

**CALIBRATION CERTIFICATE**

|                                                                                                                                                                                                      |                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| CUSTOMER : M/s. CHRISTY FRIEDGRAM INDUSTRY PRIVATE LIMITED,<br>ADDRESS<br>A-2,A-3,SIDCO INDUSTRIAL ESTATE,<br>ANDIPALAYAM(PO),<br>TIRUCHENGODE,<br>NAMAKKAL 637214<br><b>LOCATION: CHEMISTRY LAB</b> |                                                              |
| UNIQUE LAB REPORT NUMBER : ULR-CC231726000000813F                                                                                                                                                    | DISCIPLINE : MECHANICAL CALIBRATION<br>PARAMETER : VOLUME    |
| NAME OF EQUIPMENT : MICROPIPETTE                                                                                                                                                                     | RELEVANT : ISO 17025:2017<br>SECTION : Section 7.8.2 & 7.8.4 |
| CERTIFICATE NUMBER : PCLCC260305711                                                                                                                                                                  | DATE OF ISSUE : 05-03-2026                                   |
| C.C.F NUMBER : PCL/25-26/00937                                                                                                                                                                       | TEMPERATURE : 19.9 °C                                        |
| DATE OF RECEIPT : 02-03-2026                                                                                                                                                                         | HUMIDITY : 63 %                                              |
| JOB CARD NUMBER : PCL302032605711                                                                                                                                                                    | AIR PRESSURE : 962 hpa                                       |
| JOB CARD DATE : 02-03-2026                                                                                                                                                                           | MEDIUM OF WEIGHING : GRADE III WATER                         |
| BRAND : LAB QUEST                                                                                                                                                                                    | DENSITY OF MEDIUM : APPROXIMATELY 1                          |
| RANGE : 100 - 1000 µl                                                                                                                                                                                | DENSITY CORRECTION<br>FACTOR [Z] : 1.0028 µl/mg              |
| SERIAL NUMBER : SD691637 (MP-CH-03)                                                                                                                                                                  | WEIGHING BALANCE : SEMI MICRO BALANCE                        |
| TIPS USED : 1000 µl                                                                                                                                                                                  | CALIBRATION<br>PROCEDURE NUMBER : MSP 7.2.1.1-1              |
| CALIBRATION<br>LOCATION : AT LAB                                                                                                                                                                     | CONDITION OF DUC : GOOD<br>RECEIVED                          |
| METHOD OF CALIBRATION : Based on ISO 8655:2022 PART - 6 standards our calibration procedure : MSP 7.2.1.1-1 is applied for micropipette calibration.                                                 |                                                              |
| SCOPE OF ACCREDITATION : VOLUME - MICROPIPETTE ( 0.2 µl - 10000 µl )                                                                                                                                 |                                                              |

**DETAILS OF MASTER EQUIPMENTS USED FOR CALIBRATION**

| MASTER EQUIPMENT | SL.NO      | CALIBRATED BY                                             | CERTIFICATE NUMBER | EQUIPMENT CALIBRATION VALIDITY | TRACEABILITY       |
|------------------|------------|-----------------------------------------------------------|--------------------|--------------------------------|--------------------|
| SHIMADZU - 3     | D450020184 | PIPETTEMANN CALIBRATION LABORATORY LLP (MASS), COIMBATORE | PCLCCM2602066-A    | 01-02-2027                     | NATIONAL STANDARDS |



CERTIFICATE NO : PCLCC260305711

|                                      |                                                     |
|--------------------------------------|-----------------------------------------------------|
| <b>CALIBRATED PARAMETER</b> : VOLUME | Note: All Volumes are converted and reported @27 °C |
| <b>NO.OF MEASUREMENTS</b> : 10       |                                                     |

I) SELECTED VOLUME : 1000 µl

|           |          |           |          |           |           |           |           |           |           |
|-----------|----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 997.67 µl | 997.4 µl | 997.27 µl | 997.3 µl | 997.45 µl | 997.33 µl | 997.36 µl | 997.48 µl | 997.61 µl | 997.41 µl |
|-----------|----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|

|                                 |                      |
|---------------------------------|----------------------|
| MEAN VALUE : 997.43 µl          | Standard Limit Value |
| SYSTEMATIC ERROR(es) : -2.57 µl | (±8.00 µl)           |
| RANDOM ERROR (Sr) : 0.13 µl     | (±3.00 µl)           |

II) SELECTED VOLUME : 500 µl

|           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 499.09 µl | 499.25 µl | 499.03 µl | 499.28 µl | 499.03 µl | 498.94 µl | 499.21 µl | 499.35 µl | 499.15 µl | 499.21 µl |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|

|                                 |                      |
|---------------------------------|----------------------|
| MEAN VALUE : 499.15 µl          | Standard Limit Value |
| SYSTEMATIC ERROR(es) : -0.85 µl | (±8.00 µl)           |
| RANDOM ERROR (Sr) : 0.13 µl     | (±3.00 µl)           |

III) SELECTED VOLUME : 100 µl

|          |          |          |          |        |          |          |         |          |          |
|----------|----------|----------|----------|--------|----------|----------|---------|----------|----------|
| 99.82 µl | 99.92 µl | 99.86 µl | 99.89 µl | 100 µl | 99.86 µl | 99.89 µl | 99.9 µl | 99.92 µl | 99.98 µl |
|----------|----------|----------|----------|--------|----------|----------|---------|----------|----------|

|                                |                      |
|--------------------------------|----------------------|
| MEAN VALUE : 99.90 µl          | Standard Limit Value |
| SYSTEMATIC ERROR(es) : -0.1 µl | (±8.00 µl)           |
| RANDOM ERROR (Sr) : 0.05 µl    | (±3.00 µl)           |

CALIBRATED ON : 05-03-2026

CALIBRATION DUE ON : 04-03-2027

**RESULTS :**

| RANGE   | MEASUREMENT UNCERTAINTY |
|---------|-------------------------|
| 1000 µl | 0.30 µl                 |
| 500 µl  | 0.30 µl                 |
| 100 µl  | 0.11 µl                 |

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

CALIBRATED BY :

AUTHORIZED SIGNATORY :

(M.VINOTH KUMAR)  
DEPUTY TECHNICAL MANAGER

(K.BALA MAYUR PRIYAN)  
TECHNICAL MANAGER

NOTE : 1.The recalibration interval should be determined on the user requirement  
2.Master equipments used for calibration are traceable to National standards  
3.The calibration reported are valid at the time of and under the stated conditions of the measurement  
4.Results presented in this certificate relate only to the item mentioned & calibrated at **PIPETEMANN CALIBRATION LABORATORY LLP**  
5.This certificate shall not be reproduced except in full without written approval of **PIPETEMANN CALIBRATION LABORATORY LLP**  
6.All precautions have been taken to avoid any error or omission while calibrating the DUC and issuing this certificate  
7.The volume measurements are recorded as observed.Hence the results are reported without any adjustment.