



# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



<b>Customer Name &amp; Address</b> <b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad 500038.	<b>Certificate No.</b> : MTPL/23/1633/4 <b>Equipment Received On</b> : 23/08/2023 <b>Equipment Condition</b> : Satisfactory <b>Date of Calibration</b> : 24/08/2023 <b>Recommended Calibration Due</b> : 23/08/2024 <b>Date of issue</b> : 25/08/2023 <b>ULR No.</b> : CC219123000018002F
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	

### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : Eppendorf	
<b>Model</b> : ---	<b>Range</b> : 0.5 to 10 µl
<b>Sr. No</b> : 197839Z	<b>Resolution</b> : 0.01 µl
<b>Id. No.</b> : ESICSSH/MICRO/E913	<b>Unit Under Measurement</b> : µl

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1°C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

### Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (+) in µl	Expanded Uncertainty (+) in µl
1	1.00	0.001012	1.010	0.010	0.1
2	3.00	0.003030	3.020	0.020	0.1
3	5.00	0.005040	5.029	0.029	0.1
4	7.00	0.008058	7.037	0.037	0.1
5	10.00	0.010072	10.045	0.045	0.1

### Repeatability Results @ 27 °C:

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
1	10.00	10.015	10.029	10.069	10.047	10.069
		10.060	10.014	10.048	10.035	10.062

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab-1.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

Ch. Naresh.

Calibrated By  
CH. Naresh

Sr. Calibration Engineer

Certificate Approved By  
M. Ramratan  
Technical Manager

\*\* End of Calibration Certificate \*\*

METSAR TECHNOLOGIES PVT. LTD.

An ISO 9001-2015 Certified Company

MTPL/CL/FF/CC/ME/MP

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Page 1 of 1  
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# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



CC-2191

<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1905/8
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 29/09/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 30/09/2023
	<b>Recommended Calibration Due</b> : 29/09/2024
	<b>Date of issue</b> : 03/10/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000018760F

### Details of Unit Under Calibration:

<b>Instrument Specification</b>	: Micro Pipette		
<b>Make</b>	: Eppendorf		
<b>Model</b>	: Research plus	<b>Range</b>	: 10 to 100 µl
<b>Sr. No</b>	: 199428Z	<b>Resolution</b>	: 1 µl
<b>Id. No.</b>	: ESICSSH/MICRO/EQ14	<b>Unit Under Measurement</b>	: g

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1°C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

### Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (+) in µl	Expanded Uncertainty (+) in µl
1	10	0.010012	9.994	0.006	0.1
2	30	0.03023	30.18	0.18	1.2
3	60	0.06033	60.21	0.21	1.2
4	80	0.08038	80.23	0.23	1.2
5	100	0.10044	100.26	0.26	1.2

### Repeatability Results @ 27 °C :

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
		1	100	100.30	100.27	100.25
		100.23	100.26	100.39	100.28	100.27

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

Calibrated By  
G. Satya Swetha  
Calibration Engineer

Certificate Approved By  
N. Chanakya  
Sr. Manager Calibration

\*\*End of Calibration Certificate\*\*

An ISO 9001-2015 Certified Company





# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



CC-2191

<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1633/2
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 23/08/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 24/08/2023
	<b>Recommended Calibration Due</b> : 23/08/2024
	<b>Date of issue</b> : 25/08/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000018000F

### Details of Unit Under Calibration:

<b>Instrument Specification</b>	: Micro Pipette		
<b>Make</b>	: Eppendorf		
<b>Model</b>	: ---	<b>Range</b>	: 100to 1000 µl
<b>Sr. No</b>	: 233693Z	<b>Resolution</b>	: 1 µl
<b>Id. No.</b>	: ESICSSH/MICRO/EQ15	<b>Unit Under Measurement</b>	: µl

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1°C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

### Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (±) in µl	Expanded Uncertainty (±) in µl
1	100	0.10000	99.87	0.13	1.2
2	300	0.30043	299.80	0.20	15
3	500	0.50079	499.71	0.29	15
4	800	0.80132	799.63	0.37	15
5	1000	1.00143	999.44	0.56	15

### Repeatability Results @ 27 °C

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
		1	1000	999.42	999.12	999.05
		999.26	999.76	999.78	998.77	999.80

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab-1.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

Ch. Naresh

Calibrated By

CH. Naresh

Sr. Calibration Engineer

Certificate Approved By

M. Ramratan

Technical Manager

\*\* End of Calibration Certificate \*\*

METSAR TECHNOLOGIES PVT. LTD.

An ISO 9001-2015 Certified Company





# METSAR TECHNOLOGIES PVT. LTD.

## Calibration Laboratory



### CALIBRATION CERTIFICATE

<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1633/1
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 23/08/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 24/08/2023
	<b>Recommended Calibration Due</b> : 23/08/2024
	<b>Date of issue</b> : 25/08/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000018007F

#### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : Eppendorf	
<b>Model</b> : ---	<b>Range</b> : 500 to 5000 µl
<b>Sr. No</b> : 498552Z	<b>Resolution</b> : 5 µl
<b>Id. No.</b> : ESICSSH/MICRO/EQ16	<b>Unit Under Measurement</b> : µl

#### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1°C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

#### Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (±) in µl	Expanded Uncertainty (±) in µl
1	500	0.50125	500.21	0.21	15
2	2000	2.00375	1999.67	0.33	15
3	3000	3.00655	3000.53	0.53	15
4	4000	4.00846	4000.35	0.35	15
5	5000	5.00954	4999.88	0.12	15

#### Repeatability Results @ 27 °C

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
1	5000	4999.86	4999.88	4999.91	4999.89	4999.90
		4999.92	4999.87	4999.83	4999.86	4999.87

#### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab-1.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

Calibrated By

G. Praveen

Calibration Engineer

Certificate Approved By

M. Ramratan

Technical Manager

**\*\* End of Calibration Certificate\*\***  
**METSAR TECHNOLOGIES PVT. LTD.**

An ISO 9001-2015 Certified Company





# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1633/5
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 23/08/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 24/08/2023
	<b>Recommended Calibration Due</b> : 23/08/2024
	<b>Date of issue</b> : 25/08/2023
	<b>ULR No.</b> : CC219123000018003F
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	

### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : Eppendorf	
<b>Model</b> : ---	<b>Range</b> : 20 to 200 µl
<b>Sr. No</b> : 196645Z	<b>Resolution</b> : 0.2 µl
<b>Id. No.</b> : ESICSS/MICRO/EQ17	<b>Unit Under Measurement</b> : µl

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1°C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

### Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (+) in µl	Expanded Uncertainty (+) in µl
1	20.0	0.02014	20.11	0.11	1.2
2	50.0	0.05031	50.22	0.22	1.2
3	100.0	0.10058	100.38	0.38	1.2
4	150.0	0.15078	150.49	0.49	15
5	200.0	0.20093	200.55	0.55	15

### Repeatability Results @ 27 °C:

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
1	200.0	200.48	200.56	200.67	200.60	200.49
		200.41	200.44	200.72	200.66	200.50

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab-1.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

Ch. Naresh

Calibrated By  
CH. Naresh  
Sr. Calibration Engineer

Certificate Approved By  
M. Ramratan  
Technical Manager

\*\* End of Calibration Certificate\*\*  
METSAR TECHNOLOGIES PVT. LTD.

