



SUNSHINE BIOMEDICAL SOLUTIONS

No:68, First Floor, Poomagal Main Road, Ekkattuthangal, Chennai - 600 032, Tel: 044 - 2225 2087,
E-Mail: calibration@sunshinebiomedical.com, Website: www.sunshinebiomedical.com.



Calibration Certificate

| | |
|---|---------------------------------|
| Certificate Number : SBS/CL/24/04780 | Pages : 01 of 01 |
| ULR Number : CC340424000004780F | Issue Date : 11-May-24 |
| Customer Name : M/s.Moris Mathias Hospital, | SRF Number : SRF/24/00107-0016 |
| Address : 355,K.P.Road,Nagercoil-629001. | Date of Calibration : 10-May-24 |
| | Recommended Due Date : 9-May-25 |
| | Calibrated at : Mechanical Lab |
| | Calibrated By : A.Rajalakshmi |

Device Under Calibration

| | |
|---------------------------------|-------------------------------------|
| Nomenclature : Micro Pipette | Range : 20 to 200 µl |
| Make : Micropet | Resolution : 1 µl |
| Model : - | Accuracy (±) : As per Manual |
| ID Number : - | Type : Variable |
| Serial Number : - | Customer Ref. : Email |
| Location : Laboratory | Date of Received : 10-May-24 |
| Procedure Number : SBS/CP/ML/08 | Condition of Receipt : SATISFACTORY |

Environmental Conditions

| | |
|---------------------------|----------------------------|
| Temperature : 22.9 °C | Relative Humidity : 54 %RH |
| Air Pressure : 1006.5 hpa | |

Standards Used

| Nomenclature | Serial / ID Number | Certificate Number | Validity |
|-----------------------------|--------------------|---------------------|----------|
| Electronic Weighing Balance | 15112918 | TVCSP/23/12/1467-01 | 7-Dec-24 |

Calibration Results

| Mechanical - Volume | | | | | | | | | |
|-----------------------------|-------------------|--------|--------|--------|--------|------------|------------------|--------------|-----------------|
| Result of Calibration in µl | | | | | | | | | |
| Nominal Value | Observed Readings | | | | | Mean Value | Systematic Error | Random Error | Uncertainty (±) |
| 20 | 19.86 | 19.87 | 19.89 | 19.91 | 19.93 | 19.91 | -0.09 | 0.05 | 0.47 |
| | 19.95 | 19.97 | 19.99 | 19.86 | 19.84 | | | | |
| 100 | 99.86 | 99.86 | 99.89 | 99.91 | 99.93 | 99.90 | -0.10 | 0.04 | 0.47 |
| | 99.95 | 99.97 | 99.89 | 99.91 | 99.86 | | | | |
| 200 | 199.89 | 199.86 | 199.89 | 199.88 | 199.84 | 199.90 | -0.10 | 0.04 | 0.47 |
| | 199.87 | 199.91 | 199.93 | 199.95 | 199.97 | | | | |

Remarks :

- The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2, Providing a Confidence level of approximately 95.45% The Uncertainty Evaluation has been Carried out in accordance with GUM guidelines
- This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.
- Units of Measurements the Certificate may not be reproduced, Except in full, without prior return approval of sunshine Biomedical solution.
- calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements.
- Calibration Points and Parameters are as per the Customer Request.National/International Standard - ISO 8655-6:2022.
- Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

T. Saranya
Prepared by



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

C. Sivabalan
C. SIVABALAN
Authorised by
Quality Manager



SUNSHINE BIOMEDICAL SOLUTIONS

No:68, First Floor, Poomagal Main Road, Ekkattuthangal, Chennai - 600 032, Tel: 044 - 2225 2087,
E-Mail: calibration@sunshinebiomedical.com, Website: www.sunshinebiomedical.com.



