Scharlau

The wise choice

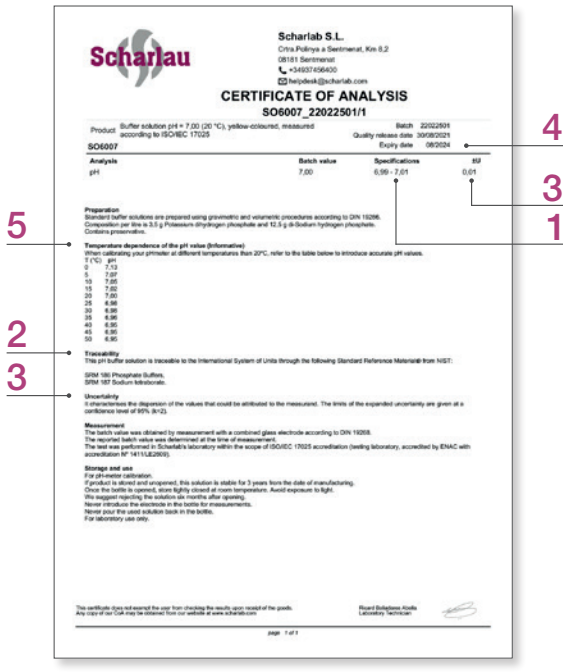
OCON chemicals ltd

pH Standards

measured according to ISO/IEC 17025

Measuring pH in a solution is probably the most common of all routine determinations undertaken in laboratories. As pH affects all chemical and biochemical reactions, reliable calibration is essential. pH-meters measure the potential difference between two electrodes immersed in a sample and compare the value with that obtained by the same pair of electrodes in a standard solution. These pH standard solutions have to be accurate and reliable. The measurement of these pH standards is carried out according to DIN 19268. Scharlau pH standards are prepared according to DIN 19266.

Scharlau pH standards measured according to ISO/IEC 17025 are accurate, stable and directly traceable to the International System of Units (SI), through NIST primary standards. These tests are carried out within the scope of ISO/IEC 17025 accreditation at the Scharlab laboratory (an ENAC accredited test laboratory, with accreditation No. 1411/LE2609). This accreditation attests that Scharlab is technically competent to carry out pH measurements and reports the values according to the UNE-EN ISO/IEC 17025 standard, reinforced by the calculated uncertainty values. This accreditation is one of the highest recognitions for testing laboratories.



Packaging

Our pH standards are packaged in HDPE bottles and delivered in plastic bags with their Certificate of Analysis.

1. Specifications

For Scharlau pH 4 and 7 standards measured according to ISO/IEC 17025, Scharlab ensures a specification of ±0.01 pH units (3.99-4.01 and 6.99-7.01 respectively). For pH 10 standards measured according to ISO/IEC 17025, the guaranteed specification is ±0.02 pH units (9.98-10.02).

With this accreditation, Scharlab is the first manufacturer of pH standards in Spain to receive accreditation for its quality control laboratory with ENAC (the National Accreditation Entity) for the pH test according to ISO/IEC 17025 criteria.

Using the Scharlau pH standards measured according to ISO/IEC 17025, laboratories have more confidence in the correct measurement of the pH value which Scharlab states. UNE-EN ISO/IEC 17025 is an internationally recognised and accepted norm to demonstrate the technical competence of testing or calibration laboratories.

The advantages of using pH standards measured by our ISO/IEC 17025 accredited laboratory are:

- Confidence in analytical results
- Documentation available for audits
- Assurance for the quality management system
- Quality and reliability of standards
- Increased confidence in testing
- Analysis carried out by qualified personnel

2. Traceability

All Scharlau pH standards are directly traceable to the International System of Units by means of Standard Reference Materials (SRM®) from NIST (National Institute of Standards and Technology, USA). We purchase primary SRM® from NIST and measure our buffer solutions directly with them. This procedure ensures correct traceability to the International System of Units.

3. Uncertainty

The uncertainty value of our pH standards measured according to ISO/IEC 17025 is calculated to never exceed an uncertainty of 0.01 in all cases, with a level of confidence of 95% (k=2), thus ensuring maximum precision in the pH values stated in the Certificate of Analysis.

4. Expiry

Scharlab ensures a shelf life of 3 years for all its pH standards measured according to ISO/IEC 17025.