An ISO 9001-2015 Certified Company





**METSAR TECHNOLOGIES PVT. LTD.**  
Calibration Laboratory



**CALIBRATION CERTIFICATE**

<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1905/7
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 29/09/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 30/09/2023
	<b>Recommended Calibration Due</b> : 29/09/2024
	<b>Date of issue</b> : 03/10/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000018759F

**Details of Unit Under Calibration:**

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : P'fact	
<b>Model</b> : ---	<b>Range</b> : 0.5 to 10 µl
<b>Sr. No</b> : 01520761	<b>Resolution</b> : 0.1 µl
<b>Id. No.</b> : ESICSSH/MICRO/EQ26	<b>Unit Under Measurement</b> : g

**Standard used for calibration:**

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1 °C	<b>Humidity</b> 40 to 60 % RH	MTPL/CL/SOP/MV/03

**Results of Calibration:**

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (±) in µl	Expanded Uncertainty (±) in µl
1	1.0	0.001008	1.005	0.005	0.1
2	3.0	0.003020	3.012	0.012	0.1
3	5.0	0.005032	5.017	0.017	0.1
4	8.0	0.008050	8.024	0.024	0.1
5	10.0	0.010065	10.033	0.033	0.1

**Repeatability Results @ 27 °C:**

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
		1	10.0	10.033	10.032	10.031
		10.030	10.031	10.035	10.037	10.029

**Remarks:**

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

**Calibrated By**  
G. Satya Swetha  
Calibration Engineer

**Certificate Approved By**  
N. Chanakya  
Sr. Manager Calibration

**\*\*End of Calibration Certificate\*\***

**METSAR TECHNOLOGIES PVT. LTD.**

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# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1905/6
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 29/09/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 30/09/2023
	<b>Recommended Calibration Due</b> : 29/09/2024
	<b>Date of issue</b> : 03/10/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000018758F

### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : P'fact	
<b>Model</b> : ---	<b>Range</b> : 0.5 to 10 µl
<b>Sr. No</b> : 01520717	<b>Resolution</b> : 0.1 µl
<b>Id. No.</b> : ESICSSH/MICRO/EQ27	<b>Unit Under Measurement</b> : g

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1 °C	<b>Humidity</b> 40 to 60 % RH	MTPL/CL/SOP/MV/03

### Results of Calibration:


Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (±) in µl	Expanded Uncertainty (±) in µl
1	1.0	0.001010	1.008	0.008	0.1
2	3.0	0.003023	3.015	0.015	0.1
3	5.0	0.005036	5.020	0.020	0.1
4	8.0	0.008057	8.035	0.035	0.1
5	10.0	0.010084	10.054	0.054	0.1

### Repeatability Results @ 27 °C:

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
		10.055	10.052	10.054	10.053	10.059
1	10.0	10.057	10.051	10.057	10.053	10.050

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

  
**Calibrated By**  
**G. Satya Swetha**  
**Calibration Engineer**

  
**Certificate Approved By**  
**N. Chanakya**  
**Sr. Manager Calibration**

**\*\*End of Calibration Certificate\*\***

**METSAR TECHNOLOGIES PVT. LTD.**

An ISO 9001-2015 Certified Company





# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



CC-2191

<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1905/5
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 29/09/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 30/09/2023
	<b>Recommended Calibration Due</b> : 29/09/2024
	<b>Date of issue</b> : 03/10/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000018757F

### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : P'fact	
<b>Model</b> : ---	<b>Range</b> : 2 to 20 µl
<b>Sr. No</b> : 01520844	<b>Resolution</b> : 0.1 µl
<b>Id. No.</b> : ESICSSH/MICRO/EQ28	<b>Unit Under Measurement</b> : g

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1 °C	<b>Humidity</b> 40 to 60 % RH	MTPL/CL/SOP/MV/03

### Results of Calibration:


Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (±) in µl	Expanded Uncertainty (±) in µl
1	2.0	0.002014	2.009	0.009	0.1
2	5.0	0.005026	5.013	0.013	0.1
3	10.0	0.010045	10.019	0.019	0.1
4	15.0	0.015064	15.024	0.024	1.2
5	20.0	0.020085	20.029	0.029	1.2

### Repeatability Results @ 27 °C:

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
		20.030	20.026	20.031	20.030	20.027
1	20.0	20.025	20.028	20.030	20.032	20.026

