

Laboratory **Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra**

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

Certificate Number **TC-7177**

Page 1 of 18

Validity **30.06.2018 to 29.06.2020**

Last Amended on --

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.	<b>FOOD AND AGRICULTURAL PRODUCTS</b>			
1.	<b>Milk and Dairy Products: Raw &amp; Pasteurized - Milk, Curd, Cheese, Butter, Ghee, Paneer, Ice Cream, Khoya</b>	Detection of E. coli	IS 5887 (Part I) 1976, (RA 2009)	Absent / Present per g
		Coliform Enumeration	IS 5401 (Part 2) 2012	3MPN to 1100MPN / g
			IS 5401 ( Part 1 ) 2012	≥10 cfu/g or >1cfu / ml
		Detection of Salmonella	IS 5887 (Part 3) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of Shigella	IS 5887 (Part 7) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of S. aureus	IS 5887 (Part 2) 1976, (RA 2013)	Absent / Present per 25 g
		S. aureus Enumeration	IS 5887 (Part 2) 1976, (RA 2013)	≥10 cfu/g or >1cfu / ml
		Yeast and Mold Count	IS 5403 1999, (RA 2005)	≥10 cfu/g or >1cfu / ml
	Total Viable Count	IS 5402: 2012	≥10 cfu/g or >1cfu / ml	
2.	<b>Bakery &amp; Confectionery Products Dough, Bread, Cake, Pastry, Khari, Doughnut, Toast</b>	Detection of E. coli	IS 5887(Part I) 1976, (RA 2009)	Absent / Present per g
		Coliform Enumeration	IS 5401 (Part 2) 2012	3 MPN to 1100MPN/g
			IS 5401 ( Part 1 ) 2012	>10 cfu/g
		Detection of Salmonella	IS 5887 (Part 3) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of Shigella	IS 5887 (Part 7) 1999, (RA 2013)	Absent / Present per 25 g
Detection of S. aureus	IS 5887 (Part 2) 1976, (RA 2013)	Absent / Present per 25 g		

**Ashok Kumar  
Convenor**

**N. Venkateswaran  
Program Director**

**Laboratory** Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra

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

**Certificate Number** TC-7177

**Page 2 of 18**

**Validity** 30.06.2018 to 29.06.2020

**Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		S. aureus Enumeration	IS 5887 (Part 2) 1976, (RA 2013)	≥10 cfu/g
		Yeast and Mold Count	IS 5403 1999, (RA 2005)	≥10 cfu/g
3.	<b>Fruit and Fruit Products</b> Fresh fruits, Canned, Processed, Frozen, Fruit juice, Fruit Pulp, Dried Fruit Powder	Total Viable Count	IS 5402: 2012	≥10 cfu/g
		Detection of E. coli	IS 5887(Part I) 1976, (RA 2009)	Absent / Present per g
		Coliform Enumeration	IS 5401 (Part 2) 2012	3 MPN to 1100 MPN/g
			IS 5401 ( Part 1 ) 2012	≥10 cfu/g or >1cfu / ml
		Detection of Salmonella	IS 5887 (Part 3) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of Shigella	IS 5887 (Part 7) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of S. aureus	IS 5887 (Part 2) 1976, (RA 2013)	Absent / Present per 25 g
		S. aureus Enumeration	IS 5887 (Part 2) 1976, (RA 2013)	≥10 cfu/g
		Yeast and Mold	IS 5403: 1999, (RA 2005)	≥10 cfu/g
		Total Viable Count	IS 5402: 2012	≥10 cfu/g or ≥1 cfu / ml
4.	<b>Vegetables &amp; Vegetable Products</b> Raw Vegetables, Processed, Frozen, Vegetable Gravies, Canned Vegetables	Detection of E. coli	IS 5887(Part I) 1976, (RA 2009)	Absent / Present per g
		Coliform Enumeration	IS 5401 (Part 2) 2012	3 MPN To 1100 MPN per g
			IS 5401 ( Part I ) 2012	≥10 cfu/g or >1cfu / ml
		Detection of Salmonella	IS 5887 (Part 3) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of Shigella	IS 5887 (Part 7) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of S. aureus	IS 5887 (Part 2) 1976, (RA 2013)	Absent / Present per 25 g
		S. aureus Enumeration	IS 5887 (Part 2) 1976, (RA 2013)	≥10 cfu/g

