

CALIBRATION CERTIFICATE

CUSTOMER ADDRESS : M/s.HOSCONS HEALTHCARE INDIA PRIVATE LIMITED
NO. 9/830, RANGANATHAN ROAD, NALLATHAMBI NAGAR,
MEDAVAKKAM, CHENNAI - 600100.

UNIQUE LAB REPORT NUMBER	ULR-CC231722000004423F	DISCIPLINE	: MECHANICAL CALIBRATION
NAME OF EQUIPMENT	: MICROPIPETTE	PARAMETER	: VOLUME
CERTIFICATE NO	: TPMCC22095412F	DATE OF ISSUE	: 13-09-2022
RECEIPT NO	: 11168	TEMPERATURE	: 25.9 °C
RECEIPT DATE	: 12-09-2022	HUMIDITY	: 61 %
JOB CARD NO	: TPM920092252434	AIR PRESSURE	: 962 hpa
JOB CARD DATE	: 12-09-2022	MEDIUM OF WEIGHING:	GRADE III WATER
BRAND	: Ozopet	DENSITY OF MEDIUM	: APPROXIMATELY 1
RANGE	: 5 - 50 µl	DENSITY CORRECTION FACTOR [Z]	: 1.0033 µl/mg
SERIAL NO	: 000089293	CALIBRATION METHOD:	ISO 8655:2002 PART - 6
TIPS USED	: 200 µl	WEIGHING BALANCE	: MICRO BALANCE
SCOPE OF ACCREDITATION : VOLUME - MICROPIPETTE (1 µl - 10000 µl)			

DETAILS OF MASTER EQUIPMENTS USED FOR CALIBRATION

MASTER EQUIPMENT : SARTORIUS MICRO BALANCE
SL.NO : 28001417
RESOLUTION : 0.000001g upto 6.1g
CALIBRATED BY : THE PIPETEMANN(MASS),COIMBATORE
CERTIFICATE NUMBER : TPMCCM22030365
CALIBRATION VALIDITY : 28-02-2023
TRACEABILITY : NATIONAL STANDARDS

THE PIPETEMANN

NABL ACCREDITED CALIBRATION LABORATORY
ADDING ACCURACY TO YOUR EQUIPMENT
MASS - VOLUME - THERMAL - SPEED - PRESSURE - TIMER - ELECTRO TECHNICAL



CERTIFICATE NO : TPMCC22095412F

CALIBRATED PARAMETER : VOLUME
NO.OF MEASUREMENTS : 10

I) **SELECTED VOLUME** : 50 μ l

49.94 μ l	50.01 μ l	49.96 μ l	50.04 μ l	50.08 μ l	50.11 μ l	50.02 μ l	49.93 μ l	49.96 μ l	50.01 μ l
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MEAN VALUE : 50.01 μ l
 SYSTEMATIC ERROR(es) : 0.01 μ l
 RANDOM ERROR (Sr) : 0.06 μ l

Standard Limit Value
 ($\pm 0.5 \mu$ l)
 ($\pm 0.2 \mu$ l)

II) **SELECTED VOLUME** : 25 μ l

25.01 μ l	25.01 μ l	25.01 μ l	24.97 μ l	25.00 μ l	25.07 μ l	25.02 μ l	25.08 μ l	25.03 μ l	25.01 μ l
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MEAN VALUE : 25.01 μ l
 SYSTEMATIC ERROR(es) : 0.01 μ l
 RANDOM ERROR (Sr) : 0.03 μ l

Standard Limit Value
 ($\pm 0.5 \mu$ l)
 ($\pm 0.2 \mu$ l)

III) **SELECTED VOLUME** : 5 μ l

4.98 μ l	5.01 μ l	5.03 μ l	5.04 μ l	5.01 μ l	5.00 μ l	4.99 μ l	5.01 μ l	5.01 μ l	5.03 μ l
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MEAN VALUE : 5.01 μ l
 SYSTEMATIC ERROR(es) : 0.01 μ l
 RANDOM ERROR (Sr) : 0.02 μ l

Standard Limit Value
 ($\pm 0.125 \mu$ l)
 ($\pm 0.075 \mu$ l)

CALIBRATED ON : 13-09-2022

CALIBRATION DUE ON : 12-09-2023

RESULTS :

RANGE	MEASUREMENT UNCERTAINTY	CMC (approved by NABL)
50 μ l	0.03 μ l	0.03 μ l
25 μ l	0.03 μ l	0.03 μ l
5 μ l	0.03 μ l	0.03 μ l

With coverage factor k is 2 for effective degress of freedom is ∞ and the confidence level is 95%

CALIBRATED BY :

P.V.
 (P.VIGNESH)
 CALIBRATION ENGINEER

APPROVED BY :

K.B.M.P.
 (K.BALA MAYUR PRIYAN)
 TECHNICAL MANAGER

- NOTE : 1.Master equipments used for calibration are traceable to National standards
 2.The calibration reported are valid at the time of and under the stated conditions of the measurement
 3.Results presented in this certificate relate only to the item mentioned & calibrated at **THE PIPETEMANN**
 4.This certificate shall not be reproduced except in full without written approval of **THE PIPETEMANN**