

List Of Testing / Analysis Facilities Exists At Food Technology Centre (FTC)

S.No	Description of services	Test method
1.	Synthetic detergents PS: 4986-2009	Active ingredient
		Clear point
		pH of 1% solution
2.	Fertilizers DAP, urea, NPK	N.H. Furman, standard method of chemical analysis 6 th edition
3.	Test of fumigation tablets Aluminum Phosphate	N.H. Furman, standard method of chemical analysis 6 th edition
4.	Banaspati ghee	Moisture and insoluble impurities percent by weight Max PS 56 196
		Free fatty acid
		Nickel kg\mg
		Unsaponifiable matter, percent by weightMax
		Peroxide value, express as mill equivalent oxygen per Kg, max
		Rancidity PS. 221 2003
		Vitamin A PS. 56.196
		Soap content ppm, max PS. 221. 2003
		Moisture percentage by weight AOAC 2000
		Acid insoluble ash (dry basis) AOAC 2000
		Acidity of extracted fat (oleic acid) AOAC 2000
		Total ash percentage mass AOAC 2000
5.	Cooking Oil Blended	Moisture and insoluble impurities Percent by weight max PS:56-196
		Color in a 5 ½ inch cell on lovibond scale
		Refractive Index at 40C
		Free fatty acid
		Saponification value
		Iodine Value (wijs)
		Unsaponifiable matter, percent by weight, Max Do
		Peroxide Value, express as milliequivalent oxygen per Kg, Max
		Anisidinevaluemax/ rancidity test PS: 221-2003
		Vitamin-A PS: 56-196
6.	Refined Coconut oil (PS-99-2010), Refined Cotton Seed Oil (PS-2 1-2003), PS-1562-2003), refined Mustard Oil (PS-25-2003), Refined Soy bean oil (PS-1563-2003), refined Sunflower oil (PS-1564-2003)	Moisture and insoluble impurities Percent by weight max PS:56-196
		Refractive Index at 40C
		Relative Density (20 C / water at 20 C)
		Saponification value
		Iodine Value (wijs)
		Unsaponifiable Matter, percent by weight, Max
		Peroside Value, express as milliequivalent oxygen per Kg, Max
Vitamin-A		

		PS:56-196
		Melting point PS:ISO: 3015-1992
		Free Fatty Acid PS:56-196
7.	Black tea (PS-493-2012)	Water extract % mass fraction AOAC 2000
		Total ash % mass fraction AOAC 2000
		Alkalinity of water soluble ash (KOH), % mass fraction of total ash AOAC 2000
		Crude fiber % AOAC 2000
		Total polyphenols % AOAC 2000
8.	Drinking water	Color
		Odor
		Taste
		Turbidity
		Ph
		Nitrite as N
		Chloride
		Sulphate
		Sodium
		Potassium
		Magnesium
		Calcium
		Arsenic
		Total coliform APHA
		Fecal coliform APHA
		E.coli APHA
		Pseudomonas aeruginosa APHA
		Total viable count at 20 to 22 degreeAPHA
		Total viable count at 37 degreeAPHA
9.	Drinking water 4th review (PS -4639-2018)	Colour
		Odour
		Taste
		Turbidity
		pH range
		TDS
		Nitrite as (N)
		Chloride
		Sulphate potassium
		Sodium
		Magnesium
		Calcium
		Chlorine
		As
		F
		Total Coliform APHA
		Thermotolerant / fecal coliform APHA
		Fecal enterococci/ streprococci
		Pseudomonas aeruginosa APHA
		Total Viable Count at 20-22 C
		Total Viable Count at 37 C APHA
10.	Bottled Natural Mineral Water (PS-2012-2010)	pH
		TDS

		T.Hardness as CaCO ₃
		Cl
		Sulphate
		Na
		K
		Mg
		Ca
		Sb
		As
		Cd
		Cr
		Cu
		Pb
		Mn
		Ni
		NO ₃
		B
		As
		Total coliform APHA
		E. coli APHA
		Thermotolerant / streptococci No facility
		Pseudomonas aeruginosa APHA
		Total Viable Count at 20-22 C APHA
		TOTAL Viable Count at 37 C APHA
11.	Feed (poultry, Cattle,horse) PS-234-2016	Crude protein % AOAC 2000
		Crude fiber % AOAC 2000
		Crude fat % AOAC 2000
		Total ash % AOAC 2000
		Moisture % AOAC 2000
		Acid insoluble ash % AOAC 2000
12.	Butter	Milk fat% AOAC 2000
		Milk solids% AOAC 2000
		Rancidity AOAC 2000
		Water content AOAC 2000
		Sodium chloride AOAC 2000
13.	Synthetic vinegar	Acidity as acetic acid
		Taste , odor S PS3602/1994
14.	Wheat flour	Moisture % AOAC 2000
		Ash % AOAC 2000
		Gluten wet\dry % AOAC 2000
		Protein %
		Carbohydrate%

