

Laboratory Envitro Laboratories Pvt. Ltd., 'Krushna Niwas', 6 Naval Nagar, Mavdi
Main Road, Rajkot, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7622

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Validity 31.07.2018 to 30.07.2020

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
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BIOLOGICAL TESTING

I.	FOOD AND AGRICULTURAL PRODUCTS			
1.	Milk & Milk Products (Raw Milk, Flavored milk, Milk Powder, Processed Milk)	Total Bacterial Count	IS 5402	≥10 CFU/g ≥1 CFU/ml
		Coliform	IS 5401 (Part 1)	≥10 CFU/g ≥1 CFU/ml Absent/Present/g/ml
		E. coli	IS 5887 (Part 1)	Absent/Present/g/ml
2.	Carbonated Beverages (Non-alcoholic)	Total Bacterial Count	IS 5402	≥1CFU/ml
		Coliform	IS 5401 (Part 1)	≥1 CFU/ml Absent/Present/ml
		Yeast & Mould	IS 5403	≥ 1 CFU/ml Absent/Present/ml
3.	Snacks & Instant Mixes (Namkeen)	Total Bacterial Count	IS 5402	≥10 CFU/g
		Coliform	IS 5401 (Part 1)	Absent/Present/g
		E.coli	IS 5887(Part 1)	Absent/Present/g
		Yeast & Mould Count	IS 5403	≥10 CFU/g
II.	WATER			
1.	Drinking Water, Ground Water	Coliform	IS 1622	Absent/Present/100 ml
		Coliform	IS 5401 (Part 2)	<0.3 to >110 MPN/ml
		E.coli	IS 1622	Absent/Present/100 ml
		E.coli	IS 5887 (Part 1)	<0.3 to >110 MPN/ml

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<u>CHEMICAL TESTING</u>				
I.	FOOD AND AGRICULTURE PRODUCTS			
1.	Food Grains Cereals Pulses	Rodent Hair & Excreta	FSSAI Manual	Qualitative
		Insect Infestation	FSSAI Manual	Qualitative
		Whole Insects, dead	FSSAI Manual	Qualitative
		Admixture	FSSAI Manual	Qualitative
		Added Coloring Matter	FSSAI Manual	Qualitative
		Foreign Matter / Extraneous Matter	IS 4333 (Part 1)	0.1% to 20%
		Mineral Matter and Inorganic Matter	FSSAI Manual	0.001% to 5%
		Damaged Grains	IS 4333 (Part 1)	0.1 % to 20 %
		Weeviled Grains	IS 4333 (Part 1)	0.1 % to 20 %
		Other edible grains	IS 4333 (Part 1)	0.1 % to 20 %
	Fat	IS 3579	2.0 % to 30 %	
2.	Cereals Product (Atta, Maida, Suji, Besan, Fortified Atta, Paushtikatta)	Microscopic Examination/ Foreign Starch	FSSAI Manual	Qualitative
		Total Ash	FSSAI Manual	0.05 % to 10 %
		Ash insoluble in dilute HCL	FSSAI Manual	0.01 % to 2.0 %
		Alcoholic Acidity expressed as H ₂ SO ₄	FSSAI Manual	0.05 % to 0.5 %
		Gluten	FSSAI Manual	2 % to 20 %
		Protein	FSSAI Manual	0.5 % to 60 %
		Crude Fiber	FSSAI Manual	0.1 % to 20 %
	Fat	IS 4684	0.1 % to 20 %	
3.	Fruit Products (Sauces, Ketchup, Jam, Jelly, Juices, Beverages, Pulp, Puree)	pH	IS 2860	1 to 14
		Total Soluble Solids(Brix)	IS 5861	0.5 % to 100 %
		Titrateable Acidity	IS 2860	0.05% to 5.0%
		Total Sugars	FSSAI Manual	0.5 % to 95 %
		Reducing Sugar	FSSAI Manual	0.5 % to 95 %

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4.	Iodized Salt/ Vacuum Evaporated Iodized Salt /Refined Iodized Salt/ Edible Common Salt	Added Sugar	FSSAI Manual	0.5 % to 95 %
		Water insoluble matter	IS 7224, IS 253	0.1 % to 5 %
		Chloride	IS 7224, IS 253	90 % to 100 %
		Calcium	IS 7224	0.01 % to 1 %
		Magnesium	IS 7224	0.01 % to 1 %
		Sulphate	IS 7224	0.1 % to 2 %
		Iodine	IS 7224	5 mg/kg to 100 mg/kg
5.	Spices, Condiments (Whole, Powder & Mix Masala)/ Dehydrated Onion/ Asafoetida/ Compounded Asafoetida	Alkalinity	IS 7224	0.02 % to 0.5 %
		Excreta Mammalian	ASTA's Analytical Methods	Qualitative
		Excreta, Others	ASTA's Analytical Methods	Qualitative
		Extraneous (Organic & Inorganic)/ Foreign Matter	ASTA's Analytical Methods	Qualitative
		Insect Infested/ defiled	ASTA's Analytical Methods	Qualitative
		Whole Insects, dead	ASTA's Analytical Methods	Qualitative
		Rodent Hair & Contamination	FSSAI Manual ASTA's Analytical Methods	Qualitative
		Foreign starch	IS 7807	Qualitative
		Lead Chromate Test	FSSAI. Manual No.10	Qualitative
		Unripe & Marked Fruits	ASTA's Analytical Methods	1 % to 10 %
		Broken Fruits, seed & Fragments/Split Fruits	ASTA's Analytical Methods	1 % to 15 %
		Damaged / Discoloured Fruits	ASTA's Analytical Methods	1 % to 10 %
		Moisture	FSSAI. Manual	0.1 % to 20 %
		Total ash	FSSAI. Manual	0.1 % to 25 %
		Acid insoluble ash	FSSAI. Manual	0.1 % to 10 %
Alcoholic Soluble extract	FSSAI. Manual	1 % to 80 %		
Crude fibre	FSSAI. Manual IS 1797	1 % to 50 %		
Non Volatile Ether Extract	FSSAI. Manual; IS 1797	1 % to 50 %		
Volatile oil contents	FSSAI. Manual	0.05 % to 25 %		

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6.	Milk Products Ghee	Test for Rancidity (Analysis by peroxide value)	FSSAI. Manual	Qualitative
		Baudouin Test	IS 3508	Qualitative
		B.R at 40°C / B.R. at 40°C of extracted Fat	IS 3508	30 to 70
		R.M. Value / R.M. Value of Extracted Fat	IS 3508	0.5 to 35
7	Oil, (Edible Oils & Sunflower Oil, Rice Bran Oil, Groundnut Oil, Cottonseed Oil, Mustard Oil Sesame Oil, Maize (Corn Oil), Palmolein Oil, Palm Kernal Oil, Blended Oil)	Rancidity	FSSAI. Manual	Qualitative
		Butyro-refractometer reading at 40 °C	IS 548 (Part 1)	30 to 70
		Refractive index	IS 548 (Part 1)	1.3 to 1.8
		Moisture & Volatile matter	FSSAI. Manual	0.01 % to 5 %
		Free fatty acid	FSSAI. Manual	0.01 % to 10 %
		Acid value	FSSAI. Manual	0.1 to 20
		Saponification value	FSSAI. Manual	10 to 300
		Iodine value	FSSAI. Manual	1 to 200
		Unsaponifiable matter	FSSAI. Manual	0.1 % to 5 %
		Peroxide value	FSSAI. Manual	0.5 mEq/kg to 50 mEq/kg
II.	WATER			
1.	Drinking Water, Ground & Surface Water	Colour	IS 3025 (Part 4)	1 Hazen to 10 Hazen unit
		Odour	IS 3025 (Part 5)	Qualitative (Agreeable/ Disagreeable)
		Turbidity	IS 3025 (Part 10)	0.1 NTU to 10 NTU
		Total dissolved solids	IS 3025 (Part 16)	5 mg/l to 100 mg/l 100 mg/l to 1000 mg/l
		pH	IS 3025 (Part 11)	2 to 12

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		Chloride (as Cl)	IS 3025 (Part 32)	1 mg/l to 50 mg/l 50 mg/l to 500 mg/l
		Alkalinity	IS 3025 (Part 23)	1 mg/l to 20 mg/l 20 mg/l to 500 mg/l
		Calcium (as Ca)	IS 3025 (Part 40)	1 mg/l to 10 mg/l 10 mg/l to 500 mg/l
		Magnesium (as Mg)	IS 3025 (Part 46)	10 mg/l to 30 mg/l
		Residual Free Chlorine	IS 3025 (Part 26)	0.05 mg/l to 5.0 mg/l
		Nitrate (as NO ₃)	IS 3025 (Part 34)	1 mg/l to 50 mg/l
		Nitrite (as NO ₂)	IS 3025 (Part 34)	0.01 mg/l to 1 mg/l
		Sulphide (as H ₂ S)	IS 3025 (Part 29)	0.05 mg/l to 5 mg/l
		Phenolic Compounds	IS 3025 (Part 43)	0.1 mg/l to 5 mg/l
		Sulphate	IS 3025 (Part 24)	0.5 mg/l to 500 mg/l
		Fluoride	IS 3025 (Part 60)	0.25 mg/l to 1 mg/l
		Conductivity	IS 3025 (Part 14)	0.1 µS/cm to 10 µS/cm, 10 µS/cm to 100 µS/cm >100 µS/cm
		COD	IS 3025 (Part 58)	5 mg/l to 200000 mg/l
		BOD	IS 3025 (Part 44)	5 mg/l to 10000 mg/l
		DO	IS 3025 (Part 38)	0.2 mg/l to 20 mg/l
		Ammonical Nitrogen	IS 3025 (Part 34)	0.3 mg/l to 1400 mg/l
		Iron	IS 3025 (Part 53)	0.075 mg/l to 0.5 mg/l
		Sodium	IS 3025 (Part 45)	0.5 mg/l to 300 mg/l
		Potassium	IS 3025 (Part 45)	0.5 mg/l to 100 mg/l
III.	POLLUTION & ENVIRONMENT			
1.	Waste Water (Effluent/ Sewage)	Color	IS 3025 (Part 4)	1 Hazen to 10 Hazen unit
		Total dissolved solids	IS 3025 (Part 16)	5 mg/l to 100 mg/l 100 mg/l to 1000 mg/l 1000 mg/l to 5000 mg/l
		pH	IS 3025 (Part 11)	2 to 12
		Chloride (as Cl)	IS 3025 (Part 32)	1 mg/l to 50 mg/l 50 mg/l to 500 mg/l

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		Sulphide (as H ₂ S)	IS 3025 (Part 29)	0.05 mg/l to 5 mg/l
		Phenolic Compounds	IS 3025 (Part 43)	0.1 mg/l to 5 mg/l
		Sulphate	IS 3025 (Part 24)	0.5 mg/l to 500 mg/l
		COD	IS 3025 (Part 58)	5mg/l to 200000 mg/l
		BOD	IS 3025 (Part 44)	5 mg/l to 10000 mg/l
		Ammoniacal Nitrogen	IS 3025 (Part 34)	0.3 mg/l to 1400 mg/l
		Suspended Solids	IS 3025 (Part 17)	5 mg/l to 10000 mg/l
		Oil & Grease	IS 3025 (Part 39)	1 mg/l to 1000 mg/l
IV.	SOIL			
1.	Soil	pH	IS 2720 (Part 26)	2 to 12
		Electrical Conducvity	IS 14767	0.1 mS/cm ² to 10 mS/cm ² , 10 mS/cm ² to 10000 mS/cm ²
		Total Nitrogen	IS 14684	100 mg/kg to 20000 mg/kg