



MUTHU SURGICALS

101, ANNAI COMPLX, NEW BUS STAND
PERAMBALUR-621212

UDYAM REG NO : TN-16-000072

GST NO : 33DDEPM1487D1ZQ

PAN NO : DDEPM1487D

CALIBRATION CERTIFICATE

| | | | |
|------------------|-------------|------------|----------------|
| CERTIFICATE NO: | MS82\202207 | MECHANICAL | Page No:1 of 1 |
| Receipt Date | 04-09-2023 | | |
| Calibration Date | 04-09-2023 | | |
| Calibration Due | 05-09-2024 | | |

Customer Name & Address

THE MEDICAL OFFICER,
VIZHAPALLAM PHC,
621803.

Details of Device Under Calibration (DUC)

| | | | |
|---------------|--------------|----------------|-------------------|
| Description | CENTRIFUGE | Make & Model | LABOTECH\ BDI-152 |
| Range | 3500 RPM | Sr. No | 64381 |
| Least Count | 1 RPM | Identification | NO |
| DUC Condition | Satisfactory | Location | LAB |

Environmental Conditions & Standard Operating Procedure Details

| | | | |
|--------------------------|----------------------|---------------------|--------|
| Environmental Details | Temperature: 26.2 °c | Relative Humidity | 48% Rh |
| Calibration Procedure No | SBS/CP/ML/04 | Calibration done at | ONSITE |

Reference Standards Details

| S No | Description | Make/ SI No | Certificate No | Validity |
|------|--------------------|------------------------|----------------|------------|
| 1 | Digital Tachometer | LINE SEIKI / 175-0034V | TMS/21/257 02 | 05-09-2024 |

CALIBRATION RESULT :

| No | DEVICE UNDER CALIBRATION | STANDARD INSTRUMENTS | DEVIATION | EXPANDED UNCERTAINTY |
|----|--------------------------|----------------------|-----------|----------------------|
| 1. | RPM | RPM | RPM | (1) % |
| | 3000 | 2995.4 | -@ 6 | 10 |

REMARKS

- This Calibration certificate shall not be reproduced except in full, without written approval of the laboratory.
- The user should determine the suitability of the instrument for its intended use.
- The recalibration interval should be determined on the user requirement.
- The results stated in this certificate relate only to the item calibrated.
- The indicated uncertainties are expanded uncertainty estimated for a confidence level of approximately 95% for a coverage factor k=2.00
- Equipment used for Calibration were calibrated & traceable to National & International Standards

Calibrated By
(BIO MEDICAL ENGINEER)
(N.MUTHAZHAGAN BE.,(BME))





MUTHU SURGICALS

101ANNAI COMPLEX, NEW BUS
STSN, PERAMBALUR -621212
GST NO : 33DDEPM1487D1ZQ
UDYAM REG NO : TN-16-000072
PHONE NO : 8056356534

CALIBRATION CERTIFICATE

Page. NO : 11 Of 2

Certificate No: MS98\MPT072023

Customer Name & Address

THE MEDICAL OFFICER,
GOVERNMENT PRIMARY HEALTH CENTRE,
VIZHAPALLAM,
621803,

| | |
|--------------------------|------------|
| Date of Receipt | 21-08-2023 |
| Date of Calibration | 21-08-2023 |
| Due Date for Calibration | 22-08-2024 |

Details Of Unit Under Calibration

| | | | |
|---------------|----------------|---------------------|--------------------------|
| Description | Micro Pipette | Make | THERMO FISHER SCIENTIFIC |
| Range | 10-100GL | Model | FINNPIPETTE F3 |
| Resolution | | Material | PVC |
| Serial Number | RW-01264 | Operating Range | |
| V | | Condition of UUC | |
| Cal. At | Mechanical Lab | Instrument Location | |

Environmental Condition

Calibration Method Used

| | | | | | |
|-----------------------------|------|------------------------|------|-----------------------------------|-----------------|
| Temperature (°c) | 23.9 | Humidity (%RH) | 55 | National / International Standard | ISO 8655-6:2002 |
| Atmospheric Pressure (mbar) | 1006 | Water Temperature (°0) | 21.6 | Cal Procedure No | SBS/CP/ML/08 |

Standard Used

| Sl. No. | Description | ID.No. / SL No. | Certificate No. | Make/Model | Traceability | Valid till |
|---------|-------------------------------|-----------------|--------------------|------------|--------------------|------------|
| 1 | Electronic Semi Micro Balance | 15112918 | TVCSP21/12/1587-01 | & GH-252 | National Standards | 02-01-2024 |

