

			·	CAL	IBRAT	<u> 101</u>	CERT	TIFIC.	<u> 47</u>	<u>'E</u>		
CERT	IFICATE NO	): \$B	S/CL/23/	4653			N	EDICAL	DEV	ICES	Page I	No:1 of 1
Issue	Date					14-10	)-2023				*	
SRF N	No & Date					SRF/	23/00892-00	01 & 13-	10-2	023		
Recei	pt Date					13-10	)-2023					
Calibration Date							)-2023					
Calibration Due							)-2024			<u>,</u>		
Custo	mer Name	& Ado	ress								11.41	
GOVE	RNMENT P	RIMA	RY HEAI	TH CENTRE	5,							
B.ME	TTUR-62100	3,TRI	CHY DIS									
·					Details of De	evice U	nder Calibra	tion (DUC	;)			
Descri	iption		SEMI A	UTO ANALYZ	ZER Make & Mode			:		ROBONIK & PRIETEST TOUCH		
Range	•		MULTI		Sr. No			;		ATCD0930519RBK		
Resol		:	MULTI		Identification No			:		NA		
DUC (	Condition	:	SATIS	ACTORY		Location				LABORATORY		
				Environ	nental Cond	litions	& Calibration	n Procedu	re D	etails		
Enviro	nmental Deta	ils	-	Temperature:	25.8° C		Relative Hu	midity		52% RH		
Calibr	ation Procedu	re No		SBS/CP/MD/2	20		Calibration of	done at ONSITE			_	
					Refer	ence S	tandards De	tails		-		
S.No	Description				Make/ SI No	o:	Certificate			rtificate No		
1	Electrical Sat	ety Ar	nalyser	'	Rigel Medical & 44L-1059		M-230809-16-4				10-08-202	

#### **ELECTRICAL SAFETY**

S.no	SPECIFICATION	MEASURED VALUES	EXPANDED UNCERTAINTY (±		
4	Insulation Resisitance	Measured values in MΩ	Uncertainty in % (±)		
<del>'</del>	>20ΜΩ	92	13.92		
2	Earth Leakage	Measured values in µA	Uncertainty in % (±)		
	<5000µAfor B,BF,CF	172	7.5		
3	Enclosure Leakage	Measured values in µA	Uncertainty in % (±)		
	<500µAfor B,BF,CF	221	7.2		

### REMARKS

- 1. This Calibration certificate shall not be reproduced except in full, without written approval of the laboratory.
- 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. The indicated uncertainties are expanded uncertainty estimated for a confidence level of approximately 95% for a coverage factor k=2.00.
- 6. Equipment used for Calibration were calibrated & traceable to National & International Standards. **Authorised Signatory**

(Calibration Engineer) E.ESWAR

Calibrated By





Chief Executive



			CAL	IBR/	ATION CL	RTIFI	CATE				
Certifica	te No: SBS/CL/23/14654									Page. No : 1 of 1	
Custome	r Name & Address										
						SRF No.			SRF/23/00892	-0002	
GOVERN	NMENT PRIMARY HEA	LTH CE	NTRE,			SRF Date	•		13-10-2023		
B.METTUR-621003,TRICHY DISTRICT.							leceipt		12-10-2023		
						Date of C	Calibration		13-10-2023		
				Due Date	e for Calibration		12-10-2024				
				Issue Da	Issue Date						
Details o	f Unit Under Calibrati	on		•							
Descript	ion	Micro Pipette				Make			MICROLUX		
Range		5-50µl				Model	Model			NA	
Resoluti	on	lμl				Material	Material			PVC	
Serial N	umber	NA					Operating Range				
D Num	ber	NA					Condition of UUC				
Cal. At		Mechan	ical Lab			Instrument Location			LABORATORY		
	E	nvironm	ental Condition				Calibrat	tion Meth	od Used		
<b>Tempera</b>	iture (°C)	23.6	Humidity (%RH)		52	National	National / International Stand		dard ISO 8655-6:2002		
Atmospl	neric Pressure (mbar)	1006 Water Temperature (°C)		21.6	Cal Proce	Cal Procedure No			SBS/CP/ML/08		
Standard	l Used										
SI. No.	Description	II	D.No. / SI. No.		Certificate N	D.	Make/Model	Traceability		Valid till	
1	Electronic Weighing Balance		15112918	-	TVCSPL22/12/21	15-01	A&D & GH-252	National Standards		09-12-2023	
								••	Z Factor:	1.00319	