Laboratory **Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra**

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

Certificate Number **TC-7177**

Page 3 of 18

Validity **30.06.2018 to 29.06.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Yeast and Mold Count	IS 5403 1999, (RA 2005)	≥10 cfu/g
		Total Viable Count	IS 5402: 2012	≥10 cfu/g
5.	<b>Genetically modified Foods and agricultural Products Raw Dals, Maida, Besan, Wheat Flour, Roti, Bhakri, Dhokla, Khaman</b>	Detection of E. coli	IS 5887 (Part I) 1976, (RA 2009)	Absent / Present per g
		Coliform Enumeration	IS 5401 (Part 2) 2012 IS 5401 (Part I) 2012	3MPN to 1100 MPN / g ≥10 cfu/g
		Detection of Salmonella	IS 5887 (Part 3) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of Shigella	IS 5887 (Part 7) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of S. aureus	IS 5887 (Part 2) 1976, (RA 2013)	Absent / Present per 25 g
			S. aureus Enumeration	IS 5887 (Part 2) 1976, (RA 2013)
		Yeast and Mold Count	IS 5403 1999, (RA 2005)	≥10 cfu/g
		Total Viable Count	IS 5402: 2012	≥10 cfu/g
6.	<b>Starch and Starch Products Corn Powder, Arra root, Corn Kernel, Potato Vedges, Potato Chips</b>	Detection of E. coli	IS 5887 (Part I) 1976, (RA 2009)	Absent / Present per g
		Coliform Enumeration	IS 5401 (Part 2) 2012 IS 5401 (Part I) 2012	3MPN to 1100MPN / g ≥10 cfu/g
		Detection of Salmonella	IS 5887 (Part 3) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of Shigella	IS 5887 (Part 7) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of S. aureus	IS 5887 (Part 2) 1976, (RA 2013)	Absent / Present per 25 g
			S. aureus Enumeration	IS 5887 (Part 2) 1976, (RA 2013)
		Yeast and Mold Count	IS 5403 1999, (RA 2005)	≥10 cfu/g
		Total Viable Count	IS 5402: 2012	≥10 cfu/g
7.	<b>Beverages (Alcoholic / Non - Alcoholic)</b>	Detection of E. coli	IS 5887 (Part I) 1976, (RA 2009)	Absent / Present per g
		Coliform Enumeration	IS 5401 (Part 2) 2012	3MPN to 1100MPN / g

Laboratory **Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra**

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

Certificate Number **TC-7177**

Page 4 of 18

Validity **30.06.2018 to 29.06.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>Carbonated , Non Carbonated</b>		IS 5401 ( Part 1 ) 2012	$\geq 10$ cfu/g or $\geq 1$ cfu / ml
		Detection of Salmonella	IS 5887 (Part 3) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of Shigella	IS 5887 (Part 7) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of S. aureus	IS 5887 (Part 2) 1976, (RA 2013)	Absent / Present per 25 g
		S. aureus Enumeration	IS 5887 (Part 2) 1976, (RA 2013)	$\geq 10$ cfu/g or $\geq 1$ cfu / ml
		Yeast and Mold Count	IS 5403 1999, (RA 2005)	$\geq 10$ cfu/g or $\geq 1$ cfu / ml
		Total Viable Count	IS 5402: 2012	$\geq 10$ cfu/g or $\geq 1$ cfu / ml
<b>8.</b>	<b>Fish and Sea Foods Raw ,processed, Frozen Fish, Dried Fish, Fish Soups, Fish Curries, Fried Fish</b>	Detection of E. coli	IS 5887 (Part I) 1976, (RA 2009)	Absent / Present per g
		Coliform Enumeration	IS 5401 (Part 2) 2012	3MPN to 1100MPN / g
			IS 5401 ( Part 1 ) 2012	$\geq 10$ cfu/g or $\geq 1$ cfu / ml
		Detection of Salmonella	IS 5887 (Part 3) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of Shigella	IS 5887 (Part 7) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of S. aureus	IS 5887 (Part 2) 1976, (RA 2013)	Absent / Present per 25 g
		S. aureus Enumeration	IS 5887 (Part 2) 1976, (RA 2013)	$\geq 10$ cfu/g or $\geq 1$ cfu / ml
		Yeast and Mold Count	IS 5403 1999, (RA 2005)	$\geq 10$ cfu/g or $\geq 1$ cfu / ml
		Total Viable Count	IS 5402: 2012	$\geq 10$ cfu/g or $\geq 1$ cfu / ml