Z Factor. 1.00319

| Result of Calibration in gl | | | | | | | | | | | |
|-----------------------------|---------------|-------------------|--------|--------|--------|--------|------------|------------------|--------------|-----------------------------------|--|
| Sl. No. | Nominal Value | Observed Readings | | | | | Mean Value | Systematic Error | Random Error | Measurement Uncertainty (\pm) | |
| 1 | 10 | 99.72 | 9.74 | 99.76 | 99.77 | 99.78 | 99.76 | -024 | 0.02 | 0.47 | |
| | | 99.76 | 99.77 | 99.76 | 99.77 | 99.78 | | | | | |
| 2 | 50 | 498.76 | 498.78 | 498.77 | 498.76 | 498.77 | 498.77 | -1.23 | 0.01 | 0.47 | |
| | | 498.77 | 498.76 | 498.76 | 498.77 | 498.76 | | | | | |
| 3 | 100 | 999.82 | 999.84 | 999.86 | 999.87 | 999.86 | 999.86 | -0.14 | 0.02 | 0.47 | |
| | | 999.87 | 999.87 | 999.86 | 999.87 | 999.87 | | | | | |

Remarks

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- 2.The user should determine the suitability of the instrument for its intended use.
- 3.The recalibration interval should be determined on the user requirement.
- 4.The results stated in this certificate relate only to the item calibrated.
5. Equipment used for Calibration were calibrated & traceable to National & International Standards
- 6.The indicated uncertainties are expanded uncertainty estimated for a confidence level of approximately 95% for a coverage factor $k=2.00$.
7. Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

Calibrated By

N. Muthazhagan

(Calibration bio medical Engineer)
N.MUTHAZHAGAN

Authorized Signatory



Chief Executive



MUTHU SURGICALS

101ANNAI COMPLEX,NEW BUS
STSND,PERAMBALUR -621212
GST NO : 33DDEPM1487D1ZQ
UDYAM REG NO : TN-16-000072
PHONE NO : 8056356534

CALIBRATION CERTIFICATE

Certificate No:MS119\MPT072023

Page. NO : 11Of 2

Customer Name & Address

THE MEDICAL OFFICER,
VIZHAPALLAM PHC ,
621803,

| | |
|--------------------------|------------|
| Date of Receipt | 28-08-2023 |
| Date of Calibration | 28-08-2023 |
| Due Date for Calibration | 29-08-2024 |

Details Of Unit Under Calibration

| | | | |
|---------------|----------------|---------------------|-----------------------------|
| Description | Micro Pipette | Make | THERMO FISHER SCIENTIFIC |
| Range | 100-1000GL | Model | FINNPIPETTE F3 |
| Resolution | | Material | PVC |
| Serial Number | RW361361 | Operating Range | |
| V | | Condition of UUC | |
| Cal. At | Mechanical Lab | Instrument Location | |

Environmental Condition

Calibration Method Used

| | | | | | |
|-----------------------------|------|------------------------|------|-----------------------------------|-----------------|
| Temperature (°c) | 23.9 | Humidity (%RH) | 55 | National / International Standard | ISO 8655-6:2002 |
| Atmospheric Pressure (mbar) | 1006 | Water Temperature (°C) | 21.6 | Cal Procedure No | SBS/CP/ML/08 |

Standard Used

| Sl. No. | Description | ID.No. / SL No. | Certificate No. | Make/Model | Traceability | Valid till |
|---------|-------------------------------|-----------------|--------------------|------------|--------------------|------------|
| 1 | Electronic Semi Micro Balance | 15112918 | TVCSP21/12/1587-01 | & GH-252 | National Standards | 02-01-2024 |

Z Factor. 1.00319

| Result of Calibration in g/l | | | | | | | | | | |
|------------------------------|---------------|-------------------|--------|--------|--------|--------|------------|------------------|--------------|-----------------------------------|
| Sl. No. | Nominal Value | Observed Readings | | | | | Mean Value | Systematic Error | Random Error | Measurement Uncertainty (\pm) |
| 1 | 10 | 99.72 | 9.74 | 99.76 | 99.77 | 99.78 | 99.76 | -024 | 0.02 | 0.47 |
| | | 99.76 | 99.77 | 99.76 | 99.77 | 99.78 | | | | |
| 2 | 100 | 498.76 | 498.78 | 498.77 | 498.76 | 498.77 | 498.77 | -1.23 | 0.01 | 0.47 |
| | | 498.77 | 498.76 | 498.76 | 498.77 | 498.76 | | | | |
| 3 | 1000 | 999.82 | 999.84 | 999.86 | 999.87 | 999.86 | 999.86 | -0.14 | 0.02 | 0.47 |
| | | 999.87 | 999.87 | 999.86 | 999.87 | 999.87 | | | | |

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Calibrated By



(Calibration bio medical Engineer)
N.MUTHAZHAGAN

Authorized Signatory

