



Scharlab S.L.

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CERTIFICATE OF ANALYSIS

Product: **Buffer solution pH = 12,00 (20 °C) (di-Sodium
SO1142 hydrogen phosphate/Sodium hydroxide)**

Batch 17877201
Quality release date 07/03/2017
Expiry date 3/2019

Analysis	Batch value	Specifications
pH at 20 °C uncertainty $\pm 0,02$	12,000	12,00

Preparation

Standard buffer solutions are prepared using gravimetric and volumetric procedures.
Composition per litre is 10,6g di-Sodium hydrogen phosphate and 3,10g Sodium hydroxide

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	12,58
5	12,41
10	12,26
15	12,10
20	12,00
25	11,88
30	11,72
35	11,67
40	11,54
45	11,41
50	11,33

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 two-point calibration according to DIN 19268.
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 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.