Laboratory **Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra**

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

Certificate Number **TC-7177**

Page 5 of 18

Validity **30.06.2018 to 29.06.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
9.	<b>Meat and Meat Products Raw, Processed Meat, Kheema, Dried meat, minced meat fried meat, chicken and mutton curry</b>	Detection of E. coli	IS 5887 (Part I) 1976, (RA 2009)	Absent / Present per g
		Coliform Enumeration	IS 5401 (Part 2) 2012	3MPN to 1100MPN / g
			IS 5401 ( Part 1 ) 2012	≥10 cfu/g or ≥1 cfu / ml
		Detection of Salmonella	IS 5887 (Part 3) 1999, (RA 2013)	Absent / Present per 25g
		Detection of Shigella	IS 5887 (Part 7) 1999, (RA 2013)	Absent / Present per 25 g
		Detection of S. aureus	IS 5887 (Part 2) 1976, (RA 2013)	Absent / Present per 25g
		S. aureus Enumeration	IS 5887 (Part 2) 1976, (RA 2013)	≥10 cfu/g or ≥1 cfu / ml
	Total Viable Count	IS 5402: 2012	≥10 cfu/g or ≥1 cfu / ml	
10.	<b>Pet Food</b>	Coliform Enumeration	IS 5401(Part 2) 2012	3MPN to 1100MPN / g
			IS 5401 ( Part 1 ) 2012	≥10 cfu/g
		Total Viable Count	IS 5402: 2012	≥10 cfu/g
		Yeast and Mold Count	IS 5403 :1999, (RA 2005)	≥10 cfu/g
II.	<b>WATER</b>			
1.	<b>Water from any source : Drinking Water, Packaged Drinking Water , Packaged Natural Mineral water, Water for Industrial purposes, Water</b>	Detection of E. coli	IS 1622:1981, (RA 2009)	Absent / Present per 100 ml
			IS 15185:2016	Absent / Present per 250 ml
			VAT / TM / M / 226 Issue No.: 01 Issue date : 17.08.16 based on US Pharmacopoeia 37< 62 >	Absent / Present per 100 ml

Ashok Kumar  
Convenor

N. Venkateswaran  
Program Director

**Laboratory** Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra

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

**Certificate Number** TC-7177

**Page 6 of 18**

**Validity** 30.06.2018 to 29.06.2020

**Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection	
	<b>Purifiers, Ground Water, Surface Water, Water for Swimming Pool and SPas, Water for construction purposes, Water for medicinal purpose Distilled/Demineralized, Water for Processed Food Industry, water from any other source.</b>	E. coli Enumeration	IS 5887(Part I) 1976, (RA 2009)	≥ 1 cfu / ml	
		Coliforms Enumeration	IS 1622:1981, (RA 2009)	2 MPN to 1600 MPN /100ml	
		Detection of Coliforms	IS:5401 (Part 1) 2012 IS 15185: 2002 (RA2009)	≥ 1 cfu / ml Absent / Present per 250ml	
		Detection of Pseudomonas	IS:13428:2005, (RA 2014) Annex D	Absent / Present per ml	
			VAT / TM / M / 227 Issue No.: 01 Issue date : 17.08.16 based on US Pharmacopoeia 37 < 62 >	Absent / Present per 100 ml	
			IS:13428:2005, (RA 2014) Annex D	Absent / Present per 250ml	
			Detection of S. aureus	IS: 5887 (Part II), 1976, (RA 2013)	Absent / Present per ml
				VAT / TM / M / 229 Issue No.: 01 Issue date : 17.08.16 based on US Pharmacopoeia 37 < 62 >	Absent / Present per 100 ml
				IS: 5887 (Part II), 1976, (RA 2013)	Absent / Present per 250 ml
			Detection of Sulphate Reducing Bacteria	IS 1622:1981, (RA 2009)	Absent / Present per 100 ml
		Detection of Sulphite Reducing Bacteria	IS:13428:2005, (RA 2014) Annex C	Absent / Present per 50 ml	
		Total Viable Count / Total microbial count	IS 1622:1981, (RA 2009)	≥ 1 cfu / ml	
			IS 3328:1993 (RA 2013)	≥ 1 cfu/ ml	

**Ashok Kumar**  
Convenor

**N. Venkateswaran**  
Program Director

**Laboratory**                      **Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra**

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

**Certificate Number**        **TC-7177**

**Page 7 of 18**

**Validity**                         **30.06.2018 to 29.06.2020**

**Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			VAT / TM / M / 230 issue No.: 01 Issue date : 17.08.16 based on US Pharmacopoeia 37< 61 >	≥ 1 cfu/ ml
		Total Viable Count	IS 5402:2002, (RA 2002)	≥ 1 cfu/ ml
		Detection of Fecal streptococci	IS 5887(Part II)1976 (RA 2005)	Absent / Present per ml
			IS 15186: 2002, (RA 2009)	Absent / Present per 250 ml
		Detection of Salmonella	IS 15187: 2002, (RA 2009)	Absent / Present per ml
			VAT / TM / M / 228 Issue No.: 01 Issue date: 17.08.16 based on US Pharmacopoeia 37 < 62 >	Absent / Present per 100 ml
			IS 15187: 2002, (RA 2009)	Absent / Present per 250 ml
		Detection of Shigella	IS: 5887 (Part 7), 1999, (RA 2013)	Absent / Present per ml
			IS: 5887 (Part 7), 1999, (RA 2013)	Absent / Present per 250 ml
		Yeast and Mold count	IS: 5403:1999, (RA 2005)	≥ 1 cfu / ml ≥1 cfu / 250 ml
<b>2.</b>	<b>Surface: Equipment Swabs Hand Swabs  Working Surface swabs, Food contact surface swabs</b>	Bacterial Count	IS 5402:2002, (RA 2002)  VAT/TM/M/239 based on US Pharmacopoeia USP 36 <1116>	≥ 10 cfu / swab  ≥ 1 cfu / 25cm <sup>2</sup> area or ≥ 1 cfu/ swab