Calibration Certificate

| | |
|---|---------------------------------|
| Certificate Number : SBS/CL/24/04781 | Pages : 01 of 01 |
| ULR Number : CC340424000004781F | Issue Date : 11-May-24 |
| Customer Name : M/s.Moris Mathias Hospital, | SRF Number : SRF/24/00107-0017 |
| Address : 355,K.P.Road,Nagercoil-629001. | Date of Calibration : 10-May-24 |
| | Recommended Due Date : 9-May-25 |
| | Calibrated at : Mechanical lab |
| | Calibrated By : A.Rajalakshmi |

Device Under Calibration

| | |
|---------------------------------|-------------------------------------|
| Nomenclature : Micro Pipette | Range : 1000 µl |
| Make : Micropet | Resolution : - |
| Model : - | Accuracy (±) : As per Manual |
| ID Number : - | Type : Fixed |
| Serial Number : - | Customer Ref. : Email |
| Location : Laboratory | Date of Received : 10-May-24 |
| Procedure Number : SBS/CP/ML/08 | Condition of Receipt : SATISFACTORY |

Environmental Conditions

| | |
|---------------------------|----------------------------|
| Temperature : 22.6 °C | Relative Humidity : 54 %RH |
| Air Pressure : 1006.5 hpa | |

Standards Used

| Nomenclature | Serial / ID Number | Certificate Number | Validity |
|-----------------------------|--------------------|--------------------|----------|
| Electronic Weighing Balance | 15112918 | TVCSP23/12/1467-01 | 7-Dec-24 |

Calibration Results

Mechanical - Volume

Result of Calibration in µl

| Nominal Value | Observed Readings | | | | | Mean Value | Systematic Error | Random Error | Uncertainty (±) |
|---------------|-------------------|--------|---------|--------|--------|------------|------------------|--------------|-----------------|
| | | | | | | | | | |
| 1000 | 999.86 | 999.89 | 999.91 | 999.89 | 999.93 | 999.95 | -0.05 | 0.07 | 0.47 |
| | 999.97 | 999.99 | 1000.10 | 999.98 | 999.89 | | | | |

Remarks :

- The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2, Providing a Confidence level of approximately 95.45% The Uncertainty Evaluation has been Carried out in accordance with GUM guidelines
- This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.
- Units of Measurements the Certificate may not be reproduced, Except in full, without prior return approval of sunshine Biomedical solution.
- calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements.
- Calibration Points and Parameters are as per the Customer Request.National/International Standard - ISO 8655-6:2022.
- Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

T. Saranya
Prepared by



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

C. Sivabalan
Authorised by
Quality Manager



SUNSHINE BIOMEDICAL SOLUTIONS

No:68, First Floor, Poomagal Main Road, Ekkattuthangal, Chennai - 600 032, Tel: 044 - 2225 2087,
E-Mail: calibration@sunshinebiomedical.com, Website: www.sunshinebiomedical.com.



SBS/F/B.2/01

Calibration Certificate

| | |
|---|---|
| Certificate Number : SBS/CL/24/04782 | Pages : 01 of 01 |
| ULR Number : CC340424000004782F | Issue Date : 11-May-24 |
| Customer Name : M/s.Moris Mathias Hospital, Address : 355,K.P.Road,Nagercoil-629001. | SRF Number : SRF/24/00107-0018 Date of Calibration : 10-May-24 Recommended Due Date : 9-May-25 Calibrated at : Mechanical lab Calibrated By : A.Rajalakshmi |

Device Under Calibration

| | |
|---------------------------------|-------------------------------------|
| Nomenclature : Micro Pipette | Range : 10 µl |
| Make : Dragon Lab | Resolution : - |
| Model : - | Accuracy (±) : As per Manual |
| ID Number : - | Type : Fixed |
| Serial Number : YE175A30091205 | Customer Ref. : Email |
| Location : Laboratory | Date of Received : 10-May-24 |
| Procedure Number : SBS/CP/ML/08 | Condition of Receipt : SATISFACTORY |

Environmental Conditions

| | |
|---------------------------|----------------------------|
| Temperature : 21.5 °C | Relative Humidity : 45 %RH |
| Air Pressure : 1006.9 hpa | |

Standards Used

| Nomenclature | Serial / ID Number | Certificate Number | Validity |
|-----------------------------|--------------------|--------------------|----------|
| Electronic Weighing Balance | 15112918 | TVCSP23/12/1467-01 | 7-Dec-24 |

Calibration Results

| Mechanical - Volume | | | | | | | | | |
|-----------------------------|-------------------|------|------|------|------|------------|------------------|--------------|-----------------|
| Result of Calibration in µl | | | | | | | | | |
| Nominal Value | Observed Readings | | | | | Mean Value | Systematic Error | Random Error | Uncertainty (±) |
| 10 | 9.86 | 9.88 | 9.91 | 9.93 | 9.95 | 9.90 | -0.10 | 0.04 | 0.47 |
| | 9.95 | 9.97 | 9.86 | 9.87 | 9.86 | | | | |

Remarks :

