



Type: re-accreditation



Certificate of Accreditation

This is to certify that

BATO CHEMICAL LABORATORIES LTD

Plot A, Block 11a, Lasun Olaitan Avenue, Riverview Estate, Isheri North, Opic Estate, Ogun State

Has been assessed by the Nigeria National Accreditation System and meets the requirements of the International Standard

ISO/IEC 17025:2017

with demonstrated technical competence in the field of

Testing

for the specific services listed on the approved Scope of Accreditation.

On behalf of the Nigeria National Accreditation System:



Testing
No. T0002

Issue date: **June 06, 2022**
Validity through: **June 05, 2024**

Scope of Accreditation

Chemical Testing Laboratory

----- BATO CHEMICAL LABORATORIES LTD -----

PLOT A, BLOCK 11A, LASUN OLAITAN AVENUE, RIVERVIEW ESTATE, ISHERI NORTH, OPIC
ESTATE, OGUN STATE

Schedule No.: T0002

Issue No. 3: 06 06, 2022

Valid to: 05 06, 2024

TESTS FOR RE-ACCREDITATION

Materials/ Products Tested	Types of Tests/ Properties Measured / Range of Measurements	Standard Specifications / Techniques Used
MICRO- NUTRIENTS		
Food Grade Salt	Iodine	AOAC 925.56 Titrimetric Method
FOOD SAFETY PARAMETERS		
MICROBIOLOGICAL PARAMETERS		
Materials/ Products Tested	Types of Tests/ Properties Measured / Range of Measurements	Standard Specifications / Techniques Used
Foods/Food Products	Coliforms	AOAC 966.24 -- 20 TH Edition, 2016

Foods/Food Products	E.coli	AOAC 966.24	-- 20 TH Edition, 2016
Foods/Food Products	Faecal Streptococci	AOAC 966.24	-- 20 TH Edition, 2016
Foods/Food Products	Staphylococcus	AOAC 987.09	-- 20 TH Edition, 2016
Foods/Food Products	Yeast /Moulds	AOAC 940.37	-- 20 TH Edition, 2016
FLOUR/FLOUR BASED PRODUCTS /FOODS/FOOD PRODUCTS	Moisture content	AOAC 990.20	Dry oven
	Total Ash content	AOAC 923.03	Muffle furnace
	Protein	AOAC 930.25	Kjeldhal
	Carbohydrate	AOAC 930.25	Calculated (By Difference)
	Total Fat Content	AOAC 963.15	Extraction
	Copper	AOAC 999.11	AAS
	Iron	AOAC 999.11	AAS
	Zinc	AOAC 999.11	AAS
	Sodium	AOAC 966.16	Flame photometer
	Potassium	AOAC 965.30	Flame Photometer
LIST OF TESTS FOR SCOPE EXPANSION			
MATERIALS/PRODUCTS TESTED	TYPES OF TEST / PROPERTIES MEASURED/RANGE OF MEASUREMENT	STANDARD SPECIFICATION/ TECHNIQUES USED	EQUIPMENT /MEDIA
FLOUR AND FLOUR	ENERGY VALUE	AOAC 930.25	CALCULATED

PRODUCTS/FOODS AND FOOD PRODUCTS	PH	AOAC 930.25	pH METER
	REFRACTIVE INDEX	AOAC 945.02	REFRACTOMETER
	ACID VALUE	AOAC 940.28	TITRIMETRY
	FREE FATTY ACID	AOAC 940.28	TITRIMETRY
	PEROXIDE VALUE	AOAC 965.33	TITRIMETRY
	SAPONIFICATION VALUE	AOAC 920.160	TITRIMETRY
	SPECIFIC GRAVITY	AOAC 920.212	REFRACTOMETER
	UNSAAPONIFIABLE MATTER	AOAC 933.08	GRAVIMETRY
	ACID INSOLUBLE ASH	AOAC 975.12	GRAVIMETRY
	REDUCING SUGAR	AOAC 930.183	TITRIMETRY
	TITRATABLE ACIDITY	AOAC 942.15	TITRIMETRY
TRACE MEALS ANALYSIS IN FOODS/WATER/SOIL/CHEMICALS	ARSENIC	AOAC 986.15F	AAS
	CADMIUM	AOAC 999.11	AAS
	CALCIUM	AOAC 999.11	AAS
	CHROMIUM (Hexavalent)	AOAC 999.11	AAS
	LEAD	AOAC 999.11	AAS
	MAGNESSIUM	AOAC 999.11	AAS
	MANGANESE	AOAC 999.11	AAS
FOODS AND FOOD PRODUCTS	SALMONELLA	AOAC 967.27	POUR PLATE/AUTO COLONY COUNTER
	SHIGELLA	AOAC 967.27	POUR PLATE/AUTO COLONY COUNTER
	BACILLUS CEREUS	AOAC 966.23	POUR PLATE/AUTO COLONY COUNTER
	VIBRIO	AOAC 988.20	POUR PLATE/AUTO COLONY COUNTER

