2011)	0.01% to 10%
		Water soluble ash	IS 3077: 1992 RA 2011	0.1 % to 85%
		Alkalinity of soluble ash	IS 3077: 1992 RA 2011	0.05% to 10%
		Aqueous extracts	IS 3077: 1992 RA 2011	0.1 % to 90 %
		Solubility in boiling water	IS 2791: 1992(RA 2009)	Qualitative
		Sugar	IS 6287: 1985 (RA 2010)	1% to 60%
		Petroleum ether extract	IS 3077: 1992 (RA 2011)	0.1% to 50%
6.	Animal Food and Feeds	Moisture	IS 7874 (Part 1): 1975 (RA 2014)	0.5 % to 15%
		Acid insoluble ash (or) sand and silica	IS 7874 (Part 1): 1975 (RA 2014)	0.02 % to 10%
		Salt as NaCl	IS 7874 (Part 2): 1975 (RA 2009)	0.1 % to 5%
		Crude Fiber	IS 7874 (Part 1): 1975 (RA 2014)	0.1 % to 35%
		Oil Content	IS 7874 (Part 1): 1975 (RA 2014)	0.1 % to 10%
		Protein	IS 7874 (Part 1): 1975 (RA 2014)	0.1% to 50%
		Color	In Housel STP: CommGrade/L3-BNC- FOO-004 (Issue No: 01.0)	NA
		Total Ash	IS 7874 (Part 1): 1975 (RA 2014)	0.5 % to 10 %
7.	Herbs, Spices & Condiments	Volatile oil	IS 1797: 2017/FSSAI Manual, Spices and Condiments, 2016, Method No.10.0	0.1% to 10%

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		Alcohol soluble extract	IS 1797: 2017/FSSAI Manual, Spices and Condiments , 2016, Method No.7.0	0.1% to 50%
		Cold water soluble extract	IS 1797: 2017/ FSSAI Manual , Spices and Condiments , 2016, Method No.6.0	0.1% to 50%
		Piperine	FSSAI Manual, Spices and Condiments, 2016, Method No.14.3/ ASTA M. No. 12.1	0.5% to 20%
7a.	Chilli Whole	Extraneous matter	IS 2322: 2010	0.1 % to 10 %
		Unripe and marked fruits	IS 2322: 2010	0.1 % to 20 %
		Broken fruits, seed & fragments	IS 2322: 2010	0.1 % to 40 %
		Moisture	IS 1797: 2017	1 % to 20 %
		Total ash	IS 1797: 2017	0.01% to 50%
		Ash Insoluble in dil.HCL	IS 1797: 2017	0.01% to 10%
		Insect damaged matter	IS 2322: 2010	0.1 % to 20 %
		Free from moulds, insects	IS 2322: 2010	Present/Absent
		Odour and Flavour	IS 2322: 2010	Qualitative (Visual test)
		Mineral oil	IS 548 (P-2): 1976 RA 2010	Qualitative Present / Absent
7b.	Chilli powder	Moisture	IS 1797: 2017	0.1 % to 18 %
		Total Ash	IS 1797: 2017	0.1 % to 10 %
		Ash Insoluble in dil.HCL	IS 1797: 2017	0.02 % to 10 %
		Crude fibre	IS 1797: 2017	0.1 % to 40 %
		Non-volatile ether	IS 1797: 2017	0.1% to 20%

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		extract		
		Free from mould and dead insects	IS 2322: 2010	Qualitative (Visual test)
		Mineral oil	IS 548 (P-2): 1976 RA 2010	Present / Absent
7c.	Turmeric Whole	Extraneous matter	IS 1797: 2017	0.5% to 50%
		Defective rhizomes	IS 1797: 2017	0.5% to 50%
		Moisture	IS 1797:2017 /FSSAI Manual , Spices and Condiments , 2016, Method No.16.2	0.5 % to 50 %
		Insect damaged matter	IS 1797: 2017	0.5% to 50%
		Test for lead chromate	IS 3576: 2010/ FSSAI Manual, Spices and Condiments , 2016, Method No.16.6	Present/Absent
		Free from mould, living, dead insects	IS 2322: 2010	NA
7d.	Turmeric powder	Moisture	IS 1797: 2017/ FSSAI Manual, Spices and Condiments , 2016, Method No.16.2	0.5% to 20 %
		Total Ash	IS 1797: 2017/ FSSAI Manual , Spices and Condiments , 2016, Method No.16.3	0.5% to 10 %
		Acid insoluble ash	IS 1797: 2017/ FSSAI Manual , Spices and Condiments , 2016, Method No.16.3	0.02 % to 2.5 %
		Curcumin	IS 1797: 2017 /FSSAI Manual , Spices and Condiments ,2016, Method	0.5% to 10%

