

METROLOGY

Laboratory Services

The (RML) of DOST I provides testing and calibration functions/services to industries, laboratories, LGUs and other stakeholders that have equipment/instruments/devices requiring test and calibration services for mass, volume, length, temperature, and pressure.

Services offered:

VOLUME Standards Section

Type of Equipment/Device	Range or Capacity	Calibration Fee (Php)
Proving Tanks (Volumetric)	100 L to 400 L	1,500.00
	500 L to 2000 L	3,000.00
	2500 L to 4000 L	4,000.00
Test Measure (Volumetric)	10 L	500.00
Fuel Dispensing Pump	per nozzle	700.00
Road Tankers (Volume capacity determination)	5,000 L and below	1,000.00
	6,000 L to 10,000 L	1,500.00
	11,000 L to 15,000 L	2,000.00
	16,000 L to 20,000 L	2,500.00
	21,000 L to 25,000 L	3,000.00
	26,000 L to 30,000 L	3,500.00
	31,000 L to 35,000 L	4,000.00
	36,000 L to 40,000 L	4,500.00
	41,000 L to 45,000 L	5,000.00
	46,000 L to 50,000 L	5,500.00

MASS Standards Section

Class/Type	Range or Capacity	Calibration Fee (Php)
OIML Class F2	>1 kg to 10 kg	600.00
	>10 kg to 20 kg	800.00
	>20 kg to 50 kg	1,000.00
OIML Class M1/M2/M3	Up to 5 kg	450.00
	10 kg to 20 kg	600.00
	25 kg to 50 kg	700.00

Calibration/Testing of Non-Automatic Weighing Instruments (NAWI)

Type of Service	Range/Accuracy Class	Calibration Fee (Php)
Calibration of NAWI, Electronic and Mechanical Types (Base Laboratory or On-site Calibration)	Special Accuracy I	1,200.00
	High Accuracy II	1,000.00
	Medium Accuracy III	900.00
	Ordinary III (Weighing Scale)	280.00
	Ordinary III (Platform Balance)	340.00

PRESSURE Standards Section

Type of Equipment/Device	Range or Capacity	Calibration Fee (Php)
Testing of Sphygmomanometer	0 bar to 1 bar 0 mmHg to 750 mmHg	1,300.00

LENGTH Standards Section

Type of Equipment/Device	Range or Capacity	Calibration Fee (Php)
Steel Rule (Metal Rule)	300 mm and below	500.00
	>300 mm to 600 mm	650.00
	>600 mm to 1000 mm	900.00
	>1000 mm to 1500 mm	900.00
	>1500 mm to 2000 mm	900.00
Tape Measure	up to 10 m	700.00
	additional fee per meter	70.00

THERMOMETRY & HYGROMETRY Standards Section

Type of Equipment/Device	Range or Capacity	Calibration Fee (Php)
Clinical Thermometer	-20 °C to +80 °C	1,700.00
Digital Thermometer, Additional Probe	-30 °C to +100 °C	1,800.00
Glass/Filled/Bimetallic Thermometer	0 °C to +100 °C, 1st three points	1,020.00
Electronic/Dial Thermo hygrometer	0-100% RH, 0-100 °C ambient room condition only	1,550.00
Thermometers (Room, Max & Min, Liquid, Thermograph, Dial type & Electronics)	0 °C to 45 °C, regular 3 test points	425.00
Electronic/Dial Type Hygrometer	35% to 98% RH, regular 3 test points	700.00
Thermohygrometers Thermometers Hygrometers	per additional test points	500.00

ON-SITE CALIBRATION

Within 50 km radius from Base lab per day per personnel	2,000.00
More than 50 km radius from Base lab per day per personnel	3,000.00

SAMPLE REQUIREMENT

For Physical and Chemical Analysis:

Solid Samples: 250 - 500 grams

Liquid Samples: 2 Liters

For BOD samples: at least 1.5 Liters

For oil and grease samples: at least 1 Liter in wide-mouth glass container (mouth sealed with foil prior to cap covering)

