

Buffer Quality Control Certificate

Nominal Specifications

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| pH Buffer Solution | Technical Buffer pH 4.01 |
| Order number | 51350004, 51350018 |

Buffer Properties

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|-------------------|------------------------------|--|
| Actual pH Value | 4.01 | (The expanded uncertainty (k = 2) of the measurement is 0,02 pH) |
| Lot No. Solution | 1B125B | |
| Buffer Substances | Potassium hydrogen phthalate | |
| Production Date | May 4, 2016 | |
| Expiry Date | May 4, 2018 | |

Traceability

For the calibration of the pH value of our buffer solutions, the measuring instruments were calibrated using two different reference buffer solutions, based on primary pH reference materials of the NIST¹.


The National Metrology Institutes compare their measurement capabilities periodically in key comparisons within the CIPM-MRA².

The international comparability, harmonization and the equivalence of their measurement capabilities are therefore ensured.

This guarantees a flawless traceability of the certified pH buffer solution values to NIST along with our Quality Management System. The certification is done for each lot.

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| Procedure | Two point calibration | | |
| NIST Standard solution value | 4.005 +/- 0.005 (25°C) | 6.864 +/- 0.005 (25°C) | |
| Standard Reference Material SRM NIST | Potassium Hydrogen Phthalate | Potassium Dihydrogen Phosphate | Disodium Hydrogen Phosphate |
| Lot No SRM NIST | 185i | 186lg | 186llg |

- 1 National Institute of Standards and Technology, Gaithersburg, USA
- 2 Mutual Recognition Arrangement of National Measurement Standards and of Calibration Certificates issued by National Metrology Institutes

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| Date of Certificate Issue | May 4, 2016 |
| Quality Control |  Peter Rowing |