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CERTIFICATE OF ANALYSIS**SO2004_23215601/1**

Product	Buffer solution pH = 4,00 (20 °C), red-coloured		Batch	23215601
SO2004			Quality release date	14/10/2022
			Expiry date	10/2024
Analysis	Batch value	Specifications		±U
pH	4,00	3,99 - 4,01		0,01

Preparation

Standard buffer solutions are prepared using gravimetric and volumetric procedures according to DIN 19266.

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 Materials® 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.

Storage and use

For pH-meter calibration.

If product is stored and unopened, this solution is stable for 2 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.

For laboratory use only.