Certificate of Analysis

ACCREDITED
CERT #6739.03

pH Buffer Standard

Buffer Standard pH 1.677 ± 0.010 @ 20°C

Product No:	101677	Date of Measurement:	21/02/2025
Lot No:	167725B1	Date of Sample Receipt:	21/02/2025
Expiry Date*:	28/02/2027	Date of Manufacture*:	21/02/2025

Specification:

1.667 - 1.687 @ 20°C

Mean Measured Value:

1.673 pH @ 20°C

Method:
The result reported above was determined by analysis of a sample of this lot taken at time of manufacture. Test Method used was TPPHB. Measured with a combination glass electrode after multiple point calibration with reference materials. This certificate relates solely to the sample as received by the laboratory, bearing the product code and lot number given above. The uncertainty of measurement has been calculated not to exceed ± 0.015pH at 95% confidence level, i.e. coverage factor k =2.

Metrological Traceability:
The test result is traceable to Standard Reference Material of National Institute of Standards and Technology (USA), SRM 189c Potassium Tetraoxalate and SRM 185i Potassium Hydrogen Phthalate.

Compliance:
This Test Method is in accordance with IUPAC Recommendations 2002 Measurement of pH. Definition, Standards and Procedures.

Accreditation:
Reagecon Diagnostics Ltd. is accredited to ISO 17025 by the American Association for Laboratory Accreditation, under scope 6739.03, for the test method, TPPHB, used to generate the above result. This accreditation deems Reagecon competent on a quality systems level and a technical level to perform the tests on the scope of accreditation. Reagecon has the Quality Management Systems in place to ensure that each individual test result generated using TPPHB is technically valid and is supported by appropriate uncertainty measurements.

Date of Issue of the Certificate :
21/02/2025

QC Supervisor
ASHTON Colin

All raw materials used to prepare this product are of high purity.
*The detail above is based on information supplied in writing by Reagecon Manufacturing.
Tested by Reagecon Quality Control Laboratories for Reagecon Manufacturing

Reagecon Diagnostics Ltd. - Shannon Free Zone, Co, Clare, Ireland.
Tel +353 61 472622, Fax: +353 61 472642 - Email: sales@reagecon.ie, www.reagecon.com

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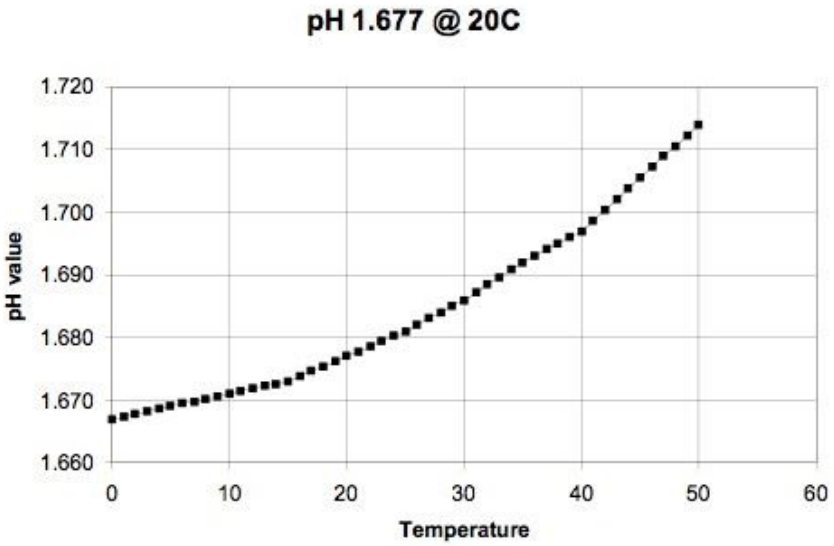

TEMP. (°C)	pH VALUE	TEMP. (°C)	pH VALUE
0	1.667	33	1.690
1	1.667	34	1.691
2	1.668	35	1.692
3	1.668	36	1.693
4	1.669	37	1.694
5	1.669	38	1.695
6	1.669	39	1.696
7	1.670	40	1.697
8	1.670	41	1.699
9	1.671	42	1.700
10	1.671	43	1.702
11	1.671	44	1.704
12	1.672	45	1.706
13	1.672	46	1.707
14	1.673	47	1.709
15	1.673	48	1.711
16	1.674	49	1.712
17	1.675	50	1.714
18	1.675		
19	1.676		
20	1.677		
21	1.678		
22	1.679		
23	1.679		
24	1.680		
25	1.681		
26	1.682		
27	1.683		
28	1.684		
29	1.685		
30	1.686		
31	1.687		
32	1.688		

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Certificate of Conformity and Traceability
pH 1.677 ±0.010 (k=2) - 20°C

Traceability:
Traceable to NIST pH scale. Certified Reference material from National Institute of Standards & Technology (NIST) - Nominal value pH 1.677 @ 20°C. The exact value of this standard was determined with an expanded uncertainty of ± 0.005pH by NIST using a standard Hydrogen Electrode Apparatus.

Certified Value:
pH 1.677 ±0.010 (k=2) - 20°C The limits of expanded uncertainty are given to guarantee a confidence level of ~95% (k=2). This uncertainty reflects the combined effects of measurement errors, operator errors and equipment errors.

Stability:
When stored under Good Laboratory practice the certified value is valid for the extent of the products shelf life whether opened or unopened.

Measurement:
The certified value was determined by measurements of samples with dedicated electrodes under thermostated conditions using a high-resolution meter traceable to primary standards.

Composition:
Potassium Tetraoxalate 50mmol/L
Added germicide < 0.01%

Formulation:
Specified by NIST, IUPAC and DIN19266.

Preparer:
Reagecon Diagnostics Ltd..

Intended Use:
Standard pH solution for calibration of pH measurement chains.

Preparation of standard:
Potassium Tetraoxalate, puriss p.a. , was dissolved and mixed without loss in purified water. Germicide was added. The solution was protected from evaporation and contamination until bottling.

Storage:
Before use: store in unopened bottle.
After opening: store in capped bottle in normal atmospheric conditions at a temperature between 5°C and 30°C.

Recommended Use:
First use: Write the opening date on the bottle using an indelible pen or appropriate label.
Use a clean dry beaker for taking an aliquot for calibration and cap bottle as soon as aliquot is taken.
Never pour the used aliquot back into the bottle. Always follow Good Laboratory Practice.
For accurate measurements at a temperature other than 20°C, refer to the table above when calibrating your meter.

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