Laboratory	**Lilaba Analytical Laboratories, 2nd Floor, Galaxy Point Building, Sarthana Jakat Naka, Varachha Road, Surat, Gujarat**
Accreditation Standard	**ISO/IEC 17025: 2005**
Certificate Number	**TC-7179** **Page 1 of 74**
Validity	**20.10.2018 to 19.10.2020** **Last Amended on 03.11.2018**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		BIOLOGICAL TESTING		
I.	**WATER**			
1.	**Packaged Drinking Water, Packaged Natural Mineral Water, Drinking Water, Water, R.O. Water, Purified Water, Ground Water, Surface Water, Bore Water, Domestic Water**	Total Coliform	IS 1622	2 to 1600 MPN/100 ml Present/Absent/100 ml
		E. coli	IS 1622	2 to 1600 MPN/100 ml Present/Absent/100 ml
		E coli	IS 15185	Present/Absent/250 ml
		Coliform	IS 5401(Part 1) IS 15185	Present/Absent/250 ml
		Faecal Streptococci/Enterococci	IS 5887(Part 2) IS 15186	Present/Absent/250 ml
		Staphylococcus aureus	IS 5887(Part 2)	Present/Absent/250 ml
		Sulphite Reducing Anaerobes	IS 13428 (Annex C)	Present/Absent/50 ml
		Pseudomonas aeruginosa	IS 13428 (Annex D)	Present/Absent/250 ml
		Aerobic microbial Count/ml a) 37°C for 24 hrs b) 22°C for 72 hrs	IS 5402	≥1.0 cfu/ml
		Yeast and Mould	IS 5403	Present/Absent/250 ml
		Salmonella	IS 15187 IS 5887 (Part 3)	Present/Absent/250 ml
		Shigella	IS 5887(Part 7)	Present/Absent/250 ml
		Vibrio cholera	IS 5887(Part 5)	Present/Absent/250 ml
		Vibrio parahaemolyticus	IS 5887(Part 5)	Present/Absent/250 ml
2.	**Water for Swimming Pools**	Coliform Organisms	IS 1622	2 to 1600 MPN/100 ml Present/Absent/100 ml
		Standard Plate Count	IS 3328 (Annex A)	≥1.0 cfu/ml

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
3.	**Water for Food Processing Industries**	Coliform MPN index	IS 1622	2 to 1600 MPN/100 ml Present/Absent/100 ml
		Standard Plate count	IS 1622	≥1.0 cfu/ml
		Proteolytic Organisms	IS 4251	≥1.0 cfu/ml
		Lipolytic organisms	IS 4251	≥1.0 cfu/ml
		Thermophillic Bacteria	IS 4251	≥1.0 cfu/ml
II.	**FOOD & AGRICULTURAL PRODUCTS**			
1.	**Bakery Products & Confectionary Products: Cookies, Biscuits, Pastries, Bread, Sugar Boiled Confectionaries, Milk Toffee, Lozenge, Chewing Gum, Chocolate, Ice lollies,/Edible Ice, Canned Products**	Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm
		Total Bacterial Count	IS 5402	≥10 cfu/gm
		Yeast & Mould Count	IS 5403	≥10 cfu/gm
		Coliform Count	IS 5401 (Part 1)	≥10 cfu/gm
		E. coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm
		S. Aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥10 cfu/gm
		S. Aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm
2.	**Beverages:Alcoholic & Non-Alcoholic, Ready to Serve Fruit & Non Fruit Beverages, carbonated beverages, Soft Drinks, Beer, Wine, Vodka, Rum, Whisky, Brandy, Gin, Toddy, Canned Products, Non Carbonated Drinks**	Total bacterial count/Total Plate Count	IS 5402	≥1 cfu/ml or ≥10 cfu/gm
		Yeast & Mould count	IS 5403	≥1 cfu/ml or ≥10 cfu/gm
		Coliform count	IS 5401 (Part 1)	≥1 cfu/ml or ≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm/ml
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm/ml
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥1 cfu/ml or ≥10 cfu/gm
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm/ml
		Shigella	IS 5887 (Part 7)	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	& Beverages, Flavored Water			(Present/absent) in 25 gm/ml
		Flat Sour Organisms	FSSAI lab Manual 14:2012	≥1 cfu/ml or ≥10 cfu/gm
		Vibrio Cholerae	IS 5887 (Part 5)	Qualitative (Present/absent) in gm/ml
3.	**Canned and Processed Food:Canned Fruits, Canned Vegetables, Frozen Fruits, Frozen Vegetables, Frozen Fruit Pulp, Fruit Juices**	Total Plate Count	IS 5402	≥1 cfu/ml or ≥10 cfu/gm
		Yeast and Mould Count	IS 5403	≥1 cfu/ml or ≥10 cfu/gm
		Mould Count	FSSAI lab Manual 14:2012	Positive between 2 % to 100 % of the field examined
		Coliform Count	IS 5401 (Part 1)	≥1 cfu/ml or ≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm/ml
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm/ml
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥1 cfu/ml or ≥10 cfu/gm
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm/ml
		Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm/ml
4.	**Coffee and Cocoa Products Including green Coffee, Raw Coffee or Unroasted Coffee, Chicory, Cocoa Cake, Cocoa Powder, Cocoa Paste, Cocoa mass, Soluble Coffee Powder, Carob Powder, Cassia Tora Powder and**	Total Plate Count	IS 5402	≥1 cfu/ml or ≥10 cfu/gm
		Yeast and Mould Count	IS 5403	≥1 cfu/ml or ≥10 cfu/gm
		Coliform Count	IS 5401 (Part 1)	≥1 cfu/ml or ≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm/ml
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm/ml
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥1 cfu/ml or ≥10 cfu/gm
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm/ml
		Shigella	IS 5887 (Part 7)	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Whole, Carob Powder, Instant Coffee			(Present/absent) in 25 gm/ml
		Enterobactereriaceae	IS/ISO 7402	≥1 cfu/ml or ≥10 cfu/gm
		Clostridium Spp.	IS 5887 (Part 4)	Qualitative (Present/absent) in gm/ml
5.	**Food Additives and Preservatives**	Mould Counts	FSSAI lab Manual 14:2012	Positive between 2 % to 100 % of the field examined
6.	**Fruit and Fruit Products: Fruit Juices, Fruit Pulp, Thermally processed Fruits, Soup Powder, Dehydrated Fruits products, Salad, Fruit Chutney, Sauces, Pickles, Vinegar, Fruit Cereal Flakes, Frozen Fruits, Jellies and other Fruit Products.**	Total Plate Count	IS 5402	≥1 cfu/ml or ≥10 cfu/gm
		Yeast and Mould Count	IS 5403	≥1 cfu/ml or ≥10 cfu/gm
		Coliform Count	IS 5401 (Part 1)	≥1 cfu/ml or ≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm/ml
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm/ml
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥1 cfu/ml or ≥10 cfu/gm
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm/ml
		Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm/ml
		Mould Count	FSSAI lab Manual 14:2012	Positive between 2 % to 100 % of the field examined
		Yeast and Spores	FSSAI lab Manual 14:2012	Positive between 2 % to 100 % of the field examined
		Flat Sour Organisms	FSSAI lab Manual 14:2012	≥1 cfu/ml or ≥10 cfu/gm
		Vibrio Cholerae	IS 5887 (Part 5)	Qualitative (Present/absent) in gm/ml
7.	**Herbs, Spices and**	Total Plate Count	IS 5402	≥10 cfu/gm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Condiments:Whole, Ground and Mixed Spices, Caraway, Chili and Capsicum, Turmeric, Saffron, Coriander, Mace, Nutmeg, Cumin, Ajwain, Fennel/aniseed, Mustard, Pepper, Ginger, Dehydrated Onion, Dehydrated Garlic, Curry Powder, Mix Masala, Chana puri Masala, Pav Bhaji Masala, Cardamom, Cinnamon, Cassia, Cloves, Fenugreek, Asafetida, Basil, Celery, Mint, Poppy	Yeast and Mould Count	IS 5403	≥10 cfu/gm
		Coliform Count	IS 5401 (Part 1)	≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥10 cfu/gm
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm
		Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm
		Enterobactereriaceae	IS/ISO 7402	≥10 cfu/gm
		Clostridium Spp.	IS 5887 (Part 4)	Qualitative (Present/absent) in gm
		Bacillus Cereus	IS 5887 (Part 6)	≥10 cfu/gm
8.	**Infant Foods/ Weaning Foods/ Supplementary Foods.**	Total Plate Count	IS 5402	≥1 cfu/ml or ≥10 cfu/gm
		Yeast and Mould Count	IS 5403	≥1 cfu/ml or ≥10 cfu/gm
		Coliform Count	IS 5401 (Part 1)	≥1 cfu/ml or ≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm/ml
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm/ml
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥1 cfu/ml or ≥10 cfu/gm
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm/ml

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm/ml
		Listeria monocytogenes (Isolation)	IS 14988 (Part 1)	Qualitative (Present/absent) in gm/ml
		Listeria monocytogenes (Enumeration)	IS 14988 (Part 2)	≥1 cfu/ml or ≥10 cfu/gm
		Enterobacteriacea	IS/ISO 7402	≥1 cfu/ml or ≥10 cfu/gm
		Clostridium Spp.	IS 5887 (Part 4)	Qualitative (Present/absent) in gm/ml
		Bacillus cereus	IS 5887 (Part 6)	≥1 cfu/ml or ≥10 cfu/gm
9.	**Jams, Juices, Sauces and Concentrates**	Total Plate Count	IS 5402	≥1 cfu/ml or ≥10 cfu/gm
		Yeast and Mould Count	IS 5403	≥1 cfu/ml or ≥10 cfu/gm
		Coliform Count	IS 5401 (Part 1)	≥1 cfu/ml or ≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm/ml
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm/ml
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥1 cfu/ml or ≥10 cfu/gm
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm/ml
		Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm/ml
		Mould Count	FSSAI lab Manual 14:2012	Positive between 2 % to 100 % of the field examined
		Yeast and Spores	FSSAI lab Manual 14:2012	Positive between 2 % to 100 % of the field examined