- The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2, Providing a Confidence level of approximately 95.45% The Uncertainty Evaluation has been Carried out in accordance with GUM guidelines
- This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.
- Units of Measurements the Certificate may not be reproduced, Except in full, without prior return approval of sunshine Biomedical solution.
- calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements.
- Calibration Points and Parameters are as per the Customer Request.National/International Standard - ISO 8655-6:2022.
- Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

N.Aruna
Prepared by



Scope Website

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

C.Sivabalan
Authorised by
Quality Manager



SUNSHINE BIOMEDICAL SOLUTIONS

No:68, First Floor, Poomagal Main Road, Ekkattuthangal, Chennai - 600 032, Tel: 044 - 2225 2087,
E-Mail: calibration@sunshinebiomedical.com, Website: www.sunshinebiomedical.com.



SBS/F/B.2/01

Calibration Certificate

| | |
|---|---|
| Certificate Number : SBS/CL/24/04783 | Pages : 01 of 01 |
| ULR Number : CC340424000004783F | Issue Date : 1-Jun-24 |
| Customer Name : M/s.Moris Mathias Hospital, Address : 355,K.P.Road,Nagercoil-629001. | SRF Number : SRF/24/00107-0019 Date of Calibration : 10-May-24 Recommended Due Date : 9-May-25 Calibrated at : Mechanical lab Calibrated By : A.Rajalakshmi |

Device Under Calibration

| | |
|---------------------------------|-------------------------------------|
| Nomenclature : Micro Pipette | Range : 20 µl |
| Make : Biohit | Resolution : - |
| Model : - | Accuracy (±) : As per Manual |
| ID Number : - | Type : Fixed |
| Serial Number : 12547303 | Customer Ref. : Email |
| Location : Laboratory | Date of Received : 10-May-24 |
| Procedure Number : SBS/CP/ML/08 | Condition of Receipt : SATISFACTORY |

Environmental Conditions

| | |
|---------------------------|----------------------------|
| Temperature : 21.5 °C | Relative Humidity : 45 %RH |
| Air Pressure : 1006.9 hpa | |

Standards Used

| Nomenclature | Serial / ID Number | Certificate Number | Validity |
|-----------------------------|--------------------|---------------------|----------|
| Electronic Weighing Balance | 15112918 | TVCSP123/12/1467-02 | 7-Dec-24 |

Calibration Results

| Mechanical - Volume | Z Factor: 1.00316 | | | | | | | | |
|-----------------------------|-------------------|-------|-------|-------|-------|------------|------------------|--------------|-----------------|
| Result of Calibration in µl | | | | | | | | | |
| Nominal Value | Observed Readings | | | | | Mean Value | Systematic Error | Random Error | Uncertainty (±) |
| 20 | 19.86 | 19.87 | 19.86 | 19.89 | 19.91 | 19.92 | -0.09 | 0.05 | 0.47 |
| | 19.93 | 19.95 | 19.97 | 19.99 | 19.93 | | | | |

Remarks :

- The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2, Providing a Confidence level of approximately 95.45% The Uncertainty Evaluation has been Carried out in accordance with GUM guidelines
- This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.
- Units of Measurements the Certificate may not be reproduced, Except in full, without prior return approval of sunshine Biomedical solution.
- calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements.
- Calibration Points and Parameters are as per the Customer Request.National/International Standard - ISO 8655-6:2022.
- Calibration Liquid Used: Distilled or Deionized water conforming Grade 3 as specified in ISO 3696.
- The Certificate was Amended on 01-06-2024 for change in traceability certificate number printed as a mistake.

N.Aruna
Prepared by



Scope Website

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

C.Sivabalan
Authorised by
Quality Manager



SUNSHINE BIOMEDICAL SOLUTIONS

No:68, First Floor, Poomagal Main Road, Ekkattuthangal, Chennai - 600 032, Tel: 044 - 2225 2087,
E-Mail: calibration@sunshinebiomedical.com, Website: www.sunshinebiomedical.com.