**Ashok Kumar**  
Convenor

**N. Venkateswaran**  
Program Director

Laboratory **Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra**

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

Certificate Number **TC-7177**

Page 8 of 18

Validity **30.06.2018 to 29.06.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Yeast and Mold Count	IS: 5403:1999, (RA 2005)  VAT/TM/M/240 based on US Pharmacopeia USP 36 <1116>	≥ 10 cfu / swab  ≥ 1 cfu / 25cm <sup>2</sup> area or ≥ 1 cfu/ swab
		Coliform count	IS:5401 (Part I ) -2012	≥ 10 cfu / swab
		Detection of E. coli	IS 5887(Part I) 1976, (RA 2009)	Present / Absent per swab
		Detection of S.aureus	IS: 5887 (Part II), 1976, (RA 2013)	Present / Absent per swab
<b>III.</b>	<b>ENVIRONMENT AND POLLUTION</b>			
<b>1.</b>	<b>Bioburden Estimation of classified and non-classified area 1 Air</b>	Bacterial Count	<b>Method 1.: Settle Plate -</b> VAT / TM / M / 231 Issue No.: 01 Issue date: 15.10.16 based on US Pharmacopoeia 36<1116 >	≥ 1 cfu / Plate of 90mm diameter
			<b>Method II: By Air Sampler</b> VAT / TM / M / 232 Issue No.: 01 Issue date: 15.10.16 based on US Pharmacopoeia 36 <1116 >	≥1cfu/ m <sup>3</sup>
		Fungal Count / Yeast and Mould Count	<b>Method 1.: Settle Plate</b> VAT / TM / M / 233 Issue No.: 01 Issue date: 15.10.16 based on US Pharmacopoeia 36 <1116 >	≥ 1 cfu / Plate of 90mm diameter

**Ashok Kumar**  
Convenor

**N. Venkateswaran**  
Program Director



**Laboratory**                      **Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra**

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

**Certificate Number**        **TC-7177**

**Page 9 of 18**

**Validity**                        **30.06.2018 to 29.06.2020**

**Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			<b>Method II: By Air Sampler</b> VAT / TM / M / 234 Issue No.: 01 Issue date: 15.10.16 based on US Pharmacopoeia 36 <1116 >	$\geq 1 \text{cfu/ m}^3$
2.	<b>Surface</b>	Bacterial Count	<b>Method 1.: Contact Plate</b> VAT / TM / M / 235 Issue No.: 01 Issue date: 25.10.16 based on US Pharmacopoeia 36 <1116 >	$\geq 1 \text{ cfu / 25 cm}^2 \text{area}$
		Fungal Count / Yeast and Mould Count	<b>Method 1.: Contact Plate</b> VAT / TM / M / 236 Issue No.: 01 Issue date: 25.10.16 based on US Pharmacopoeia 36 <1116 >	$\geq 1 \text{ cfu / 25 cm}^2 \text{area}$
3.	<b>Water from Effluent Treatment Plant and waste water</b>	Detection of E. coli	IS 1622:1981, (RA 2009)	Absent / Present per 100 ml
			IS 5887 (Part 1) - 1976 (RA 2009)	Absent / Present per ml
		Enumeration of E. coli	IS 5887 (Part 1) - 1976 (RA 2009)	$\geq 1 \text{cfu / ml}$
		Coliform Count	IS 1622:1981, (RA 2009)	2 MPN to 1600 MPN/100ml
			IS:5401 (Part I) -2012	$\geq 1 \text{cfu / ml}$
		Detection of S. aureus	IS: 5887 (Part II), 1976, (RA 2013)	Absent / Present per ml
		Detection of Sulphate Reducing Bacteria	IS 1622:1981, (RA 2009)	Absent / Present per 100 ml
		Total Viable Count	IS 1622: 1981, (RA 2009)	$\geq 1 \text{ cfu / ml}$

**Ashok Kumar**  
Convenor

**N. Venkateswaran**  
Program Director

Laboratory Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7177

Page 10 of 18

Validity 30.06.2018 to 29.06.2020

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Detection of Fecal streptococci	IS 5887(Part II)1976 (RA 2013)	Absent / Present per ml
		Detection of Salmonella	IS 15187: 2002, (RA 2009)	Absent / Present per ml
		Detection of Shigella	IS: 5887 (Part 7), 1999, (RA 2013)	Absent / Present per ml
		Yeast and Mold count	IS: 5403:1999, (RA 2005)	≥ 1 cfu / ml