For Microbiological Analysis:

Food: 250 grams (for FDA requirements, submit at least 5 packs equivalent to 250 grams per sample)

Water: 250 - 500 mL (sterile or virgin container)

*Note: Water samples for microbiological analyses must be placed in sterile container. Sample must be transported to the lab in chilled condition, less than eight (8) hours upon sampling



DEPARTMENT OF SCIENCE
AND TECHNOLOGY
REGIONAL OFFICE NO. 1

Regional Standards & Testing Laboratory

REGION 1



MICROBIOLOGY

Laboratory Services

Our Microbiology Laboratory helps ensure the quality and safety of consumer products and provides customers valuable information about their quality and safety programs.

Services offered:

Food, Feed and Feedstuff		
PARAMETER	TEST METHODS	TEST FEE
Aerobic Plate Count	Pour Plate Method	550.00
Mold and Yeast Count	Pour Plate Method	550.00
Total Coliform	Multiple Tube Fermentation Technique	550.00
Detection of <i>Vibrio parahaemolyticus</i>	Streak Plating	800.00
Detection of <i>Salmonella</i>	Streak Plating	1,000.00
Enumeration of <i>Escherichia coli</i>	Multiple Tube Fermentation Technique	1,000.00
Enumeration of <i>Staphylococcus aureus</i>	Plating Method	1,200.00
Anti-Microbial Susceptibility Test	Guevara 2005 Filter Disk Method	1,500.00
Commercial Sterility	Microbiological	2,000.00
Detection of Listeria monocytogenes	PALCAM	2,200.00
Detection of Bacillus cereus	Compact Dry X-BC	1,000.00

Water and Wastewater

PARAMETER	TEST METHODS	TEST FEE
Enumeration of <i>Escherichia coli</i> (EC)	Multiple Tube Fermentation Technique	1,000.00
Fecal Coliform(FC)	Multiple Tube Fermentation Technique	550.00
Heterotrophic Plate Count TC, E. coli w/ FC (Package A)	Pour Plate and MTFT	1,700.00
Heterotrophic Plate Count TC, and Faecal coliform (Package B)	Pour Plate and MTFT	1,200.00
Heterotrophic Plate Count and Total Coliform (Package C)	Pour Plate and MTFT	1,100.00
Total Coliform and Faecal coliform (Package D)	Multiple Tube Fermentation Technique	650.00
Detection and Enumeration of Coliform	Enzyme Substrate Coliform Test	700.00
Detection and Enumeration of E.coli	Colilert 18	700.00
Heterotrophic Plate Count(HPC)	Pour Plate Method	550.00
Total Coliform (TC)	Multiple Tube Fermentation Technique	550.00



CHEMISTRY

Laboratory Services

Chemistry lab determines nutritional content of food products and physico-chemical properties and quality of food/feed stuff, water, and wastewater.

Services offered:

Food/Feeds and Raw Materials		
PARAMETER	TEST METHODS	TEST FEE
Ash	Direct Ashing	550.00
Metals (Cadmium, Lead)	FLAME AAS (each metal)	2300.00
Minerals (Sodium, Iron, Potassium, Calcium, Zinc)	FLAME AAS (each mineral)	1920.00
Carbohydrates*	By Computation	180.00
Computation and Drafting of Nutrition Facts **	--	1,500.00
Total Fat	Acid Hydrolysis	1,200.00
Crude Fat	Solvent Extraction/Gravimetric	960
Crude Protein	Kjedahl Method	1,000.00
Ethyl alcohol in wine	Volume from Specific Gravity	350.00
Free Fatty Acids	Titration	500.00
Iodine in Salt	Iodometric-Titration	500.00
Moisture Content	Gravimetric Method/Conventional Oven Method	400.00
Salt in Seafoods (Chlorine as Sodium Chloride)	Volumetric Method	700.00
Total Soluble Solids (as % by weight of Sugars) - Sucrose	% Brix (Refractometer)	360.00
Total Solids in Seafoods	Gravimetric Method	400.00
Total Titratable Acidity	Titrimetry	560.00
Water Activity (a_w)	Water Activity Meter	375.00
Permanganate Oxidation Number (PON)	Titrimetry	450.00

