CERTIFICATE OF ANALYSIS

PA0101_25196701/1

Product	Conductivity standard, 1413 µS/cm (25 °C), KCl 0,01 mol/l	Batch	25196701
PA0101		Quality release date	09/10/2024
		Expiry date	10/2027

Analysis	Batch value	Specifications	±U
Conductivity (25ºC)	1412,7 µS/cm	1399 - 1427	0,24%

Preparation

Conductivity standard solutions are prepared using gravimetrically procedures. The solution has been equilibrated with atmospheric carbon dioxide after preparation.

Composition per liter is Potassium Chloride 0,01 mol.

Temperature dependence of the conductivity value

The electrolytic conductivity is strongly influenced by the temperature. It is therefore necessary to refer to the table below for an accurate control of conductivity values.

T(ºC)	k (µS/cm)
15	1139
20	1276
25	1413
30	1550
35	1694
40	1833

Traceability

This conductivity standard is traceable to the SRM from NIST.

SRM 999c Potassium Chloride.

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 standard has been measured with an electrode, whose cell constant is approx. 9,4 cm-1, and a temperature sensor.

Storage and use

This conductivity standard solution is intended for use as a calibration standard for the determination of the conductivity cell constant.

Take care in avoiding air bubbles at the electrode during measurement.

If the 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 away from acid fumes, nitrogen oxids and sulfur dioxide. Each time the bottle is opened, a portion of the solution will evaporate, which will change the conductivity.

Never introduce the electrode in the bottle for measurements.

Never pour the used solution back in the bottle.

For laboratory use only

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