5. pH-Temperature dependency

The pH value of a solution depends directly on the temperature of the medium. Scharlab offers pH standards at both 20 °C and 25 °C, for pH references 4, 7 and 10. The informative pH values tables, in function of the temperature of our pH buffers, appear on our Certificates of Analysis, with a wide range of temperatures (0 °C to 50 °C).

pH standards, measured according to ISO/IEC 17025

We offer colourless pH standards in different containers (500 ml and 1 l) and at different temperatures (20 °C and 25 °C).

	Art. No.	Description	Packaging
20 °C	SO40041000	Buffer solution pH = 4,00 (20 °C), measured according to ISO/IEC 17025	1 l
	SO40071000	Buffer solution pH = 7,00 (20 °C), measured according to ISO/IEC 17025	1 l
	SO40101000	Buffer solution pH = 10,00 (20 °C), measured according to ISO/IEC 17025	1 l
25 °C	SO50040500	Buffer solution pH = 4,00 (25 °C), measured according to ISO/IEC 17025	500 ml
	SO50070500	Buffer solution pH = 7,00 (25 °C), measured according to ISO/IEC 17025	500 ml
	SO50100500	Buffer solution pH = 10,00 (25 °C), measured according to ISO/IEC 17025	500 ml

Coloured pH standards, measured according to ISO/IEC 17025

The coloured pH standards are easily identifiable by the end user and prevent errors in the laboratory due to wrong choice of pH buffer. They are widely used in field analysis.

We offer Scharlau coloured pH standards measured at 20 °C and 25 °C, in two containers (500 ml and 1 l).

	Art. No.	Description	Packaging
20 °C	SO60041000	Buffer solution pH = 4,00 (20 °C), red-coloured, measured according ISO/IEC 17025	1 l
	SO60071000	Buffer solution pH = 7,00 (20 °C), yellow-coloured, measured according ISO/IEC 17025	1 l
	SO60101000	Buffer solution pH = 10,00 (20 °C), blue-coloured, measured according ISO/IEC 17025	1 l
25 °C	SO70040500	Buffer solution pH = 4,00 (25 °C), red-coloured, measured according ISO/IEC 17025	500 ml
	SO70070500	Buffer solution pH = 7,00 (25 °C), yellow-coloured, measured according ISO/IEC 17025	500 ml
	SO70100500	Buffer solution pH = 10,00 (25 °C), blue-coloured, measured according ISO/IEC 17025	500 ml

All our pH standards are delivered with their Certificate of Analysis

The validity period for the pH standards measured according to ISO/IEC 17025 is 3 years

Monobuf® pH standards, measured according to ISO/IEC 17025

Monobuf®

Have you ever had to dispose of an open pH standard bottle because you were unsure of its accuracy?

If your answer is yes, Monobuf® is your solution.

Monobuf® pH standards are ready to use and packaged in single-dose bottles.
Our Monobuf® bottle allows you to open a new flask of pH standard each time you have to make a calibration, without having to pour the standard into another container/beaker, minimising the risk of the standard becoming contaminated.
Ideal for field analysis.

Without Monobuf®:

1. Open a new bottle of pH standard.
2. Write the date the bottle was opened on the label.
3. Pour the standard into a smaller container to make the calibration.
4. Label the new container and write the pH and date for correct identification in your laboratory.
5. Make the measurement.

With Monobuf® everything is much easier:

1. Open one of the 30 ml bottles from the Monobuf® box.
2. Make the measurement.

	Art. No.	Description	Packaging
20 °C	SO8040N360	Buffer solution pH = 4,00 (20 °C), red-coloured, Monobuf®, measured according ISO/IEC 17025	12 x 30 ml
	SO8070N360	Buffer solution pH = 7,00 (20 °C), yellow-coloured, Monobuf®, measured according ISO/IEC 17025	12 x 30 ml
	SO8100N360	Buffer solution pH = 10,00 (20 °C), blue-coloured, Monobuf®, measured according ISO/IEC 17025	12 x 30 ml
25 °C	SO3040N360	Buffer solution pH = 4,00 (25 °C), red-coloured, Monobuf®, measured according ISO/IEC 17025	12 x 30 ml
	SO3070N360	Buffer solution pH = 7,00 (25 °C), yellow-coloured, Monobuf®, measured according ISO/IEC 17025	12 x 30 ml
	SO3100N360	Buffer solution pH = 10,00 (25 °C), blue-coloured, Monobuf®, measured according ISO/IEC 17025	12 x 30 ml

Fresh solution in every calibration of your pH-meter

Avoid contamination!

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Download the leaflet here: