

## Certificate of Analysis

### pH Buffer Standard

**Buffer Standard pH 7.429  $\pm$  0.010 @ 20°C NIST (pH 7.413  $\pm$  0.010 @ 25°C DIN 19266)**

*Product No:* 107429  
*Lot No:* 742921B1  
*Expiry date:* 28/02/2023

*Mean pH value:* 7.427 @ 20°C  
*Date of measurement:* 04/02/2021

**Specification:**  
7.419 - 7.439 @ 20°C

### pH Measurement:

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. It is certified traceable to the following 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. This certificate relates solely to the lot number given above. The uncertainty of measurement has been calculated not to exceed  $\pm$  0.010pH at 95% confidence level, i.e. coverage factor  $k = 2$ .

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 Irish National Accreditation Board, under scope 264T, for the test method, TPPHB, used to generate the above result. This accreditation is intended only to certify that 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.

Products are manufactured under an NSAI registered I.S EN ISO9001:2015 Quality System, registration no: 19.2769

*Date of issue of the certificate:* 05/02/2021

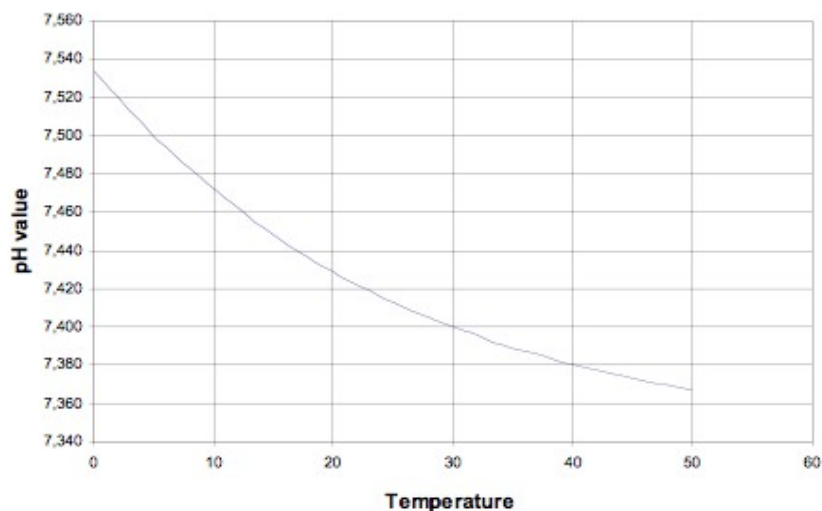
*Eileen Malone*

**QC Technician Eileen Malone**

Complementary information relative to this product is available at [www.reagecon.com](http://www.reagecon.com)  
Page 1 of 3. This Certificate must not be reproduced except in full. Rev-21B11

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pH 7.429 at 20°C



TEMP. (°C)	pH VALUE	TEMP. (°C)	pH VALUE
0	7.534	33	7.393
1	7.527	34	7.391
2	7.520	35	7.389
3	7.514	36	7.388
4	7.507	37	7.386
5	7.500	38	7.384
6	7.494	39	7.382
7	7.489	40	7.380
8	7.483	41	7.379
9	7.478	42	7.377
10	7.472	43	7.376
11	7.467	44	7.374
12	7.462	45	7.373
13	7.458	46	7.372
14	7.453	47	7.371
15	7.448	48	7.369
16	7.444	49	7.368
17	7.440	50	7.367
18	7.436		
19	7.432		
20	7.429		
21	7.425		
22	7.422		
23	7.419		
24	7.416		
25	7.413		
26	7.410		
27	7.407		
28	7.405		
29	7.402		
30	7.400		
31	7.398		
32	7.396		



## Certificate of Conformity and Traceability

**pH 7.429  $\pm$ 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 6.880 @20°C. The exact value of this standard was determined with an expanded uncertainty of  $\pm 0.002$ pH by NIST using a standard Hydrogen Electrode Apparatus.

### Certified Value:

pH 7.429  $\pm$ 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 Dihydrogen Phosphate 9mmol/l  
Disodium Hydrogen Phosphate 30mmol/l  
Added germicide < 0.01%

### Fomulation:

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, Food Grade 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 20°C, refer to the table below when calibrating your meter.