	CLOSTRIDIA	APHA 9221D	POUR PLATE/AUTO COLONY COUNTER
	PSEUDOMONAS	APHA 9215B	POUR PLATE/AUTO COLONY COUNTER
	LEGIONELLA	APHA 926.	POUR PLATE/AUTO COLONY COUNTER
	AEROBIC PLATE COUNT	AOAC 966.23c	POUR PLATE/AUTO COLONY COUNTER
FOODS/FOOD PRODUCTS AGRICULTURAL PRODUCTS	AFLATOXIN B1	AOAC 994.08	HPLC /FLD
	AFLATOXIN B2		
	AFLATOXIN G1		
	AFLATOXIN G2		
	TOTAL AFLATOXIN		
FOODS/FOOD PRODUCTS/ OIL AND FATS SAMPLES	Vitamin A	AOAC 2002.06, AOAC 960.45	HPLC/UV DETECTOR
	Vitamin B1	AOAC 2002.06, AOAC 960.45	HPLC/UV DETECTOR
	VITAMIN B2	AOAC 2002.06, AOAC 960.45	HPLC/UV DETECTOR
	VITAMIN B3	AOAC 2002.06, AOAC 960.45	HPLC/UV DETECTOR
	VITAMIN B6	AOAC 2002.06, AOAC 960.45	HPLC/UV DETECTOR
	VITAMIN C	AOAC 2002.06, AOAC 960.45	HPLC/UV DETECTOR

WATER / WASTEWATER / SOIL

ELECTRICAL CONDUCTIVITY, umhos/cm,	ASTM D1175	CONDUCTIVITY METER
TURBIDITY	ASTM D6855-03	TURBIDIMETRY
pH	ASTM D1293	pH METER
TOTAL DISSOLVED SOLIDS	ASTM D5907-03	OVEN/ANALYICAL BALANCE
TOTAL SOLIDS	ASTM D5907-03	OVEN/ANALYICAL BALANCE
TOTAL HARDNESS-EDTA	APHA 2340C	TITRIMETRY
TOTAL ALKALINITY	ASTM D1067	TITRIMETRY
TOTAL ACIDITY	ASTM D1067	TITRIMETRY
RESIDUAL CHLORINE	ASTM D1253	TITRIMETRY
FREE CARBONDIOXIDE	APHA 4500C	TITRIMETRY
AMMONIACAL NITROGEN	APHA 4500 - NH ₃ C	TITRIMETRY
CHLORIDE	ASTM D512B	AGENTOMETRIC TITRIMETRY
NITRATE	ASTM D992	UV/VISIBLE SPECTROPHOTOMETER
PHOSPHATE (Total)	ASTM D515	UV/VISIBLE SPECTROPHOTOMETER
SULPHATE	ASTM D516	TURBIDIMETRY
SILICA	ASTM D859-00	UV/VISIBLE SPEC
DISSOLVED OXYGEN, mg/L	ASTM D888-03	DO METER
COD, mg/L	ASTM D1252-00	TITRIMETRY
BOD, mg/L	APHA 5210B	DO METER
PHENOL, mg/L	ASTM D1783	UV/VISIBLE SPECTRPPHOTOMETER
DETERGENT, mg/L	ASTM D2330-02	UV/VISIBLE SPECTRPPHOTOMETER
OIL/GREASE, mg/L	ASTM D4281-01	GRAVIMETRY
BICARBONATES, mg/L	ASTM D1691A	TITRIMETRY

CARBONATES, mg/L	ASTM D1067	TITRIMETRY
TOTAL PETROLEUM HYDROCARBON (TPH)		GC/FID
BTEX		GC/FID
POLY AROMATIC HYDROCARBON (PAH)		GC/FID