SBS/F/8.2/01

Calibration Certificate

| | |
|---|------------------------------------|
| Certificate Number : SBS/CL/24/04810 | Pages : 01 of 01 |
| ULR Number : CC340424000004810F | Issue Date : 23-May-24 |
| Customer Name : M/s.Moris Mathias Hospital, | SRF Number : SRF/24/00107-0020 |
| Address : 355,K.P.Road,Nagercoil-629001. | Date of Calibration : 21-May-24 |
| | Recommended Due Date : 20-May-25 |
| | Calibrated at : Mechanical Lab |
| | Calibrated By : M.Fariya Al Rafiya |

Device Under Calibration

| | |
|---------------------------------|-------------------------------------|
| Nomenclature : Micro Pipette | Range : 10 to 100 µl |
| Make : Dragon Lab | Resolution : 1 µl |
| Model : - | Accuracy (±) : As per Manual |
| ID Number : - | Type : Single-Variable |
| Serial Number : ye198a10497701 | Customer Ref. : Email |
| Location : Laboratory | Date of Received : 21-May-24 |
| Procedure Number : SBS/CP/ML/08 | Condition of Receipt : SATISFACTORY |

Environmental Conditions

| | |
|---------------------------|----------------------------|
| Temperature : 20.2 °C | Relative Humidity : 54 %RH |
| Air Pressure : 1006.5 hpa | |

Standards Used

| Nomenclature | Serial / ID Number | Certificate Number | Validity |
|-----------------------------|--------------------|---------------------|----------|
| Electronic Weighing Balance | 15112918 | TVCSP123/12/1467-02 | 7-Dec-24 |

Calibration Results

Mechanical - Volume

Result of Calibration in µl

| Nominal Value | Observed Readings | | | | | Mean Value | Systematic Error | Random Error | Uncertainty (±) |
|---------------|-------------------|-------|-------|-------|-------|------------|------------------|--------------|-----------------|
| 10 | 9.86 | 9.89 | 9.88 | 9.91 | 9.87 | 9.88 | -0.12 | 0.02 | 0.47 |
| | 9.86 | 9.88 | 9.84 | 9.87 | 9.90 | | | | |
| 50 | 49.86 | 49.87 | 49.86 | 49.87 | 49.88 | 49.87 | -0.13 | 0.01 | 0.47 |
| | 49.90 | 49.86 | 49.87 | 49.88 | 49.86 | | | | |
| 100 | 99.86 | 99.84 | 99.82 | 99.87 | 99.91 | 99.88 | -0.12 | 0.04 | 0.47 |
| | 99.93 | 99.95 | 99.87 | 99.84 | 99.86 | | | | |

Remarks :

- The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2, Providing a Confidence level of approximately 95.45% The Uncertainty Evaluation has been Carried out in accordance with GUM guidelines
- This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.
- Units of Measurements the Certificate may not be reproduced, Except in full, without prior return approval of sunshine Biomedical solution.
- Calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements.
- Calibration Points and Parameters are as per the Customer Request.National/International Standard - ISO 8655-6:2022.
- Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

M. Fariya Al Rafiya
Prepared by



Scope Website



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

C. Sivabalan
Authorised by
Quality Manager



SUNSHINE BIOMEDICAL SOLUTIONS

No:68, First Floor, Poomagal Main Road, Ekkattuthangal, Chennai - 600 032, Tel: 044 - 2225 2087,
E-Mail: calibration@sunshinebiomedical.com, Website: www.sunshinebiomedical.com.



SBS/F/B.2/01

Calibration Certificate

| | |
|---|---|
| Certificate Number : SBS/CL/24/04811 | Pages : 01 of 01 |
| ULR Number : CC340424000004811F | Issue Date : 23-May-24 |
| Customer Name : M/s.Moris Mathias Hospital, Address : 355,K.P.Road,Nagercoil-629001. | SRF Number : SRF/24/00107-0021 Date of Calibration : 21-May-24 Recommended Due Date : 20-May-25 Calibrated at : Mechanical Lab Calibrated By : M.Fariya Al Rafiya |

Device Under Calibration

| | |
|---------------------------------|-------------------------------------|
| Nomenclature : Micro Pipette | Range : 100 to 1000 µl |
| Make : Sartorius | Resolution : 5 µl |
| Model : Biohit | Accuracy (±) : As per Manual |
| ID Number : - | Type : Single-Variable |
| Serial Number : 4541900632 | Customer Ref. : Email |
| Location : Laboratory | Date of Received : 21-May-24 |
| Procedure Number : SBS/CP/ML/08 | Condition of Receipt : SATISFACTORY |

Environmental Conditions

| | |
|---------------------------|----------------------------|
| Temperature : 21.2 °C | Relative Humidity : 51 %RH |
| Air Pressure : 1006.5 hpa | |