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

  
**Calibrated By**  
**G. Satya Swetha**  
**Calibration Engineer**

  
**Certificate Approved By**  
**N. Chanakya**  
**Sr. Manager Calibration**

\*\*End of Calibration Certificate\*\*

**METSAR TECHNOLOGIES PVT. LTD.**

An ISO 9001-2015 Certified Company





# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



CC-2191

<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1905/4
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 29/09/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 30/09/2023
	<b>Recommended Calibration Due</b> : 29/09/2024
	<b>Date of issue</b> : 03/10/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000018756F

### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : P'fact	
<b>Model</b> : ---	<b>Range</b> : 2 to 20 µl
<b>Sr. No</b> : 01520829	<b>Resolution</b> : 0.1 µl
<b>Id. No.</b> : ---	<b>Unit Under Measurement</b> : g

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1 °C	<b>Humidity</b> 40 to 60 % RH	MTPL/CL/SOP/MV/03

### Results of Calibration:


Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (±) in µl	Expanded Uncertainty (±) in µl
1	2.0	0.002019	2.014	0.014	0.1
2	5.0	0.005031	5.017	0.017	0.1
3	10.0	0.010054	10.028	0.028	0.1
4	15.0	0.015072	15.033	0.033	1.2
5	20.0	0.020095	20.040	0.040	1.2

### Repeatability Results @ 27 °C:

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
		20.042	20.038	20.043	20.042	20.039
1	20.0	20.037	20.040	20.042	20.038	20.044

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

  
**Calibrated By**  
**G. Satya Swetha**  
**Calibration Engineer**

  
**Certificate Approved By**  
**N. Chanakya**  
**Sr. Manager Calibration**

**\*\*End of Calibration Certificate\*\***

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# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory



## CALIBRATION CERTIFICATE

<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1905/1
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 29/09/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 30/09/2023
	<b>Recommended Calibration Due</b> : 29/09/2024
	<b>Date of issue</b> : 03/10/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000018753F

### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : P'fact	
<b>Model</b> : ---	<b>Range</b> : 20 to 200 µl
<b>Sr. No</b> : PF552699	<b>Resolution</b> : 1 µl
<b>Id. No.</b> : ESICSSH/MICRO/EQ30	<b>Unit Under Measurement</b> : g

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1 <sup>0</sup> C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

### Results of Calibration:


Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (+) in µl	Expanded Uncertainty (+) in µl
1	20	0.020017	19.977	0.023	1.2
2	50	0.05023	50.13	0.13	1.2
3	100	0.10042	100.21	0.21	1.2
4	150	0.15055	150.24	0.24	15
5	200	0.20069	200.32	0.32	15


### Repeatability Results @ 27 °C :

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
		1	200	200.33	200.37	200.32
		200.32	200.29	200.32	200.27	200.32

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

  
Calibrated By  
G. Satya Swetha  
Calibration Engineer

  
Certificate Approved By  
N. Chanakya  
Sr. Manager Calibration

METSAR TECHNOLOGIES PVT. LTD. \*\*\*End of Calibration Certificate\*\*\*

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# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



CC-2191

<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1905/3
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 29/09/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 30/09/2023
	<b>Recommended Calibration Due</b> : 29/09/2024
	<b>Date of issue</b> : 03/10/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000018755F

### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : P'fact	
<b>Model</b> : ---	<b>Range</b> : 20 to 200 µl
<b>Sr. No</b> : PF552683	<b>Resolution</b> : 1 µl
<b>Id. No.</b> : ESICSSH/MICRO/EQ31	<b>Unit Under Measurement</b> : g

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1°C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

### Results of Calibration:


Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (+) in µl	Expanded Uncertainty (+) in µl
1	20	0.020023	19.985	0.015	1.2
2	50	0.05024	50.12	0.12	1.2
3	100	0.10041	100.20	0.20	1.2
4	150	0.15056	150.27	0.27	15
5	200	0.20075	200.38	0.38	15