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
10.	**Milk and Dairy Products: Liquid Milk, Raw Milk, Pasteurized Milk, Boiled Milk, Flavoured Milk, Sterilized Milk Cream, Malai, Dahi/Curd, Chhena/ Paneer, Cheese, Dairy based desserts/ Confections (Ice cream, Dried Ice cream mix/Dried frozen dessert, Frozen desserts/ confections, Milk lollies/Ice), Khoya/Mawa, Evaporated/Sweetened condensed Milk & Milk Products, Butter, Milk Fat/ Butter Oil, Chakka, Shrikhand, Fermented Milk Products (Yoghurt), Whey Products (Whey Powder, Acid Whey), Edible Casein Products, Dairy Based Drink, Butter Milk, Barfi, Peda, Gulab**	Total Plate Count	IS 5402	≥1 cfu/ml or ≥10 cfu/gm
		Yeast and Mould Count	IS 5403	≥1 cfu/ml or ≥10 cfu/gm
		Coliform Count	IS 5401 (Part 1)	≥1 cfu/ml or ≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm/ml
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm/ml
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥1 cfu/ml or ≥10 cfu/gm
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm/ml
		Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm/ml
		Listeria monocytogenes (Isolation)	IS 14988 (Part 1)	Qualitative (Present/absent) in gm/ml
		Listeria monocytogenes (Enumeration)	IS 14988 (Part 2)	≥1 cfu/ml or ≥10 cfu/gm
		Enterobacteriacea	IS/ISO 7402	≥1 cfu/ml or ≥10 cfu/gm
		Clostridium Spp.	IS 5887 (Part 4)	Qualitative (Present/absent) in gm/ml
		Bacillus cereus	IS 5887 (Part 6)	≥1 cfu/ml or ≥10 cfu/gm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Jamun, Rasgulla, Other Sweets, Canned Product, Ghee, Butter, Fat spread, Foods for Infant nutrition, Milk Powder and Baby Food (Infant Milk Substitutes, Milk-Cereal based complimentary food), Canned Product			
11.	**Nuts and Nut Products: Dates, Pistachio nuts, Raisins, Dry fruits and Nuts, Table olives, Desiccated coconut**	Total Plate Count	IS 5402	≥10 cfu/gm
		Flat Sour Organisms	FSSAI lab Manual 14:2012	≥1 cfu/ml or ≥10 cfu/gm
		S.aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm
		Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm
		E.coli	IS 5887 (Part 1)	Qualitative (Present/absent) in gm/ml
		Vibrio cholerae	IS 5887 (Part 5)	Qualitative (Present/absent) in gm/ml
12.	**Snacks and Instant mixes: Namkeen, Ready to Eat Food, Snacks, Sweets**	Total Plate Count	IS 5402	≥10 cfu/gm
		Yeast and Mould Count	IS 5403	≥10 cfu/gm
		Coliform Count	IS 5401 (Part 1)	≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥10 cfu/gm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm
		Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm
13.	**Tea and Tea Products Including Ice Tea, Herbal Tea, White and Red Tea, Masala Tea, Organic Tea, Green Tea, Ready to Drink Tea & Green Tea, Karanga Tea**	Total Plate Count	IS 5402	≥10 cfu/gm
		Yeast and Mould Count	IS 5403	≥10 cfu/gm
		Coliform Count	IS 5401 (Part 1)	≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥10 cfu/gm
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm
		Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm
		Enterobacteriacea	IS/ISO 7402	≥10 cfu/gm
		Clostridium Spp.	IS 5887 (Part 4)	Qualitative (Present/absent) in gm
		Bacillus cereus	IS 5887 (Part 6)	≥10 cfu/gm
14.	**Vegetables and Vegetable Products: Vegetables, Thermally Processed Vegetable Products, Dehydrated Vegetable Products, Soup Powders, Tomato Juices and Soups, Tomato Puree and**	Total Plate Count	IS 5402	≥1 cfu/ml or ≥10 cfu/gm
		Mould Count	FSSAI lab Manual 14:2012	Positive between 2 % to 100 % of the field examined
		Yeast and Spores	FSSAI lab Manual 14:2012	Positive between 2 % to 100 % of the field examined
		Yeast and Mould Count	IS 5403	≥1 cfu/ml or ≥10 cfu/gm
		Flat Sour Organisms	FSSAI lab Manual 14:2012	≥1 cfu/ml or ≥10 cfu/gm
		S.aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm/ml
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm/ml

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Paste, Tomato Ketchup and Tomato Sauce, Other Vegetable Products, Frozen Vegetable Products	Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm/ml
		E.coli	IS 5887 (Part 1)	Qualitative (Present/absent) in gm/ml
		Vibrio cholerae	IS 5887 (Part 5)	Qualitative (Present/absent) in gm/ml
15.	**Cereal, Pulses and Cereal Products: Cereal, Food Grains, Pulses and Seeds, Pearl Barley, Cereal Products (Atta, Fortified Atta, Protein Rich Paushtik Atta, Maida, Fortified Maida, Protein Rich Paushtik Maida, Semolina (Suji or Rawa), Besan, Corn Flour (Maize Starch), Corn Flakes, Custard Powder, Macaroni Products (Pasta, Spaghetti, Vermicelli), Malted Milk Food, Malt based foods, Canned Product Rolled Oats, Solvent Extracted Flours, Starchy foods (Arrowroot,**	Total Plate Count	IS 5402	≥10 cfu/gm
		Yeast and Mould Count	IS 5403	≥10 cfu/gm
		Coliform Count	IS 5401 (Part 1)	≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥10 cfu/gm
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm
		Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm
		Vibrio Cholerae	IS 5887 (Part 5)	Qualitative (Present/absent) in gm
		Vibrio Parahaemolyticus	IS 5887 (Part 5)	Qualitative (Present/absent) in gm
		Faecal streptococci	IS 15186	Qualitative (Present/absent) in gm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Sago), Ready to Eat Food including Chapati, Cooked & Curried Vegetable, dal			
16	**Proprietary Foods: Traditional Sweets and Snacks, Protein Rich Foods, Sattu, Peanut Butter, Pasta, Noodles**	Total Plate Count	IS 5402	≥10 cfu/gm
		Yeast and Mould Count	IS 5403	≥10 cfu/gm
		Coliform Count	IS 5401 (Part 1)	≥10 cfu/gm
		E-coli (Isolation)	IS 5887 (Part 1)	Qualitative (Present/absent) in gm
		Salmonella	IS 5887 (Part 3)	Qualitative (Present/absent) in 25 gm
		S. aureus (Enumeration)	IS 5887 (Part 8/Sec I)	≥10 cfu/gm
		S. aureus (Isolation)	IS 5887 (Part 2)	Qualitative (Present/absent) in gm
		Shigella	IS 5887 (Part 7)	Qualitative (Present/absent) in 25 gm

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

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

CHEMICAL TESTING

I.	**WATER**			
1.	**Packaged Drinking Water, Packaged Natural Mineral Water, Drinking Water, R.O Water, Surface/Potable Water, Domestic Water, Ground Water, Bore Water, Cooling Water**	Colour	IS 3025 (Part 4)	1 to 25 True Color Units
		Odour	IS 3025 (Part 5)	Qualitative
		Taste	IS 3025 (Part 8)	Qualitative
		Turbidity	IS 3025 (Part 10)	0.1 NTU to 100 NTU
		Total dissolved Solids	IS 3025 (Part 16)	6 mg/l to 5000 mg/l
		pH	IS 3025 (Part 11)	1 to 12
		Nitrate	IS 3025(Part 34)	1 mg/l to 100 mg/l
		Nitrite	IS 3025 (Part 34)	0.005 mg/l to 1 mg/l
		Fluoride	IS 3025 (Part 60)	0.5 mg/l to 6 mg/l
		Chloride	IS 3025 (Part 32)	1 mg/l to 2000 mg/l
		Sulphate	IS 3025(Part 24)	3 mg/l to 600 mg/l
		Alkalinity	IS 3025 (Part 23)	5 mg/l to 2000 mg/l
		Residual Free Chlorine	IS 3025 (Part 26)	0.1 mg/l to 2 mg/l
		Phenolic Compounds	IS 3025 (Part 43)	0.001 mg/l to 1 mg/l
		Mineral oil	IS 3025 (Part 39)	0.5 mg/l to 5 mg/l
		Anionic surface active agents	IS 13428 (Annex K)	0.2 mg/l to 2 mg/l
		Sulphide	IS 3025 (Part 29)	0.05 mg/l to 2 mg/l
		Borate	IS 3025 (Part 2)	0.5 mg/l to 20 mg/l
		Bromate	ISO 15061	0.005 mg/l to 0.1 mg/l
		Cyanide	IS 3025 (Part 27)	0.01 mg/l to 0.5 mg/l
		Total Hardness	IS 3025 (Part 21)	4 mg/l to 2000 mg/l
		Ammonia as N	IS 3025 (Part 34)	0.2 mg/l to 5 mg/l
		Chloramines	IS 3025 (Part 26)	1 mg/l to 10 mg/l
		Specific Conductivity at 25°C	IS 3025 (Part 14)	0.01 µmhos/cm to 2000 µmhos/cm
		Silica (as SiO_2)	IS 3025 (Part 35)	0.005 mg/l to 100 mg/l
		Acidity	IS 3025 (Part 22)	1 mg/l to 1000 mg/l
		Organic Solids	IS 3025 (Part 18)	1 mg/l to 2000 mg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Inorganic Solids	IS 3025 (Part 18)	1 mg/l to 4000 mg/l
		Suspended matter/Solids	IS 3025 (Part 17)	1 mg/l to 2000 mg/l
		Dissolved Oxygen	IS 3025 (Part 38)	1 mg/l to 8 mg/l
		Carbonate	IS 3025 (Part 51)	5 mg/l to 1000 mg/l
		Bicarbonate	IS 3025 (Part 51)	5 mg/l to 1000 mg/l
2.	**Swimming pool water**	Colour	IS 3025 (Part 4)	1 to 30 True Color Units
		Odour	IS 3025 (Part 5)	Qualitative
		Taste	IS 3025 (Part 8)	Qualitative
		Turbidity	IS 3025 (Part 10)	0.1 NTU to 100 NTU
		Total dissolved Solids	IS 3025 (Part 16)	50 mg/l to 5000 mg/l
		pH	IS 3025 (Part 11)	5.5 to 10.5
		Chloride	IS 3025 (Part 32)	10 mg/l to 1000 mg/l
		Alkalinity	IS 3025 (Part 23)	10 mg/l to 1000 mg/l
		Total Residual Chlorine	IS 3025 (Part 26)	0.1 mg/l to 2 mg/l
		Oxygen absorbed in 4 hours at 27 degree Celsius	IS 3025 (Part 63)	0.1 mg/l to 100 mg/l
		Clearness	IS 3328	Qualitative
3.	**Water for Processed food Industry**	Colour	IS 3025 (Part 4)	1 to 30 True Color Units
		Odour	IS 3025 (Part 5)	Qualitative
		Taste	IS 3025 (Part 8)	Qualitative
		Turbidity	IS 3025 (Part 10)	0.1 NTU to 100 NTU
		pH	IS 3025 (Part 11)	5.5 to 11.5
		Nitrate	IS 3025 (Part 34)	1 mg/l to 100 mg/l
		Fluoride	IS 3025 (Part 60)	0.2 mg/l to 5 mg/l
		Chloride	IS 3025 (Part 32)	5 mg/l to 400 mg/l
		Sulphate	IS 3025 (Part 24)	3 mg/l to 400 mg/l
		Alkalinity	IS 3025 (Part 23)	5 mg/l to 150 mg/l
		Phenolic Substances	IS 3025 (Part 43)	0.001 mg/l to 1 mg/l
		Total Hardness	IS 3025 (Part 21)	4 mg/l to 1000 mg/l
		Cyanide	IS 3025 (Part 27)	0.01 mg/l to 1 mg/l
		Total Solids	IS 3025 (Part 15)	20 mg/l to 2000 mg/l
4.	**Construction water**	pH	IS 3025 (Part 11)	4.0 to 14
		Chloride	IS 3025 (Part 32)	20 mg/l to 2500 mg/l
		Sulphate	IS 3025(Part 24)	5 mg/l to 600 mg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Alkalinity	IS 3025 (Part 23)	20 mg/l to 2000 mg/l
		Description	Organoleptic	Qualitative
		Acidity	IS 3025 (Part 22)	1 mg/l to 1000 mg/l
		Organic Solids	IS 3025 (Part 18)	1 mg/l to 2000 mg/l
		Inorganic Solids	IS 3025 (Part 18)	1 mg/l to 4000 mg/l
		Suspended matter	IS 3025 (Part 17)	1 mg/l to 2000 mg/l
5.	**Reagent Grade water, DM Water, DI Water, Distilled Water**	Description	IS 1070	Qualitative
		Specific Conductivity at 25˚C	IS 3025 (Part 14)	0.01 µmhos/cm to 2000 µmhos/cm
		pH at 25˚C	IS 3025 (Part 11)	2 to 12
		Total Solids or Non Volatile residue at 105˚C	IS 3025 (Part 15)	0.2 mg/l to 1000 mg/l
		Silica (as SiO_2)	IS 3025 (Part 35)	0.005 mg/l to 100 mg/l
		Colour retention of $KMnO_4$ at 25˚C	IS 1070 (Annex A)	Qualitative
6.	**Water for Storage Batteries**	Description	IS 1069	Qualitative
		Non-Volatile Residue	IS 1069 (Annex A-2)	0.2 mg/l to 1000 mg/l
		Chloride (as Cl)	IS 3025 (Part 32)	0.5 mg/l to 500 mg/l
		pH	IS 3025 (Part 11)	2 to 12
		Hardness (as $CaCO_3$)	IS 3025 (Part 21)	1 mg/l to 1000 mg/l
		Oxidizable Matter	IS 1069 (Annex A-3)	Present/Absent
		Specific Electrical Conductivity at 25˚C	IS 3025 (Part 14)	0.01 µmhos/cm to 2000 µmhos/cm
		Total Dissolved Solids	IS 3025 (Part 16)	1 mg/l to 1000 mg/l
7.	**Water for Textile Industry**	Corrosivity	IS 201 (Annex A)	Present/Absent
		Odour	IS 3025 (Part 5)	Qualitative
		Colour	IS 3025 (Part 4)	1 Hazen to 100 Hazen
		Turbidity	IS 3025 (Part 10)	0.5 NTU to 200 NTU
		pH	IS 3025 (Part 11)	2 to 12
		Total Hardness (as $CaCO_3$)	IS 3025 (Part 21)	1 mg/l to 1000 mg/l
		Sulphate (as SO_4)	IS 3025 (Part 24)	3 mg/l to 100 mg/l
		Chloride (as Cl)	IS 3025 (Part 32)	0.5 mg/l to 500 mg/l
		Total Alkalinity (as $CaCO_3$)	IS 3025 (Part 23)	1 mg/l to 500 mg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
8.	**Purified Water**	Acidity	IP 2014 (Purified Water)	Present/Absent
		Alkalinity	IP 2014 (Purified Water)	Present/Absent
		Nitrates (As NO_3)	IP 2014 (Purified Water)	Present/Absent
		Conductivity	IP 2014 (Method 2.4.9)	0.05 µs/cm to 500 µs/cm
		Total Organic Carbon	IP 2014 (Method 2.4.30)	0.25 mg/l to 100 mg/l
		Oxidizable Substances	IP 2014 (Purified Water)	Qualitative
9.	**Sterile Water for Injections**	Description	IP 2014 (Sterile Water for Injections)	Qualitative
		Appearance	IP 2014 (Method 2.4.1)	Qualitative
		Acidity	IP 2014 (Sterile Water for Injections)	Qualitative
		Alkalinity	IP 2014 (Sterile Water for Injections)	Qualitative
		Ammonia (as NH_4)	IP 2014 (Sterile Water for Injections)	Qualitative
		Chlorides (as Cl)	IP 2014 (Sterile Water for Injections)	0.5 mg/l to 200 mg/l
		Nitrates (As NO_3)	IP 2014 (Sterile Water for Injections)	Qualitative
		Oxidizable Substances	IP 2014 (Sterile Water for Injections)	Qualitative
		Residue on Evaporation	IP 2014 (Sterile Water for Injections)	0.5 mg/l to 200 mg/l
		Particulate Contamination	IP 2014 (Method 2.5.9)	Qualitative
		Sulphates	IP 2014 (Sterile Water for Injections)	Qualitative
10.	**Water for Injections in Bulk**	Description	IP 2014 (Water for Injections)	Qualitative
		Total Organic Carbon	IP 2014 (Method 2.4.30)	0.25 mg/l to 100 mg/l
		Conductivity	IP 2014 (Method 2.4.9)	0.05 µs/cm to 500 µs/cm
		Acidity	IP 2014 (Water for Injections)	Qualitative
		Alkalinity	IP 2014 (Water for Injections)	Qualitative
		Nitrates (As NO_3)	IP 2014 (Water for Injections)	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
II.	**RESIDUE IN WATER**			
A.	**Trace Metal Elements**			
1.	**Packaged Drinking Water, Packaged Natural Mineral Water, Drinking Water, R.O Water, Surface/Potable Water, Domestic Water, Ground Water, Bore Water, Cooling Water**	Barium	IS 3025 (Part 2)	0.1 mg/l to 50 mg/l
		Copper	IS 3025 (Part 2)	0.025 mg/l to 5 mg/l
		Iron	IS 3025 (Part 2)	0.05 mg/l to 5 mg/l
		Manganese	IS 3025 (Part 2)	0.05 mg/l to 5 mg/l
		Zinc	IS 3025 (Part 2)	0.5 mg/l to 30 mg/l
		Silver	IS 3025 (Part 2)	0.005 mg/l to 5 mg/l
		Aluminium	IS 3025 (Part 2)	0.025 mg/l to 2 mg/l
		Selenium	IS 3025 (Part 2)	0.01 mg/l to 2 mg/l
		Calcium	IS 3025 (Part 40)	2 mg/l to 300 mg/l
		Magnesium	IS 3025 (Part 46)	2 mg/l to 200 mg/l
		Sodium	IS 3025 (Part 2)	1 mg/l to 300 mg/l
		Antimony	IS 3025 (Part 2)	0.005 mg/l to 0.5 mg/l
		Mercury	USEPA 200.7 (Revision 4.4)	0.0005 mg/l to 0.05 mg/l
		Cadmium	IS 3025 (Part 2)	0.001 mg/l to 0.2 mg/l
		Arsenic (as As)	IS 3025 (Part 2)	0.002 mg/l to 0.200 mg/l
		Lead	IS 3025 (Part 2)	0.01 mg/l to 0.5 mg/l
		Chromium(as Cr)	IS 3025 (Part 2)	0.025 mg/l to 1 mg/l
		Nickel	IS 3025 (Part 2)	0.01 mg/l to 0.5 mg/l
		Molybdenum	IS 3025 (Part 2)	0.02 mg/l to 1 mg/l
2.	**Swimming Pool Water**	Iron	IS 3025 (Part 2)	0.05 mg/l to 5 mg/l
		Aluminium	IS 3025 (Part 2)	0.05 mg/l to 1 mg/l
		Heavy Metals (as Pb)	IS 7017:1973	0.05 mg/l to 5 mg/l
3.	**Water for Processed Food Industry**	Copper	IS 3025 (Part 2)	0.02 mg/l to 5 mg/l
		Iron	IS 3025 (Part 2)	0.05 mg/l to 3 mg/l
		Manganese	IS 3025 (Part 2)	0.05 mg/l to 2 mg/l
		Zinc	IS 3025 (Part 2)	0.5 mg/l to 50 mg/l
		Selenium	IS 3025 (Part 2)	0.01 mg/l to 2 mg/l
		Calcium	IS 3025 (Part 40)	2 mg/l to 200 mg/l
		Magnesium	IS 3025 (Part 46)	2 mg/l to 150 mg/l
		Mercury	USEPA 200.7 (Revision 4.4)	0.0005 mg/l to 0.03 mg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Cadmium	IS 3025 (Part 2)	0.002 mg/l to 0.2 mg/l
		Arsenic (as As)	IS 3025 (Part 2)	0.01 mg/l to 1 mg/l
		Lead	IS 3025 (Part 2)	0.01 mg/l to 1 mg/l
		Chromium (as Cr)	IS 3025 (Part 2)	0.025 mg/l to 1 mg/l
		Chromium (as Hexavalent Chromium)	IS 3025 (Part 52	0.05 mg/l to 10 mg/l
4.	**Water for Storage Batteries**	Heavy Metals (as Pb)	IS 3025 (Part 2)	0.01 mg/l to 100 mg/l
		Iron and Manganese added Together	IS 3025 (Part 2)	0.1 mg/l to 1000 mg/l
5.	**Water for Textile Industry**	Iron (as Fe)	IS 3025 (Part 2)	0.05 mg/l to 100 mg/l
		Manganese (as Mn)	IS 3025 (Part 2)	0.05 mg/l to 100 mg/l
		Iron and Manganese added Together	IS 3025 (Part 2)	0.1 mg/l to 200 mg/l
		Aluminium (as Al)	IS 3025 (Part 2)	0.01 mg/l to 100 mg/l
6.	**Purified Water**	Heavy Metals (as Pb)	IS 3025 (Part 2)	0.01 mg/l to 10 mg/l
		Aluminium	IS 3025 (Part 2)	0.01 mg/l to 100 mg/l
7.	**Sterile Water for Injections**	Calcium	IP 2014 (Sterile Water for Injections)	0.8 mg/l to 100 mg/l
		Magnesium	IP 2014 (Sterile Water for Injections)	0.5 mg/l to 100 mg/l
		Heavy Metals (as Pb)	IS 3025 (Part 2)	0.01 mg/l to 10 mg/l
8.	**Water for Injections in Bulk**	Aluminium	IS 3025 (Part 2)	0.01 mg/l to 100 mg/l
B.	**Polychlorinated Biphenyl (PCB)**			
1.	**Packaged Drinking Water, Packaged Natural Mineral Water, Drinking Water, R.O Water, Surface/Potable Water, Domestic Water, Ground Water, Bore Water, Cooling Water**	2,4,4'-Trichlorobiphenyl	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6431) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		2,2',5,5'-Tetrachlorobiphenyl	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6431) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		2,2',3,4,4',5'-Hexachlorobiphenyl	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6431) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		2,2',4,4',5,5'-Hexachlorobiphenyl	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6431) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		2,2',3,4,4',5,5'-Heptachlorobiphenyl	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6431) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		2,6-Dichlorobiphenyl	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6431) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
C.	**Poly Aromatic hydrocarbons (PAH)**			
1.	**Packaged Drinking Water, Packaged Natural Mineral Water, Drinking Water, R.O Water, Surface/Potable Water, Domestic Water, Ground Water, Bore Water, Cooling Water**	Naphthalene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Acenaphthylene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Acenaphthene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Fluorene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Anthracene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Phenantherene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Fluoranthene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Pyrene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Benz[a]anthracene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Chrysene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Benzo[b]fluoranthene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Benzo[k]fluoranthene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Benzo[a]pyrene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Benzo[g,h,i]perylene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Dibenz[a,h]anthracene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
		Indeno[1,2,3-cd]pyrene	LAL/CHEM/SOP/WT/GC/2 Issue No: 01 (Ref. APHA 6440) Issue Date:02/11/2015	0.00005 mg/l to 0.1 mg/l
D.	**Pesticide Residues**			
1.	**Packaged Drinking Water, Packaged Natural Mineral Water, Drinking Water, R.O Water,**	α HCH	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		β HCH	LAL/CHEM/SOP//WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Surface/Potable Water, Domestic Water, Ground Water, Bore Water, Cooling Water	γ HCH (Lindane)	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		δ HCH	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		Aldrin	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 525.2) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		op DDE	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		β-Endosulfan	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		Dieldrin	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 525.2) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		pp DDE	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		pp DDD	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		α Endosulfan	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		op DDD	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		op DDT	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Endosulfan sulfate	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		pp DDT	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 508) Issue Date:15/12/2015	0.01 µg/l to 50 µg/l
		Alachlor	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 525.2) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l
		Butachlor	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 525.2) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l
		2,4-D	LAL/CHEM/SOP/WT/LC/2 Issue No: 01 (Ref. USEPA 515.1) Issue Date:15/12/2015	0.1 µg/l to 50 µg/l
		Monocrotophos	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 8141A) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l
		Phorate	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 8141A) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l
		Atrazine	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 525.2) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l
		Paraoxon methyl	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 8141A) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l
		Parathion methyl	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 8141A) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Isoproturon	LAL/CHEM/SOP/WT/LC/2 Issue No: 01 (Ref. USEPA 515.1) Issue date:15/12/2015	0.1 µg/l to 50 µg/l
		Phorate sulphone	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 8141A) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l
		Phorate Sulfoxide	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 8141A) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l
		Malaoxon	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 8141A) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l
		Malathion	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 8141A) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l
		Ethion	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 8141A) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l
		Chlorpyriphos	LAL/CHEM/SOP/WT/GC/3 Issue No: 01 (Ref. USEPA 525.2, 8141A) Issue Date:15/12/2015	0.04 µg/l to 50 µg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
III.	**FOOD & AGRICULTURE PRODUCTS**			
A.	**Milk and Dairy Products**			
1.	**Liquid Milk, Raw Milk, Pasteurized Milk, Boiled Milk, Flavored Milk, Sterilized Milk, Full Cream Milk, Standardized Milk, Toned Milk, Skimmed Milk**	Cane Sugar	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.1	Qualitative
				1 % to 50 %
		Starch	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.2	Qualitative
				1 % to 50 %
		Cellulose	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.3	Qualitative
		Added Urea	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.4.1	Qualitative
		Ammonium Compounds	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.5.1	Qualitative
		Sulphates	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.6	Qualitative
		Added Glucose	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.7.1	Qualitative
		Sodium Chloride	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.8	Qualitative
		Nitrates	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.10	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Neutralizers	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.11	Qualitative
		Hypochlorites and Chloramines	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.12.1	Qualitative
		Quaternary Ammonium Compounds	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.13	Qualitative
		Anionic Detergent	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.14	Qualitative
		Skimmed milk Powder	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.15	Qualitative
		Gelatine	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.16	Qualitative
		Formalin	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.17	Qualitative
		Hydrogen Peroxide	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.18	Qualitative
		Boric Acid and Borates	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.19	Qualitative
		Salicylic acid	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.2.20	Qualitative
		Alkaline Phosphatase	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.3.1	10 ppm to 1000 ppm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Turbidity Test	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.3.2	Qualitative
		Total Solids	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.3.3	0.5 % to 50 %
		Fat	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.3.4.2 Rose-Gottlieb Method	0.5 % to 50 %
			FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 1.3.4.3 Acid Digestion Method	0.5 % to 50 %
		Solid Not Fat	IS 10083	1 % to 50 %
		B.R at 40˚C of extracted fat	IS 1479 (Part-1)	35 to 50
		Vegetable oil/Foreign Fat	IS 1479 (Part-1)	Qualitative
		pH	IS 1479 (Part-1)	2 to 12
		Clot On Boiling	IS 1479 (Part-1)	Qualitative
		Alcohol Test	IS 1479 (Part-1)	Qualitative
		Alcohol Alizarin Test	IS 1479 (Part-1)	Qualitative
		Acidity	IS 1479 (Part-1)	0.1 % to 20 %
		Freezing Point	IS 1479 (Part-4)	(-) 5 °C to 5 °C
		Density	IS 1479 (Part-1)	0.5 g/ml to 1.5 g/ml
		Ratio of Solid not Fat:Fat	IS 1479 (Part-1)	0.1 to 10
		Determination of Skimming	IS 1479 (Part-1)	Qualitative
		Determination of Milk mixed with Separated milk or Skim Milk	IS 1479 (Part-1)	Qualitative
		Extraneous Water	IS 1479 (Part-1)	Qualitative
		Benzoic Acid	IS 1479 (Part-1)	Qualitative
		Moisture	AOAC 990.19 (19th edition)	1 % to 95 %
		Total Ash	AOAC 945.46 (19th edition)	0.1 % to 10 %
		Protein	IS 7219	0.5 % to 50 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Sugar	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 9.4.1	1 % to 50 %
		Carbohydrate	IS 1656	0.5 % to 25 %
		Energy	FAO Chap 3, Method 3.5	2 Kcal/100g to 500 Kcal/100g
		Cadmium (Cd)	FSSAI Manual of Methods, 2016 Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Manganese (Mn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 50 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Aluminium (Al)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Calcium (Ca)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Iron (Fe)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	1.0 mg/kg to 100 mg/kg
		Potassium (K)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Magnesium (Mg)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Molybdenum (Mo)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Sodium (Na)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Phosphorous (P)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
		Selenium (Se)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
2.	**Curd, Chakka, Shrikhand**	Total solids	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 4.4	0.5 % to 95 %
		Starch	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 2.3.1	Qualitative
		Fat	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 4.2	0.5 % to 99 %
		Protein	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 3.4	0.5 % to 50 %
		Total Ash	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 14.6	0.1 % to 50 %
		Carbohydrate	IS 1656	0.1 % to 90 %
		Energy	FAO Chap 3, Method 3.5	10 Kcal/100gm to 890 Kcal/100gm
		Titrable Acidity	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 9.5	0.1 % to 10 %
3.	**Cream, including sterilized cream, whipped cream and Malai**	Fat	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 2.2	0.5 % to 99 %
		Starch	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 2.3.1	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Carbohydrate	IS 1656	0.1 % to 90 %
		Energy	FAO Chap 3, Method 3.5	10 Kcal/100gm to 890 Kcal/100gm
		Protein	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 19.0	0.5 % to 50 %
		Acidity as Lactic acid	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 14.5	0.05 % to 10 %
4.	**Cream Powder**	Moisture	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 3.2	0.1 % to 90 %
		Fat content	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 3.3	0.5 % to 99 %
		Milk Protein in milk solids	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 3.4	0.5 % to 50 %
		Carbohydrate	IS 1656	0.1 % to 90 %
		Energy	FAO Chap 3, Method 3.5	10 Kcal/100gm to 890 Kcal/100gm
5.	**Chhanna or Paneer**	Moisture	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 5.2	0.1 % to 90 %
		Fat	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 5.3	0.5 % to 99 %
		Starch	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 5.4	Qualitative
		Protein	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 3.4	0.5 % to 50 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Total Ash	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 14.6	0.1 % to 50 %
		Carbohydrate	IS 1656	0.1 % to 90 %
		Energy	FAO Chap 3, Method 3.5	10 Kcal/100gm to 890 Kcal/100gm
6.	**Cheese (All varieties)**	Moisture	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 6.2	0.1 % to 90 %
		Fat	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 6.3	0.5 % to 99 %
		Protein	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 3.4	0.5 % to 50 %
		Total Ash	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 14.6	0.1 % to 50 %
		Carbohydrate	IS 1656	0.1 % to 90 %
		Energy	FAO Chap 3, Method 3.5	10 Kcal/100gm to 890 Kcal/100gm
7.	**Ice cream, Softy Ice cream, chocolate ice cream, kulfi, milk ices or milk lollies and frozen dessert/confection**	Total solids	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 7.2	0.5 % to 95 %
		Weight/Volume or Over run	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 7.3	200 gms/l to 1500 gms/l
		Fat	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 7.4	0.5 % to 99 %
		Protein	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 7.5	0.5 % to 50 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Total Ash	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 14.6	0.1 % to 50 %
		Added Starch	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 7.6	Qualitative
		Carbohydrate	IS 1656	0.1 % to 90 %
		Energy	FAO Chap 3, Method 3.5	10 Kcal/100gm to 890 Kcal/100gm
8.	**Condensed and Evaporated Milk**	Milk solids	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 9.1	0.5 % to 95 %
		Moisture	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 6.2	0.1 % to 90 %
		Total Reducing Sugar	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 9.4	0.5 % to 50 %
		Sucrose	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 9.4.1	0.5 % to 90 %
		Fat	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 9.3	0.5 % to 99 %
		Protein	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 9.6	0.5 % to 50 %
		Total Ash	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 14.6	0.1 % to 50 %
		Titrable Acidity	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 9.5	0.02 % to 10 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
9.	**Khoa**	Sucrose	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 11.5	Qualitative
		Fat	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 11.3	0.5 % to 99 %
		Protein	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 9.6	0.5 % to 50 %
		Total Ash	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 14.6	0.1 % to 50 %
		Starch	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 11.4	Qualitative
		Moisture	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 6.2	0.1 % to 90 %
		Lactose content (Whey Powder)	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 16.7	0.5 % to 90 %
		Titrable acidity as Lactic Acid	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 9.5	0.1 % to 10 %
		RM value of extracted fat	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method-13.5	10 to 40
		Polenske Value extracted fat	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method-13.5	0.5 to 20
		B.R of extracted Fat at 40 °C	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method-13.3	30 to 50

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Aluminium (Al)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Calcium (Ca)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 10000 mg/kg
		Iron (Fe)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	1.0 mg/kg to 100 mg/kg
		Potassium (K)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Magnesium (Mg)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Molybdenum (Mo)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Sodium (Na)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Phosphorous (P)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 2000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
		Selenium (Se)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
10.	**Ghee, Milk fat, Butter Oil**	Butyro Refractometer Reading at 40˚C	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method-13.3	10 to 90
		Reichert-Meissel Value	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method-13.5	5 to 45
		FFA as Oleic acid	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method-13.4	0.1 % to 30 %
		(Baudouin Test) Vanaspati in ghee	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method-13.6	Qualitative
		Mineral oil	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method-13.7	Qualitative
		Peroxide value	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method-13.9	0.1 Meq/kg to 300 Meq/kg
		Melting point	IS 3508	20 °C to 100 °C
		Score card	IS 3508	Qualitative
		Insoluble Impurity	IS 3508	0.1 % to 20 %
		Acidity	IS 3508	0.1 % to 10 %
		Saponification value	IS 3508	50 to 300
		Iodine Value	IS 3508	1 to 300
		Unsaponifiable Matter	IS 3508	0.1 % to 5 %
		Presence of Vanaspati	IS 15642 (Part-2)	Qualitative
		Dissolved soap	IS 3508	Qualitative
		Butylated Hydroxyanisole (BHA)	IS 3508	Qualitative
		Butylated Hydroxytoluene (BHT)	IS 3508	Qualitative
		Gallates	IS 3508	Qualitative
		Nordihydroguaiaretic acid (NDGA)	IS 3508	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Moisture	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 13.2	0.1 % to 50.0 %
		Protein	IS 7219	0.1 % to 50 %
		Fat	IS 6287	0.5 % to 99.90 %
		Total Ash	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 10.7	0.05 % to 30.0 %
		Carbohydrate	IS 1656	0.1 % to 50.0 %
		Energy	FAO Chapter 3, Method-3.5	20 kcal/100gm to 900 kcal/100gm
		Polenske Value	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method-13.5	0.5 to 10
		Common Salt	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method-12.4.2	0.2 % to 20 %
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
11.	**Foods for Infant nutrition, Milk Powder and Baby Food (Infant Milk Substitutes, Milk-Cereal based complimentary food), Canned Product, Dairy Whitener, Whey Powder, Edible Casein, Cream Powder**	Chloride	AOAC Official methods of Analysis-19th edition 2012-Method-986.26	10 mg/100gm to 5000 mg/100gm
		Magnesium	IS 5949	0.01 % to 5 %
		Calcium	IS 5949	0.05 % to 5 %
		Moisture	FSSAI Manual of Methods, 2016 (Milk and Milk Products)-Method 10.2	1 % to 90 %
		Total Fat/Milk Fat	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 10.3	0.1 % to 50 %
		Acidity	IS 1479 (Part-1)	0.05 % to 5 %
		Total Protein/Milk Protein	IS 7219	0.5 % to 99 %
		Total Ash	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 10.7	0.1 % to 10 %
		Carbohydrate	IS 1656	1 % to 95 %
		Acid Insoluble Ash	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 10.8	0.01 % to 5 %
		Crude fibre	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 10.9	0.1 % to 10 %
		Solubility index (Insolubility Index)	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 10.10	0.2 ml to 10 ml
		Solubility percent	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 10.11	50 % to 100 %
		Energy	FAO Chapter 3 Method 3.5	20 kcal/100gm to 800 kcal/100gm
		Titrable Acidity as Lactic Acid	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 10.4	0.1 % to 10 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Lactose content	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 16.7	0.5 % to 90 %
		pH (10 % solution)	FSSAI Manual of Methods, 2016 (Milk and Milk Products) Method 10.6	5.0 to 12.0
		Phosphorous	IS 12756	0.1 mg/kg to 100 mg/kg
		Added colour	AOAC official Method 920.114 (19th edition)	Qualitative
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Manganese (Mn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 50 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Aluminium (Al)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Calcium (Ca)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 5000 mg/kg
		Iron (Fe)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	1.0 mg/kg to 100 mg/kg
		Potassium (K)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 4000 mg/kg
		Magnesium (Mg)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Molybdenum (Mo)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Sodium (Na)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 5000 mg/kg
		Phosphorous (P)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 9000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
		Selenium (Se)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
A.	**Cereal, Pulses and Cereal Products**	Rodent hair & excreta	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)-Method 1.5	Qualitative
		Moisture (105 ° C)	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)-Method 16.1	0.1 % to 95 %
		Moisture (130 ° C)	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)-Method 8.1	0.1 % to 95 %
		Total ash	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)-Method 8.2	0.1 % to 10 %
		Ash insoluble in dilute HCL	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)-Method 8.3	0.01 % to 5 %
		Alcoholic Acidity expressed as H SO	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)-Method 8.5	0.05 % to 5 %
		Total Protein	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)-Method 8.7	0.5 % to 50 %
		Carbohydrate	IS 1656	1.0 % to 99 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Energy	FAO Chapter 3, Method-3.5	10 kcal/100gm to 500 kcal/100gm
		Crude Fibre	IS 10226 (Part-2)	0.05 % to 50 %
		Added Colouring Matter	FSSAI Manual of Methods, 2016 (Food additives)-Method 4.2.5	Qualitative
		Any foreign ingredient (Extraneous Matter)	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)-Method 1.2	Qualitative
		Kesari Dal	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)-Method 11.0	Qualitative
		Mineral Matter/Inorganic Matter	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)-Method 1.3	Qualitative
		Other edible grains	IS 4333(PART-1)	0.02 % to 7.0 %
		Damaged grains	IS 4333(PART-1)	0.02 % to 7.0 %
		Weevilled grains	IS 4333(PART-1)	0.02 % to 7.0 %
		Total Fat	IS 11721	0.5 % to 50 %
		Gluten	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)- Method-8.4	0.5 % to 40 %
		Nitrogen	IS 7219	0.5 % to 30 %
		Potassium bromate	AOAC official method 956.03 (19th edition)	0.0001 % to 0.1 %
		Barley starches	IS 1157:1957	Qualitative
		Sodium Chloride as NaCl	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)- Method-16.2	0.1 % to 20 %
		Total ash excluding salt	By Calculation	0.5 % to 10 %
		Added Starch	IS 1806	Qualitative
		Solubility	IS 1806	1.0 % to 100 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Presence of Ergot	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)- Method-4.0	Qualitative
		Acidity of extracted fat (as oleic acid)	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)- Method-14.5	0.05 % to 50.0 %
		Dirt, Insects, Larvae & Impurities	Visual Inspection	Qualitative
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Calcium (Ca)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Iron (Fe)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	1.0 mg/kg to 100 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
B.	**Biscuits, Bakery & Confectionary Products**			
1.	**Biscuits, Bread, Cookies, Wafer Biscuits, Canned Product, Other Bakery Products**	Appearance	IS 1011	Qualitative
		Taste	IS 1011	Qualitative
		Odour	IS 1011	Qualitative
		Flavour	IS 1011	Qualitative
		Baking	IS 1011	Qualitative
		Texture	IS 1011	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Foreign Matter	IS 1011	Qualitative
		Moulds, Living & Dead insects, Insect fragments, Rodent contamination (Hair & Exreta), Larvae, Dirt	IS 1011	Qualitative
		Acidity of extracted fat (As Oleic Acid)	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)- Method-14.5	0.5 % to 50.0 %
		Total Fat	IS 12711	0.5 % to 50.0 %
		Crude Fibre	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)- Method-8.8	0.5 % to 50.0 %
		Total Protein	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)- Method-8.7	0.5 % to 50.0 %
		Carbohydrate	IS 1656	0.5 % to 90.0 %
		Energy	FAO Chapter 3 Method-3.5	5.0 Kcal/100gm to 900 Kcal/100gm
		Moisture	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)- Method-14.3	0.5 % to 50.0 %
		Total Ash	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)- Method-8.2	0.5 % to 50.0 %
		Ash insoluble in dilute HCL	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)- Method-14.4	0.05 % to 50.0 %
		Dietary Fibre	AOAC methods of Analysis-993.21(19th edition)	0.5 % to 20.0 %
		Alcoholic acidity	FSSAI Manual of Methods, 2016 (Cereal and Cereal Products)- Method-14.4	0.5 % to 30.0 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Calcium (Ca)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Iron (Fe)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	1.0 mg/kg to 100 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
2.	**Sweets and Confectionary (Sugar boiled Confectionary, Milk Toffee, Butter Toffee, Lozenge, Chewing gum/Bubble Gum, Chocolate, Ice lollies/Edible Ice, Canned Product**	Filth	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-A13	Qualitative
		Sulphated Ash	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-B4	0.5 % to 50.0 %
		Gum Base Content	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-B7	1.0 % to 50.0 %
		Ash insoluble in dilute HCL	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-C6	0.1 % to 50.0 %
		Total Fat	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-C3	0.5 % to 50.0 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Milk Fat	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-C7	0.5 % to 50.0 %
		Cocoa Solids	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-C8	0.5 % to 50.0 %
		Milk Solids	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-C4	0.5 % to 70.0 %
		Total Protein	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-C13	0.5 % to 50.0 %
		Sucrose	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-C10	0.5 % to 80.0 %
		Reducing Sugar	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-C10	0.5 % to 80.0 %
		Carbohydrate	IS 1656	1.0 % to 90.0 %
		Energy	FAO Chapter 3, Method-3.5	10.0 Kcal/100gm to 800.0 Kcal/100gm
		Moisture	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-C2	0.5 % to 50.0 %
		Total Ash	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-C6	0.5 % to 50.0 %
		Dietary Fibre	AOAC methods of Analysis-993.21(19th edition)	0.5 % to 20.0 %
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
C.	**Sweetening Agents**			
1.	**Sugar, Plantation White Sugar, Refined Sugar, Khandesari Sugar, Bura Sugar, Cube Sugar, Icing Sugar, Misri, Dextrose, Golden Syrup, Dried Glucose Syrup**	Dirt	Visual Inspection	Qualitative (Present/Absent)
		Filth	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-A13	Qualitative
		Iron Fillings	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-5.9	Qualitative
		Extraneous Matter	Visual Inspection	Qualitative
		Moisture	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-7.2	0.5 % to 50.0 %
		Total Sugar	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-8.2	0.5 % to 100.0 %
		Sucrose	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-8.2	0.5 % to 100.0 %
		Ash Insoluble in Dilute HCl	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-8.1	0.2 % to 50.0 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Calcium Oxide	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-7.7	0.5 mg/100gm to 100.0 mg/100gm
		Total Ash	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-7.3	0.5 % to 50.0 %
		Starch	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-11.0	0.5 % to 50.0 %
		Total Fat	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-A8	0.02 % to 50.0 %
		Total Protein	IS 7219	0.05 % to 50.0 %
		Carbohydrate	IS 1656	1.0 % to 100.0 %
		Energy	FAO Chapter 3, Method-3.5	10.0 Kcal/100gm to 800.0 Kcal/100gm
		Sulphated Ash	FSSAI Manual Beverages, Sugar and Confectionery Products,2015-10.0	0.05 % to 50.0 %
		Acidity	Food Safety and Standard Act 2006, Rules 2011, Regulation,2011, 15th Edition, 2016-Method-2.8.5	Qualitative
		Glucose	AOAC Official Methods of Analysis 19th Edition,2012-METHOD-935.62	0.5 % to 100.0 %
		Chromium (Cr)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.02 mg/kg to 20 mg/kg
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
2.	**Honey**	Foreign Matter (Mould, Dirt, Scum, Pieces of Bees Wax, Fragments of Bees and Other Insects and other Extraneous Matter	Visual Inspection	Qualitative
		Specific Gravity at 27° C	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-6.3	1 to 2
		Moisture	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-6.2	1 % to 50 %
		Total Reducing Sugars	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-6.4	50 % to 99 %
		Sucrose	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-6.4	0.5 % to 25 %
		Fructose Glucose Ratio	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-6.5	0.5 to 5

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Ash	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-6.7	0.1 % to 5 %
		Acidity (As Formic Acid)	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-6.8	0.05 % to 5 %
		Fiehe's Test	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-6.6	Qualitative
		Carbohydrate	IS 1656	0.5 % to 99 %
		Energy	FAO Chapter 3, Method 3.5	100 Kcal/100gm to 400 Kcal/100gm
		Total Protein	IS 7219	0.25 % to 5 %
		Fat	IS 6287	0.05 % to 5 %
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
3.	**Gur or Jaggery**	Extraneous Matter	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-9.2	0.5 % to 20 %
		Total Ash	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-9.3	0.1 % to 20 %
		Ash insoluble in HCl	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-9.4	0.1 % to 10 %
		Moisture	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-9.1	0.5 % to 20 %
		Sulphur Dioxide	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-7.5	5 mg/kg to 1000 mg/kg
		Sucrose	IS 15279	50 % to 99 %
		Total Protein	IS 7219	0.1 % to 10 %
		Fat	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)-Method-A8	0.1 % to 10 %
		Carbohydrate	IS 1656	1.0 % to 100 %
		Energy	FAO Chapter 3, Method-3.5	10.0 Kcal/100gm to 800 Kcal/100gm
		Total Sugar	IS 15279	1.0 % to 95 %
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
D.	**Fruits and Vegetables**			
1.	**Thermally Processed, Unprocessed, Frozen, Fresh, Dehydrated, Ready to Eat, Fruits and Vegetable and its Products, Curried Vegetables, Juices, Cocktails, Soups, Nectors, Pulp, Puree, Paste, Fruit drink/Fruit beverages, Powders, Soup Powders, Concentrates, Fruit bar, Toffee, Flakes, Crush, Squash, Syrup, Sarbat, Barley water, Murabba, peel,**	Drained Weight	FSSAI Manual-Fruit and Vegetable Products:2016, Method-1.4	20.0 % to 100 %
		Insect or fungal infection	Visual Inspection	Qualitative
		Living or Dead Insects and Insect Fragments	Visual Inspection	Qualitative
		Mould	Visual Inspection	Qualitative
		Rodent Contamination	Visual Inspection	Qualitative
		Rancidity	Visual Inspection	Qualitative
		Sand, Grit and Other Foreign Matter	Visual Inspection	Qualitative
		Extraneous Vegetable Matters	Visual Inspection	Qualitative
		Oil Content (Grated Desiccated Coconut)	IS 966	0.5 % to 90 %
		Filled Volume	FSSAI Manual-Fruit and Vegetable Products:2016, Method-1.3	50 % to 100 %
		Total Soluble Solid	FSSAI Manual-Fruit and Vegetable Products:2016, Method-1.6	0.25 % to 70 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Sauces, Tomato Ketchup, Jam, Jelly, Fruit Cheese, Marmalades, Chutney, Pickles, Beans, Table Olives, Candied/Dessicated Grated Coconut/Crystallise /Glazed Fruit and Vegetable/Rhizom, Synthetic Syrup, Culinary Paste, Soya Sauce, Carbonated Fruit Beverages and Drink, Beverage Mix/Powder, Canned Product, Tamarind	Acidity	FSSAI Manual-Fruit and Vegetable Products:2016, Method-2.4	0.05 % to 30 %
		Extraneous Matter	Visual Inspection	Qualitative
		Damaged Matter	Visual Inspection	Qualitative
		Insect Damaged Units	Visual Inspection	Qualitative
		Foreign Matter	Visual Inspection	Qualitative
		Taste	Visual Inspection	Qualitative
		Flavour	Visual Inspection	Qualitative
		Sugar (as Sucrose)	FSSAI Manual-Fruits and Vegetables:2016, Method-2.6 AOAC 19th Edition, 2012, Method-925.35	0.5 % to 90 %
		Total Sugar	FSSAI Manual-Fruits and Vegetables:2016, Method-2.6	0.5 % to 90 %
		Reducing sugar	FSSAI Manual-Fruits and Vegetables:2016, Method-2.6	0.5 % to 50 %
		Fruit Content	FSSAI Manual-Fruit and Vegetable Products:2016, Method-2.11	1.0 % to 70 %
		Moisture	FSSAI Manual-Fruit and Vegetable Products:2016, Method-4.1	0.1 % to 99 %
		Starch	FSSAI Manual-Fruit and Vegetable Products:2016, Method-7.3	0.5 % to 50 %
		Sodium Chloride	FSSAI Manual-Fruit and Vegetable Products:2016, Method-1.7	0.1 % to 20 %
		Rehydration Ratio	FSSAI Manual-Fruit and Vegetable Products:2016, Method-17.6	1.0 to 5.0

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		pH	FSSAI Manual-Fruit and Vegetable Products:2016, Method-2.3	2 to 14
		Total Ash	FSSAI Manual-Fruit and Vegetable Products:2016, Method-11.3	0.1 % to 20 %
		Ash insoluble in HCl	FSSAI Manual-Fruit and Vegetable Products:2016, Method-5.3	0.1 % to 20 %
		Total Solids	FSSAI Manual-Fruit and Vegetable Products:2016, Method-2.1	1 % to 99 %
		Protein	IS 7219	0.1 % to 50 %
		Total Sugar	FSSAI Manual-Fruit and Vegetable Products:2016, Method-2.6	0.1 % to 80 %
		Volatile Acid	FSSAI Manual-Fruit and Vegetable Products:2016, Method-2.5	0.01 % to 10 %
		Vitamin C	FSSAI Manual-Fruit and Vegetable Products:2016, Method-2.8	0.5 mg/100ml to 500 mg/100ml
		Ethanol Content	FSSAI Manual-Fruit and Vegetable Products:2016, Method-2.9	0.1 % to 5 %
		Sulphur dioxide	FSSAI Manual-Fruit and Vegetable Products:2016, Method-17.7	25 mg/kg to 2000 mg/kg
		Mineral Impurities	FSSAI Manual-Fruit and Vegetable Products:2016, Method-2.10	0.01 % to 5 %
		Total Fat	IS 6287	0.1 % to 20 %
		Carbohydrate	IS 1656	1.0 % to 50 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Energy	FAO Chapter 3, Method-3.5	10.0 Kcal/100gm to 800 Kcal/100gm
		Benzoic Acid	FSSAI Manual-Food Additives:2016, Method-2.1.2	2.0 ppm to 200 ppm
		Crude fibre	IS 1797	0.5 % to 30 %
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
2	**Grated Desiccated Coconut**	Peroxide Value	IS 15271	Qualitative
E.	**Brewed and Synthetic Vinegar**	Total Solids	FSSAI Manual-Fruit and Vegetable Products:2016, Method-14.3	0.05 % to 10 %
		Total Ash	FSSAI Manual-Fruit and Vegetable Products:2016, Method-14.4	0.5 % to 5 %
		Acidity	FSSAI Manual-Fruit and Vegetable Products:2016, Method-14.5	0.1 % to 20 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Mineral Acid	FSSAI Manual-Fruit and Vegetable Products:2016, Method-14.6	Qualitative
		Caramel	FSSAI Manual-Fruit and Vegetable Products:2016, Method-14.7	Qualitative
		Phosphorus	FSSAI Manual-Fruit and Vegetable Products:2016, Method-14.8	0.5 mg/100 ml to 50 mg/100 ml
		Nitrogen	FSSAI Manual-Fruit and Vegetable Products:2016, Method-14.9	0.01 % to 5 %
		Differentiation between Brewed and Synthetic Vinegar	FSSAI Manual-Fruit and Vegetable Products:2016, Method-14.10	Qualitative
		Oxidation Value	FSSAI Manual-Fruit and Vegetable Products:2016, Method-14.11.1	2 to 1000
		Alkaline Oxidation Value	FSSAI Manual-Fruit and Vegetable Products:2016, Method-14.11.2	1 to 400
		Total Protein	IS 7219	0.5 % to 20 %
		Moisture	FSSAI Manual-Fruit and Vegetable Products:2016, Method-17.2	0.5 % to 100 %
		Total Fat	IS 6287	0.05 % to 10 %
		Carbohydrate	IS 1656	0.5 % to 50 %
		Energy	FAO Chapter 3, Method-3.5	10.0 Kcal/100gm to 500 Kcal/100gm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
F.	**Nuts and Nuts products, Raisins, Dates, Pistachio nuts, Dry fruits, Groundnut kernel**	Foreign Matter	Visual Inspection	Qualitative
		Living, Dead Insects and Insect Fragments	Visual Inspection	Qualitative
		Mould	Visual Inspection	Qualitative
		Rodent Contamination	Visual Inspection	Qualitative
		Colour (Visual)	Visual Inspection	Qualitative
		Taste and Flavour	Visual Inspection	Qualitative
		Non edible seeds	Visual Inspection	Qualitative
		Damaged Raisins	Physical Separation	0.5 % to 20 %
		Sugared Raisins	Visual Inspection	Qualitative
		Mustiness	Visual Inspection	Qualitative
		Peroxide Value	IS 15271	Qualitative
		Unopened Shells	Physical Separation	0.5 % to 20 %
		Empty Shells	Visual Inspection	Qualitative
		Moisture	FSSAI Manual-Fruit and Vegetable Products:2016, Method-20.1	0.5 % to 50 %
		Ash Insoluble in Dilute HCl	FSSAI Manual-Fruit and Vegetable Products:2016, Method-17.4	0.05 % to 20 %
		Damaged Discoloured units	Physical Separation	0.5 % to 20 %
		Acidity of Extracted Fat	IS 1011	0.5 % to 20 %
		Total Protein	IS 7219	0.5 % to 50 %
		Total Ash	FSSAI Manual-Fruit and Vegetable Products:2016, Method-17.3	0.5 % to 20 %
		Total Fat	IS 12711	0.5 % to 20 %
		Carbohydrates	IS 1656	1.0 % to 90 %
		Energy	FAO Chapter 3, Method-3.5	10.0 Kcal/100gm to 800 Kcal/100gm
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
G.	**Fats, Oils and Edible Oils**			
1.	**All Types of Oils, Fat Emulsions, Blended Edible Oils, Interesterified Vegetable Fat, Partially Hydrogenated Oil, Hydrogenated Oil (Vanaspati and Bakery shortning), Edible Fat, Margarine, Fat Spread and Canned Product**	Appearance	Visual Inspection	Qualitative
		Rancidity	FSSAI Manual-Oils and Fats, 2016, Method-38.0	1.0 meq/Kg to 20 meq/Kg
		Rancidity	FSSAI Manual-Oils and Fats, 2016	Qualitative
		Sediments	Visual Inspection	Qualitative
		Suspended or Other Foreign Matter	Visual Inspection	Qualitative
		Separated Water	Visual Inspection	Qualitative
		Mineral Oil	FSSAI Manual-Oil and Fats:2016, Method-28.0	Qualitative
		Butyro-Refractometer reading at 40℃	FSSAI Manual-Oil and Fats:2016, Method-5.0	30 to 70
		Reichert Meissel Value	FSSAI Manual-Oil and Fats:2016, Method-13.0	1.0 to 100
		Refractive Index at 40℃	FSSAI Manual-Oil and Fats:2016, Method-5.0	1.4000 to 1.4700
		Saponification value	FSSAI Manual-Oil and Fats:2016, Method-9.0	10 to 300

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Iodine value	FSSAI Manual-Oil and Fats:2016, Method-12.0	10 to 300
		Polenske value	FSSAI Manual-Oil and Fats:2016, Method-13.8	10 to 300
		Unsaponifiable matter	FSSAI Manual-Oil and Fats:2016, Method-10.0	0.1 to 10
		Acid value	FSSAI Manual-Oil and Fats:2016, Method-11.0	0.01 to 20
		Argemone oil	FSSAI Manual-Oil and Fats:2016, Method-30.0	Qualitative
		Presence of Cottonseed Oil	FSSAI Manual-Oil and Fats:2016, Method-16.0	Qualitative
		Moisture	FSSAI Manual-Oil and Fats:2016, Method-3.0	0.1 % to 5 %
		Turbidity at 30/35/40 degree for 24 hours	Visual Inspection	Qualitative
		Bellier Test (Turbidity temperature, Acetic Acid Method)	FSSAI Manual-Oil and Fats:2016, Method-3.0	15 C to 60 C
		Flash Point	FSSAI Manual-Oil and Fats:2016, Method-6.0	150 C to 350 C
		Cloud Point	FSSAI Manual-Oil and Fats:2016, Method-17.0	10 C to 30 C
		Melting Point	FSSAI Manual-Oil and Fats:2016, Method-8.0	10 C to 100 ^{0} C
		Free Fatty Acid (As Oleic Acid)	FSSAI Manual-Oil and Fats:2016, Method-11.0	0.1 % to 5 %
		Rice bran Test	FSSAI Manual-Oil and Fats:2016, Method-18.0	Qualitative
		Linseed Oil Test	FSSAI Manual-Oil and Fats:2016, Method-19.0	Qualitative
		Specific Gravity	FSSAI Manual-Oil and Fats:2016, Method-4.0	0.7 to 1.5

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Insoluble Impurities	IS 548 (Part-1) 1964	0.1 % to 10 %
		Phosphorous	FSSAI Manual-Oil and Fats:2016, Method-34.0	0.002 % to 5.0 %
		Common salt	IS 12451	0.5 % to 5.0 %
		Castor Oil	FSSAI Manual-Oil and Fats:2016, Method-29.0	Qualitative
		Semi-Siccative oil test	FSSAI Manual-Oil and Fats:2016, Method-26.0	Qualitative
		Olive pomace oil test	FSSAI Manual-Oil and Fats:2016, Method-25.0	Qualitative
		Cotton seed oil test	FSSAI Manual-Oil and Fats:2016, Method-16.0	Qualitative
		Sesame Oil (Baudouins Test)	FSSAI Manual-Oil and Fats:2016, Method-15.0	Qualitative
		Polybromide test	FSSAI Manual-Oil and Fats:2016, Method-20.0	Qualitative
		Hydrocyanic Acid	FSSAI Manual-Oil and Fats:2016, Method-32.0	Qualitative
		Total Fat	IS 6287	0.5 % to 100 %
		Total Protein	IS 7219	0.05 % to 5.0 %
		Carbohydrate	IS 1656	0.02 % to 5 %
		Energy	FAO Chapter 3, Method-3.5	10.0 Kcal/100gm to 900 Kcal/100gm
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Nickel (Ni)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Iron (Fe)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	1.0 mg/kg to 100 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
H.	**Spices, Herbs, Condiments**			
1.	**Spices, Condiments, Herbs, Mix Masala and Related Products**	Flavour	Visual Inspection	Qualitative
		Foreign Odour		
		Mustiness		
		Peroxide Value	IS 15271	Qualitative
		Living or Dead Insects and Insect Fragments, Rodent Contamination	Visual Inspection	Qualitative
		Extraneous matter	FSSAI Manual-Spices and Condiments, Method-2.0	0.2 % to 5 %
		Moisture	FSSAI Manual-Spices and Condiments, Method-3.0	0.5 % to 20 %
		Total ash	FSSAI Manual-Spices and Condiments, Method-4.0	0.5 % to 20 %
		Ash insoluble in dilute HCL	FSSAI Manual-Spices and Condiments, Method-5.0	0.5 % to 20 %
		Fat	IS 12711 IS 4684	0.5 % to 20 %
		Protein	IS 7219	0.5 % to 10 %
		Calorie/Energy	FAO Chapter 3.0 Method 3.5	20 Kcal/100gm to 500 Kcal/100gm
		Total Carbohydrate	IS 1656	1 % to 80 %
		Volatile oil content	FSSAI Manual-Spices and Condiments, Method-10.0	0.5 % to 20 % (v/w)
		Insect damaged matter	Visual Inspection/Physical Separation	Qualitative (Present/Absent)

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Empty and malformed capsules by count	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Immature and shrivelled capsules	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Light seeds	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Unripe and marked fruits	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Broken fruits	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Crude fibre	FSSAI Manual-Spices and Condiments, Method-11.0	0.5 % to 20 %
		Non-Volatile ether extract	FSSAI Manual-Spices and Condiments, Method-9.0	1.0 % to 50 %
		Foreign Vegetable matter	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Tendrils, Mother Cloves (Cloves)	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Khokar Cloves (Cloves)	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Headless cloves	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Split fruits	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Damaged/Discoloured fruits	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Other Edible Seeds	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Cold water soluble extract	FSSAI Manual-Spices and Condiments, Method-6.0	1.0 % to 50 %
		Calcium as Calcium oxide	FSSAI Manual-Spices and Condiments, Method-8.0	0.2 % to 10 %
		Water soluble ash	IS 1797	0.5 % to 10 %
		Alcohol (90 % v/w) soluble	FSSAI Manual-Spices and	0.5 % to 10 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		extract on dry basis	Condiments, Method-7.0	
		Starch	AOAC Official Method of Analysis,Method-940.30 (19th edition)	0.5 % to 10 %
		Pinheads	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Bulk Density (mass/l)	IS 1797	200 gm/L to 900 gm/L
		Floral waste	FSSAI Manual-Spices and Condiments, Method-15.3	0.5 % to 10 %
		Moisture & volatile matter at 103 ± 2˚C	FSSAI Manual-Spices and Condiments, Method-15.4	0.5 % to 20 %
		Total Nitrogen	IS 7219	0.5 % to 20 %
		Defective Rhizomes (Turmeric)	Visual Inspection/Physical Separation	Qualitative (Present/Absent)
		Test for lead chromate	FSSAI Manual-Spices and Condiments, Method-16.6	Qualitative (Present/Absent)
		Colouring powder expressed as curcuminoid content	FSSAI Manual-Spices and Condiments:2016, Method-16.4	0.1 % to 10 %
		Acidity ash anhydrous tartaric acid (Dried Mango powder)	IS 13242	0.1 % to 30 %
		galbanum resin (Asafoetida)	FSSAI Manual-Spices and Condiments:2016, Method-17.4.1	Qualitative
		any other foreign resin (Asafoetida)	FSSAI Manual-Spices and Condiments:2016, Method-17.4.3	Qualitative
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Iron (Fe)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	1.0 mg/kg to 100 mg/kg
		Magnesium (Mg)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 2500 mg/kg
		Sodium (Na)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (H)g	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
2.	**Edible Common Salt, Iodized Salt, Iron Fortified Common Salt, Potassium Iodate, Iron Fortified Iodized Salt,**	Matter Insoluble in Water	IS 7224	0.1 % to 10 %
		Moisture	IS 7224	0.1 % to 10 %
		Matter soluble in water other than sodium chloride	IS 7224	0.5 % to 10 %
		Magnesium as (Mg)	IS 7224	0.05 % to 10 %
		Calcium as (Ca)	IS 7224	0.1 % to 10 %
		pH value in 5 % aqueous Solution	IS 13057	2 to 14
		solubility	Food Safety and Standard Act 2006, Rules 2011, Regulation,2011, 15th Edition, 2016-Method-2.9.30	Qualitative
		Alkalinity (As NA_2CO_3)	IS 7224	0.1 % to 10 %
		Total Ash	IS 253	1.0 % to 99.5 %
		Chloride content (As NaCl)	IS 7224	0.5 % to 99 %
		Sulphate (As SO4)	IS 7224	0.1 % to 20 %
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Iron (Fe)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	1.0 mg/kg to 100 mg/kg
		Sodium (Na)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 370000 mg/kg
		Magnesium (Mg)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 3000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
I.	**Beverages (Alcoholic/Non-Alcoholic)**			
1.	**Beverages Including Carbonated and Non-Carbonated, Alcoholic and Non-Alcoholic, Soft Drinks, Ready to serve Beverages (Fruit and Non-Fruit)**	Preliminary Examination	AOAC-19th Edition, 2012 Method-950.12	Qualitative
		Dirt and Other Foreign Matter	Visual Inspection	Qualitative
		Degree Brix	IS 13815	0.5 Degree Brix to 70 Degree Brix
		Fill Volume	Physical (By Measurement)	2.5 % to 100 %
		Ethanol Content	IS 3752	2.5 % to 100 %
		Residue on Evaporation	IS 3752	0.001 % to 10 %
		Total Acidity	IS 3752	0.1 gm/100 litre to 100 gm/100 litre
		Volatile Acidity	IS 3752	1 gm/100 litre to 100 gm/100 litre

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Fixed Acidity	IS 3752	0.5 gm/100 litre to 100 gm/100 litre
		Ash	IS 3752	0.01 % to 5 %
		Sulphur Dioxide	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-7.5	10 mg/kg to 200 mg/kg
		Moisture	FSSAI Manual-Fruit and Vegetable Products, Method-4.1	0.1 % to 90 %
		Total Fat	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-A8	0.03 % to 50 %
		Total Protein	IS 7219	0.1 % to 50 %
		Total Sugar	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-6.4	0.5 % to 80 %
		Total Ash	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-1.3	0.02 % to 5 %
		Total Carbohydrate	IS 1656	5.0 % to 80 %
		Energy	FAO Chapter 3, Method-3.5	100 Kcal/100gm to 800 Kcal/100gm
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
J.	**Tea and Tea Products**			
1.	**Ice Tea, Brew Tea, Honey Flavoured Tea, Herbal Tea, White and Red Tea. Masala Tea, Organic Tea, Green Tea, Ready to drink Tea & Green Tea, Kangra tea**	Appearance	Visual Inspection	Qualitative
		Extraneous matter	FSSAI Manual 2015-Beverages, Sugar and sugar products and Confectionary products-Method-5.9	Qualitative
		Total Ash	FSSAI Manual 2015-Beverages, Sugar and sugar products and Confectionary products-Method-1.3	0.1 % to 20 %
		Water Soluble Ash	FSSAI Manual 2015-Beverages, Sugar and sugar products and Confectionary products-Method-1.4	0.1 % to 20 %
		Alkalinity of Water soluble Ash expressed as KOH	FSSAI Manual 2015-Beverages, Sugar and sugar products and Confectionary products-Method-5.7	0.1 % to 20 %
		Acid Insoluble Ash	FSSAI Manual 2015-Beverages, Sugar and sugar products and Confectionary products-Method-1.5	0.1 % to 10 %
		Water Extract	FSSAI Manual 2015-Beverages, Sugar and sugar products and Confectionary products-Method-1.7	0.1 % to 60 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Crude Fibre	FSSAI Manual 2015-Beverages, Sugar and sugar products and Confectionary products-Method-5.8	0.1 % to 30 %
		Moisture	FSSAI Manual 2015-Beverages, Sugar and sugar products and Confectionary products-Method-5.2	0.1 % to 99 %
		Iron Fillings	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-5.9	0.01 % To 10 %
		Caffeine	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-1.8	0.1 % to 10 %
		Protein	IS 7219	0.1 % to 30 %
		Fat	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-A-8	0.1 % to 20 %
		Total Sugar	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-6.4	0.5 % to 20 %
		Total Carbohydrate	IS 1656	0.5 % to 99 %
		Energy	FAO Chapter 3, Method 3.5	Upto 400 Kcal/100gm
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
K.	**Coffee and Cocoa Products**			
1.	**Coffee, Cocoa and their Products including green Coffee, Raw Coffee or Unroasted Coffee, Chicory, Cocoa cake, Cocoa Powder, Cocoa paste, Cocoa mass, Soluble Coffee Powder, Carob Powder, Cassia Tora Powder and Whole, Carob Powder, Instant coffee.**	Appearance	LAL/CHEM/SOP/FD/GF/13 Issue No-01 Issue Date 11.04.2018	Qualitative
		Moisture	FSSAI Manual 2015-Beverages, Sugar and sugar products and Confectionary products-Method-1.2	0.1 % to 99 %
		Total Ash	FSSAI Manual 2015-Beverages, Sugar and sugar products and Confectionary products-Method-1.3	0.1 % to 20 %
		Chicory Content	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-1.9.1	Qualitative
		Caffeine Content	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-1.8	0.1 % to 10 %
		Solubility in Boiling Water	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-3.4	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Solubility in Cold Water at 16 ± 2 C	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-3.4	Qualitative
		Acid insoluble ash	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-1.5	0.05 % to 10 %
		Water Soluble Ash	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-1.4	0.1 % to 20 %
		Alkalinity of Soluble Ash	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-1.6	0.1 % to 20 %
		Aqueous Extract	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-1.7	0.1 % to 60 %
		Cocoa Butter	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-4.3	0.1 % to 50 %
		Total Protein	IS 7219	0.1 % to 20 %
		Total Fat	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-A-8	0.1 % to 20 %
		Total Sugar	FSSAI Manual-Beverages, Sugar and Sugar Products & Confectionary Products:2015, Method-6.4	0.5 % to 60 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Total Carbohydrate	IS 1656	0.5 % to 99 %
		Energy	FAO Chapter 3, Method 3.5	Upto 400 Kcal/100gm
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
L.	**Papad**	Moisture	IS 2639	0.1 % to 50 %
		Total Ash	IS 2639	0.1 % to 20 %
		Ash insoluble in dilute HCl	IS 2639	0.1 % to 10 %
		Total Fat	IS 2639	0.5 % to 50 %
		Alkalinity of Ash	IS 2639	0.5 % to 20 %
		pH of 10 % solution	IS 2639	1 to 14
M.	**Other Food Products and Ingredients**			
1.	**Catechu (Kattha)**	Dirt, Insect Infestation, Sand, Earth	IS 2962	Qualitative
		Test for Starch	IS 2962	Qualitative
		Loss on Drying	IS 2962	0.5 % to 20 %
		Catechins	IS 2962	1.0 % to 50 %
		Cold Water Extractives	IS 2962	0.5 % to 40 %
		Matter Insoluble in Rectified Spirit	IS 2962	0.5 % to 40 %
		Water Insoluble Solids at 37 ± 2 ° C	IS 2962	0.5 % to 40 %

