SUNSHINE

CALIBRATION CERTIFICATE

CERTIFICATE NO: SBS/CL/23/14625	MEDICAL DEVICES	Page No:1 of 1
Issue Date	14-10-2023	
SRF No & Date	SRF/23/00885-0001 & 13-10-2023	
Receipt Date	13-10-2023	
Calibration Date	13-10-2023	
Calibration Due	12-10-2024	

Customer Name & Address

GOVERNMENT PRIMARY HEALTH CENTRE,
MANGALAKUDI-623308,RAMANATHAPURAM DISTRICT.

Details of Device Under Calibration (DUC)

Description	:	SEMI AUTO ANALYZER	Make & Model	:	ALPHA & ALPHA CHEM
Range	:	MULTI	Sr. No	:	BCAA17062608
Resolution	:	MULTI	Identification No	:	NA
DUC Condition	:	SATISFACTORY	Location	:	LABORATORY

Environmental Conditions & Calibration Procedure Details

Environmental Details	Temperature:25.4°C	Relative Humidity	54% RH
Calibration Procedure No	SBS/CP/MD/20	Calibration done at	ONSITE

Reference Standards Details

S.No	Description	Make/ Sl No:	Certificate No	Validity
1	Electrical Safety Analyser	Rigel Medical & 44L-1059	M-230809-16-4	10-08-2024

ELECTRICAL SAFETY

RESULTS

S.no	SPECIFICATION	MEASURED VALUES	EXPANDED UNCERTAINTY (±)
1	Insulation Resisitance	Measured values in MΩ	Uncertainty in % (±)
	>20MΩ	100	13.92
2	Earth Leakage	Measured values in µA	Uncertainty in % (±)
	<5000µAfor B,BF,CF	156	7.8
3	Enclosure Leakage	Measured values in µA	Uncertainty in % (±)
	<500µAfor B,BF,CF	215	7.3

REMARKS

1.This Calibration certificate shall not be reproduced except in full, without written approval of the laboratory.
2.The user should determine the suitability of the instrument for its intended use.
3.The recalibration interval should be determined on the user requirement.
4.The results stated in this certificate relate only to the item calibrated.
5.The indicated uncertainties are expanded uncertainty estimated for a confidence level of approximately 95% for a coverage factor k=2.00 .
6. Equipment used for Calibration were calibrated & traceable to National & International Standards.

Calibrated By

(Calibration Engineer)
P.PRASANNA

SUNSHINE BIOMEDICAL SOLUTIONS Chennai 600 032

Authorised Signatory

Technical Manager
C.SHANMUGARAJ

Chief Executive

SUNSHINE

CALIBRATION CERTIFICATE

Certificate No: SBS/CL/23/14626

Customer Name & Address

GOVERNMENT PRIMARY HEALTH CENTRE,
MANGALAKUDI-623308,RAMANATHAPURAM DISTRICT.

SRF No.	SRF/23/00885-0002
SRF Date	13-10-2023
Date of Receipt	12-10-2023
Date of Calibration	13-10-2023
Due Date for Calibration	12-10-2024
Issue Date	14-10-2023

Details of Unit Under Calibration

Description	MICRO PIPETTE	Make	THERMO SCIENTIFIC
Range	100-1000µl	Model	FINNPIPETTE F3
Resolution	1µl	Material	PVC
Serial Number	RW13645	Operating Range	100-1000µl
ID Number	NA	Condition of UUC	Good
Cal. At	Mechanical Lab	Instrument Location	LABORATORY

Environmental Condition				Calibration Method Used	
Temperature (°C)	23.9	Humidity (%RH)	55	National / International Standard	ISO 8655-6:2002
Atmospheric Pressure (mbar)	1006	Water Temperature (°C)	21.6	Cal Procedure No	SBS/CP/ML/08

Standard Used

Sl. No.	Description	ID.No. / Sl. No.	Certificate No.	Make/Model	Traceability	Valid till
1	Electronic Weighing Balance	15112918	TVCSPL22/12/2115-01	A&D & GH-252	National Standards	09-12-2023

