Certificate of Analysis

ACCREDITED
CERT #6739.03

pH Buffer Standard

DIN Buffer Standard pH 3.776 ± 0.010 @ 25°C

Product No:	103776	Date of Measurement:	24/02/2025
Lot No:	378825B1	Date of Sample Receipt:	24/02/2025
Expiry Date*:	28/02/2027	Date of Manufacture*:	24/02/2025

Specification:

3.766 - 3.786 @ 25°C

Mean Measured Value:

3.776 pH @ 25°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 ± 0.010pH 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 185i Potassium Hydrogen Phthalate, SRM 186-I-g Potassium Dihydrogen Phosphate and SRM 186-II-g Disodium Hydrogen Phosphate.

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 :

24/02/2025

QC Laboratory Techinician

ONDIANO Gabriel

gabriel

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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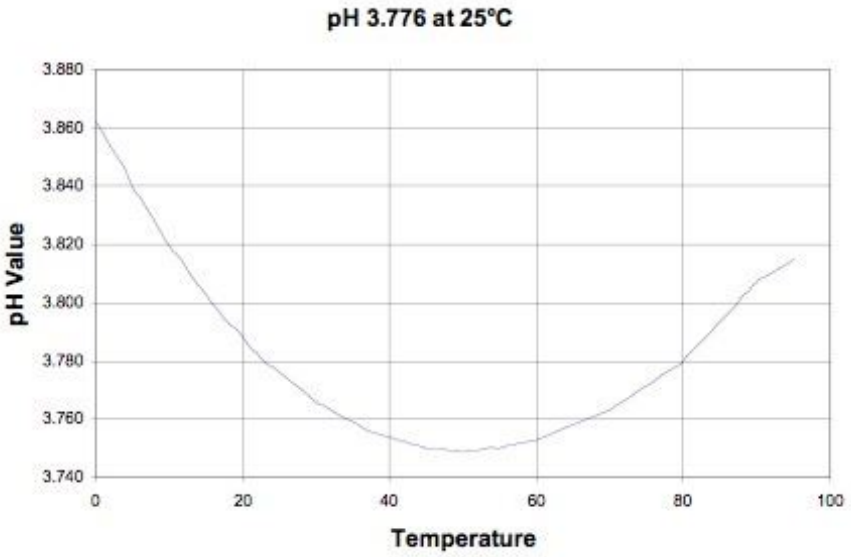

TEMP. (°C)	pH VALUE	TEMP. (°C)	pH VALUE	TEMP. (°C)	pH VALUE
0	3.863	33	3.762	66	3.759
1	3.858	34	3.760	67	3.760
2	3.854	35	3.759	68	3.761
3	3.850	36	3.757	69	3.762
4	3.845	37	3.756	70	3.763
5	3.840	38	3.755	71	3.765
6	3.837	39	3.755	72	3.766
7	3.832	40	3.754	73	3.768
8	3.828	41	3.753	74	3.770
9	3.824	42	3.752	75	3.772
10	3.820	43	3.752	76	3.773
11	3.816	44	3.751	77	3.775
12	3.813	45	3.750	78	3.777
13	3.810	46	3.750	79	3.778
14	3.806	47	3.750	80	3.780
15	3.803	48	3.749	81	3.783
16	3.800	49	3.749	82	3.785
17	3.796	50	3.749	83	3.788
18	3.793	51	3.749	84	3.791
19	3.791	52	3.749	85	3.794
20	3.788	53	3.750	86	3.796
21	3.785	54	3.750	87	3.799
22	3.783	55	3.750	88	3.802
23	3.780	56	3.751	89	3.804
24	3.778	57	3.751	90	3.807
25	3.776	58	3.752	91	3.809
26	3.774	59	3.752	92	3.810
27	3.772	60	3.753	93	3.812
28	3.770	61	3.754	94	3.813
29	3.768	62	3.755	95	3.815
30	3.766	63	3.756		
31	3.765	64	3.757		
32	3.763	65	3.758		

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Certificate of Conformity and Traceability
pH 3.776 ±0.010 (k=2) - 25°C

Traceability:
Traceable to NIST pH scale. Certified Reference material from National Institute of Standards & Technology (NIST) - Nominal value pH 4.005 @ 25°C. The exact value of this standard was determined with an expanded uncertainty of ± 0.001pH by NIST using a standard Hydrogen Electrode Apparatus.

Certified Value:
pH 3.776 ±0.010 (k=2) - 25°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 dihydrogen citrate 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 dihydrogen citrate , ultra pure , 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 25°C, refer to the table above when calibrating your meter.

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