**\*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**.

---

Ashok Kumar  
Convenor

---

N. Venkateswaran  
Program Director

Laboratory **Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra**

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

Certificate Number **TC-7177**

Page 11 of 18

Validity **30.06.2018 to 29.06.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
<b><u>CHEMICAL TESTING</u></b>				
<b>I.</b>	<b>FOOD &amp; AGRICULTURAL PRODUCTS</b>			
1.	<b>Milk and Dairy Products-  Fresh Milk, Raw, processed Milk and Dairy Products like Mithai, Cheese, Curd etc</b>	SNF	IS 1083: 1982 (RA 2012)	1 g / 100 g to 20 g / 100 g
		Fat	IS: 1224 (Part 1): 1977, (RA 2012)	1 g / 100 g to 10 g / 100 g
		Protein	IS: 7219: 1973 (RA 2015)	2 g / 100 g to 40 g / 100 g
		Moisture	IS11623: 2008 (RA 2012)	1 g / 100 g to 70 g / 100 g
		Ash	IS: 1479 (Part II) 1961, (RA 2012)	0.1 g / 100 g to 10 g / 100 g
		Calorific Value	VAT/TM/C/187 (Ref: The Chemical Analysis of Food, 6 <sup>th</sup> Edition, David Pearson, page no 578) Issue No.:01 Issue Date:24.03.14	30 kcal / 100 g to 900 kcal / 100 g
		Carbohydrates	VAT/TM/C/186 (Ref: Analytical Chemistry of Food by C.S. James, page no 56) Issue No.:01 Issue Date:24.03.14	4 g / 100 g to 20 g / 100 g
		Fat	IS: 1224 (Part II): 1977, (RA 2012)	1 g / 100 g to 25 g / 100 g
2.	<b>Fruits and Fruit Products - Processed/Canned/ Cooked fruits</b>	Protein	IS: 7219: 1973 (RA 2015)	1 g / 100 g to 50 g / 100 g
		Fat	VAT/TM/C/187 (Ref: The Chemical Analysis of Food, 6 <sup>th</sup> Edition, David Pearson,	0.1 g / 100 g to 5 g / 100 g

**Ashok Kumar**  
Convenor

**N. Venkateswaran**  
Program Director

**Laboratory**                      **Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra**

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

**Certificate Number**        **TC-7177**

**Page 12 of 18**

**Validity**                        **30.06.2018 to 29.06.2020**

**Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			page no 578) Issue No.:01 Issue Date:24.03.14	
		Moisture	FSSAI Lab Manual 3:2015	1 g / 100 g to 30 g / 100 g
		Ash	FSSAI Lab Manual 3:2015	0.1 g / 100 g to 5 g / 100 g
		Carbohydrates	VAT/TM/C/186 (Ref: Analytical Chemistry of Food by C.S. James, Page 56) Issue No.:01 Issue Date:24.03.14	10 g / 100 g to 80 g / 100 g
		Calorific Value	VAT/TM/C/187 (Ref: The Chemical Analysis of Food, 6 <sup>th</sup> Edition, David Pearson, page no 578) Issue No.:01 Issue Date:24.03.14	10 kcal/100 g to 700 kcal/100 g
		Crude Fibre	IS: 10226 (Part I) 1982, (RA 2015)	0.5 g /100 g to 30 g /100 g
<b>3.</b>	<b>Jams, Juices, &amp; Concentrates</b>	Protein	IS: 7219: 1973 (RA 2015)	0.5 g / 100g to 50 g / 100g
		Fat	VAT/TM/C/187 (Ref: The Chemical Analysis of Food, 6 <sup>th</sup> Edition, David Pearson, page no 578) Issue No.:01 Issue Date:24.03.14	0.1 g / 100 g to 1 g / 100 g
		Moisture	FSSAI Lab Manual 3:2015	1 g / 100g to 30 g / 100 g
		Ash	FSSAI Lab Manual 3:2015	0.1 g / 100g to 5 g / 100 g
		Carbohydrates	VAT/TM/C/186 (Ref: Analytical Chemistry of Food by C.S. James, Page 56) Issue No.:01 Issue Date:24.03.14	10 g / 100g to 80 g / 100 g
		Calorific Value	VAT/TM/C/187 (Ref: The Chemical Analysis of Food, 6 <sup>th</sup> Edition, David Pearson, page no 578) Issue No.:01	10 kcal/100 g to 700 kcal/100 g

