

CERTIFICATE

Calibration buffer solution for pH measurement

pHanal™ CRMpH4001

This certificate is designed in accordance with ISO Guide 31

Category: Certified reference material

Product code: CRMpH4001

Description:

Basic buffer solution for very precise pH measurement formulated by IUPAC and NIST.

Composition:

Potassium hydrogen phthalate, germicide (< 0.01%), ultrapure demineralized water (resistivity $\geq 18\text{M}\Omega\cdot\text{cm}$, 0.22 μm filtered).

Certified pH value and expanded uncertainty (k = 2):

4.001 ± 0.010 (at 20 °C)

Specification:

Batch No.: 0013

The date of production: 02.11.2022

Shelf life: 3 years from the date of production

The date of first opening of the bottle:

Expiry date: 12 months from the first opening of the bottle within shelf life period, which should be indicated on the label of the bottle as well.

IUPAC pH scale temperature-dependent values: *)

| | | | |
|-------|-------|-------|-------|
| 10 °C | 3.997 | 25 °C | 4.005 |
| 15 °C | 3.998 | 30 °C | 4.011 |
| 20 °C | 4.001 | 35 °C | 4.018 |

*) The values in the table can be used as indicative values at the given temperatures

Intended use:

For calibration of pH measurement and validation of analytical methods determining pH.

Certification and traceability:

This CRM is certified on the basis of a defined gravimetric method of preparation. Traceability to SRM NIST 185i is realized through a short unbroken chain of calibrations.

Homogeneity and stability:

It has been demonstrated that this CRM is homogenous and its stability is guaranteed during the whole shelf life provided the solution is kept under conditions prescribed bellow.

Storing and instructions for use:

This CRM has to be stored in the original closed bottle between 5 – 30 °C. The producer guarantees a declared shelf life and expiration time provided the CRM is properly stored and professionally handled. After each use, the bottle has to be immediately tightly capped and the screw cap sealed with a parafilm. Do not return removed aliquots to bottle! It is necessary to record the first opening of the bottle. From this date, the expiration time starts.

Producer:

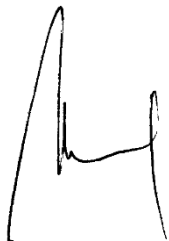
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Quality management systems of company ANALYTIKA® , spol. s r.o.:

ČSN EN ISO 9001:2016
ČSN EN ISO/IEC 17025:2018
ČSN EN ISO 17034:2017

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Date of the first issue of certificate: 06.09.2023

Revision of certificate:

Certificate revision date:

Version of certificate: 01