Z	Factor:	1.00319

	Result of Calibration in µl											
Sl. No.	Nominal Value		Obs	erved Reading	Mean Value	Systemati c Error	Random Error	Measurement Uncertainty (±)				
1	10	9.47	9.46	9.48	9.47	9.46	9.45	-0.55	0.02	0.47		
1	10	9.42	9.43	9.43	9.44	9.45	9.40	-5.55	0.02	0.47		
2	70	29.76	29.77	29.78	29.79	29.76	29.78	0.22	0.01	0.47		
2	30	29,77	29.78	29.79	29.78	29.78		-0.22	0.01	0.47		
3	E0.	49.57	49.56	49.58	49.56	49.56	49.56	0.44	0.01	0.47		
<b>.</b>	50	49.54	49.56	49.57	49.56	49.54		-0.44	0.01	0.47		

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- 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 Deioniza

Calibrated By,

(Calibration Engineer) M.RAGUL

Chennai 600 032

Authorised by:

Quality Manager Chief Executive) C.SIVABALAN

# **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.



			CAL	IBRAT	ION CE	<u>RTIFI</u>	CATE			
Certificat	e No: SBS/CL/23/14655		· · · · · · · · · · · · · · · · · · ·			·				Page. No : 1 of 1
Custome	r Name & Address									
						SRF No.			SRF/23/00892	-0003
GOVERN	IMENT PRIMARY HEA	LTH CENT	RE,			SRF Date			13-10-2023	
B.METTUR-621003,TRICHY DISTRICT.							eceipt		12-10-2023	
							alibration	-	13-10-2023	
							for Calibration		12-10-2024	
						Issue Date	е	14-10-2023	. <u> </u>	
Details o	f Unit Under Calibratio	on								
Description Micro Pipette						Make			MICROLUX	
Range 100-1000µl					•	Model			NA	
Resolutio	on .	10µ1				Material			PVC	
Serial Nu	ımber	NA				Operating Range			100-1000μl	
ID Numl	er	NA			· · · · · · · · · · · · · · · · · ·	Condition of UUC			Good	
Cal. At		Mechanica	l Lab			Instrument Location			LABORATORY	
	F	nvironmen	tal Condition			<u> </u>	Calibrat	ion Metho	od Used	
Tempera	ture (°C)	23.6	Humidity (%RH	)	52	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								•	
SI. No.	Description	ID.N	io. / SI. No.		Certificate No.	. Make/Mode		Trac	eability	Valid till
1	Electronic Weighing Balance	1	5112918	TVC	SPL22/12/2115	-01	A&D & GH-252 National		al Standards	09-12-2023

Z Factor: 1.00319

Result of Calibration in µl										
Sl. No.	Nominal Value		Obs	erved Reading	Mean Value	Systemati c Error	Random Error	Measurement Uncertainty (±)		
1	100	99.92	99.91	99.92	99.91	99.90	99.91	-0.09	0.01	0.47
1		99.92	99.91	99.91	99.92	99.92				0.37
	500	499.67	499.68	499.67	499.68	499.67	499.68	-0.32	0.01	0.47
2		499.68	499.67	499.68	499.68	499.67		-0.32	0.01	0.47
2	1000	999.66	999.65	999.64	999.63	999.62	999.63	-0.37	0.02	0.47
3	1000	999.65	999.64	999.62	999.62	999.61		-0,37	0.02	0.47

#### Remarks

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- 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
- 7. Calibration Liquid Used: Distilled or Deionized water splenning Grade3 as specified in ISO 3696.

Calibrated By,

(Calibration Engineer) M.RAGUL

600 032

Authorised by:

C.SIVABALAN

# **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.