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Boiling Water Insoluble solids	IS 2962	0.5 % to 40 %
		Total Ash	IS 2962	0.5 % to 20 %
		Ash Insoluble in HCl	IS 2962	0.2 % to 10 %
2.	**Gelatin**	Appearance	Visual Inspection	Qualitative
		Moisture	IS 5719	0.5 % to 40 %
		Total Ash	IS 5719	0.5 % to 10 %
		Sulphur Dioxide	IS 5719	5 mg/kg to 200 mg/kg
		Nitrogen	IS 5719	0.5 % to 40 %
N.	**Tobacco and Tobacco Products**	Loss on Heating	IS 5643	0.5 % to 50 %
		Mould growth	IS 5643	Qualitative (Present/Absent)
		Total Alkaloids	IS 5643	0.5 % to 20 %
		Total Nitrogen	IS 5643	0.5 % to 50 %
		Total Ash	IS 5643	0.5 % to 30 %
		Acid Insoluble Ash	IS 5643	0.5 % to 30 %
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Calcium (Ca)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 30000 mg/kg
		Iron (Fe)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	1.0 mg/kg to 100 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
O.	**Oil Seeds and By products**	Damaged and Weevilled Seeds	IS 3579 (Physical Separation)	Qualitative (Present/Absent)
		Slightly Damaged Seed	IS 3579 (Physical Separation)	Qualitative (Present/Absent)
		Shrivelled and Immature Seeds	IS 3579 (Physical Separation)	Qualitative (Present/Absent)
		Split and Broken Kernels	IS 3579 (Physical Separation)	Qualitative (Present/Absent)
		Nooks	IS 3579 (Physical Separation)	Qualitative (Present/Absent)
		Dust	IS 3579 (Physical Separation)	Qualitative (Present/Absent)
		Non-Oleaginous Bodies	IS 3579 (Physical Separation)	Qualitative (Present/Absent)
		Other Oilseeds	IS 3579 (Physical Separation)	Qualitative (Present/Absent)
		Kernel	IS 3579 (Physical Separation)	Qualitative (Present/Absent)
		Moisture	IS 3579	0.5 % to 20 %
		Oil Content	IS 3579	0.5 % to 80 %
		Acid Value of Extracted Oil	IS 3579	0.2 % to 20 %
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
P.	**Snacks & Namkeens**	Moisture	IS 15271	1 % to 30 %
		Acid Insoluble Ash	IS 15271	0.1 % to 10 %
		Protein	IS 7219	0.5 % to 30 %
		Total Ash	IS 15271	0.1 % to 10 %
		Fat	IS 15271	1.0 % to 50 %
		Calorie/Energy	FAO Chapter 3.0 Method 3.5	50 Kcal/100gm to 600 Kcal/100gm
		Carbohydrate	IS 1656	10 % to 80 %
		Sugar	FSSAI Manual of Methods, 2015 (Beverages, Sugar & Confectionery Products)	1 % to 80 %
		Acid Value	IS 15271	0.5 % to 10 %
		Peroxide Value	IS 15271	0.5 meq/kg to 100 meq/kg
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
		Calcium (Ca)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 30000 mg/kg
		Iron (Fe)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	1.0 mg/kg to 100 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Potassium (K)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 10000 mg/kg
		Magnesium (Mg)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 2000 mg/kg
		Molybdenum (Mo)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 200 mg/kg
		Sodium (Na)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 10000 mg/kg
		Phosphorous (P)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 3000 mg/kg
IV.	**ANIMAL FOOD & FEED**			
1.	**Animal Feed/Cattle Feed/Pet Food**	Moisture	IS 7874 (Part-1)	0.5 % to 50 %
		Crude Protein	IS 7874 (Part-1)	0.5 % to 50 %
		Crude Fat	IS 7874 (Part-1)	0.5 % to 50 %
		Crude Fibre	IS 7874 (Part-1)	0.5 % to 50 %
		Total Ash	IS 7874 (Part-1)	0.5 % to 20 %
		Acid Insoluble Ash	IS 7874 (Part-1)	0.5 % to 20 %
		Available Phosphorus	IS 7874 (Part-2)	0.5 % to 20 %
		Total Carbohydrate	IS 1656	0.5 % to 90 %
		Energy	FAO Chapter 3, Method 3.5	1 Kcal/100gm to 650 Kcal/100gm
		Cadmium (Cd)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 20 mg/kg
		Copper (Cu)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 300 mg/kg
		Lead (Pb)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 50.0 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.1 mg/kg to 10 mg/kg
		Tin (Sn)	FSSAI Manual of Methods, 2016-Metals, Method-8.0	5.0 mg/kg to 500 mg/kg
		Zinc (Zn)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.5 mg/kg to 1000 mg/kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Aluminium (Al)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Calcium (Ca)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 15000 mg/kg
		Iron (Fe)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	1.0 mg/kg to 100 mg/kg
		Potassium (K)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 5000 mg/kg
		Magnesium (Mg)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1500 mg/kg
		Molybdenum (Mo)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 1000 mg/kg
		Sodium (Na)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 5000 mg/kg
		Phosphorous (P)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	2.5 mg/kg to 18000 mg/kg
		Arsenic (As)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg
		Mercury (Hg)	USDA CLG TM-4.5	0.05 mg/kg to 100 mg/kg
		Selenium (Se)	FSSAI Manual of Methods, 2016-Metals, Method-5.0	0.05 mg/kg to 100 mg/kg

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

Laboratory	**Lilaba Analytical Laboratories, 2nd Floor, Galaxy Point Building, Sarthana Jakat Naka, Varachha Road, Surat, Gujarat**
Accreditation Standard	**ISO/IEC 17025: 2005**
Certificate Number	**TC-7179** **Page 73 of 74**
Validity	**20.10.2018 to 19.10.2020** **Last Amended on 03.11.2018**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		MECHANICAL TESTING		
I.	**PLASTICS AND PLASTIC PRODUCTS**			
1.	**Plastics Bottles/ Containers(Bottle, Jar, Glass, Cups)**	Material Identification	LAL/MECH/SOP/WT/CT/1 by FTIR-Ref. to Clause 9.5 of ASTM E1252 Issue No.:01, Issue Date:05/01/2015	Qualitative
	Plastic Cap (Closures) of Containers and Foil (for sealing of Plastic Cup/ Glasses)	Design, Shape & Dimensions	IS 15410	Qualitative
		Workmanship, Finish and Appearance	IS 15410	Qualitative
		Capacity	IS 2798	0.10 liters to 28.00 liters
		Wall Thickness	IS 2798	0.06 mm to 2.00 mm
		Transparency	IS 15410 (Annex-A)	60 % to 100 %
		Leakage Test [A] Closure Leakage [B] Vibration Leakage [C] Air Pressure Leakage	IS 2798	Qualitative
		Drop Impact Test	IS 2798	Qualitative
		Overall Migration	IS 9845	0.5 mg/l to 1000.0 mg/l or 0.1 mg/dm^2 to 100.0 mg/dm^2
		Colour Migration	IS 9845	Qualitative
		Water Potability Test	IS 15140 (Annex-B) IS 3025 (Part 5) IS 3025 (Part 8)	Qualitative
2.	**Polyethylene Flexible Pouches & Film**	Material	LAL/MECH/SOP/WT/CT/13 Ref. IS 2508, Issue no. 01, Issue Date 05/01/2015 IS 14500	Qualitative

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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
		Description	IS 15609	Qualitative
		Film Form	IS 15609	Qualitative
		Winding of Film	IS 15609	Qualitative
		Odour	IS 15609	Qualitative
		Thickness	IS 2508	35 Micron to 150 Micron
		Width	IS 15609	175 mm to 400 mm
		Overall Migration	IS 9845	0.5 mg/l to 1000 mg/l or 0.1 mg/dm^2 to 100 mg/dm^2
		Colour Migration	IS 9845	Qualitative
		Tensile Strength (a) Lengthwise Direction (b) Crosswise Direction	A-4 of IS 2508	50 kg/cm^2 to 3500 kg/cm^2
		Elongation at Break (a) Lengthwise Direction (b) Crosswise Direction	A-4 of IS 2508	10 % to 1500 %
		Dart Impact Resistance	A-6 of IS 2508	9.8 mN to 4.41 N
		Water Potability Test	IS 15609 IS 3025 (Part 5) IS 3025 (Part 8)	Qualitative
		Stack Load Test	IS 15609 (Annex. F)	Qualitative
		Drop Test	IS 15609 (Annex. G)	Qualitative
		Ink Adhesion Test for Printed Pouch	IS 15609 (Annex. H)	Qualitative
		Product Resistance Test for Printed Pouch	IS 15609 (Annex. J)	Qualitative

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