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

Page 1 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

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

BIOLOGICAL TESTING

I .	FOOD & AGRICULTURE PRODUCTS			
1.	Beverages	Coliform Count	IS 3752	≥100 CFU/ml
	(Alcoholic- Wine, Beer, Brandy,	Escherichia coli	IS 5887 (Part 1)	Qualitative (Absent or Present/ml)
	Rum, Whisky, Scotch, Vodka, Gin)	Total Plate Count	IS 5402/ISO 4833	≥100 CFU/mI
	Scotch, vouka, Ginj	Yeast & Mould Count	IS 5403	≥100 CFU/mI
2.	Beverages	Coliform Count	IS 5401 (Part 1)/ISO 4832	≥1 CFU/mI
 	(Non-Alcoholic- Carbonated	Escherichia coli	IS 5887 (Part 1)	Qualitative (Absent or Present/25ml)
	Drinks & Fermented fruit	Total Plate Count	IS 5402/ISO 4833	≥1 CFU/mI
	juice)	Yeast & Mould Count	IS 5403	≥1 CFU/ml
3.	Fruit & Fruit	Coliform Count	IS 5401 (Part 1)/ISO 4832	≥1 CFU/ml/≥10 CFU/gm
	Products	Total Plate Count	IS 5402/ISO 4833	≥1 CFU/ml/≥10 CFU/gm
	(Raw Fruit	Yeast & Mould Count	IS 5403	≥1CFU/ml/≥10 CFU/gm
	products/ Thermally and other processed products/ Dehydrated fruits, Fruit based jam, Concentrated fruit juice, Fruit juice & Proprietary products)	Escherichia coli	IS 5887 (Part 1)	Qualitative (Absent or Present/25gm or 25ml)
		Salmonella	IS 5887 (Part 3)/ISO 6579	Qualitative (Absent or Present/25gm or 25ml)
		Shigella	IS 5887 (Part 7)	Qualitative (Absent or Present/25gm or 25ml)
	productoj	Staphylococcus aureus	IS 5887 (Part 2)	Qualitative (Absent or Present/25gm or 25ml)

Rini Narayan	Venugopal C
Convenor	Program Manager

Accreditation Standard ISO/IEC 17025: 2005

Page 2 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			IS 5887(Part8/Sec1)/ ISO6887-1	≥10CFU/ml/≥100CFU/gm
		Vibrio cholerae	IS 5887 (Part 5)	Qualitative (Absent or Present/25gm or 25ml)
		Listeria monocytogens	IS 14988 (Part 1)	Qualitative (Absent or Present/25gm or 25ml)
		Incubation Test @37°C/10 days & @55°C/7 days	FSSAI Lab Manual 14	Qualitative (No changes in pH)
4.	Milk & Dairy	Coliform Count	IS 5401 (Part 1)/ISO 4832	≥1 CFU/ml/≥10 CFU/gm
	Products (Raw Milk, Standardized Milk,		IS 5401 (Part 2)/ISO 4831	Qualitative (Absent or Present/25gm or 25ml)
	Toned Milk, Skimmed Milk,		IS 5401 (Part 2)/ISO 4831	(0.30 to 110.0) x 10 ⁿ MPN/gm or ml
	Pasteurized Milk,	Total Plate Count	IS 5402/ISO 4833	≥1 CFU/ml/≥10 CFU/gm
	Boiled Milk, Evaporated Milk,	Yeast & Mould Count	IS 5403	≥1 CFU/ml/≥10 CFU/gm
	Butter Milk, Curd, Panner, Chesse, Yoghurt, Milk	Escherichia coli	IS 5887 (Part 1)	Qualitative (Absent or Present/25gm or 25ml)
	Powder, Peanut Butter & Other Processed Milk	Salmonella	IS 5887 (Part 3)/ISO 6579	Qualitative (Absent or Present/25gm or 25ml)
	Products)	Shigella	IS 5887 (Part 7)	Qualitative (Absent or Present/25gm or 25ml)
		Staphylococcus aureus	IS 5887 (Part 2)	Qualitative (Absent or Present/25gm or 25ml)
			IS 5887 (Part 8/Sec 1)/ ISO 6888-1	≥10 CFU/gm or ml/≥100 CFU/gm

Accreditation Standard ISO/IEC 17025: 2005

Page 3 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Bacillus cereus	IS 5887 (Part 6)/ISO 7932	≥10 CFU/ml/≥100 CFU/gm
		Clostridium perfringens	IS 5887 (Part 4)	≥10 CFU/gm or ml ≥100 CFU/gm
		Listeria monocytogens	IS 14988 (Part 1)	Qualitative (Absent or Present/25gm or 25ml)
5.	Snacks & Instant	Coliform Count	IS 5401 (Part 1)/ISO 4832	≥1 CFU/ml/≥10 CFU/gm
	mixes	Total Plate Count	IS 5402/ISO 4833	≥1 CFU/ml/≥10 CFU/gm
	(Veg Cutlet,	Yeast & Mould Coun	IS 5403	≥1 CFU/ml/≥10 CFU/gm
	Sandwich, Vegetable Based Snack, Cereal Based Snack, Other Traditional Snack, Biscuit, Cereal Based Instant Mix, Vegetable Based Instant Mix,	Escherichia coli	IS 5887 (Part 1)	Qualitative (Absent or Present/25gm or 25ml)
		Salmonella	IS 5887 (Part 3)/ISO 6579	Qualitative (Absent or Present/25gm or 25ml)
		Staphylococcus aureus	IS 5887 (Part 2)	Qualitative (Absent or Present/25gm or 25ml)
	Proprietary Food, Crispy Rice		IS 5887 (Part 8/Sec 1)/ ISO 6888-1	≥10 CFU/ml ≥100 CFU/gm
	Terets, Chips,	Bacillus cereus	IS 5887 (Part 6)/ISO 7932	≥10 CFU/ml ≥100 CFU/gm
	Cooked Foods And Ready to Eat Food)	Vibrio cholerae	IS 5887 (Part 5)	Qualitative (Absent or Present/25gm or 25ml)
		Listeria monocytogens	IS 14988 (Part 1)	Qualitative (Absent or Present/25gm or 25ml)
6.	Vegetables & Vegetable Products (Raw Products/	Coliform Count	IS 5401 (Part 1)/ISO 4832	≥1 CFU/ml/≥10 CFU/gm
		Total Plate Count	IS 5402/ISO 4833	≥1 CFU/ml/≥10 CFU/gm
		Yeast & Mould Count	IS 5403	≥1 CFU/ml/≥10 CFU/gm
	Thermally Processed	Escherichia coli	IS 5887 (Part 1)	Qualitative (Absent or Present/25gm or 25ml)

Accreditation Standard ISO/IEC 17025: 2005

Page 4 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Products/ Dehydrated Vegetable,	Salmonella	IS 5887 (Part 3)/ISO 6579	Qualitative (Absent or Present/25gm or 25ml)
	Concentrated Vegetable juice, Pickles)	Shigella	IS 5887 (Part 7)	Qualitative (Absent or Present/25gm or 25ml)
		Staphylococcus aureus	IS 5887 (Part 2)	Qualitative (Absent or Present/25gm or 25ml)
			IS 5887 (Part 8/Sec 1)/ ISO 6888-1	≥10 CFU/ml ≥100 CFU/gm
		Vibrio cholerae	IS 5887 (Part 5)	Qualitative (Absent or Present/25gm or 25ml)
		Listeria monocytogens	IS 14988 (Part 1)	Qualitative (Absent or Present/25gm or 25ml)
		Incubation Test (i)@37°C/10 days (ii)@55°C/7 days	FSSAI Lab Manual 14	Qualitative (No changes in pH)
II.	WATER			
1.	Domestic and	Total Colifoms	IS 1622	<2 to 1600 MPN/100ml
	Potable Water	Escherichia coli	IS 1622	<2 to 1600 MPN/100ml
2.	Packaged Drinking Water	Aerobic Microbial Count at 22°C	IS 5402/ISO 4833	≥1 CFU/mI
		Aerobic Microbial Count at 37°C	IS 5402/ISO 4833	≥1 CFU/mI
		Yeast & Mould Count	IS 5403	Qualitative (Absent or Present/250ml)
		Pseudomonas aeruginosa	IS 13428(Annex.D)	Qualitative (Absent or Present/250ml)
		Coliforms & E. coli	IS 15185/ISO 9308-I	Qualitative (Absent or Present/250ml)

Rini Narayan Convenor

Accreditation Standard ISO/IEC 17025: 2005

Page 5 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Staphylococcus aureus	IS 5887(Part-2)	Qualitative (Absent or Present/250ml)
		Faecal Streptococci	IS 15186	Qualitative (Absent or Present/250ml)
		Shigella	IS 5887 (Part-7)	Qualitative (Absent or Present/250ml)
		Salmonella	IS 15187/ISO 6340	Qualitative (Absent or Present/250ml)
		Vibrio cholerae	IS 5887 (Part-5)	Qualitative (Absent or Present/250ml)
		Vibrio parahaemolyticus	IS 5887 (Part-5)	Qualitative (Absent or Present/250ml)
		Sulphite Reducing Anaerobes	IS 13428 (Annex-C)	Qualitative (Absent or Present/50ml)
3.	Water for	Standard Plate Count	IS 1622	≥1 CFU/mI
	Processed Food	Coliform	IS 1622	<2 to 1600 MPN/100ml
	Industry	Proteolytic bacteria	IS 4251 (Appendix A-1)	≥1 CFU/ml
		Lipolytic bacteria	IS 4251 (Appendix A-2U)	≥1 CFU/ml
		Thermophilic bacteria	IS 4251 (Appendix A-3)	≥1 CFU/ml
III.	NUTRACEUTICALS	AND FUNCTIONAL FOO)D	
1	Fortified Food	Coliform Count	IS 5401 (Part 1)/ISO 4832	≥10 CFU/gm
		Total Plate Count	IS 5402, ISO 4833	≥10 CFU/gm
		Yeast & Mould Count	IS 5403	≥10 CFU/gm
		Escherichia coli	IS 5887 (Part 1)	Qualitative (Absent or Present/25gm)
		Shigella	IS 5887 (Part 7)	Qualitative (Absent or Present/25gm)
		Staphylococcus aureus	IS 5887 (Part 2)	Qualitative (Absent or Present/25gm)
			IS 5887 (Part 8/Sec 1): ISO 6888-1	≥ 100 CFU/gm

Rini Narayan Convenor

Accreditation Standard ISO/IEC 17025: 2005

Page 6 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		CHEMIC	CAL TESTING	
I.	FOOD & AGRICULT	URAL PRODUCTS		
1.	Milk & dairy Products (Milk, Flavoured	Total fat	FSSAI Manual for Milk and Milk Products, S.No. 1.3.4.2	0.1 g/100g to 100 g/100g
	milk, Condensed milk, Butter milk,	Milk Solids	FSSAI Manual for Milk and Milk Products, S.No. 4.5	0.1 g/100g to 20 g/100g
	Yogurt, Curd, Butter, Ghee, Milk	Milk solids non fat	FSSAI Manual for Milk and Milk Products, S.No. 15.2	0.1 g/100g to 15 g/100g
	powder, Skimmed milk powder,	Ash insoluble in Dil HCl	FSSAI Manual for Milk and Milk Products, S.No. 10.8	0.01 g/100g to 2 g/100g
	Dried Milk, Whey powder, Casein,	Milk fat	FSSAI Manual for Milk and Milk Products, S.No. 15.3	0.1 g/100g to 50 g/100g
	Whey Protein, Cheese,	Moisture	FSSAI Manual for Milk and Milk Products, S.No. 10.2	0.1 g/100g to 90 g/100g
	Proprietary food(Milk based), lce cream,	Total Solids	FSSAI Manual for Milk and Milk Products, S.No. 1.3.3	0.1 g/100g to 99 g/100g
	Processed milk products)	Total Protein	FSSAI Manual for Milk and Milk Products, S.No.19.4, 7.5, 14.4, 15.4	0.5 g/100g to 90 g/100g
		Milk Protein in Milk Solids not Fat of Cream Powder	FSSAI Manual for Milk and Milk Products, S.No. 3.4	10 g/100g to 60 g/100g
		Common salt	FSSAI Manual for Milk and Milk Products, S.No. 12.4	0.05 g/100g to 20 g/100g
		Refractive index at 40°C	FSSAI Manual for Milk and Milk Products, S.No. 13.3	40.0 to 45.0
		Reichert Meissel value	FSSAI Manual for Milk and Milk Products, S.No. 13.5	1 to 50
		FFA as oleic acid	FSSAI Manual for Milk and Milk Products, S.No. 13.4	0.1 g/100g to 10 g/100g

Accreditation Standard ISO/IEC 17025: 2005

Page 7 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Peroxide Value	FSSAI Manual for Milk and Milk Products, S.No. 13.9	0.1 meq/Kg to 20 meq/Kg
		Boudouins Test	FSSAI Manual for Milk and Milk Products, S.No. 13.6	Qualitative
		Total ash	FSSAI Manual for Milk and Milk Products, S.No. 14.6	0.1 g/100g to 10 g/100g
		Titrable acidity (as lactic acid)	FSSAI Manual for Milk and Milk Products, S.No. 14.5, 9.5	0.1 g/100g to 10 g/100g
		Sugar (Sucrose)	FSSAI Manual for Milk and Milk Products, S.No. 9.4.1	1.0 g/100g to 40 g/100g
		рН	FSSAI Manual for Milk and Milk Products, S.No. 16.6	2 to 13
		Energy	IS 14433	50 Kcal/100g to 900 Kcal/100g
		Carbohydrates	AOAC 20 th Edition, 986.25, IS 1656	5 g/100g to 80 g/100g
		Fatty Acids		
		Saturated Fatty Acids	AOAC 20 th Edition, 969.33	0.01 g/100g to 40 g/100g
		Mono unsaturated fatty acids	AOAC 20 th Edition, 969.33	0.01 g/100g to 40 g/100g
		Poly unsaturated fatty acids	AOAC 20 th Edition, 969.33	0.01 g/100g to 80 g/100g
		Trans fatty acids Sterols	AOAC 20 th Edition, 969.33	0.01 g/100g to 5 g/100g
		Cholesterol Antioxidants	AOAC 20 th Edition, 994.10	10 mg/Kg to 1000 mg/Kg
		BHA TBHQ	AOAC 20 th Edition 983.15 AOAC 20 th Edition 983.15	5 mg/Kg to 300 mg/Kg 5 mg/Kg to 300 mg/Kg
		Adulteration tests		-
		Urea	FSSAI Manual for Milk and Milk Products, S.No.1.2.4.1	Qualitative
		added starch	FSSAI Manual for Milk and Milk Products, S.No.1.2.2.1	Qualitative

Rini Narayan Convenor

Accreditation Standard ISO/IEC 17025: 2005

Page 8 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		cane sugar	FSSAI Manual for Milk and Milk Products, S.No.1.2.1.1	Qualitative
		glucose	FSSAI Manual for Milk and Milk Products, S.No.1.2.7.1	Qualitative
		anionic detergents	FSSAI Manual for Milk and Milk Products, .No.1.2.14.1	Qualitative
		neutralizers	FSSAI Manual for Milk and Milk Products, S.No.1.2.11	Qualitative
		Sodium chloride	FSSAI Manual for Milk and Milk Products, S.No.1.2.8	Qualitative
		Cellulose	FSSAI Manual for Milk and Milk Products, S.No.1.2.3.1	Qualitative
		Ammonium compounds	FSSAI Manual for Milk and Milk Products, S.No.1.2.5.1	Qualitative
		Sulphates	FSSAI Manual for Milk and Milk Products, S.No.1.2.6.1	Qualitative
		Preservatives		
		Benzoic acid and its sodium and potassium salt	SOP NO:106/146, Issue no.1.0, Issued on 2017-08-31	25 mg/Kg to 1000 mg/Kg
		Sorbic Acid and its Sodium, Potassium and Calcium salts	SOP NO:106/146, Issue no.1.0, Issued on 2017-08-31	25 mg/Kg to 1000 mg/Kg
ļ		added colours	133060 011 2017 -00-31	
		added Natural colours	FSSAI Manual for food additives, S.No.4.1	Qualitative
		added synthetic colours	FSSAI Manual for food additives, S.No.4.2.1	Qualitative
		Artificial Sweeteners		
		Aspartame	SOP NO:106/146, Issue no.1.0, Issued on 2017-08-31	50 mg/Kg to 2000 mg/Kg
		Acesulfame-K	FSSAI Manual for food additives, S.No.3.5	10 mg/Kg to 1000 mg/Kg

Accreditation Standard ISO/IEC 17025: 2005

Page 9 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
2.	Fruit & Fruit Products (Raw fruits and	Moisture content	FSSAI Manual for Fruits and Vegetables Products, S.No. 4.1	0.1 g/100g to 90 g/100g
	processed fruit products, Proprietary food	pH	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.3	2 to 13
	(Fruit based), Pickles, Jellies)	Total Ash	FSSAI Manual for Fruits and Vegetables Products, S.No. 11.3	0.1 g/100g to 10 g/100g
		Ash insoluble in Dil HCL	FSSAI Manual for Fruits and Vegetables Products, S.No. 5.3	0.01 g/100g to 2 g/100g
		Total soluble solids	FSSAI Manual for Fruits and Vegetables Products, S.No. 1.6	1 g/100g to 80 g/100g
		Total Sugars	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.6	1.0 g/100g to 80 g/100g
		Acidity (Acetic acid/Citric Acid/Maleic acid/ Tartaric acid/Lactic acid)	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.4	0.1 g/100g to 10 g/100g
		Ascorbic acid	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.8	(10 to 1000) mg/100ml or mg/100g
		Preservatives Benzoic acid and its sodium and potassium salt	SOP NO:106/146, Issue no.1.0, Issued on 2017-08- 31	25 mg/Kg to 1000 mg/Kg
		Sulphur Dioxide	FSSAI Manual for Fruits and Vegetables Products, S.No. 17.7	10 mg/Kg to 1000 mg/Kg

Accreditation Standard ISO/IEC 17025: 2005

Page 10 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Sorbic acid and its sodium, potassium and calcium salt	SOP NO:106/146, Issue no.1.0, Issued on 2017-08- 31	25 mg/Kg to 1000 mg/Kg
		Naturally Occurring Toxic Substances		
		Safrole	SOP NO:106/149, Issue no.1.0, Issued on 2017-08- 31	4 mg/Kg to 80 mg/Kg
		Agaric acid	SOP NO:106/148,Issue no.1.0, Issued on 2017-08- 31	50 mg/Kg to 500 mg/Kg
		Hydrocyanic acid Added colours	AOAC 20 th Edition,920.144	5 mg/Kg to 50 mg/Kg
		Added Natural colours	FSSAI Manual for food additives, S.No.4.1	Qualitative
		Added synthetic colours	FSSAI Manual for food additives, S.No.4.2.1	Qualitative
3.	Vegetable & Vegetable Products	Moisture content	FSSAI Manual for Fruits and Vegetables Products, S.No. 4.1	0.1 g/100g to 90 g/100g
	(Raw vegetables and processed vegetable	рН	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.3	2 to 13
	products, Proprietary food (Vegetable based),	Total Ash	FSSAI Manual for Fruits and Vegetables Products, S.No. 11.3	0.1 g/100g to 10 g/100g
	Pickles)	Ash insoluble in Dil HCL	FSSAI Manual for Fruits and Vegetables Products, S.No. 5.3	0.01 g/100g to 2 g/100g
		Total soluble solids	FSSAI Manual for Fruits and Vegetables Products, S.No. 1.6	1 g/100g to 80 g/100g
		Total Sugars	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.6	1.0 g/100g to 80 g/100g

Accreditation Standard ISO/IEC 17025: 2005

Page 11 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Acidity (Acetic acid/Citric Acid/Maleic acid/ Tartaric acid/Lactic acid)	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.4	0.1 g/100g to 10 g/100g
		Ascorbic acid	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.8	10 mg/100g to 1000 mg/100g
		Preservatives		
		Benzoic acid and its sodium and potassium salt	SOP NO:106/146, Issue no.1.0, Issued on 2017-08- 31	25 mg/Kg to 1000 mg/Kg
		Sulphur Dioxide	FSSAI Manual for Fruits and Vegetables Products, S.No. 17.7	10 mg/Kg to 1000 mg/Kg
		Sorbic acid and its sodium, potassium and calcium salt	SOP NO:106/146, Issue no.1.0, Issued on 2017-08- 31	25 mg/Kg to 1000 mg/Kg
		Naturally Occurring Toxic Substances		
		Hydrocyanic acid	AOAC 20 th Edition, 920.144	5 mg/Kg to 50mg/Kg
		Agaric acid	SOP NO:106/148, Issue no.1.0, Issued on 2017-08- 31	50 mg/Kg to 500 mg/Kg
		Added colours		
		Added Natural colours	FSSAI Manual for food additives, S.No.4.1	Qualitative
		Added synthetic colours	FSSAI Manual for food additives, S.No.4.2.1	Qualitative
4	Jam (Fruit based), Juices, Sauces and	Moisture content	FSSAI Manual for Fruits and Vegetables Products, S.No. 4.1	0.1 g/100g to 90 g/100g
	Concentrates Sauces (Cereal based, Vegetable based),	pH	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.3	2 to 13

Rini Narayan Convenor

Accreditation Standard ISO/IEC 17025: 2005

Page 12 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Concentrates (Fruits and vegetable based)	Total Ash	FSSAI Manual for Fruits and Vegetables Products, S.No. 11.3	0.1 g/100g to 10 g/100g
		Ash insoluble in Dil HCL	FSSAI Manual for fruits and Vegetables Products, S.No. 5.3	0.01 g/100g to 2 g/100g
		Total soluble solids	FSSAI Manual for Fruits and Vegetables Products, S.No. 1.6	1 g/100g to 80 g/100g
		Total Sugars	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.6	1.0 g/100g to 80 g/100g
		Acidity (Acetic acid/Citric Acid/ Maleic acid/Tartaric acid/Lactic acid)	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.4	0.1 g/100g to 10 g/100g
		Ascorbic acid	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.8	(10 to 1000) mg/100ml or mg/100g
		Sodium Chloride	FSSAI Manual for Fruits and Vegetables Products, S.No. 1.7	0.1 g/100g to 20 g/100g
İ		Preservatives		
		Benzoic acid and its sodium and potassium salt	SOP NO:106/146, Issue no.1.0, Issued on 2017-08-31	25 mg/Kg to 1000 mg/Kg
		Sulphur Dioxide	FSSAI Manual for Fruits and Vegetables Products, S.No. 17.7	10 mg/Kg to 1000 mg/Kg
		Sorbic acid and its sodium, potassium and calcium salt	SOP NO:106/146, Issue no.1.0, Issued on 2017-08-31	25 mg/Kg to 1000 mg/Kg
		Added colours		
		Added Natural colours	FSSAI Manual for food additives, S.No.4.1	Qualitative

Accreditation Standard ISO/IEC 17025: 2005

Page 13 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Synthetic colours		
		Ponceau 4R	SOP No:106/151,Issue no.:1.0, Issued on 2017-08- 31	20 mg/Kg to 1000 mg/Kg
		Carmoisine	SOP No:106/151,Issue no.:1.0, Issued on 2017-08- 31	20 mg/Kg to 1000 mg/Kg
		Tartrazine	SOP No:106/151,Issue no.:1.0, Issued on 2017-08- 31	20 mg/Kg to 1000 mg/Kg
		Sunset yellow FCF	SOP No:106/151, Issue no.:1.0, Issued on 2017-08- 31	20 mg/Kg to 1000 mg/Kg
		Artificial Sweeteners		
		Aspartame	SOP NO:106/146, Issue no.1.0, Issued on 2017-08- 31	50 mg/Kg to 2000 mg/Kg
		Acesulfame-K	FSSAI Manual for food additives, S.No.3.5	10 mg/Kg to 1000 mg/Kg
		Naturally Occurring Toxic Substances		
		Safrole	SOP NO:106/149,Issue no.1.0, Issued on 2017-08- 31	4 mg/Kg to 80 mg/Kg
		Hydrocyanic acid	AOAC 20 th Edition, 920.144	5 mg/Kg to 50mg/Kg
5.	Beverages	Alcoholic content	IS 3752	1 % to 60 % v/v
	(Alcoholic): (Wine, Beer,	Total acid as tartaric acid	IS 3752	(5 to 1500) g/100 L abs. alcohol
	Brandy, Rum, Whisky)	Volatile acid as acetic acid	IS 3752	(5 to 1500) g/100 L abs. alcohol
		Residue on evaporation	IS 3752	0.5 % to 20 % w/v
		Ash	IS 3752	0.01 % to 5% w/v
		Esters as ethyl acetate	IS 3752	(10 to 2000) g/100 L abs alcohol

Accreditation Standard ISO/IEC 17025: 2005

Page 14 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Higher alcohols as amyl alcohol	IS 3752 (Method 1)	Qualitative
		Aldehydes as acetaldehyde	IS 3752	(10 to 2000) g/100 L abs alcohol
		Furfural	IS 3752	(5 to 200) g/100 L of abs alcohol
		Reducing residual sugar	IS 7585	0.5 g/100 ml to 10 g/100 ml
		pH	IS 7585	2 to 13
		Total sulphur dioxide	IS 7585	10 mg/L to 1000 mg/L
		Extracts	IS 7585 (Method 6.2)	0.1 g/100g to 20 g/100ml
		Tannins	IS 7585 (Method 8.2)	0.1 g/L to 10 g/L
II.	NUTRACEUTICALS	AND FUNCTIONAL FOC	DDS	
1.	Fortified food:	Moisture	AOAC 20 th Edition, 935.29	0.5 g/100g to 50 g/100g
	(Cereal and Milk	Protein content	AOAC 20 th Edition, 950.09	1.0 g/100g to 50 g/100g
	Based Proprietary	Fat content	AOAC 20 th Edition, 950.09 AOAC 20 th Edition, 932.06	1.0 g/100g to 50 g/100g
	Foods)	Total sugars	FSSAI Manual for Fruits and Vegetables Products, S.No. 2.6	1.0 g/100g to 50 g/100g
		Total carbohydrates	AOAC 20 th Edition,986.25, IS 1656	1.0 g/100g to 50 g/100g
		Total Ash	AOAC 20 th Edition, 942.05	0.5 g/100g to 10 g/100g
		Energy	IS 14433	(50 to 600) Kcal/100g
		Crude fiber	GAFTA Method 9.0	1.0 g/100g to 20 g/100g
		Dietary fiber	AOAC 20 th Edition, 991.43	1.0 g/100g to 30 g/100g
		Fatty acids		
		Saturated Fatty acids	AOAC 20 th Edition,969.33	0.01 g/100g to 10 g/100g
		Mono unsaturated fatty acids		0.01 g/100g to 10 g/100g
		Poly unsaturated fatty acids		0.01 g/100g to 10 g/100g
		Trans fatty acids		0.01 g/100g to 5 g/100g

Accreditation Standard ISO/IEC 17025: 2005

Page 15 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Sterols		
		Cholesterol	AOAC 20 th Edition,994.10	10 mg/Kg to 750 mg/Kg
		Vitamins		
		Thiamine (Vitamin B1-Thiamine Hydrochloride)	SOP No.: 106/150 Issue No.: 2.0, Issued on 2017- 10-30	5.0 mg/Kg to 500 mg/Kg
		Riboflavin (Vitamin B2)	SOP No.: 106/150 Issue No.: 2.0, Issued on 2017- 10-30	5.0 mg/Kg to 1000 mg/Kg
		Niacin (Vitamin B3- Nicotinic acid and Niacinamide)	SOP No.: 106/150 Issue No. : 2.0, Issued on 2017- 10-30	5.0 mg/Kg to 500 mg/Kg
		Pyridoxin (Vitamin B6- Pyridoxine Hydrochloride)	SOP No.: 106/150 Issue No.: 2.0, Issued on 2017- 10-30	5.0 mg/Kg to 500 mg/Kg
		Folic acid (Vitamin B9)	SOP No.: 106/150 Issue No.: 2.0, Issued on 2017- 10-30	0.5 mg/Kg to 50 mg/Kg
		Pantothenic acid (Vitamin B5- Pantothenic acid hemi calcium salt)	SOP No.: 106/150 Issue No.: 2.0, Issued on 2017- 10-30	2.0 mg/Kg to 500 mg/Kg
		Vitamin -A (Retinyl acetate)	SOP No.:106/147, Issue No.:1.0, Issued on 2017- 08-31	1.0 mg/Kg to 500 mg/Kg
		Vitamin-E (dl-α- Tocopheryl acetate)	SOP No.:106/147, Issue No.:1.0, Issued on 2017- 08-31	1.0 mg/Kg to 500 mg/Kg
		Cholecalciferol (Vitamin D3)	SOP No.:106/147, Issue No.:1.0, Issued on 2017- 08-31	1.0 mg/Kg to 500 mg/Kg

Accreditation Standard ISO/IEC 17025: 2005

Page 16 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
III	RESIDUES IN FOOI	PRODUCTS		
A.	Mycotoxins			
1.	Milk & Dairy products (Liquid Milk, processed milk products)	Aflatoxin M1	AOAC 20 th Edition, 2000.8	0.1 μg/L to 1000 μg/L
2.	Jams, Juices, Sauces and Concentrates (Apple juice)	Patulin	AOAC 20 th Edition, 995.10	20 μg/L to 200 μg/L
В.	Pesticides			
1.	Milk & dairy Products (Milk, Flavoured milk, Condensed milk, Butter milk, Yogurt, Curd, Butter, Ghee, Milk powder, Skimmed milk powder, Dried Milk, Whey powder, Casein, Whey Protein, Cheese, Proprietary food(Milk based), Ice cream, Processed milk products)	Aldrin Dieldrin Chlordane o,p-DDT o,p-DDE o,p-DDD p,p-DDT p,p-DDD Fenitrothion Heptachlor Alpha HCH Beta HCH Lindane Delta HCH Chlorfenvinphos Chlorpyrifos 2,4-D Ethion Monocrotophos Paraquat Dichloride Trichlorfon	AOAC 20 th Edition, 2007.01; QuEChERS; EN 15662, SOP:106/29, Issued on 2016.08.12 Issue No:1.0	0.01 mg/Kg to 0.2 mg/Kg

Accreditation Standard ISO/IEC 17025: 2005

Page 17 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are	Range of Testing / Limits of Detection
			performed	
		Benomyl		0.01 mg/Kg to 0.2 mg/Kg
		Carbofuran (sum of		0.01 mg/Kg to 0.2 mg/Kg
		carbofuron and 3-		0.01 mg/Kg to 0.2 mg/Kg
		hydroxy carbofuran		
		express as Cabofuran)		
		Cypermethrin		0.01 mg/Kg to 0.2 mg/Kg
		Edifenfos		0.01 mg/Kg to 0.2 mg/Kg
		Fenthion		0.01 mg/Kg to 0.2 mg/Kg
		Fenvalerate		0.01 mg/Kg to 0.2 mg/Kg
		Phenthoate		0.01 mg/Kg to 0.2 mg/Kg
		Phorate		0.01 mg/Kg to 0.2 mg/Kg
		Pirimiphos methyl		0.01 mg/Kg to 0.2 mg/Kg
2.	Fruit and Fruit	Aldrin	AOAC 20 th Edition,	0.01 mg/Kg to 0.2 mg/Kg
	products,	Dieldrin	2007.01; QuEChERS; EN	0.01 mg/Kg to 0.2 mg/Kg
	Vegetable and	Chlordane	15662, NRL Method,	0.01 mg/Kg to 0.2 mg/Kg
	vegetable	o,p-DDT	SOP:106/25, Issued on	0.01 mg/Kg to 0.2 mg/Kg
	products, Jam,	o,p-DDE	2016.07.07 Issue no.:1.0	0.01 mg/Kg to 0.2 mg/Kg
	Juices, Sauces	o,p-DDD		0.01 mg/Kg to 0.2 mg/Kg
	and Concentrates	p,p-DDT		0.01 mg/Kg to 0.2 mg/Kg
		p,p-DDE		0.01 mg/Kg to 0.2 mg/Kg
		p,p-DDD		0.01 mg/Kg to 0.2 mg/Kg
		Dichlorvos		0.01 mg/Kg to 0.2 mg/Kg
		Dicofol		0.01 mg/Kg to 0.2 mg/Kg
		Dimethoate		0.01 mg/Kg to 0.2 mg/Kg
		Endosulfan I		0.02 mg/Kg to 0.4 mg/Kg
		Endosulfan II		0.02 mg/Kg to 0.4 mg/Kg
		Endosulfan Sulfate		0.02 mg/Kg to 0.4 mg/Kg
		Fenitrothion		0.01 mg/Kg to 0.2 mg/Kg
		Heptachlor		0.01 mg/Kg to 0.2 mg/Kg
		Alpha HCH		0.01 mg/Kg to 0.2 mg/Kg
		Beta HCH		0.01 mg/Kg to 0.2 mg/Kg
		Lindane		0.01 mg/Kg to 0.2 mg/Kg
		Delta HCH		0.01 mg/Kg to 0.2 mg/Kg
		Malathion		0.01 mg/Kg to 0.2 mg/Kg
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Accreditation Standard ISO/IEC 17025: 2005

Page 18 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Parathion		0.01 mg/Kg to 0.2 mg/Kg
		Parathion Methyl		0.01 mg/Kg to 0.2 mg/Kg
		Phosphamidon		0.01 mg/Kg to 0.2 mg/Kg
		Profenofos		0.01 mg/Kg to 0.2 mg/Kg
		Pyrethrins		0.01 mg/Kg to 0.2 mg/Kg
		Chlorobenzilate		0.01 mg/Kg to 0.2 mg/Kg
		Chlorpyrifos		0.01 mg/Kg to 0.2 mg/Kg
		2,4-D		0.01 mg/Kg to 0.2 mg/Kg
		Ethion		0.01 mg/Kg to 0.2 mg/Kg
		Formothion		0.01 mg/Kg to 0.2 mg/Kg
		Monocrotophos		0.01 mg/Kg to 0.2 mg/Kg
		Paraquat Dichloride		0.01 mg/Kg to 0.2 mg/Kg
		Phosalone		0.01 mg/Kg to 0.2 mg/Kg
		Trichlorfon		0.01 mg/Kg to 0.2 mg/Kg
		Thiometon		0.01 mg/Kg to 0.2 mg/Kg
		Carbendazim		0.01 mg/Kg to 0.2 mg/Kg
		Benomyl		0.01 mg/Kg to 0.2 mg/Kg
		Captan		0.02 mg/Kg to 0.4 mg/Kg
		Carbofuran		0.01 mg/Kg to 0.2 mg/Kg
		Fenthion		0.01 mg/Kg to 0.2 mg/Kg
		Fenthion Sulfone		0.01 mg/Kg to 0.2 mg/Kg
!		Fenthion Sulfoxide		0.01 mg/Kg to 0.2 mg/Kg
		Dithiocarbamates		0.01 mg/Kg to 0.2 mg/Kg
		Phorate		0.01 mg/Kg to 0.2 mg/Kg
		Phorate Sulfone		0.01 mg/Kg to 0.2 mg/Kg
		Phorate Sulfoxide		0.01 mg/Kg to 0.2 mg/Kg
•		Isoproturon		0.01 mg/Kg to 0.2 mg/Kg
		Cyfluthrin		0.01 mg/Kg to 0.2 mg/Kg
		Phenthoate		0.01 mg/Kg to 0.2 mg/Kg
		Quinolphos		0.01 mg/Kg to 0.2 mg/Kg
		Tricyclazole		0.01 mg/Kg to 0.2 mg/Kg
		Chlormequat chloride		0.01 mg/Kg to 0.2 mg/Kg
		Thiomethoxam		0.01 mg/Kg to 0.2 mg/Kg

Accreditation Standard ISO/IEC 17025: 2005

Page 19 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material	Specific Test Performed	Test Method Specification	Range of Testing / Limits of Detection
	of Test	Performed	against which tests are performed	Limits of Detection
		Deltamethrin		0.01 mg/Kg to 0.2 mg/Kg
ļ		Dodine		0.01 mg/Kg to 0.2 mg/Kg
		Diuron		0.01 mg/Kg to 0.2 mg/Kg
		Thiophenate-methyl		0.01 mg/Kg to 0.2 mg/Kg
		Fenarimol		0.01 mg/Kg to 0.2 mg/Kg
		Hexaconazole		0.01 mg/Kg to 0.2 mg/Kg
		Iprodion		0.05 mg/Kg to 1.0 mg/Kg
		Tridemorph		0.01 mg/Kg to 0.2 mg/Kg
		Penconazole		0.01 mg/Kg to 0.2 mg/Kg
		Myclobutanil		0.01 mg/Kg to 0.2 mg/Kg
		Cymoxanil		0.01 mg/Kg to 0.2 mg/Kg
		Triadimefon		0.01 mg/Kg to 0.2 mg/Kg
		Fosetyl Al		0.05 mg/Kg to 1.0 mg/Kg
		Difenoconazole		0.01 mg/Kg to 0.2 mg/Kg
		Dimethomorph		0.01 mg/Kg to 0.2 mg/Kg
		Propineb		0.01 mg/Kg to 0.2 mg/Kg
		Carbaryl		0.01 mg/Kg to 0.2 mg/Kg
		Diazinon		0.01 mg/Kg to 0.2 mg/Kg
		Chlorfenvinphos		0.01 mg/Kg to 0.2 mg/Kg
		Fenvalerate		0.01 mg/Kg to 0.2 mg/Kg
ļ		Spinosad		0.01 mg/Kg to 0.2 mg/Kg
		Lufenuron		0.01 mg/Kg to 0.2 mg/Kg
		Captafol		0.02 mg/Kg to 0.4 mg/Kg
		Metiram		0.01 mg/Kg to 0.2 mg/Kg
		Novaluron		0.01 mg/Kg to 0.2 mg/Kg
		Alachlor		0.01 mg/Kg to 0.2 mg/Kg
		Fluchoralin		0.01 mg/Kg to 0.2 mg/Kg
		Acephate		0.01 mg/Kg to 0.2 mg/Kg
C.	Trace metal			
	elements	0	1010 00 th 5 10 10 00 15 01	5 // 5000 //
1.	Milk & dairy	Sodium	AOAC 20 th Edition 2015.01	5 mg/Kg to 5000 mg/Kg
	Products	Potassium	by ICP-MS	10 mg/Kg to 10000 mg/Kg
	(Milk, Flavoured	Calcium	FSSAI Manual for Analysis	5 mg/Kg to 5000 mg/Kg
1	milk, Condensed	Iron	of metals, S.No. 6.0,	0.05 mg/Kg to 50 mg/Kg

Accreditation Standard ISO/IEC 17025: 2005

Page 20 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	milk, Butter milk,, Yogurt, Curd, Butter, Ghee, Milk powder, Skimmed milk powder, Dried Milk, Whey powder, Casein, Whey Protein, Cheese, Proprietary food(Milk based), Ice cream, Processed milk products)	Lead Magnesium Copper Arsenic Tin Zinc Cadmium Mercury Chromium Nickel	SOP: 106/39 issue no. 2.0, issued on: 2017/02/04 AOAC 20 th Edition 2015.06	0.05 mg/Kg to 5 mg/Kg 0.5 mg/Kg to 5000 mg/Kg 0.05 mg/Kg to 50 mg/Kg 0.05 mg/Kg to 5 mg/Kg 0.05 mg/Kg to 500 mg/Kg 0.05 mg/Kg to 100 mg/Kg 0.05 mg/Kg to 5 mg/Kg 0.005 mg/Kg to 1 mg/Kg 0.005 mg/Kg to 20 mg/Kg
2.	Fruit and Fruit products, Vegetable and vegetable products, Jam, Juices, Sauces and Concentrates	Sodium Potassium Calcium Iron Magnesium Lead Copper Arsenic Tin Zinc Cadmium Mercury Chromium Nickel	AOAC 20 th Edition, 2015.01 by ICP-MS FSSAI Manual for Analysis of metals, S.No. 6.0 SOP: 106/39 issue no. 2.0, issued on: 2017/02/04 AOAC 20 th Edition 2015.06	5.0 mg/Kg to 1000 mg/Kg 5.0 mg/Kg to 5000 mg/Kg 1.0 mg/Kg to 5000 mg/Kg 0.05 mg/Kg to 100 mg/Kg 0.5 mg/Kg to 500 mg/Kg 0.05 mg/Kg to 500 mg/Kg 0.05 mg/Kg to 5 mg/Kg 0.05 mg/Kg to 55 mg/Kg 0.05 mg/Kg to 5 mg/Kg 0.05 mg/Kg to 500 mg/Kg 0.05 mg/Kg to 500 mg/Kg 0.05 mg/Kg to 50 mg/Kg 0.05 mg/Kg to 10 mg/Kg 0.05 mg/Kg to 10 mg/Kg 0.05 mg/Kg to 10 mg/Kg
3.	Nutraceutical and Functional Foods Fortified food (Cereal and milk based Proprietary food)	Sodium Potassium Calcium Iron Lead Magnesium	AOAC 20th Edition, 2015.01 by ICP-MS FSSAI Manual for Analysis of metals, S.No. 6.0, SOP: 106/39 issue no. 2.0, issued on: 2017/02/04 AOAC 20th Edition, 2015.06	10 mg/Kg to 5000 mg/Kg 10 mg/Kg to 20000 mg/Kg 10 mg/Kg to 5000 mg/Kg 0.05 mg/Kg to 500 mg/Kg 0.05 mg/Kg to 5 mg/Kg 10 mg/Kg to 1000 mg/Kg

Rini Narayan Convenor

Accreditation Standard ISO/IEC 17025: 2005

Page 21 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
4.	Alcoholic Beverages (Wine, Beer, Brandy, Rum, Whisky)	Selenium Manganese Copper Arsenic Tin Zinc Cadmium Mercury Chromium Nickel Sodium Potassium Calcium Iron Lead Magnesium Copper Arsenic Tin Zinc Cadmium Arsenic Tin Zinc Cadmium Mercury Chromium Nickel	AOAC 20 th Edition, 2015.01 by ICP-MS FSSAI Manual for Analysis of metals, S.No. 6.0 SOP: 106/39 issue no. 2.0, issued on: 2017/02/04 AOAC 20 th Edition 2015.06	0.05 mg/Kg to 10 mg/Kg 0.05 mg/Kg to 100 mg/Kg 0.05 mg/Kg to 50 mg/Kg 0.05 mg/Kg to 50 mg/Kg 0.05 mg/Kg to 5 mg/Kg 0.05 mg/Kg to 500 mg/Kg 0.05 mg/Kg to 100 mg/Kg 0.05 mg/Kg to 1 mg/Kg 0.05 mg/Kg to 5 mg/Kg 0.05 mg/Kg to 50 mg/Kg 0.05 mg/Kg to 50 mg/Kg 0.05 mg/Kg to 50 mg/Kg 0.05 mg/L to 500 mg/L 0.05 mg/L to 500 mg/L 0.05 mg/L to 500 mg/L 0.01 mg/L to 5 mg/L 0.01 mg/L to 5 mg/L 0.01 mg/L to 5 mg/L 0.01 mg/L to 50 mg/L 0.01 mg/L to 55 mg/L 0.01 mg/L to 5 mg/L
IV.	WATER			
1.	Packaged drinking water	Color	IS 3025 (Part 4) (Platinum Cobalt method)	(1 to 50) Hazen Units
		Odour	IS 3025 (Part 5)	Qualitative (Unobjectionable/Agreeable)
		Taste	IS 3025 (Part 7&8)	Qualitative (Unobjectionable/Agreeable)

Accreditation Standard ISO/IEC 17025: 2005

Page 22 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Turbidity	IS 3025 (Part 10)	1 NTU to 20 NTU
		Total dissolved solids	IS 3025 (Part 16)	1 mg/L to 1000 mg/L
		рН	IS 3025 (Part 11) (Electrometric method)	1 to 13
		Barium as Ba	APHA 3125, 23 rd Edition	0.001 mg/L to 5 mg/L
!		Copper as Cu	APHA 3125, 23rd Edition	0.001 mg/L to 1mg/L
!		Iron as Fe	APHA 3125, 23 rd Edition	0.005 mg/L to 1mg/L
		Manganese as Mn	APHA 3125, 23 rd Edition	0.001 mg/L to 1mg/L
		Nitrate as NO ₃	APHA 4500 NO ₃ ^{-,} 23 rd Edition	0.1 mg/L to 200 mg/L
		Nitrite as NO ₂	IS 3025 (Part 34) (Method 4)	0.01 mg/L to 10 mg/L
		Fluoride as F	APHA 4500 F- D (Spadns method), 23rd Edition	0.1 mg/L to 50 mg/L
		Zinc as Zn	APHA 3125, 23 rd Edition	0.005 mg/L to 20mg/L
		Silver as Ag	APHA 3125, 23 rd Edition	0.001 mg/L to 1mg/L
		Aluminium as Al	APHA 3125, 23 rd Edition	0.005 mg/L to 1mg/L
		Chloride as Cl	IS 3025 (Part 32) (Argentometric Method)	5 mg/L to 500 mg/L
		Selenium as Se	APHA 3125, 23 rd Edition	0.005 mg/L to 1mg/L
		Sulphate as SO ₄	IS 3025 (Part 24) (Turbidity Method)	0.1 mg/L to 500 mg/L
		Alkalinity as HCO ₃	IS 3025 (Part 23)	10 mg/L to 1000 mg/L
		Calcium as Ca	IS 3025 (Part 40) (EDTA titrimetric Method)	10 mg/L to 1000 mg/L
		Magnesium as Mg	IS 3025 (Part 46) (Volumetric Method Using EDTA), 23rd Edition	5 mg/L to 1000 mg/L
		Sodium as Na	APHA 3500 Na B (Flame Emission Photometric method), 23 rd Edition	1.0 mg/L to 500 mg/L
		Residual free chloride	IS 3025 (Part 26) (Iodometric method)	0.1 mg/L to 10 mg/L

Accreditation Standard ISO/IEC 17025: 2005

Page 23 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Phenolic compounds as C ₆ H ₅ OH	APHA 5530 D (Direct Photometric Method), 23 rd Edition	0.001 mg/L to 10.0 mg/L
		Mineral oil	IS 3025 (Part 39) (Infrared Spectroscopic Method, Amendment 2)	0.05 mg/L to 100 mg/L
		Anionic surface active agent as MBAS	IS 13428 Annex. K	0.02 mg/L to 2.0 mg/L
		Sulphide as H₂S	APHA 4500 S2- F, 23rd Edition	0.02 mg/L to 100 mg/L
		Antimony as Sb	APHA 3125, 23 rd Edition	0.0005 mg/L to 0.5 mg/L
ļ		Borates as B	APHA 3125, 23 rd Edition	0.005 mg/L to 10mg/L
		Bromate as BrO ₃	EPA 300.1 In house developed method SOP No. 106/188, Issued on 2018-07-11	2.5 μg/L to 20 μg/L
		Cyanide as CN	IS 3025 (Part 27)	0.01 mg/L to 10.0 mg/L
		Chromium as Cr	APHA 3125, 23 rd Edition	0.001 mg/L to 1mg/L
		Nickel as Ni	APHA 3125, 23 rd Edition	0.005 mg/L to 1mg/L
2.	Drinking water	Color	IS 3025 (Part 4) (Platinum Cobalt method)	(1 to 50) Hazen Units
		Odour	IS 3025 (Part 5)	Qualitative (Unobjectionable/Agreeable)
		рН	IS 3025 (Part 11) (Electrometric method)	1 to 13
		Taste	IS 3025 (Part 7&8)	Qualitative (Unobjectionable/Agreeable)
		Turbidity	IS 3025 (Part 10)	1 NTU to 20 NTU
		Total dissolved solids	IS 3025 (Part 16)	1 mg/L to 5000mg/L
		Aluminium as Al	APHA 3125, 23 rd Edition	0.005 mg/L to 1mg/L
		Ammonia as N	IS 3025 (Part 34)	0.01 mg/L to 10.0 mg/L
		Anionic detergents as MBAS	IS 13428 Annex. K	0.02 mg/L to 2.0 mg/L
		Barium as Ba	APHA 3125, 23 rd Edition	0.001 mg/L to 5mg/L
		Boron as B	APHA 3125, 23 rd Edition	0.005 mg/L to 10mg/L

Rini Narayan Convenor

Accreditation Standard ISO/IEC 17025: 2005

Page 24 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Calcium as Ca	IS 3025 (Part 40) (EDTA titrimetric Method)	1.0 mg/L to 1000 mg/L
		Chloramines as Cl ₂	APHA 4500 CI G 23rd Edition (DPD Colorimetric Method)	0.1 mg/L to 10 mg/L
		Chloride as Cl	IS 3025 (Part 32) (Argentometric Method)	5 mg/L to 2000 mg/L
		Copper as Cu	APHA 3125, 23rd Edition	0.001 mg/L to 5mg/L
		Fluoride as F	APHA 4500 F- D (Spadns method), 23rd Edition	0.1 mg/L to 100 mg/L
		Free residual chlorine	IS 3025 (Part 26) (lodometric method)	0.1 mg/L to 10 mg/L
		Iron as Fe	APHA 3125, 23 rd Edition	0.005 mg/L to 1mg/L
		Magnesium as Mg	IS 3025 (Part 46) (Volumetric Method Using EDTA)	5 mg/L to 1000 mg/L
į		Manganese as Mn	APHA 3125, 23 rd Edition	0.001 mg/L to 5 mg/L
		Mineral oil	IS 3025 (Part 39) (Infrared Spectroscopic Method, Amendment 2)	0.05 mg/L to 100 mg/L
		Nitrate as NO ₃	APHA 4500 NO ₃ , 23rd Edition	0.1 mg/L to 100 mg/L
		Phenolic compounds as C ₆ H ₅ OH	APHA 5530 D (Direct Photometric Method), 23rd Edition	0.001 mg/L to 10.0 mg/L
į		Selenium as Se	APHA 3125, 23 rd Edition	0.005 mg/L to 1mg/L
		Silver as Ag	APHA 3125, 23 rd Edition	0.001 mg/L to 1mg/L
		Sulphate as SO ₄	IS 3025 (Part 24) (Turbidity Method)	0.1 mg/L to 1000 mg/L
		Sulphide as H₂S	APHA 4500 S2- F (Iodometric Method), 23rd Edition	0.02 mg/L to 100 mg/L

Rini Narayan Convenor

Accreditation Standard ISO/IEC 17025: 2005

Page 25 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

Total Alkalinity as	esting / etection
CaCO3)00 mg/L
Cyanide as CN	1000 mg/L
Molybdenum as Mo APHA 3125, 23 rd Edition 0.001 mg/L Nickel as Ni	to 50 mg/L
Molybdenum as Mo APHA 3125, 23 rd Edition 0.001 mg/L Nickel as Ni	o 10.0 mg/L
Total Chromium as Cr APHA 3125, 23 rd Edition 0.001 mg/L	
V. RESIDUES IN WATER Pesticides 1. Packaged drinking water 2,4-DDT SOP No. 106/177, Issued on 2018-06-30 0.01 μg/L to 0.	to 1mg/L
A. Packaged drinking water 1. Packaged drinking water 4.4-DDT SOP No. 106/177, 0.01 µg/L to 2,4-DDE 0.01 µg/L to 2,4'-DDD 0.01 µg/L to 2,4'-DDD 0.01 µg/L to 2,4'-DDD 0.01 µg/L to 2,4'-DDD 0.01 µg/L to 4,4-DDD 0.01 µg/L to 4,4-DDD 0.01 µg/L to 4,4-DDD 0.01 µg/L to	to 1mg/L
Contact Cont	
drinking water	
2,4-DDE 0.01 μg/L to 4,4-DDE 0.01 μg/L to 2,4'-DDD 0.01 μg/L to 4,4-DDD 0.01 μg/L to 4,4-DDD 0.01 μg/L to Gamma-HCH(Lindane) 0.01 μg/L to Alpha-HCH 0.01 μg/L to Beta - HCH 0.01 μg/L to Delta-HCH 0.01 μg/L to Endosulfan Alpha 0.01 μg/L to Endosulfan Beta 0.01 μg/L to 0.01 μg/L	-100 μg/L
4,4-DDE 0.01 μg/L to 2,4'-DDD 0.01 μg/L to 4,4-DDD 0.01 μg/L to 4,4-DDD 0.01 μg/L to Gamma-HCH(Lindane) 0.01 μg/L to Alpha-HCH 0.01 μg/L to Beta - HCH 0.01 μg/L to Delta-HCH 0.01 μg/L to Delta-HCH 0.01 μg/L to Endosulfan Alpha 0.01 μg/L to	
2,4'-DDD 0.01 μg/L to 4,4-DDD 0.01 μg/L to Gamma-HCH(Lindane) 0.01 μg/L to Alpha-HCH 0.01 μg/L to Beta - HCH 0.01 μg/L to Delta-HCH 0.01 μg/L to Endosulfan Alpha 0.01 μg/L to Endosulfan Beta 0.01 μg/L to	100 μg/L
4,4-DDD 0.01 μg/L to Gamma-HCH(Lindane) 0.01 μg/L to Alpha-HCH 0.01 μg/L to Beta - HCH 0.01 μg/L to Delta-HCH 0.01 μg/L to Delta-HCH 0.01 μg/L to Endosulfan Alpha 0.01 μg/L to Endosulfan Beta 0.01 μg/L to	
Gamma-HCH(Lindane) 0.01 μg/L to Alpha-HCH 0.01 μg/L to	
Alpha-HCH 0.01 μg/L to Beta - HCH 0.01 μg/L to Delta-HCH 0.01 μg/L to Endosulfan Alpha 0.01 μg/L to Endosulfan Beta 0.01 μg/L to	100 μg/L
Beta - HCH 0.01 μg/L to Delta-HCH 0.01 μg/L to Endosulfan Alpha 0.01 μg/L to Endosulfan Beta 0.01 μg/L to	· 100 μg/L
Delta-HCH 0.01 μg/L to Endosulfan Alpha 0.01 μg/L to Endosulfan Beta 0.01 μg/L to	
Endosulfan Alpha 0.01 μg/L to Endosulfan Beta 0.01 μg/L to	100 μg/L
Endosulfan Beta 0.01 µg/L to	100 μg/L
i i L	100 μg/L
Endosulfan-sulfate 0.01 µg/L to	100 μg/L
,	√100 μg/L
Monocrotophos 0.01 μg/L to	100 μg/L
Ethion 0.01 μg/L to	√100 μg/L
Chlorpyrifos 0.01 μg/L to	√100 μg/L
Phorate 0.01 μg/L to	
Phorate-sulfone 0.01 µg/L to	
Phorate-Sulfoxide 0.01 μg/L to	

