



## REPORT ON ELECTRICAL SAFETY TESTING/ PERFORMANCE ANALYSIS/ CALIBRATION

Report No : TR/PUPHC/013/22-23

Calibration Date : 15-08-2022

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Calibration Due : 14-08-2023

### 1.1 CUSTOMER DETAILS

Name and address of the organisation

UPHC PERIYASEMUR

Near panchayat office, Periyasemur

Erode

Tamil Nadu - 638004

Reference and Date

Letter dated 14-08-2022

Date of receipt of item

14-08-2022

### 1.2 DESCRIPTION OF DEVICE UNDER TEST (DUT)

Nomenclature		MICRO PIPETTE
A.	Manufactured by	MICROLUX
B.	Model	NAPIP
C.	Serial No.	PUPHCLABPIPO1
D.	Biomedical Product ID	PUPHC/LAB/PIP/01
E.	Pipette Range	100 to 1000 µl
F.	Accuracy	As per the manual
G.	Calibration method	Gravimetric
H.	Location	LABORATORY

### 1.3 CONDITION OF THE ITEM WHEN RECEIVED

No visible damage and in working order

### 1.4 ENVIRONMENTAL CONDITION OF MEASUREMENTS

A.	Temperature	25.8°C
B.	Relative Humidity	45-75%
C.	Ambient Barometric Pressure	756mmHg

1.5 Applicable Specification IS/ISO 4787:2010

1.6 Test Done Performance Testing

### 1.7 STATUS

Manufactures Specification	Users Specification	Within Specification	Out of Specification	Calibration	Electrical Safety Test	Performance Analysis
✓	-	✓	-	✓	-	✓

### 1.8 TRACEABILITY DETAILS OF INSTRUMENTS USED FOR TESTING

SI No	Name of the Instrument	Make	Model	Serial No	Cal Due	Traceability Reference
1.	Semi Micro Balance	MS Micro Balances	TVCS1510438	31504484	MAY 2023	Annexure 1

Tested BY :

Balamuralikrishnan K  
(Biomedical Engineer)



Phone : 7708938995

Approved by :

Priya M  
(Quality Manager)

**FL BIOMEDICAL**  
189, Vasantham Paradise,  
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## 1.9 Calibration results :

### 1. Volume measurement for Low value 100 µl

Number of measurements taken is 10

Measurements										
µl										
1	2	3	4	5	6	7	8	9	10	TEST RESULT
99.94	99.82	99.94	99.93	99.89	99.88	99.87	99.99	99.92	99.96	PASS
Mean Volume									99.91 µl	
Random Error									0.014 µl	
Measurement Uncertainty ±									0.02 µl	

### 2. Volume measurement for Middle value 500 µl

Number of measurements taken is 10

Measurements										
µl										
1	2	3	4	5	6	7	8	9	10	TEST RESULT
499.78	499.65	499.98	49.92	499.97	499.85	499.88	499.86	499.98	499.95	PASS
Mean Volume									499.88 µl	
Random Error									0.034 µl	
Measurement Uncertainty ±									0.03 µl	

### 3. Volume measurement for High value 1000 µl

Number of measurements taken is 10

Measurements										
µl										
1	2	3	4	5	6	7	8	9	10	TEST RESULT
999.79	999.98	999.94	999.86	999.86	999.75	999.82	999.96	999.94	999.91	PASS
Mean Volume									999.88 µl	
Random Error									0.023 µl	
Measurement Uncertainty ±									0.02 µl	

### 2.0 REMARKS

2.1	This report is applicable to the sample tested only.
2.2	The instruments used for testing are under valid calibration and are traceable to National Standards.
2.3	Uncertainty is calculated at 95.45% CL with k=2
2.4	refer NABL Doc No. 129 Chapter -1D, Accommodation and environmental Conditions sub Clause see 7.2.11 below in line with ISO/IEC 17025:2017 Clause 5.3

Tested BY :

Approved by :

Balaprakash Anjan K  
(Biomedical Engineer)



Priya M  
(Quality Manager)  
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