ARCHERCAL Private Limited

(Formerly known as Archerchem Calibrations Pvt Ltd)

Laboratory : Unit No. B/103, Tanvi's Tanishka Industrial Estate, Tanvi Complex, Near HP Petrol Pump, Dahisar (East), Mumbai - 400 068. India. • **Tel.**: +91 22 20892984

E-mail : sales1@archercal.com / admin@archercal.com • **Website** : www@archercal.com

CIN : U74999MH2018PTC304510

Redefining Accuracy

CALIBRATION CERTIFICATE

7.8/R/M&V-01,Rev.00

Certificate No.: ACPL/MV/L/0602/02/23-24

ULR No.: CC230123000004375F

Date of Calibration:	06-04-2023	**Issue Date:**	07-04-2023
Next Recommended Calibration Due Date:	05-04-2024	**Page:**	01 of 02

CUSTOMER NAME & ADDRESS : **THE LAB BEYOND EXCELLENCE**
A2, 001/002, Prabhakar CHS LTD, Station Rd, Sector 4, Shanti Nagar, Mira Road East, Mumbai, Maharashtra 401107

DATE OF RECEIPT : 05-04-2023

CALIBRATED AT : Lab

INSTRUMENT : **Micropipette**

ID. NO. : **TLP/MP/02**

CONDITION OF ITEM : Good

CALIBRATION PROCEDURE : WI/APL/CAL/MV/04
ISO 8655-6 (Latest Edition)

ENVIRONMENTAL CONDITION :

Temperature :	23 ± 1 °C
Air Pressure :	1010 ± 30 hPa
Relative Humidity :	50 ± 10 % RH
Water Temperature:	23.4 °C
Z Correction Factor (µl/mg)	1.00360
Y Correction Factor ((1/°C)x°C)	1.00162

TRACEABILITY : This Certificate is issued in the field of calibration and provides traceability of measurement results to International systems of units (SI)

CALIBRATIONS RESULTS : The results have been presented on pages(s) 2 of this certificate including uncertainty of measurements.

UNCERTAINTY OF MEASUREMENT : The uncertainty stated is the expanded uncertainty of measurement obtained by multiplying the standard uncertainty by the coverage factor k=2 correspondes to confidence level of 95%.

CONFORMITY STATEMENT : On the Basis of Calibration results, it has been found that instruments submitted for calibration meets the requirements specified in standard 8655

REMARKS : The measured values mentioned are the average of 10 readings

: The Reported Volume at 27°C is by the formula,
V_{27}°C (µl)=m(mg) x Z(µl/mg) x Y((1/°C)x°C).

: The test liquid used for calibration is distilled water as per ISO3696 requirement.

Calibrated By:
Vaidya
Sapana Vaidya
Calibration Engineer

ARCHERCAL PRIVATE LIMITED MUMBAI

Approved By :
Kailas Chilap
Technical Director

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CC-2301

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7.8/R/M&V-01 Rev 00

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Micropipette

Make :	VTTALPETTE	**Range :**	5 - 50 µl
Model :	---	**Least Count :**	0.1 µl
Sr.No. :	12104334	**Accuracy :**	As per ISO 8655-2
Tag/Id.No. :	TLP/MP/02	**Location**	----

Discipline : Mechanical Calibration **Product Group** : Mass & Volume - Volume

Measurement Result :

Sr. No.	Nominal Volume in µl	1	2	3	4	5	6	7	8	9	10	Volume at 27°C (Average) in µl
		Mass of Water in mg										
1	5	5.091	5.129	5.121	5.089	5.083	5.071	5.083	5.041	5.069	5.072	**5.111**
2	25	25.103	25.181	25.171	25.143	25.141	25.122	25.143	25.137	25.183	25.163	**25.280**
3	50	50.091	50.211	50.141	50.131	50.123	50.149	50.143	50.149	50.141	50.137	**50.404**

Error (A) in µl	Accuracy (± A) as per ISO 8655 in µl	Precision (σ) in µl	Precision (± CV) as per ISO 8655 in µl	Expanded Uncertainty (±) in µl	Status
0.111	0.50	0.026	0.20	0.015	Within Accuracy
0.280	0.50	0.026	0.20	0.015	Within Accuracy
0.404	0.50	0.030	0.20	0.015	Within Accuracy

REFERENCE STANDARDS USED

DESCRIPTION & MAKE	RANGE	ASSUMED DENSITY	Sr.No./ ID.NO.	TRACEABILITY	VALID UPTO
Digital Weighing Balance, RADWAG	Max Capacity : 0 - 5.1 g	--	513955/ ACPL/MUM/M&V/01	ACPL MUMBAI (ACPL/MV/S/0736/01/ 22-23)	02-06-2023

NOTE

: The report refer only the particular item calibrated at site / laboratory.

: The calibration result reported are valid at the time of and under the condition of measurement

: Certificate should not be reproduced, except in full without the prior permission of Laboratory

: Any correction in this certificate invalidates the certificate

: The calibration of under test is meant for scientific and industrial purpose only.

Calibrated By:

Vaidya

Sapana Vaidya

Calibration Engineer

ARCHERCAL PRIVATE LIMITED MUMBAI

Approved By :

Kailas Chilap

Technical Director

********** End of Certificate **********