Standards Used

| Nomenclature | Serial / ID Number | Certificate Number | Validity |
|-----------------------------|--------------------|---------------------|----------|
| Electronic Weighing Balance | 15112918 | TVCSPL23/12/1467-02 | 7-Dec-24 |

Calibration Results

Mechanical - Volume

Result of Calibration in µl

| Nominal Value | Observed Readings | | | | | Mean Value | Systematic Error | Random Error | Uncertainty (±) |
|---------------|-------------------|--------|--------|--------|--------|------------|------------------|--------------|-----------------|
| 100 | 99.86 | 99.87 | 99.84 | 99.85 | 99.86 | 99.89 | -0.11 | 0.04 | 0.47 |
| | 99.89 | 99.91 | 99.93 | 99.95 | 99.97 | | | | |
| 500 | 499.86 | 499.89 | 499.91 | 499.93 | 499.95 | 499.89 | -0.11 | 0.03 | 0.47 |
| | 499.87 | 499.89 | 499.91 | 499.86 | 499.87 | | | | |
| 1000 | 999.89 | 999.86 | 999.84 | 999.87 | 999.84 | 999.87 | -0.13 | 0.02 | 0.47 |
| | 999.89 | 999.84 | 999.87 | 999.86 | 999.89 | | | | |

Remarks :

- The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2, Providing a Confidence level of approximately 95.45% The Uncertainty Evaluation has been Carried out in accordance with GUM guidelines
- This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.
- Units of Measurements the Certificate may not be reproduced, Except in full, without prior return approval of sunshine Biomedical solution.
- calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements.
- Calibration Points and Parameters are as per the Customer Request.National/International Standard - ISO 8655-6:2022.
- Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

M. Fariya Al Rafiya
Prepared by



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

C. Sivabalan
Authorised by
Quality Manager



SUNSHINE BIOMEDICAL SOLUTIONS

No:68, First Floor, Poomagal Main Road, Ekkattuthangal, Chennai - 600 032, Tel: 044 - 2225 2087,
E-Mail: calibration@sunshinebiomedical.com, Website: www.sunshinebiomedical.com.



SBS/F/8.2/01

Calibration Certificate

| | |
|---|------------------------------------|
| Certificate Number : SBS/CL/24/04812 | Pages : 01 of 01 |
| ULR Number : CC34042400004812F | Issue Date : 23-May-24 |
| Customer Name : M/s.Moris Mathias Hospital, Address : 355,K.P.Road,Nagercoil-629001. | SRF Number : SRF/24/00107-0022 |
| | Date of Calibration : 21-May-24 |
| | Recommended Due Date : 20-May-25 |
| | Calibrated at : Mechanical Lab |
| | Calibrated By : M.Fariya Al Rafiya |

Device Under Calibration

| | |
|---------------------------------|-------------------------------------|
| Nomenclature : Micro Pipette | Range : 100 µl |
| Make : - | Resolution : - |
| Model : - | Accuracy (±) : As per Manual |
| ID Number : - | Type : Single-Fixed |
| Serial Number : 12648969 | Customer Ref. : Email |
| Location : Laboratory | Date of Received : 21-May-24 |
| Procedure Number : SBS/CP/ML/08 | Condition of Receipt : SATISFACTORY |

Environmental Conditions

| | |
|---------------------------|----------------------------|
| Temperature : 21.5 °C | Relative Humidity : 45 %RH |
| Air Pressure : 1006.9 hpa | |

Standards Used

| Nomenclature | Serial / ID Number | Certificate Number | Validity |
|-----------------------------|--------------------|--------------------|----------|
| Electronic Weighing Balance | 15112918 | TVCSP23/12/1467-02 | 7-Dec-24 |

Calibration Results

Mechanical - Volume

| Nominal Value | Result of Calibration in µl | | | | | Mean Value | Systematic Error | Random Error | Uncertainty (±) |
|---------------|-----------------------------|-------|-------|-------|-------|------------|------------------|--------------|-----------------|
| | Observed Readings | | | | | | | | |
| 100 | 99.89 | 99.86 | 99.88 | 99.87 | 99.91 | 99.89 | -0.11 | 0.02 | 0.47 |
| | 99.93 | 99.91 | 99.89 | 99.86 | 99.87 | | | | |

Remarks :

