



Scharlab S.L.

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CERTIFICATE OF ANALYSIS

Product: **Buffer solution pH = 2,00 (20 °C)** (Citric acid/Sodium hydroxide/Hydrochloric acid)
SO1022

Batch 16310001
Quality release date 04/05/2015
Expiry date 5/2018

Analysis	Batch value	Specifications
pH at 20 °C	2,000	2,00
uncertainty $\pm 0,01$		

Preparation

Standard buffer solutions are prepared using gravimetric and volumetric procedures.

Composition per litre is 6,43 Citric acid, 2,40g Sodium hydroxide and 6,13ml Hydrochloric acid.

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.....	2,01
5.....	2,01
10.....	2,01
15.....	2,00
20.....	2,00
25.....	2,00
30.....	2,00
35.....	2,00
40.....	2,00
45.....	2,00
50.....	2,00

Traceability

This pH buffer solution is traceable to Standard Reference Material from NIST

SRM 185i Potassium hydrogen phthalate,

SRM 186g Phosphate Buffers,

SRM 187e Sodium tetraborate,

SRM 189c Potassium tetroxalate and

SRM 2193a Calcium carbonate

Uncertainty

It characterises the dispersion of the values that could be attributed to the mesurand. 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 five-point calibration according to DIN 19268. The use of more than five points does not yield any significant improvement in the statistical information obtainable.

Calibration standards are prepared according to DIN 19266.

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 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.