Z Factor: 1.00319

Result of Calibration in µl

Sl. No.	Nominal Value	Observed Readings					Mean Value	Systematic Error	Random Error	Measurement Uncertainty (±)
1	100	99.94	99.96	99.97	99.95	99.90	99.96	-0.04	0.02	0.47
		99.96	99.95	99.97	99.98	99.98				
2	500	499.95	499.96	499.95	499.97	499.98	499.96	-0.04	0.01	0.47
		499.96	499.97	499.95	499.95	499.96				
3	1000	999.95	999.96	999.97	999.96	999.98	999.96	-0.04	0.01	0.47
		999.95	999.96	999.97	999.97	999.97				

Remarks

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2.The user should determine the suitability of the instrument for its intended use.
3.The recalibration interval should be determined on the user requirement.
4.The results stated in this certificate relate only to the item calibrated.
5. Equipment used for Calibration were calibrated & traceable to National & International Standards
6.The indicated uncertainties are expanded uncertainty estimated for a confidence level of approximately 95% for a coverage factor k=2.00 .
7. Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

SUNSHINE BIOMEDICAL SOLUTIONS Chennai 600 032

Calibrated By,
(Calibration Engineer)
M.RAGUL

Authorised by:
(Quality Manager/Chief Executive)
C.SIVABALAN

SUNSHINE

CALIBRATION CERTIFICATE

Certificate No: SBS/CL/23/14627

Customer Name & Address

GOVERNMENT PRIMARY HEALTH CENTRE,
MANGALAKUDI-623308,RAMANATHAPURAM DISTRICT.

SRF No.	SRF/23/00885-0003
SRF Date	13-10-2023
Date of Receipt	12-10-2023
Date of Calibration	13-10-2023
Due Date for Calibration	12-10-2024
Issue Date	14-10-2023

Details of Unit Under Calibration

Description	MICRO PIPETTE	Make	THERMO SCIENTIFIC
Range	10-100µl	Model	FINNPIPETTE F3
Resolution	0.2µl	Material	PVC
Serial Number	RW10276	Operating Range	10-100µl
ID Number	NA	Condition of UUC	Good
Cal. At	Mechanical Lab	Instrument Location	LABORATORY

Environmental Condition				Calibration Method Used	
Temperature (°C)	23.7	Humidity (%RH)	52	National / International Standard	ISO 8655-6:2002
Atmospheric Pressure (mbar)	1006	Water Temperature (°C)	21.6	Cal Procedure No	SBS/CP/ML/08

Standard Used

Sl. No.	Description	ID.No. / Sl. No.	Certificate No.	Make/Model	Traceability	Valid till
1	Electronic Weighing Balance	15112918	TVCSPL22/12/2115-01	A&D & GH-252	National Standards	09-12-2023

Z Factor: 1.00319

Result of Calibration in µl

Sl. No.	Nominal Value	Observed Readings					Mean Value	Systematic Error	Random Error	Measurement Uncertainty (±)
1	10.0	9.90	9.92	9.88	9.91	9.92	9.91	-0.09	0.01	0.47
		9.91	9.92	9.93	9.92	9.90				
2	50.0	49.78	49.76	49.74	49.72	49.74	49.74	-0.26	0.02	0.47
		49.76	49.75	49.73	49.72	49.71				
3	100.0	98.92	98.94	98.94	98.96	98.92	98.93	-1.07	0.02	0.47
		98.91	98.93	98.94	98.92	98.91				

Remarks

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3.The recalibration interval should be determined on the user requirement.
4.The results stated in this certificate relate only to the item calibrated.
5. Equipment used for Calibration were calibrated & traceable to National & International Standards
6.The indicated uncertainties are expanded uncertainty estimated for a confidence level of approximately 95% for a coverage factor k=2.00 .
7. Calibration Liquid Used: Distilled or Deionized water Conforming Grade3 as specified in ISO 3696.

SUNSHINE BIOMEDICAL SOLUTIONS Chennai 600 032

Calibrated By,
(Calibration Engineer)
M.RAGUL

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(Quality Manager/Chief Executive)
C.SIVABALAN