AVAILABILITY - PRICES

valid from 01.01.2024

pH reference materials and pH reference buffer solutions

The prices given in the tables are net prices and include the certificate of analysis and packaging.

pH reference buffer solutions with DAkkS-calibration / according to DIN 19266
(U(k=2) = 0,003 for 5°C to 35°C; U(k=2) = 0,004 for >35°C to 50°C)

pH reference buffer solution (nominal pH value at 25 °C)	*Order No.*	*Price*			
		125 ml EURO	*250 ml EURO*	*500 ml EURO*	*1000 ml EURO*
$1{,}67_9$	S 1,679 pH	12,50	18,00	35,70	52,00
$4{,}00_5$	S 4,005 pH	12,50	18,00	35,70	52,00
$6{,}86_5$	S 6,865 pH	12,50	18,00	35,70	52,00
$7{,}41_3$	S 7,413 pH	12,50	18,00	35,70	52,00
$9{,}18_0$	S 9,180 pH	12,50	18,00	35,70	52,00
$10{,}01_2$	S 10,012 pH	12,50	18,00	35,70	52,00

pH reference buffer solutions with DAkkS-calibration / according to DIN 19266
(U(k=2) = 0,01 for 5°C to 50°C)

pH reference buffer solution (nominal pH value at 25 °C)	*Order No.*	*Price*		
		250 ml EURO	*500 ml EURO*	*1000 ml EURO*
1,68	S 1,68 pH	12,50	23,00	33,50
4,01	S 4,01 pH	12,50	23,00	33,50
6,86	S 6,86 pH	12,50	23,00	33,50
7,41	S 7,41 pH	12,50	23,00	33,50
9,18	S 9,18 pH	12,50	23,00	33,50
10,01	S 10,01 pH	12,50	23,00	33,50

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Steuernr.: 116/105/43229
Ust-IdNr.: DE 167227603

Volksbank Dessau-Anhalt eG
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BLZ: 800 935 74
SWIFT (BIC): GENODEF1DS1
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IBAN: DE40 8607 0024 0386 7595 00

DIN EN ISO 9001
Reg.-Nr.: 054774 QM

pH buffer solutions with DAkkS-calibration
(U(k=2) = 0,01 for 5°C to 50°C)

pH buffer solution *(nominal pH value at 25 °C)*	Order – No.	Price		
		250 ml in EURO	***500 ml in EURO***	***1000 ml in EURO***
4,01	S 4,01 pH	12,50	23,00	33,50
6,00	S 6,00 pH	12,50	23,00	33,50
7,00	S 7,00 pH	12,50	23,00	33,50
8,00	S 8,00 pH	12,50	23,00	33,50
9,21	S 9,21 pH	12,50	23,00	33,50

pH buffer solutions with DAkkS-calibration *–colored-*
(U(k=2) = 0,02 for 5°C to 50°C)

pH buffer solution *(nominal pH value at 25 °C)*	Order – No.	Price			
		250 ml in EURO	***250 ml * in EURO***	***500 ml in EURO***	***1000 ml in EURO***
4,01	S 4,01 pH coloured	13,60	15,00	25,00	33,50
7,00	S 7,00 pH coloured	13,60	15,00	25,00	33,50
9,21	S 9,21 pH coloured	13,60	15,00	25,00	33,50
10,01	S 10,01 pH coloured	13,60	15,00	25,00	33,50

**** in our user-friendly dosing bottles***

Calibration of your pH buffer solutions with DAkkS calibration *(U(k=2) = 0,02 for 5°C to 50°C)*

Price on request

Electrolyte solution for pH electrodes

Potassium chloride solution	***Price for 250 ml* in EURO**
saturated	21,00
3 mol/l KCl	21,00

PRODUCT INFORMATION

pH reference materials /- reference buffer solution

Calibration laboratory for length, electrical, mechanical, thermodynamic, and analytical measurands
DAkkS Registration Number: D-K-15186-01-00

The pH value is one of the basic properties of aqueous solutions and biological systems.
For the inspection of pH measuring systems/devices pH reference buffer solutions are required.
The production of such pH reference buffer solutions and pH buffer solutions is basically done with secondary pH reference materials. These secondary pH reference materials serve as basis for the practical pH-scale and are traceable to primary pH reference materials of PTB (for Germany) or the NIST/U.S.A. (internationally).
pH(S) values of secondary pH reference materials/ buffer solutions are determined by accredited calibration laboratories.

Calibration of pH reference materials

Our calibration laboratory D-K-15186-01 is the only DAkkS calibration laboratory of Germany ensuring the certification of pH reference materials by metrological traceability to PTB or NIST via a standard measuring equipment consisting of 12 electrochemical cells (harned cells, cells without transference). The constructive correspondence of our reference measuring system with the primary system of PTB and the application of the same measuring procedure as well as the regular participation in international comparison measurements ensure a reliable traceability to the National Standard.

- secondary pH reference materials**,** *U=0,003 (5°C to 35°C), U=0,004 (>35°C to 50°C)*
  $1{,}67_9$; $4{,}00_5$; $6{,}86_5$; $7{,}41_3$; $9{,}18_0$; $10{,}01_2$ (nominal value at 25°C, batch-dependent)

Calibration of pH reference buffer solutions and pH buffer solutions, performed by means of:

1. Differential potentiometric analysis with double platinum hydrogen electrode (quasi without transference) after Baucke

- pH refernce buffer solutions according to DIN 19266
  U=0,003 (5°C to 35°C), U=0,004 (>35°C to 50°C)
  $1{,}67_9$; $4{,}00_5$; $6{,}86_5$; $7{,}41_3$; $9{,}18_0$; $10{,}01_2$ (nominal value at 25°C, batch-dependent)
- pH refernce buffer solutions according to DIN 19266, *U*=0,01 (5°C bis 50°C)
  1,68; 4,01; 6,86; 7,41; 9,18; 10,01 (nominal value at 25°C, batch-dependent)

2. Multi-point calibration with glass electrode system

- pH refernce buffer solution according to DIN 19266, *U*=0,01 (5°C to 50°C)
  1,68; 4,01; 6,86; 7,41; 9,18; 10,01 (nominal value at 25°C, batch-dependent)
- pH buffer solution, *U*=0,01 (5°C to 50°C)
  4,01; 6,00; 7,00; 8,00; 9,21 (nominal value at 25°C, batch-dependent)
- pH buffer solution, *U*=0,02 (5°C to 50°C), ***color coded***
  4,01; 7,00; 9,21; 10,01 (nominal value at 25°C, batch-dependent)

The pH values as well as their dependency on temperature (5°C to 50°C) including the expanded measuring uncertainty are given in the DAkkS Calibration Certificate for each pH reference material/ buffer solution.

Additional information:

The pH reference buffer solutions and pH buffer solutions with the given measuring uncertainties are applicable for 6 months provided that the bottles are kept unopened and stored at room temperature.
(Attention: If the pH reference buffer solution 4.01 is seized with funguses it must not be used anymore!).

Multiple uses of pH reference buffer solutions have to be avoided.

Please, also consider our price list for certified reference materials according to ISO/IEC 17025 with ISO Guide 34.