

**Scharlab S.L.**

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CERTIFICATE OF ANALYSIS**SO3401_26075901/1**

Product	Buffer solution pH = 4,01 (25 °C), red-coloured		Batch	26075901
SO3401			Quality release date	03/09/2025
			Expiry date	09/2028
Analysis	Batch value	Specifications		±U
pH	4.02	4.00 - 4.02		0.01

Preparation

Standard buffer solutions are prepared using gravimetric and volumetric procedures according to DIN 19268.

Composition per litre is 10,2 g Potassium hydrogen phthalate.

Contains preservative.

Temperature dependence of the pH value

When calibrating your pHmeter at different temperatures than 20°C, refer to the table below to introduce accurate pH values.

T (°C)	pH
0	4,01
5	4,00
10	4,00
15	4,00
20	4,00
25	4,01
30	4,02
35	4,03
40	4,04
45	4,05
50	4,06

Traceability

This pH buffer solution is traceable to the International System of Units through Standard Reference Material® from NIST:

SRM 185 Potassium hydrogen phthalate,

SRM 186 Phosphate Buffers,

SRM 187 Sodium tetraborate,

SRM 189 Potassium tetroxalate and

SRM 2193 Calcium carbonate

Uncertainty

It characterises the dispersion of the values that could be attributed to the measurand. The limits of the expanded uncertainty are given at a confidence level of 95% (k=2).

Measurement

The batch value is determined by measurement with a combination glass electrode against multiple-point calibration according to DIN 19268.

Batch value certified at the time of measurement.

Intended use

This reference material is intended for the calibration of pH meters and electrodes used for pH measurement or as a control sample for measuring the pH value.

For laboratory use only.

Storage

If product is stored and unopened, this solution is stable for 3 years from the date of manufacturing.

Once the bottle is opened, store tightly closed at room temperature. Avoid exposure to light.

We suggest rejecting the solution six months after opening.

Never introduce the electrode in the bottle for measurements.

Never pour the used solution back in the bottle.