### Repeatability Results @ 27 °C :

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
		1	200	200.43	200.39	200.36
		200.40	200.36	200.41	200.38	200.37

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

  
**Calibrated By**  
**G. Satya Swetha**  
**Calibration Engineer**

  
**Certificate Approved By**  
**N. Chanakya**  
**Sr. Manager Calibration**

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Calibration Laboratory



**CALIBRATION CERTIFICATE**

<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1633/8
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad 500038.	<b>Equipment Received On</b> : 23/08/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 24/08/2023
	<b>Recommended Calibration Due</b> : 23/08/2024
	<b>Date of issue</b> : 25/08/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000018006F

**Details of Unit Under Calibration:**

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : Eppendorf	
<b>Model</b> : ---	<b>Range</b> : 0.1 to 2.5 µl
<b>Sr. No</b> : G41060J	<b>Resolution</b> : 0.002 µl
<b>Id. No.</b> : ---	<b>Unit Under Measurement</b> : µl

**Standard used for calibration:**

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1°C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

**Results of Calibration:**

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (+) in µl	Expanded Uncertainty (+) in µl
1	1.000	0.001026	1.023	0.023	0.1
2	1.500	0.001526	1.524	0.024	0.1
3	2.000	0.002043	2.039	0.039	0.1
4	2.500	0.002527	2.520	0.020	0.1

**Repeatability Results @ 27 °C:**

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
1	2.5	2.518	2.522	2.521	2.520	2.517
		2.520	2.518	2.519	2.516	2.523

**Remarks:**

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab-1.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

eh. Naresh

Calibrated By  
CH. Naresh  
Sr. Calibration Engineer

Certificate Approved By  
M. Ramratan  
Technical Manger

\*\* End of Calibration Certificate\*\*





# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



CC-2191

<b>Customer Name &amp; Address</b> <b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad 500038.	<b>Certificate No.</b> : MTPL/23/1633/7 <b>Equipment Received On</b> : 23/08/2023 <b>Equipment Condition</b> : Satisfactory <b>Date of Calibration</b> : 24/08/2023 <b>Recommended Calibration Due</b> : 23/08/2024 <b>Date of issue</b> : 25/08/2023 <b>ULR No.</b> : CC219123000018005F
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	

### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : Eppendorf	
<b>Model</b> : ---	<b>Range</b> : 0.1 to 2.5 µl
<b>Sr. No</b> : Q11143I	<b>Resolution</b> : 0.002 µl
<b>Id. No.</b> : ---	<b>Unit Under Measurement</b> : µl

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1°C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

### Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (+) in µl	Expanded Uncertainty (+) in µl
1	1.000	0.001025	1.023	0.023	0.1
2	1.500	0.001521	1.518	0.018	0.1
3	2.000	0.002013	2.008	0.008	0.1
4	2.500	0.002516	2.509	0.009	0.1

### Repeatability Results @ 27 °C:

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
1	2.5	2.501	2.508	2.505	2.504	2.502
		2.507	2.503	2.506	2.507	2.510

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab-1.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

eh. Naresh.

Calibrated By  
CH. Naresh

Sr. Calibration Engineer

Certificate Approved By  
M. Ramratan  
Technical Manager

\*\* End of Calibration Certificate\*\*

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Page 1 of 1

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# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



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<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1957/5
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 06/10/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 07/10/2023
	<b>Recommended Calibration Due</b> : 06/10/2024
	<b>Date of issue</b> : 10/10/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000019208F

### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : Thermo Scientific	
<b>Model</b> : Finnpiquette	<b>Range</b> : 100 to 1000 µl
<b>Sr. No</b> : ---	<b>Resolution</b> : 1 µl
<b>Id. No.</b> : ESICSSH/MICRO/EQ34	<b>Unit Under Measurement</b> : g

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1 °C	<b>Humidity</b> 40 to 60 % RH	MTPL/CL/SOP/MV/03

### Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (+) in µl	Expanded Uncertainty (+) in µl
1	100	0.10034	100.06	0.06	15
2	300	0.30093	300.09	0.09	15
3	500	0.50151	500.15	0.15	15
4	800	0.80243	800.24	0.24	15
5	1000	1.00305	1000.28	0.28	15

### Repeatability Results @ 27 °C :

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
		1	1000	1000.28	1000.28	1000.32
		1000.31	1000.27	1000.24	1000.32	1000.28

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

Ch. Naresh

Calibrated By  
CH. Naresh  
Sr. Calibration Engineer

Certificate Approved By  
M. Ramratan  
Technical Manager

\*\*End of Calibration Certificate\*\*





# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



CC-2191

<b>Customer Name &amp; Address</b> <b>EMPLOYE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Certificate No.</b> : MTPL/23/1633/6 <b>Equipment Received On</b> : 23/08/2023 <b>Equipment Condition</b> : Satisfactory <b>Date of Calibration</b> : 24/08/2023 <b>Recommended Calibration Due</b> : 23/08/2024 <b>Date of issue</b> : 25/08/2023 <b>ULR No.</b> : CC219123000018004F
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	

### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : Thermo Scientific	
<b>Model</b> : ---	<b>Range</b> : 5 to 50 $\mu$ l
<b>Sr. No</b> : RW22250	<b>Resolution</b> : 0.1 $\mu$ l
<b>Id. No.</b> : ---	<b>Unit Under Measurement</b> : $\mu$ l

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 $\pm$ 1 <sup>o</sup> C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

### Results of Calibration:

Sr. No.	Set Volume in $\mu$ l	Standard Balance Reading in g	Actual Calculated Volume in $\mu$ l @ 27 $^{\circ}$ C	Error (+) in $\mu$ l	Expanded Uncertainty (+) in $\mu$ l
1	5.0	0.005025	5.012	0.012	0.1
2	20.0	0.02021	20.16	0.16	1.2
3	30.0	0.03031	30.24	0.24	1.2
4	40.0	0.04048	40.37	0.37	1.2
5	50.0	0.05067	50.53	0.53	1.2

### Repeatability Results @ 27 $^{\circ}$ C:

Sr. No.	Set Volume In $\mu$ l	Actual Calculated Volume In $\mu$ l				
1	50.0	50.54	50.51	50.60	50.50	50.63
		50.65	50.55	50.48	50.44	50.40

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab-1.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

Calibrated By  
**CH. Naresh**  
CH. Naresh

Sr. Calibration Engineer

Certificate Approved By  
**M. Ramratan**  
Technical Manager

\*\* End of Calibration Certificate\*\*

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Page 1 of 1

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# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory



CC-2191

## CALIBRATION CERTIFICATE

<b>Customer Name &amp; Address</b>	<b>Certificate No.</b> : MTPL/23/1905/2
<b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Equipment Received On</b> : 29/09/2023
	<b>Equipment Condition</b> : Satisfactory
	<b>Date of Calibration</b> : 30/09/2023
	<b>Recommended Calibration Due</b> : 29/09/2024
	<b>Date of issue</b> : 03/10/2023
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>ULR No.</b> : CC219123000018754F

### Details of Unit Under Calibration:

<b>Instrument Specification</b> : Micro Pipette	
<b>Make</b> : Thermo Scientific	
<b>Model</b> : ---	<b>Range</b> : 20 to 200 µl
<b>Sr. No</b> : SW03973	<b>Resolution</b> : 0.2 µl
<b>Id. No.</b> : ESICSSH/MICRO/EQ36	<b>Unit Under Measurement</b> : g

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Semi Micro Balance	METSAR-M-002	MTPL/23/0156/2	26/01/2024	CC-2191
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1 <sup>o</sup> C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

### Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (+) in µl	Expanded Uncertainty (+) in µl
1	20.0	0.020019	19.980	0.020	1.2
2	50.0	0.05016	50.05	0.05	1.2
3	100.0	0.10037	100.16	0.16	1.2
4	150.0	0.15051	150.21	0.21	15
5	200.0	0.20074	200.36	0.36	15