		Alcoholic acidity%
		Acid insoluble ash %
15.	Concentrate fruit juice	Brix AOAC 2000
		Acidity as anhydrous citric acid % AOAC 2000
		Titrateable acidity % AOAC 2000
16.	Apple juice	Brix AOAC 2000
		Acidity as anhydrous citric acid % AOAC 2000
17.	Biscuits	Total microbial count
		Coliform
		E.coli
		Yeast and molds
18.	Chilli (red pepper) powder	Moisture% by weight AOAC 2000
		Ash insoluble in HCL% dry basis AOAC 2000
		Nonvolatile ether extract %on dry basis AOAC 2000
		Crude fiber %on dry basis AOAC 2000
		Total plate count
		Coliform
		Yeast
		Milk fat %
		Total milk solid%
		Milk protein %
		Acidity %
19.	Curry powder	Moisture% by weight AOAC 2000
		Acid insoluble ash% on dry basis
		Crude fiber% dry basis
		Total coliforms
		Total bacterial count
		Yeast\mold count
20.	Milk powder	Moisture%
		Total solid %
		Total ash%
		Milk fat%
		Titrateable acidity%
		Milk protein %
21.	Margarine	Iron, copper, nickel
		Moisture percentage
		Oil\fat %
		Free fatty acid as oleic acid
		Unsaponifiable matter %
		Peroxide value expressed as mill equivalent oxygen as per
		Melting point
		Vitamin A
		Other vitamins
22.	Sugar	Moisture %
		Ash%
23.	Palm oil edible grade	Moisture and insoluble impurities percent by weight Max PS 56 196

		Relative density
		Saponification value
		Iodine value
		Unsaponified matter%
		Peroxide value
		Rancidity
		Melting point
		Free fatty acid %
24.	Betel nuts	Fecal coliform (Bacteriological Analytical Manual, US FDA, Centre, 2001)
		E.coli (Bacteriological Analytical Manual, US FDA, Centre, 2001)
		Streptococcus sp. (Bacteriological Analytical Manual, US FDA, Centre, 2001)
		Staphylococcus sp. (Bacteriological Analytical Manual, US FDA, Centre, 2001)
		Salmonella sp. (Bacteriological Analytical Manual, US FDA, Centre, 2001)
		Shigella sp. (Bacteriological Analytical Manual, US FDA, Centre, 2001)
		Yeast (Bacteriological Analytical Manual, US FDA, Centre, 2001)
		Mold , Aspergillus sp. (Bacteriological Analytical Manual, US FDA, Centre, 2001)
		Insect damaged %, Quantitative
25.	Hydrogen peroxide	% purity (Quantitative)
		Appearance (Qualitative)
		pH (Quantitative)
26.	Raw shampoo	Active ingredient %
		Color
		pH
27.	Whey powder / permeate	Appearance %
		pH
		Protein
		Ash %
		Fat %
28.	Fruit Spuashes PS: 506-2010	Degree Brix (clear Sample) AOAC 2000
		Acidity (as anhydrous citric acid) % by weight AOAC 2000
		Degree Brix Clear sample Min AOAC-2000
		Acidity as anhydrous citric acid % by weight Min AOAC-2000
29.	Pickles 3 rd Revision PS: 520-2013	As
		Pb
		pH
		Sn
30.	Refined & White Sugar PS:1822-2007	Moisture % AOAC 2000
		Cu
		As
		Pb
31.	Banaspati Ghee PS: 221-2010	Moisture and insoluble impurities Percent by weight max PS: 56-196
		ButyroRefracometer reading at 40 C
		Free Fatty acid
		Nickel mg/kg, acid