**Ashok Kumar**  
Convenor

**N. Venkateswaran**  
Program Director

**Laboratory** Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra

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

**Certificate Number** TC-7177

**Page 13 of 18**

**Validity** 30.06.2018 to 29.06.2020

**Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Crude Fibre	Issue Date:24.03.14 IS: 10226 (Part I) 1982, (RA 2015)	0.5 kcal/100 g to 30 g /100 g
4.	<b>Vegetables and Vegetable Products: Processed / Canned/ Cooked Vegetables</b>	Protein	IS: 7219: 1973 (RA 2015)	1 kcal/100 g to 50 g / 100 g
Fat		VAT/TM/C/187 (Ref: The Chemical Analysis of Food, 6 <sup>th</sup> Edition, David Pearson, page no 578) Issue No.:01 Issue Date:24.03.14	0.1 kcal/100 g to 1 g / 100 g	
Moisture		FSSAI Lab Manual 3:2015	1 kcal/100 g to 90 g / 100 g	
Ash		FSSAI Lab Manual 3:2015	0.1 kcal/100 g to 5 g / 100 g	
		Carbohydrates	VAT/TM/C/186 (Ref: Analytical Chemistry of Food by C.S. James, Page 56) Issue No.:01 Issue Date:24.03.14	10 kcal/100 g to 80 g / 100 g
		Calorific Value	VAT/TM/C/187 (Ref: The Chemical Analysis of Food, 6 <sup>th</sup> Edition, David Pearson, page no 578) Issue No.:01 Issue Date:24.03.14	10 kcal/100 g to 700 kcal/100 g
		Crude Fibre	IS: 10226 (Part I) 1982, (RA 2015)	0.5 g /100 g to 30 g /100 g
5.	<b>Bakery and Confectionery Products: Biscuits, Cookies, Pastries, Cakes , Bread, Toast, Khari etc</b>	Fat	IS 12711: 1989, (RA 2010)	1 g /100 g to 48 g / 100 g
Moisture		IS 12711: 1989, (RA 2010)	1 g /100 g to 45 g / 100 g	
Ash		IS 12711: 1989, (RA 2010)	0.1 g /100 g to 5 g / 100 g	
Crude Fibre		IS 12711: 1989, (RA 2010)	1 g /100 g to 5 g / 100 g	

**Ashok Kumar**  
Convenor

**N. Venkateswaran**  
Program Director

**Laboratory** Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra

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

**Certificate Number** TC-7177

**Page 14 of 18**

**Validity** 30.06.2018 to 29.06.2020

**Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Protein	IS: 7219: 1973 (RA 2015)	2 g /100 g to 50 g /100 g
		Calorific Value	VAT/TM/C/187 (Ref: The Chemical Analysis of Food, 6 <sup>th</sup> Edition, David Pearson, page no 578) Issue No.:01 Issue Date:24.03.14	10 kcal / 100 g to 700 kcal / 100 g
		Carbohydrates	VAT/TM/C/186 (Ref: Analytical Chemistry of Food by C.S. James, Page 56) Issue No.:01 Issue Date:24.03.14	20 g / 100 g to 90 g / 100 g
6.	<b>Cereal and Pulses and Cereal Products -  Atta, Maida, Besan Idli Batter, Semolina . ready mix powders etc</b>	Moisture	IS: 4333( Part II) (RA 2002) IS 1155:1968 (RA 2010) IS 1009:1979 (RA 2010)	0.1 g / 100 g to 20 g/ 100 g
		Protein	IS: 7219: 1973 (RA 2015)	1 g / 100 g to 40 g / 100 g
		Carbohydrate	VAT/TM/C/186 (Ref: Analytical Chemistry of Food by C.S. James, Page 56) Issue No.:01 Issue Date:24.03.14	10 g / 100 g to 70 g / 100 g
		Calorific Value	VAT/TM/C/187 (Ref: The Chemical Analysis of Food, 6 <sup>th</sup> Edition, David Pearson, page no 578) Issue No.:01 Issue Date:24.03.14	10 kcal / 100 g to 700 kcal / 100 g
		Ash	IS 1155:1968 (RA 2010) IS 1009:1979 (RA 2010) FSSAI Lab Manual 3:2012	0.5 g / 100 g to 5 g / 100 g
		Fat	VAT/TM/C/187 (Ref: Analytical Chemistry of	1 g / 100 g to 5 g / 100 g