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			No.16.4/ ASTA M. No. 18	
		Total starch	FSSAI Manual , Spices and Condiments, 2016, Method No.16.5/ IS 4706: 1978 , P-2 (RA 2010)	1% to 80%
		Test for lead chromate	IS 3576: 2010/ FSSAI Manual , Spices and Condiments , 2016, Method No.16.6	Qualitative
		Free from mould, living & dead insects	IS 2322: 2010	Present/Absent
8.	Bakery & Confectionery Products			
	Bakery Products and Bread	Moisture	IS 12711: 1989 (RA 2010)	0.1% to 25%
		Alcoholic Acidity	IS 12711: 1989 (RA 2010)	0.01% to 10%
		Ash insoluble in dil. HCl	IS 12711: 1989 (RA 2010)	0.01% to 10%
		Total ash	IS 12711: 1989 (RA 2010)	0.1% to 20%
9.	Biscuits	Moisture	IS 1011: 2002 (RA 2009)	0.1% to 30 %
		Ash insoluble in dil. HCl	IS 1011: 2002 (RA 2009)	0.02% to 5 %
		Acidity of extracted fat	IS 1011: 2002 (RA 2009)	0.1% to 5%
		Total ash	IS 12711: 1989 (RA 2010)/ IS 1011: 2002 (RA 2009)	0.1% to 20%
10.	Chocolates	Moisture	IS 1008: 2004/ IS 6287:1985 (RA 2010) IS 1163:1992 (RA 2009)	0.5 % to 50%
		Total fat	IS 1163:1992 (RA 2009)	0.5 % to 50%

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		Milk fat	IS 1163:1992 (RA 2009)	0.5% to 50%
		Cocoa solids	IS 1163:1992 (RA 2009)	1% to 50%
		Milk Solids	IS 1163:1992 (RA 2009)	0.5% to 50%
		Acid insoluble ash	IS 1163:1992 (RA 2009) / IS 6287:1985 (RA 2010)/ IS 1163:1992 (RA 2009)	0.02 % to 5%
		Ash sulphated	IS 1008: 2004/ IS 6287:1985 (RA 2010)/ IS 1163:1992 (RA 2009)/ IS 7219: 1973 (RA 2010)	0.1 % to 10 %
		Total protein	IS 6287:1985 (RA 2010)/ IS 1163:1992 (RA 2009)	0.5 % to 50%
		Sucrose	IS 1008: 2004/ IS 6287:1985 (RA 2010)/ IS 1163:1992 (RA 2009)	1 % to 100%
		Reducing sugar	IS 1008: 2004/ IS 6287:1985 (RA 2010)/ IS 1163:1992 (RA 2009)	1 % to 50%
		Lactose	IS 1008: 2004// IS 6287:1985 (RA 2010)/ IS 1163:1992 (RA 2009)	1 % to 20%
		Total solids	IS 12711: 1989 RA 2010/ IS 1163:1992 (RA 2009)	0.1% to 100%
11.	Edible Vegetable Oils & Fats	Moisture	IS 548 (Part 1): 1964 (RA 2015) /FSSAI Manual, Oils and Fats , 2016, Method No.03	0.01 % to 5 %
		Iodine value	IS 548 (Part 1): 1964 (RA 2015)/FSSAI Manual,	5 to 200

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			Oils and Fats, 2016, Method No.12	
		Saponification value	IS 548 (Part 1):1964 (RA 2015) /FSSAI Manual, Oils and Fats , 2016, Method No.09	100 to 250
		Unsaponifiable matter	IS 548 (Part 1): 1964 (RA 2015) /FSSAI Manual, Oils and Fats , 2016, Method No.10	0.1 % to 5 %
		Acid value	IS 548 (Part 1): 1964 (RA 2015) /FSSAI Manual, Oils and Fats, 2016, Method No.11	0.1 to 10
		Test for argemone oil	IS 548 (Part 2): 1976 (RA 2010) /FSSAI Manual, Oils and Fats , 2016, Method No.30	Qualitative
		FFA	IS 548 (Part 1): 1964 (RA 2015) /FSSAI Manual , Oils and Fats , 2016, Method No.11	0.1 % to 5 %
		Peroxide value	IS 548 (Part 1): 1964 (RA 2015) /FSSAI Manual , Oils and Fats , 2016, Method No.38.1	0.1meq/Kg to 20 meq/Kg
		Insoluble impurities	IS 548 (Part 1): 1964 (RA 2015)	0.1 % to 5 %
		Specific gravity	IS 548 (Part 1): 1964 (RA 2015) /FSSAI Manual , Oils and Fats , 2016, Method No.04	0.6 to 1.4
		Baudouin test	IS 548 (Part 1): 1964 (RA 2015) /FSSAI Manual ,	Qualitative

