Certificate of Analysis

ACCREDITED
CERT #6739.03

pH Buffer Solution

DIN Buffer Standard pH 6.865 ± 0.010 @ 25°C

Product No:	90512	Date of Measurement:	15/06/2023
Lot No:	688123F1	Date of Sample Receipt:	15/06/2023
Expiry Date*:	28/06/2025	Date of Manufacture*:	15/06/2023

Specification:

6.855 - 6.875 @ 25°C

Mean Measured Value:

6.869 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.

Buffer Substance:
Potassium di-hydrogen Phosphate,
Disodium Hydrogen Phosphate.

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 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 :

16/06/2023

QC Technician

HOSZOWSKA Anna

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.
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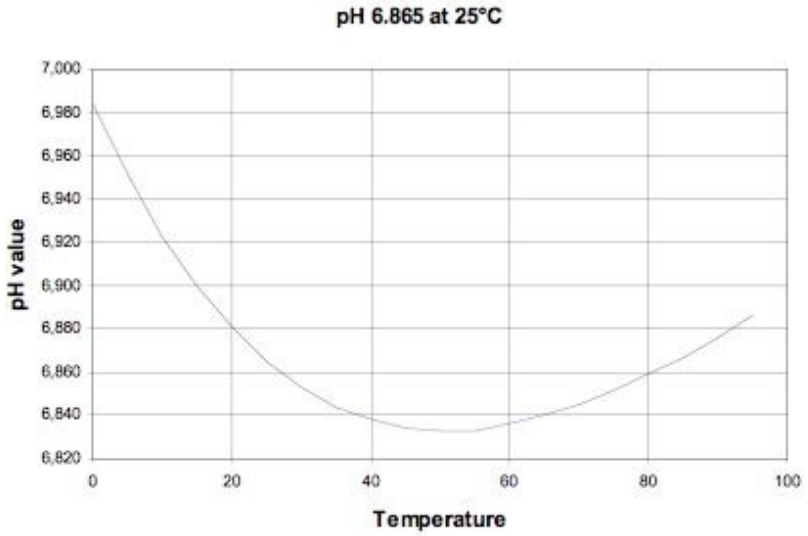

TEMP. (°C)	pH VALUE	TEMP. (°C)	pH VALUE	TEMP. (°C)	pH VALUE
0	6,984	33	6,848	66	6,841
1	6,977	34	6,846	67	6,842
2	6,971	35	6,844	68	6,843
3	6,964	36	6,843	69	6,844
4	6,958	37	6,841	70	6,845
5	6,951	38	6,840	71	6,846
6	6,945	39	6,839	72	6,848
7	6,940	40	6,838	73	6,849
8	6,934	41	6,837	74	6,851
9	6,929	42	6,836	75	6,852
10	6,923	43	6,836	76	6,853
11	6,918	44	6,835	77	6,855
12	6,914	45	6,834	78	6,856
13	6,909	46	6,834	79	6,858
14	6,905	47	6,834	80	6,859
15	6,900	48	6,833	81	6,861
16	6,896	49	6,833	82	6,862
17	6,892	50	6,833	83	6,864
18	6,888	51	6,833	84	6,865
19	6,884	52	6,833	85	6,867
20	6,881	53	6,833	86	6,869
21	6,877	54	6,833	87	6,871
22	6,874	55	6,833	88	6,872
23	6,871	56	6,834	89	6,874
24	6,868	57	6,834	90	6,876
25	6,865	58	6,835	91	6,878
26	6,862	59	6,835	92	6,880
27	6,860	60	6,836	93	6,882
28	6,857	61	6,837	94	6,884
29	6,855	62	6,838	95	6,886
30	6,853	63	6,838		
31	6,851	64	6,839		
32	6,849	65	6,840		

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Certificate of Conformity and Traceability
pH 6.865 ±0.010 (k=2) - 25°C

Traceability:
Traceable to the SI Units via traceability to the NIST pH scale. Certified Reference Material SRM 186-I-g Potassium Dihydrogen Phosphate and SRM 186-II-g Disodium Hydrogen Phosphate from National Institute of Standards and Technology. Nominal value pH 6.864 @ 25°C. The exact value of this standard was determined with an expanded uncertainty of ±0.00160pH by NIST using a standard Hydrogen Electrode Apparatus.

Certified Value:
pH 6.865 ±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 Phosphate 25mmol/L
Disodium Hydrogen Phosphate 25mmol/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 Phosphate and Disodium Hydrogen Phosphate ACS grade 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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