**Ashok Kumar**  
Convenor

**N. Venkateswaran**  
Program Director

Laboratory **Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra**

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

Certificate Number **TC-7177**

Page 15 of 18

Validity **30.06.2018 to 29.06.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			Food by C.S. James, Page 91) Issue No.:01 Issue Date:24.03.14	
		Crude Fibre	IS: 10226 Part I, 1982, (RA 2015)	0.5 g / 100 g to 20 g / 100 g
<b>II.</b>	<b>ANIMAL FOOD &amp; FEEDS</b>			
<b>1.</b>	<b>Pet Foods</b>	Fat	IS: 7874 (Part I), 1975 (RA 2014)	0.1 g / 100 g to 40 g / 100 g
		Protein	IS: 7874 (Part I), 1975 (RA 2014)	0.1 g / 100 g to 40 g / 100 g
		Carbohydrates	VAT/TM/C/186 (Ref: Analytical Chemistry of Food by C.S. James, Page 56) Issue No.:01 Issue Date:24.03.14	5 g / 100 g to 80 g / 100 g
		Calorific Value	VAT/TM/C/187 (Ref: The Chemical Analysis of Food, 6 <sup>th</sup> Edition, David Pearson, page no 578) Issue No.:01 Issue Date:24.03.14	3 kcal / 100 g to 890 kcal / 100 g
		Moisture	IS: 7874 (Part I), 1975 (RA 2014)	0.1 g / 100 g to 20 g / 100 g
		Ash	IS: 7874 (Part I), 1975 (RA 2014)	0.1 g / 100 g to 10 g / 100 g
		Crude Fibre	IS: 7874 (Part I), 1975 (RA 2014)	1 g / 100 g to 6 g / 100 g
<b>III.</b>	<b>WATER</b>			
<b>1.</b>	<b>Drinking Water Packaged Drinking water,</b>	Colour	APHA 23 <sup>rd</sup> Edition 2120 C 2017	1 Hz Unit to 25 Hz Unit

**Ashok Kumar**  
Convenor

**N. Venkateswaran**  
Program Director

Laboratory

Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7177

Page 16 of 18

Validity 30.06.2018 to 29.06.2020

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Packaged Natural Mineral water, Borewell, RO Water, Construction, Industrial Water, Swimming Pool Water, Surface Water, Ground Water, Purifiers, Others	Odour	IS 3025 (Part 5) 2017	Agreeable / Not Agreeable
		Turbidity	APHA 23 <sup>rd</sup> Edition 2130 B 2017	1 NTU to 1000 NTU
		pH	APHA 23 <sup>rd</sup> Edition 4500 H+B 2017	2 to 12
		Total Dissolved Solids	APHA 23 <sup>rd</sup> Edition 2510 A 2017	0.5 mg/l to 1000 mg/l
		Electrical Conductivity	APHA 23 <sup>rd</sup> Edition 2510 A 2017	1 µs/cm to 2000 µs/cm
		Total Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2340 C 2017	1 mg /l to 1000 mg /l
		Calcium Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 3500 - Ca <sup>2+</sup> B 2017	1 mg /l to 1000 mg/l
		Magnesium as Mg	APHA 23 <sup>rd</sup> Edition 3500 - Mg - B 2017	0.3 mg /l to 1000 mg/l
		Calcium as Ca	APHA 23 <sup>rd</sup> Edition 3500 - Ca <sup>2+</sup> B 2017	0.5 mg /l to 1000 mg/l
		Total Alkalinity	IS 3025 (Part 23) 1986, (RA 2014)	0.5 mg /l to 500 mg/l
		Free Residual Chlorine	IS 3025 (Part 26) 1986, (RA 2014)	0.2 mg /l to 5 mg/l
		Chloride as Cl	APHA 23 <sup>rd</sup> Edition 4500 - Cl <sup>-</sup> B 2017	2 mg /l to 5000 mg/l
		Acidity	IS 3025 (Part 22) 1986, Reaffirmed 1998	2 mg /l to 500 mg/l
		Iron as Fe	IS 3025 (Part 53) 2014	0.1 mg /l to 5 mg/l
		Fluoride as F	APHA 23 <sup>rd</sup> Edition 4500 - F <sup>-</sup> D 2017	0.2 mg /l to 10 mg/l
	Nitrate as NO <sub>3</sub>	IS 3025 (Part 34) 1988, (RA 2014)	0.2 mg /l to 5 mg/l	
	Nitrite as NO <sub>2</sub>	APHA 23 <sup>rd</sup> Edition 4500 - NO <sub>2</sub> <sup>-</sup> B 2017	0.01 mg /l to 1 mg/l	