Rini Narayan Convenor

Accreditation Standard ISO/IEC 17025: 2005

Page 26 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		2,4-D		0.01 μg/L to 100 μg/L
		Butachlor		0.01 μg/L to 100 μg/L
		Isoproturon		0.01 μg/L to 100 μg/L
		Alachlor		0.01 μg/L to 100 μg/L
		Atrazine		0.01 μg/L to 100 μg/L
		Parathion-methyl		0.01 μg/L to 100 μg/L
		Paraoxon-methyl		0.01 μg/L to 100 μg/L
		Malathion		0.01 μg/L to 100 μg/L
		Malaoxon		0.01 μg/L to 100 μg/L
		Aldrin		0.01 μg/L to 100 μg/L
		Dieldrin		0.01 μg/L to 100 μg/L
		PAH		
		Anthracene	In house developed	0.01 μg/L to 100 μg/L
		Acenaphthene	method SOP No. 106/177,	0.01 μg/L to 100 μg/L
		Acenaphthylene	Issued on 2018-06-30	0.01 μg/L to 100 μg/L
		Benz[a]anthracene		0.01 μg/L to 100 μg/L
		Benzo[b]fluoranthene		0.01 μg/L to 100 μg/L
		Benzo(g,h,i)perylene		0.01 μg/L to 100 μg/L
		Benzo(k)fluoranthene		0.01 μg/L to 100 μg/L
		Dibenz(a,h)anthracene		0.01 μg/L to 100 μg/L
		Fluoranthene		0.01 μg/L to 100 μg/L
		Fluorene		0.01 μg/L to 100 μg/L
		Indeno(1,2,3-cd)		0.01 μg/L to 100 μg/L
		Pyrene		
		Naphthalene		0.01 μg/L to 100 μg/L
		Phenanthrene		0.01 μg/L to 100 μg/L
		Pyrene		0.01 μg/L to 100 μg/L
		Chrysene		0.01 μg/L to 100 μg/L
		Banzo(a)pyrene		0.01 μg/L to 100 μg/L
		PCB		
		2,4,4" -	SOP No. 106/177, Issued	0.01 μg/L to 100 μg/L
		Trichlorobiphenyl	on 2018-06-30	0.04
		2,2',5,5'- Tetrachlorobiphenyl		0.01 μg/L to 100 μg/L

Accreditation Standard ISO/IEC 17025: 2005

Page 27 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		2,2',4',5,5'-		0.01 μg/L to 100 μg/L
		Pentachlorobiphenyl		
		2,2'3,4,4,5-		0.01 μg/L to 100 μg/L
		Hexachlorobiphenyl		
		2,2',4,4',5,5'-		0.01 μg/L to 100 μg/L
		Hexachlorobiphenyl		
		2,2',3,4,4',5,5'-		0.01 μg/L to 100 μg/L
		Heptachlor biphenyl		
2.	Drinking water	Pesticides		
		Alachlor	SOP No. 106/177, Issued	0.01 μg/L to 100 μg/L
		Atrazine	on 2018-06-30	0.01 μg/L to 100 μg/L
		Aldrin		0.01 μg/L to 100 μg/L
		Dieldrin		0.01 μg/L to 100 μg/L
		Alpha-HCH		0.01 μg/L to 100 μg/L
		Beta - HCH		0.01 μg/L to 100 μg/L
		Butachlor		0.01 μg/L to 100 μg/L
		Chlorpyrifos		0.01 μg/L to 100 μg/L
		Delta-HCH		0.01 μg/L to 100 μg/L
		2,4-		0.01 μg/L to 100 μg/L
		Dichlorophenoxyacetic		
		acid		
		2,4-DDT		0.01 μg/L to 100 μg/L
		4,4-DDT		0.01 μg/L to 100 μg/L
		2,4-DDE		0.01 μg/L to 100 μg/L
		4,4-DDE		0.01 μg/L to 100 μg/L
		2,4-DDD		0.01 μg/L to 100 μg/L
		4,4-DDD		0.01 μg/L to 100 μg/L
		Endosulfan Alpha		0.01 μg/L to 100 μg/L
		Endosulfan Beta		0.01 μg/L to 100 μg/L
		Endosulfan-sulfate		0.01 μg/L to 100 μg/L
		Ethion		0.01 μg/L to 100 μg/L
		Gamma-HCH(Lindane)		0.01 μg/L to 100 μg/L
		Isoproturon		0.01 μg/L to 100 μg/L

Accreditation Standard ISO/IEC 17025: 2005

Page 28 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Malathion		0.01 μg/L to 100 μg/L
		Methyl parathion		0.01 μg/L to 100 μg/L
		Monocrotophos		0.01 μg/L to 100 μg/L
		Phorate		0.01 μg/L to 100 μg/L
		PAH		
		Anthracene	SOP No. 106/177, Issued	0.01 μg/L to 100 μg/L
		Acenaphthene	on 2018-06-30	0.01 μg/L to 100 μg/L
		Acenaphthylene		0.01 μg/L to 100 μg/L
		Benz[a]anthracene		0.01 μg/L to 100 μg/L
		Benzo[b]fluoranthene		0.01 μg/L to 100 μg/L
		Benzo(g,h,i)perylene		0.01 μg/L to 100 μg/L
		Benzo(k)fluoranthene		0.01 μg/L to 100 μg/L
		Dibenz(a,h)anthracene		0.01 μg/L to 100 μg/L
		Fluoranthene		0.01 μg/L to 100 μg/L
		Fluorene		0.01 μg/L to 100 μg/L
		Indeno(1,2,3-cd)		0.01 μg/L to 100 μg/L
		Pyrene		
		Naphthalene		0.01 μg/L to 100 μg/L
		Phenanthrene		0.01 μg/L to 100 μg/L
		Pyrene		0.01 μg/L to 100 μg/L
		Chrysene		0.01 μg/L to 100 μg/L
		Banzo(a)pyrene		0.01 μg/L to 100 μg/L
		PCB		
		2,4,4" -		0.01 μg/L to 100 μg/L
		Trichlorobiphenyl		
		2,2',5,5'-		0.01 μg/L to 100 μg/L
		Tetrachlorobiphenyl		
		2,2',4',5,5'-		0.01 μg/L to 100 μg/L
i		Pentachlorobiphenyl		
		2,2'3,4,4,5-		0.01 μg/L to 100 μg/L
1		Hexachlorobiphenyl		0.04
		2,2',4,4',5,5'- Hexachlorobiphenyl		0.01 μg/L to 100 μg/L
1		1		

Rini Narayan Convenor

Accreditation Standard ISO/IEC 17025: 2005

Page 29 of 29 **Certificate Number** TC-6670

Validity 26.12.2017 to 25.12.2019 Last Amended on 06.08.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		2,2',3,4,4',5,5'-		0.01 μg/L to 100 μg/L
		Heptachlor biphenyl		
		Trihalomethanes		
		Bromoform		0.05 mg/L to 1 mg/L
		Dibromochloromethane		0.05 mg/L to 1 mg/L
		Bromodichloromethane		0.05 mg/L to 1 mg/L
İ	<u> </u>	Chloroform		0.05 mg/L to 1 mg/L
B.	Trace Metals in Water			
1.	Packaged drinking water	Mercury as Hg	EPA 200.8 followed by ICPMS	0.0005 mg/L to 1 mg/L
		Cadmium as Cd	APHA 3125, 23 rd Edition	0.001 mg/L to 1 mg/L
		Arsenic as As	APHA 3125, 23 rd Edition	0.001 mg/L to 1mg/L
		Lead as Pb	APHA 3125, 23 rd Edition	0.001 mg/L to 1mg/L
2.	Drinking Water	Cadmium as Cd	APHA 3125, 23 rd Edition	0.001 mg/L to 1 mg/L
		Lead as Pb	APHA 3125, 23 rd Edition	0.001 mg/L to 1mg/L
		Mercury as Hg	EPA 200.8 followed by ICPMS	0.0005 mg/L to 1 mg/L
		Total Arsenic as As	APHA 3125, 23 rd Edition	0.001 mg/L to 1mg/L