### Repeatability Results @ 27 °C :

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
		1	200.0	200.33	200.37	200.39
		200.34	200.36	200.42	200.37	200.39

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

  
Calibrated By  
G. Satya Swetha  
Calibration Engineer

  
Certificate Approved By  
N. Chanakya  
Sr. Manager Calibration

METSAR TECHNOLOGIES PVT. LTD. \*\*End of Calibration Certificate\*\*

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# METSAR TECHNOLOGIES PVT. LTD.

Calibration Laboratory

## CALIBRATION CERTIFICATE



CC-2191

<b>Customer Name &amp; Address</b>  <b>EMPLOYEE'S STATE INSURANCE CORPORATION SUPER SPECIALITY HOSPITAL,</b> Sanathnagar, Hyderabad – 500038.	<b>Certificate No.</b>	: MTPL/23/1633/3
	<b>Equipment Received On</b>	: 23/08/2023
	<b>Equipment Condition</b>	: Satisfactory
	<b>Date of Calibration</b>	: 24/08/2023
	<b>Recommended Calibration Due</b>	: 23/08/2024
<b>MECHANICAL DISCIPLINE (VOLUME)</b>	<b>Date of issue</b>	: 25/08/2023
	<b>ULR No.</b>	: CC219123000018001F

### Details of Unit Under Calibration:

<b>Instrument Specification</b>	: Micro Pipette		
<b>Make</b>	: Thermo Scientific		
<b>Model</b>	: Finnpiettes	<b>Range</b>	: 1 to 10 µl
<b>Sr. No</b>	: SW03799	<b>Resolution</b>	: 0.02 µl
<b>Id. No.</b>	: ---	<b>Unit Under Measurement</b>	: µl

### Standard used for calibration:

Instrument Name	Instrument Sr. No. / Id No.	Certificate No.	Calibration Due On	Traceability with NABL Lab No.
Micro Balance	METSAR-M-001	MTPL/23/0156/1	26/01/2024	CC-2191

Environmental Conditions		SOP Number
<b>Temperature</b> 23 ± 1°C	<b>Humidity</b> 40 to 60 %RH	MTPL/CL/SOP/MV/03

### Results of Calibration:

Sr. No.	Set Volume in µl	Standard Balance Reading in g	Actual Calculated Volume in µl @ 27 °C	Error (+) in µl	Expanded Uncertainty (+) in µl
1	1.00	0.001011	1.009	0.009	0.1
2	3.00	0.003023	3.013	0.013	0.1
3	5.00	0.005037	5.026	0.026	0.1
4	8.00	0.008052	8.031	0.031	0.1
5	10.00	0.010064	10.037	0.037	0.1

### Repeatability Results @ 27 °C:

Sr. No.	Set Volume In µl	Actual Calculated Volume In µl				
		1	10.00	10.035	10.031	10.034
		10.034	10.032	10.035	10.031	10.037

### Remarks:

- The Standard used for calibration is traceable to National/International standards through unbroken chain of Accredited Laboratories.
- Reference Standard and Method used: ISO 8655-6, Gravimetric Method.
- The result stated in this calibration certificate is related only to the item submitted for calibration.
- UUC means Unit Under Calibration.
- The reported expanded uncertainty of measurement is stated at a confidence level of approximately 95.45% with coverage factor  $k=2$ .
- Certificate shall not be reproduced except in full without the written approval of the laboratory.
- The instrument was calibrated at Mass and Volume Lab-1.
- The Recommended Due Date of this calibration certificate is given as per request of customer.

Ch. Naresh

Calibrated By  
CH. Naresh

Sr. Calibration Engineer

Certificate Approved By  
M. Ramratan

Technical manager

\*\* End of Calibration Certificate\*\*

**METSAR TECHNOLOGIES PVT. LTD.**

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Page 1 of 1