

Material 32039.261  
Material description Buffer solution pH 9  
Grade

## Additional information

Characteristics	Specifications
pH (20°C) (tolerance $\pm 0.02$ )	8.98 $\rightarrow$ 9.02
pH laboratory uncertainty	$\pm 0.010$ (k=1)
pH homogeneity uncertainty	$\pm 0.003$ (k=1)
pH stability uncertainty	$\pm 0.020$ (k=1)
pH expanded, combined uncertainty	$\pm 0.05$ (k=2; 95 %)

## Signature

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## Additional information

**pH-Method:** pH value is analyzed with a glass electrode after 4-point calibration following the validated standard procedure of ISO/IEC 17025 accreditation. 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:** This reference material is prepared gravimetrically from boric acid, potassium chloride and high purity water.

**Accreditation:** VWR International BVBA is accredited as calibration laboratory according to ISO/IEC 17025. The batch homogeneity has been proven by analyzing minimum 6 samples distributed over the entire production process. The expiry date is not part of the accreditation.

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 186 I + II g and SRM 191d I + II.

Store at +2°C to +25°C tightly closed in the original container under nitrogen.