

MEASURE TECHNO LAB

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CALIBRATION CERTIFICATE OF MICRO PIPETTE

CALIBRATION CERTIFICATE NO.:MTL / NCH(M) / R03 / 12 - 22

ULR - CC254522000036721F

NABL ACCREDITED LABORATO

Page: 1 of 1

28-12-23

1.0 Service Request No.: MTL / 19H / 12 / 22 - 23

1.1 Issued to:

M/s. Nongpoh Civil Hospital,

ICTC Nongpoh,

Dist. - Ribhoi, Meghalaya, Pin. - 793102.

1.2 Description & Identification of item a) Name:

Micro Pipette

b) Code No.:

PW / MACS / ICTCNGP /

2022 / M.PIPETTE / 02

to be Calibrated:

c) Sl. No.:

N.S.

d) Make:

Micropet

e) Model / Type:

N.S.

f) Range:

g) Sensor:

N.A.

h) Resolution:

10 µl to 100 µl

i) End User:

1 µl N.S.

k) Calibration done at:

ICTC Lab

j) Accuracy:

1.3 Date of receipt of item:

26-12-22

On Site / √ In House 1.4 Physical Condition of DUC:

1.5 Date of calibration:

28-12-22

1.6 Recommended date of next calibration:

1.7 Date of Issue:

29-12-22

Temperature:

23 °C ± 2 °C

Humidity:

50 % RH ± 10 % RH

Pressure:

1013.2 mbar

1.9 Method of Calibration:

SOP / MASS / 02 (As Per ISO: 8655 - 6: 2002)

2.0 Traceability:

a)Standards used for calibration are traceable to National standards through NABL Accredited Laboratory.

b) The following standards / Equipment have been used.

1.8 Environmental Conditions During Calibration:

Digital Thermometer With Sensor Cal. Certificate No. MTL / TH / DTM / R01 / 09 - 22

(MTL, Barrackpore)

(Cal. Date: 16/09/22, Due Date: 16/09/23)

Weights Cal. Certificate No. NC-210

(NSTAR, Ahmedabad)

(Cal. Date: 16/05/22, Due Date: 15/05/25)

2.1 Result:

Mechanical Calibration

Sl. No.	Parameter/ Range	Nominal Value µl	Mass of Water mg	Volume of Water at 20°C μl	Error µl	Measurement Expanded Uncertainty ± µl
1.	Volume	10	10.1877	10.2285	0.2285	
2.	10 µl to 100 µl	50	50.1457	50.3463	0.3463	0.39
3.		100	100.0089	100.4089	0.4089	

Remarks: i) Cubical Expansion co - efficient of pipette material taken as 10^{-5} μl / $^{\circ}k$.

- ii) This result has an expanded uncertainty with a coverage factor k=2 at approximately 95% confidence level.
- iii) The calibration certificate issued for this instrument is to be used for scientific or industrial purposes only.

DUC - Device Under Calibration

N.S. - Not Specified

N.A. - Not Applicable

Opinions and Interpretations Accepted / Valid for use Calibrated Rejected / Out of use **Limited Use**

Calibration Engineer

Meastalibrated by: Lab

Kolkata

S.Mahapatra **Calibration Engineer** Quality & Technical Manager

S. Pandey

Rev. No.: 04 Rev. Date: 01.04.22 Issue No.: 2 Issue Date: 10.11.06

Form No. - MTL/22/2006