- The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2, Providing a Confidence level of approximately 95.45% The Uncertainty Evaluation has been Carried out in accordance with GUM guidelines
- This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.
- Units of Measurements the Certificate may not be reproduced, Except in full, without prior return approval of sunshine Biomedical solution.
- calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements.
- Calibration Points and Parameters are as per the Customer Request.National/International Standard - ISO 8655-6:2022.
- Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

M.Fariya Al Rafiya
Prepared by



End of the Certificate*

C.Sivabalan
Authorised by
Quality Manager

CALIBRATION CERTIFICATE

Page No:1 of 1

Customer Details:

Morris Mathias Hospital,
No 355, KP Road,
Nagercoil,
Tamilnadu
629001

Certificate No: **6067**

Received Date: 25-May-24
Calibration Date: 27-May-24
Recom.Due Date: 27-May-25
Cert. Issued Date: 29-May-24

ULR No: CC315624000000683F

The Chennai Calibration Centre follows the norms of ISO/IEC 17025:2017. This is in compliance with National/International Standards. The piston operated device calibration carried out with respect to standard as per ISO 8655-6:2002.

Unit Under Calibration:

| | | | |
|-------------------|--------------|-------------------------|------------------------|
| Description: | Micropipette | Serial No: | 14627916 |
| Make: | Biohit | ID no: | Nil |
| Model: | Nil | Calibration Points(µl): | 5,25,50 |
| Volume Range(µl): | 5-50 | Condition on Receipt: | Functional |
| Least Count(µl): | 0.5 | Accuracy(µl)±: | As per Manual |
| Location: | Laboratory | No of Channel: | Single-Variable Volume |

Environmental conditions:

| | | | | | |
|-----------------------|------|-----------------------|------|--------------------|-------|
| Air Temperature(°C): | 24.8 | Relative Humidity(%): | 53.5 | Air Pressure(hPa): | 995.2 |
|-----------------------|------|-----------------------|------|--------------------|-------|

Standard's Traceability Details:

| SI.No: | Equipment | SI.No | Calibrating Agency | Traceability No | Valid upto |
|--------|--|----------|--------------------|----------------------|------------|
| 1 | Dig.Micro Balance(Used for 1µl to 100µl) | 18413362 | TVCSPL,Chennai | TVCSPL 23/10/1255-02 | 19-Oct-24 |
| 2 | Analytical Balance(Used for 100µl to 10ml) | 34893056 | TVCSPL,Chennai | TVCSPL 23/10/1255-01 | 19-Oct-24 |

Calibration Results (Mechanical-Volume):

Laboratory Procedure No:CCC-WI-01

| SI.No: | Device Readings(µl) | Calculated Mean Volume at 27 °C(µl) | Error(µl) | Uncertainty(±µl) |
|--------|---------------------|-------------------------------------|-----------|------------------|
| 1 | 5 | 5.01 | -0.01 | 0.05 |
| 2 | 25 | 24.99 | 0.01 | 0.30 |
| 3 | 50 | 50.21 | -0.21 | 0.30 |

As per ISO 8655-2:2002 systematic error, Random error and Error limits:

| SI.No: | Device Readings(µl) | Calculated Mean Volume at 27 °C(µl) | Systematic Error(µl) | Syst.Error Limits(±µl) | Random Error(µl) | Random Error Limits(±µl) |
|--------|---------------------|-------------------------------------|----------------------|------------------------|------------------|--------------------------|
| 1 | 5 | 5.01 | 0.01 | 0.12 | 0.01 | 0.07 |
| 2 | 25 | 24.99 | -0.01 | 0.50 | 0.06 | 0.20 |
| 3 | 50 | 50.21 | 0.21 | 0.50 | 0.12 | 0.20 |

Remarks:

- *Calculated Mean Value given is the average of 10 measurements.
- *Equipment used for calibration were calibrated & Traceable to National and International standard.
- *The reported Expanded Uncertainty is calculated at 95.45 % C.L with coverage factor k=2
- *This calibration certificate is valid for scientific & industrial purpose only.
- * SRF No.607-1 * Certificate format No.CCC-FR-05
- *This report refers only to particular item submitted for calibration.
- *Calibrated at In-House Lab
- * The report shall not be reproduced except in full without approval of the laboratory.

Status: PASS (According to ISO 8655-2:2002 permissible limits)

Calibrated by


Subashchandrabose
Calibration Engineer

End of Certificate



Certificate



Scope



#18, D.K. Nagar Main Road, | 93822 93522
Maduravoyal, Chennai - 600 095. | 91235 62922

www.chennaicalibration.com