*Value for Proximate (Moisture Content, Ash Content, Fat, Protein) must be provided
**Value for Proximate (Moisture Content, Ash Content, Fat, Protein, Carbohydrates) at least one trace mineral (Na) must be provided

Water and Wastewater

PARAMETER	TEST METHODS	TEST FEE
BOD (Scheduled Test)	5-day BOD Test	1,500.00
Metals (Cadmium, Copper, Lead, Manganese)	Flame Atomic Absorption Spectrometry (each metal)	1200.00
Minerals (Calcium, Potassium, Iron)	Flame Atomic Absorption Spectrometry (each mineral)	1200.00
Calcium	EDTA-Titrimetric Method	700.00
Chlorides	Argentometric Method	750.00
Dissolved Oxygen (DO)	Azide Modification	500.00



PARAMETER	TEST METHODS	TEST FEE
Oil and Grease	Liquid-Liquid Partition - Gravimetric Method	1,000.00
pH	Probe Method	350.00
Sulfates	Gravimetric Method	800.00
Total Hardness	EDTA-Titrimetric Method	700.00
Color, Apparent	Visual Comparison	300.00
Conductivity	Probe Method	350.00
Salinity	Refractometer	300.00
Settleable Matter	Gravimetric Method	300.00
Specific Gravity	Pycnometer	350.00
Total Dissolved Solids	Gravimetric Method	600.00
Total Solids (Food)	Gravimetric Method	600.00
Total Solids (Water)	Gravimetric Method	500.00
Total Suspended Solids	Gravimetric Method	650.00
Turbidity	Nephelometric Method	700.00

SHELF-LIFE TESTING AND SENSORY EVALUATION

Laboratory Services

• Accelerated Shelf-life Testing

ASLT is a method of shelf-life assessment in which the stability of food product is evaluated by keeping sample in elevated conditions to increase deterioration rate and reduce assessment time.

• Actual Shelf-life Testing

Actual shelf-life testing is designed to provide an objective measure of the quality factors that define the food and the point at food exhibits physical, chemical, microbiological, or sensory characteristics that are unacceptable to the consumer.

• How to avail of Shelf-life testing and sensory evaluation?

1. Client contacts RSTL (e-mail, phone, or in-person).
2. Client will fill-out P.I.S. (Product Information Sheet) for initial assessment of product.
3. A quotation will be provided based on information from P.I.S.
4. If both parties are amenable to the conditions set, client submits sample for initial micro test.
5. If the sample passed the micro test, shelf-life testing will be scheduled and proceeds according to test method.



What is the RSTL?

The DOST 1 Regional Standards and Testing Laboratory (DOST-I RSTL) is the leading government agency in providing analytical testing and calibration services in Region 1. It provides valuable support to Small and Medium Enterprises (SMEs) in terms of product quality testing of local and export products through the use of state-of-the-art laboratory equipment and facilities and the adoption of quality management system. It offers testing and calibration services to various sectors whether public, private, research or academic institutions.

The DOST-I RSTL is ISO/IEC 17025:2017 certified, the highest badge of recognition for testing and calibration services. Likewise, it is a DOH accredited Drinking Water Testing Laboratory, FDA accredited Testing Laboratory, and DENR-EMB recognized Environmental Testing Laboratory.

Contact Us

Chemical, Microbiological, Shelf-life Testing and Sensory Evaluation Laboratories

DMMMSU-MLU Campus, Sevilla, City of San Fernando, La Union 2500
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Metrology and Calibration Laboratory

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Accreditation and Recognition



Accredited Food Laboratory



Accredited Drinking Water Laboratory



Recognized Environmental Laboratory



Authority to Operate Chemistry Laboratory

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