

# Food Chemistry Laboratory Brochure







2020



### The Food Chemistry Laboratory

#### About FCL

The Food Chemistry Laboratory offers a wide range of food chemistry testing services to the food and beverage industry. Our experience is gained from more than 25 years of assisting the industry. We carry out routine chemistry analyses as well as provide nutritional analysis and labelling information about products.

General Food Chemistry Services are offered for below type of samples.

- Fish and Fish products
- Milk and Dairy products
- Oils
- Beverages (Alcoholic and Non alcoholic)
- Fruit Juice
- Animal Feed
- Cereals and Cereal products

#### Why Testing?

Food and beverage should be tested regularly to ensure quality and safety to protect consumer's health. Testing of products is also necessary to meet legal requirements. Assurance on quality and safety generated through regular testing also serves as a good marketing tool for companies.

#### Where to Test?

The products should be tested in a reliable laboratory because only the results from such laboratories are universally accepted. Reliable laboratories are laboratories with good Quality Management System (QMS) and competent work force. The tests in FCL are conducted using approved methods and as per the ISO 9001:2008 Quality Management System (QMS) requirements. The laboratory has trained staff in conducting tests.

## Our services

#### O1 Fish and Fishery Products

The tests for fish and fishery products help to pronounce on quality and spoilage. The Food Chemistry Laboratory is the Official Testing Laboratory in Seychelles to test fish/fishery products for histamine.

<b>Chemical Tests</b>	Matrix	Cost (SCR)
Histamine (HPLC)	Canned Tuna / Raw Fish	500.00
Histamine (Immunoassay)	Canned Tuna / Raw Fish	440.00
Chloride Content (NaCl)	Raw / Smoked / Salted Fish	250.00
Free Fatty Acid	Fish Oil	250.00
Moisture Content	Fish Oil	200.00
Peroxide Value	Fish Oil	315.00

#### 02 Milk and Dairy Products

The Standard Specification SS 33: 1994, Rev.1: 1999 for 'Milk' is a mandatory standard. The Food Chemistry Laboratory test samples for the parameters mentioned in the standard specification.

Chemical Tests	Matrix	Cost (SCR)
pH measurement	Milk	150.00
Fat content	Milk	280.00
Milk solid non fat	Milk	190.00
Total Solids	Milk	190.00
Acidity	Milk	250.00
Moisture	Milk powder	200.00
Weight in grams	Ice cream	150.00
Melamine	Milk & Milk products	400.00

#### 03 Beverages

Both alcoholic and non-alcoholic beverages are tested at FCL. The non-alcoholic beverages are tested for its nutritional value, sugar content, preservatives etc whereas; alcoholic beverages are tested for ethanol, methanol, higher alcohol, ester, aldehyde etc. Ethanol content should be tested as it provides information about alcohol present in alcoholic drinks. Some of the alcohols and by-products produced during fermentation are toxic and those are tested to check if its level is below the set limit. Alcohol matures on ageing, which provide characteristic aroma to some type of alcoholic drinks. The parameters responsible for such changes are tested at FCL

Chemical Tests	Matrix	Cost (SCR)
Alcohol content (GC method)	Beer, wine, soft drinks, fruit juices	375.00
Alcohol content (Distillation)	Beer, wine, spirits	315.00
Alcohol content (Hydrometric)	Beer, wine, spirits	190.00
Esters (as ethyl acetate)	Beer, wine, spirits	500.00
Higher alcohols (as amyl alcohol)	Beer, wine, spirits	500.00
Aldehydes (as acetalde- hyde)	Beer, wine, spirits	500.00
pH measurement	Wines	150.00
Identification	Baca/lapire	375.00
Methanol	Alcoholic Beverages	375.00

Chemical Tests	Matrix	Cost (SCR)
Suspended Solids	Alcoholic Beverages	250.00
Dissolved Solids	Alcoholic Beverages	250.00
Total Solids	Alcoholic Beverages	250.00
Ash	Alcoholic Beverages	250.00
Sugar Content	Alcoholic Beverages	150.00

#### 04 Cereals and Cereals Products

Cereal products like bread are consumed everyday by the public. A regular check on the product ensures its quality and safety. Snacks require testing for quality of oil used and other ingredients.

Chemical Tests	Matrix	Cost (SCR)
рН	Bread/flour	150.00
Moisture	Bread	200.00
Ash	Bread	250.00

#### 05 Spices and Condiments

Spices and condiments are tested mainly for quality and food additives.

<b>Chemical Tests</b>	Matrix	Cost (SCR)
Acid-insoluble ash on dry basis	Spices and condiments	315.00
Moisture	Spices and condiments	150.00
Total ash	Spices and condiments	300.00
Salt (NaCl)	Spices and condiments	375.00
Total sugar	Tomato & chilli sauce	375.00
Acidity as Acetic acid	Tomato & chilli sauce	200.00
рН	Tomato & chilli sauce	150.00
Total solids	Tomato & chilli sauce	200.00
% Soluble Solids	Tomato & chilli sauce	200.00
% Water Soluble Solids	Tomato & chilli sauce	200.00

#### 06 Animal Feed and Forage

Routine evaluation of finished feed will help to ensure that proper ingredient storage, proportioning, grinding and mixing were performed. Feed ingredients also should be routinely evaluated to ensure that they are safe, contain correct amount of specified nutrient and that the finished feed quality will optimize animal performance.

Chemical Tests	Matrix	Cost (SCR)
Phosphorus	Feed and forage	315.00
Crude Protein	Feed and forage	360.00
Potassium	Feed and forage	315.00
Moisture	Feed and forage	190.00
Sodium chloride	Feed and forage	375.00
Crude fat	Feed and forage	375.00
Ash	Feed and forage	315.00

#### 07 Fruits and Fruits Products

Fruit products are tested mainly for sugar content, Vitamin C and preservatives. The samples are tested for compliance to relevant standard specifications.

Chemical Tests	Matrix	Cost (SCR)
Soluble solids / Sugar content	Fruit products	190.00
Total solids	Jam, jellies, marmalade	190.00
Benzoic and sorbic acid	Jam, jellies, marmalade	440.00
рН	Jam, jellies, marmalade	150.00
Ascorbic acid	Fruit products	440.00
Titratable acidity	Fruit products	250.00
Total sugar content	Fruit products	250.00

#### 08 Oils and Fats

Oils are tested to gain information related to performance in specific food applications, to measure degree of deterioration and to check properties against purchase specifications.

Chemical Tests	Matrix	Cost (SCR)
Peroxide value	Oils	315.00
Iodine value	Oils	315.00
Refractive index	Oils	190.00
Saponification value	Oils	315.00
Specific gravity	Oils	315.00
Free fatty acids	Oils	315.00
Moisture content	Oils	315.00

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