32.	Carbonated Beverages PS:1654-2012	Ba
		F
		Cd
		As
		Cu
		Se
		Cr
		Mn
		Total Plate Count APHA
		Coiliform APHA
		Yeast & Molds APHA

List of samples (petroleum products)

S.No	Description of sample	Test method
Petroleum Products		
1.	Base oil, Diethylene glycol, Foots oil, Glycerin, Grease, Latex, Hexaonic acid, Liquid paraffin, Melamine powder, Melamine powder, Methanol oxide ethylene diglycol, Methyl methacrylate monomer, Monoethylene glycol, Motor oil, Paraffin wax, Petroleum jelly, Rubber processing oil, Mixed carbon solvent, Slack wax, Sulphonic acid, Sulphur, Sulphur toluene di isocyanate, White oil, White spirit, Phenol, Polyethylene granules, PVC resins	Density ASTM D1217
		K .viscosity at 40 degree ASTM D2532
		Viscosity index ASTM D4951
		Appearance Qualitative
		Acidity (pH) Quantitative
		Boiling point ISO 2977
		Solubility in water Quantitative
		Oil Contents ASTM D721
		Wax Contents Quantitative
		Congealing point ASTM D938
		Refractive index ASTM D6379
		Water content % Quantitative
		Glycerine % Quantitative
		Specific Gravity ASTM D1217
		Free acid/alkali Quantitative
		Drop Point °C ASTM D566
		Flash Point ASTM D93
		Chlorine content% ASTM D5384
		Solubility water, alcohol, ether ASTM D4056
		Moisture % ASTM D6374
		Acidity as acetic acid mg/kg Quantitative
		Oil content ASTM D721
		Melting point ASTM D87
		Kinematic viscosity at 100 ASTM D445
		Pour point ASTM D5853
		Ash content by wt.% ASTM D4422
		Total acid number mgKOH/g Quantitative
Sulphur% Quantitative		
Bentonite %, Quantitative		
Viscosity ASTM D5133		
Color ASTM D1209		
Final boiling point ASTM D86		
Flash point ASTM D93		
2.	PVC scrap	Density
		Melting point
		Reaction with organic solvents Ethanol , petroleum spirit, hexane
		Reaction with acids Sulphuric acid, hydrochloric acid , nitric acid
		Reaction with petroleum oil

List Of Testing / Analysis Facilities Exists At Mineral Technology Centre (MTC)

Sr	Description of Services	Test Method
1.	Copper ore (complete analysis)	VOGELS textbook of Quantitative Chemical Analysis 5/6 Edition
2.	Manganese ore (complete analysis)	VOGELS textbook of Quantitative Chemical Analysis 5/6 Edition
3.	Chromite ore (complete analysis)	VOGELS textbook of Quantitative Chemical Analysis 5/6 Edition
4.	Iron ore (complete analysis)	VOGELS textbook of Quantitative Chemical Analysis 5/6 Edition
5.	Lead ore (complete analysis)	VOGELS textbook of Quantitative Chemical Analysis 5/6 Edition
6.	Antimony ore (complete analysis)	VOGELS textbook of Quantitative Chemical Analysis 5/6 Edition
7.	Magnesite ore (complete analysis)	ASTM standards Cement: lime: Gypsum Volume 04.01
8.	Dolomite ore (complete analysis)	ASTM standards Cement: lime: Gypsum Volume 04.01
9.	Calcite ore (complete analysis)	ASTM standards Cement: lime: Gypsum Volume 04.01
10.	Calcium Fluorite ore (complete analysis)	VOGELS textbook of Quantitative Chemical Analysis 5/6 Edition
11.	Quartz ore (complete analysis)	ASTM standards Cement: lime: Gypsum Volume 04.01
12.	Coal / coke (proximate analysis) Moisture, Ash, Volatile Matter, Fixed carbon, Total sulfur, Gross Calorific Value.	ASTM Standards Gaseous Fuels: Coal and coke volume 05.06
13.	Gypsum ore (complete analysis)	ASTM standards Cement: lime: Gypsum Volume 04.01
14.	Loss on Ignition	ASTM standards Cement: lime: Gypsum Volume 04.01
15.	Ore / Metallic elements Au, Ag, Cd, Ti, Ni, Zn, Cu, Fe, Al, Pb, As, Sb, Ca, Mg, Mo, Cr, Mn.	Atomic Absorption Spectrometry (AAS)