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			Oils and Fats,2016,Method No.15	
		Mineral oil	IS 548 (Part 1): 1964 (RA 2015)	Qualitative
		Bellier turbidity test	IS 548 (Part 1): 1964 (RA 2015) /FSSAI Manual , Oils and Fats , 2016, Method No.14	5°C to 50°C
		Polenske value	IS 548 (Part 1): 1964 (RA 2015) /FSSAI Manual , Oils and Fats , 2016, Method No.13	1 to 30
		Rancidity test	IS 548 (Part 1): 1964 (RA 2015) /FSSAI Manual , Oils and Fats , 2016, Method No.38	Present / Absent
12.	Butter	Moisture	IS 3507 :1966 (RA 2013) /FSSAI Manual, Milk and Milk products, 2016, Method No.12.2	0.01% to 90%
		Milk fat	IS 3507 :1966 (RA 2013) /FSSAI Manual , Milk and Milk products , 2016, Method No.12.3	0.1% to 90%
		Milk solids not fat	IS 3507 :1966 (RA 2013)/FSSAI Manual , Milk and Milk products , 2016, Method No.12.3	0.1% to 50%
		Common salt	IS 3507 :1966 (RA 2013)/FSSAI Manual , Milk and Milk products , 2016, Method No.12.4	0.1% to 20%
13.	Canned & Processed Foods	Acidity as citric acid	IS 2860: 1964 RA 2008	0.1 % to 20 %
		Acidity as tartaric acid	IS 2860: 1964 RA 2008	0.1 % to 10 %

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14.	Oil Seeds (Castor Seeds, Mustard Seeds, Sesame Seeds, Sunflower Seeds, Ground Nuts, Cashew Nut, Soya Bean)	Moisture	IS 3579: 1966 (RA 2015)	1% to 10%
		Oil Content	IS 3579: 1966 (RA 2015)	30% to 60%
		Impurities (Foreign Matter), Shriveled and Damaged Seeds	IS 3579: 1966 (RA 2015)	0.1% to 10%
		Weevilled Seeds	IS 3579: 1966 (RA 2015)	0.1% to 10%
15.	Oil Cakes & De-Oiled Cakes	Moisture	IS 7874 (Part 1): 1975 (RA 2014)	1% to 15%
		Crude Protein	IS 7219: 1973 (RA 2010) / IS 7874 (Part 1): 1975 (RA 2014)	1% to 50%
		Oil Content / Crude Fat	IS 3579: 1966 (RA 2015)/ IS 7874 (Part 1): 1975 (RA 2014)	1% to 10%
		Total Ash, (On Dry Basis)	IS 7874 (Part 1): 1975 (RA 2014)	0.1% to 10%
		Acid Insoluble Ash (On Dry Basis)/Sand and Silica	IS 7874 (Part 1): 1975 (RA 2014)	0.025 to 4%
		Crude Fiber	IS 7874 (Part 1): 1975 (RA 2014)	1% to 40%
		Color	In House/ STP: CommGrade/L3-BNC-FOO-005 (Issue No: 01.0)	NA
		Insoluble Ash	IS 7874 (Part 1): 1975 (RA 2014)	0.02 % to 4 %
16.		Sugar and Sugar based Products	Sulphated Ash	IS 6287:1985 (RA 2010)/ IS 15279:2003 (RA 2013)
	Sucrose content		IS 6287:1985 (RA 2010)/	1% to 99%

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			S 15279:2003 (RA 2013)	
		Moisture/ (loss on drying)	IS 6287:1985 (RA 2010)/ IS 15279:2003 (RA 2013)	0.01 % to 10%
		Invert Sugar	AOAC (20th Edition) 923.09 44.1.15	1 % to 99 %
		Ash	IS 6287:1985 (RA 2010)	0.1% to 3%
		Sulphur Dioxide	IS 15279: 2003 (RA 2013)	1 mg/kg to 500 mg/kg
17.	Honey and Honey Products	Moisture	IS 4941: 1994	0.1 % to 40 %
		Specific Gravity at 27°C	IS 4941: 1994	1.3000 to 1.5000
		Total Reducing Sugars	IS 4941: 1994	1 % to 90 %
		Sucrose	IS 4941: 1994	0.1 % to 5 %
		Fructose-Glucose Ratio	IS 4941: 1994	0.5 to 1.5
		Ash	IS 4941: 1994	0.1 to 2%
		Acidity(Expressed As Formic Acid)	IS 4941: 1994	0.05 to 5%
		Optical Density at 660nm	IS 4941: 1994	0.1 % to 0.3 %
18.	Common Salt/ Iodized Salt, Vaccum Evaporated Iodized Salt and Refined Iodized Salt	Moisture	IS 7224: 2006 Annexure A / IS 253: 2014	0.1 % to 5 %
		Water Insoluble Matter	IS 7224: 2006 Annexure C / IS 253: 2014	0.1 to 1
		Chloride Content(as Nacl)	IS 7224: 2006 Annexure D / IS 253: 2014	95 % to 99.9 %
		Matter Soluble In Water Other than Sodium Chloride	IS 7224: 2006 Annexure E / IS 253: 2014	0.1 % to 10 %
		Calcium(as Ca)	IS 7224: 2006 Annexure F / IS 253: 2014	0.01 % to 0.1 %
		Magnesium(as Mg)	IS 7224: 2006 Annexure F/ IS 253: 2014	0.01 % to 0.1 %
		Sulphate (as SO ₄)	IS 7224: 2006 Annexure G/ IS 253: 2014	0.01 % to 0.2 %

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		Alkalinity as Na ₂ CO ₃	IS 7224: 2006 Annexure J / IS 253: 2014	0.01 % to 0.1 %
		Iodine Content (Manufacturer's Level/ Distribution Level)	IS 7224: 2006 Annexure H	1 mg/kg to 100 mg/kg

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