Ashok Kumar  
Convenor

N. Venkateswaran  
Program Director



Laboratory

Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7177

Page 17 of 18

Validity 30.06.2018 to 29.06.2020

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Ammonia Nitrogen	APHA 23 <sup>rd</sup> Edition 4500 - NH <sub>3</sub> - F 2017	0.2 mg /l to 1.0 mg/l
		Sulphate as SO <sub>4</sub>	APHA 23 <sup>rd</sup> Edition 4500 - SO <sub>4</sub> <sup>2-</sup> E 2017	1 mg /l to 400 mg/l
		Sodium as Na	APHA 23 <sup>rd</sup> Edition 3500 - Na <sup>+</sup> B 2017	5 mg /l to 1000 mg/l
		Potassium as K	APHA 23 <sup>rd</sup> Edition 3500 - K <sup>+</sup> B 2017	1 mg /l to 1000 mg/l
		Phosphate as PO <sub>4</sub>	APHA 23 <sup>rd</sup> Edition 4500 - P <sup>-</sup> C 2017	4 mg /l to 20 mg/l
		Silica as SiO <sub>2</sub>	APHA 23 <sup>rd</sup> Edition 4500 - SiO <sub>2</sub> <sup>-</sup> D 2017	0.3 mg /l to 5 mg/l
<b>IV.</b>	<b>POLLUTION &amp; ENVIRONMENT</b>			
<b>1.</b>	<b>Effluents and Sewage</b>	Colour	APHA 23 <sup>rd</sup> Edition 2120 C 2017	10 Hz Unit to 30 Hz Unit
		Odour	IS 3025 (Part 5) 1983, (RA 2017)	Agreeable / Not Agreeable
		Turbidity	APHA 23 <sup>rd</sup> Edition 2130 B 2017	10 NTU to 1000 NTU
		pH	APHA 23 <sup>rd</sup> Edition 4500 H+B 2017	2 to 12
		Total Dissolved Solids	APHA 23 <sup>rd</sup> Edition 2510 A 2017	10 mg /l to 1000 mg/l
		Electrical Conductivity	APHA 23 <sup>rd</sup> Edition 2510 A 2017	20 µs/cm to 2000 µs/cm
		Total Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 2340 C 2017	5 mg/l to 1000 mg/l
		Calcium Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edition 3500 - Ca <sup>+</sup> B 2017	5 mg/l to 1000 mg/l
		Magnesium as Mg	APHA 23 <sup>rd</sup> Edition 3500 - Mg - B 2017	5 mg/l to 1000 mg/l

Ashok Kumar  
Convenor

N. Venkateswaran  
Program Director

Laboratory **Vipanan Analytical Technologies LLP, Nilay, Plot No. 23, Prathamesh Park, Baner-Balewadi Road, Baner, Pune, Maharashtra**

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

Certificate Number **TC-7177**

Page 18 of 18

Validity **30.06.2018 to 29.06.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Calcium as Ca	APHA 23 <sup>rd</sup> Edition 3500 - Ca <sup>2+</sup> B 2017	5 mg/l to 1000 mg/l
		Total Alkalinity	IS 3025 (Part 23) 1986, (RA 2014)	5 mg/l to 500 mg/l
		Free Residual Chlorine	IS 3025 (Part 26) 1986, (RA 2014)	0.5 mg/l to 5 mg/l
		Chloride as Cl	APHA 23 <sup>rd</sup> Edition 4500 - Cl <sup>-</sup> B 2017	5 mg/l to 5000 mg/l
		Acidity	IS 3025 (Part 22) 1986, (RA 2004)	5 mg/l to 500 mg/l
		Iron as Fe	IS 3025 (Part 53) (RA 2014)	0.3 mg/l to 5 mg/l
		Fluoride as F	APHA 23 <sup>rd</sup> Edition 4500 - F <sup>-</sup> D 2017	1 mg/l to 10 mg/l
		Nitrate as NO <sub>3</sub>	IS 3025 (Part 34) 1988, (RA 2014)	1 mg/l to 5 mg/l
		Nitrite as NO <sub>2</sub>	APHA 23 <sup>rd</sup> Edition 4500 - NO <sub>2</sub> <sup>-</sup> B 2017	0.01 mg/l to 1 mg/l
		Ammonia Nitrogen	APHA 23 <sup>rd</sup> Edition 4500 - NH <sub>3</sub> - F 2017	0.2 mg/l to 1.0 mg/l
		Sulphate as SO <sub>4</sub>	APHA 23 <sup>rd</sup> Edition 4500 - SO <sub>4</sub> <sup>2-</sup> E 2017	5 mg/l to 400 mg/l
		Sodium as Na	APHA 23 <sup>rd</sup> Edition 3500 - Na <sup>+</sup> B 2017	5 mg/l to 1000 mg/l
		Potassium as K	APHA 23 <sup>rd</sup> Edition 3500 - K <sup>+</sup> B 2017	5 mg/l to 1000 mg/l
		Phosphate as PO <sub>4</sub>	APHA 23 <sup>rd</sup> Edition 4500 - P <sup>3-</sup> C 2017	5 mg/l to 20 mg/l
		Silica as SiO <sub>2</sub>	APHA 23 <sup>rd</sup> Edition 4500 - SiO <sub>2</sub> <sup>-</sup> D 2017	1 mg/l to 5 mg/l

**\*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.**

Ashok Kumar  
Convenor

N. Venkateswaran  
Program Director