

Material	85511.260
Material description	Buffer solution pH 4.01
Grade	

Additional information

Characteristics	Specifications
pH (25°C) (tolerance ± 0.02)	3.99 - 4.03
pH laboratory uncertainty	± 0.007 (k=1)
pH homogeneity uncertainty	± 0.000 (k=1)
pH stability uncertainty	± 0.001 (k=1)
pH expanded, combined uncertainty	± 0.02 (k=2; 95 %)

Signature

This document has been produced electronically and is valid without a signature.

Anja Vanhalle, Head of Laboratory - Haasrode
VWR International bvba; Geldenaaksebaan 464; BE-3001
Leuven; Belgium

Certified Reference Material ISO 17034



Accreditation N°: 542-RM
VWR International BVBA
Geldenaaksebaan 464
BE-3001 Leuven, Belgium
Coverage available on: www.belac.be

Additional information

pH-Method: pH value is analyzed with a glass electrode after 4-point calibration following the validated standard procedure. The expanded uncertainty relevant for the user contains contributions of bottle to bottle variation (inhomogeneity), stability over time and laboratory measurement uncertainties as shown above and using a coverage factor k=2 for a 95 % coverage probability.

Preparation and use: This reference material is prepared gravimetrically from potassium hydrogen phthalate and high purity water. It is intended to be used for calibrating pH measurement devices. The minimum sample size for use is 17.5 ml.

Accreditation: VWR International BVBA is accredited as reference material producer according to ISO 17034. The batch homogeneity has been proven by analyzing minimum 6 samples distributed over the entire production process.

The pH of this buffer solution is traceable to and verified against primary Standard Reference Materials (SRM) from National Institute of Standards and Technology (NIST): SRM 188 and SRM 186 I + II.

Store at +2°C to +25°C tightly closed in the original container under nitrogen. Keep this reference material always under nitrogen. Consume within 4 weeks after first opening.