



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Pipettes.com, A Transcat Company

**113 Cedar Street
Milford, MA 01757**

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 07 September 2023

Certificate Number: AC-2489.22



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory
quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Pipettes.com, A Transcat Company

113 Cedar Street
Milford, MA 01757
Aubrey Carr 800-242-6022

CALIBRATION

Valid to: September 7, 2023

Certificate Number: AC-2489.22

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Pipettes, Burettes, Diluters, Dispensers, Repeaters, Syringes, Controllers, Fillers	(0.1 to 1) μ l	17 nL	Gravimetric method per ISO 8655 using Electronic Balances.
	(1 to 10) μ l	20 nL	
	(10 to 20) μ l	20 nL	
	(20 to 100) μ l	70 nL	
	(100 to 200) μ l	0.11 μ L	
	(200 to 500) μ l	0.3 μ L	
	(0.5 to 1) ml	0.4 μ L	
	(1 to 5) ml	6.9 μ L	
	(5 to 10) ml	8.4 μ L	
	(10 to 50) ml	13 μ L	
	(50 to 100) ml	21 μ L	

**Services performed by
Field Services**
113 Cedar Street
Milford, MA 01757

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Pipettes, Burettes, Diluters, Dispensers, Repeaters, Syringes ¹	(0.2 to 0.5) μL (0.5 to 1) μL (1 to 2.5) μL (2.5 to 5) μL (5 to 10) μL (10 to 50) μL (50 to 100) μL (100 to 200) μL (200 to 500) μL (500 to 1 000) μL (1 000 to 2 500) μL (2 500 to 5 000) μL (5 000 to 10 000) μL (10 000 to 50 000) μL (50 000 to 100 000) μL	20 nL 40 nL 38 nL 39 nL 47 nL 49 nL 0.18 μL 0.24 μL 1.5 μL 1.7 μL 4.4 μL 8 μL 20 μL 56 μL 77 μL	Analytical Balances, ASTM E617 Class 1 Weights; BTS-SOP-002
Balances ^{1,2}	Up to 500 mg 500 mg to 5 g (5 to 10) g (10 to 20) g 20 g to 5 kg (5 to 10) kg (10 to 50) kg	6 μg 21 μg 32 μg 49 μg 0.000 19 % of reading 0.000 15 % of reading 0.000 12 % of reading	ASTM E617 Class 1 Weights and internal procedure utilized in the calibration of the weighing system.
Bench Scales ^{1,2} SI	50 g to 5 kg (5 to 10) kg (10 to 50) kg	0.000 31 % of reading 0.000 23 % of reading 0.000 2 % of reading	ASTM E617 Class 1 Weights, NIST Handbook 44 and internal procedure utilized in the calibration of the weighing system.
Avoirdupois	(0.1 to 11) lb (11 to 22) lb (22 to 50) lb	0.000 31 % of reading 0.000 26 % of reading 0.000 2 % of reading	
Floor Scales ^{1,2} (Avoirdupois)	(25 to 675) lb (675 to 750) lb (750 to 4 250) lb	0.012 % of reading 0.011 % of reading 0.01 % of reading	NIST Class F Weights, NIST Handbook 44 and internal procedure utilized in the calibration of the weighing system.

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Temperature – Measure ¹	(-196 to -40) °C (-40 to 0) °C (0 to 230) °C (230 to 420) °C	0.039 °C 0.033 °C 0.047 °C 0.06 °C	Fluke 1524 Digital Thermometer, Fluke 5615-9 SPRT

Time and Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Centrifuge ^{1,3} Rate of Rotation	(500 to 2 200) rpm (2 200 to 5 000) rpm (5 000 to 12 000) rpm (12 000 to 24 000) rpm	4 rpm 8 rpm 20 rpm 40 rpm	Optical Tachometer

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ($k=2$), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. The CMC for scales and balances is highly dependent upon the resolution of the unit under test. The CMC presented here does not include the resolution of the unit under test. The resolution will be included in the reported measurement uncertainty at the time of calibration.
3. rpm = revolutions per minute.
4. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2489.22.



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