

Conductivity Standard Solutions

- Full range of values
- ASTM & NIST traceability
- ISO 9001 certified
- Label & certificate with lot number, certified value, expiration date and traceability data
- 500 mL HDPE sealed bottle



Conductivity standards are produced, analyzed, and documented in the Mettler-Toledo Thornton ISO 9001 certified facility with processes similar to those used to calibrate high accuracy Thornton conductivity sensors. They are packaged in sealed containers to assure retention of the certified value for the full shelf life. These standards are analyzed and used at equilibrium with the atmosphere.

Conductivity Standard	Accuracy	Shelf Life	Part Number
25 $\mu\text{S/cm}$, 500 mL, HCl	$\pm 3\%$	6 mo	58 078 001
100 $\mu\text{S/cm}$, 500 mL, KCl	$\pm 1\%$	12 mo	58 078 002
1000 $\mu\text{S/cm}$, 500 mL, KCl	$\pm 1\%$	12 mo	58 078 003
10,000 $\mu\text{S/cm}$, 500 mL, KCl	$\pm 1\%$	12 mo	58 078 004
100,000 $\mu\text{S/cm}$, 500 mL, KCl	$\pm 1\%$	12 mo	58 078 005

Pure water applications

Many applications of Thornton conductivity/resistivity instrumentation are in water considerably more pure than the lowest standard listed here. However, lower conductivity standards would be much more vulnerable to errors in use due to contamination and variable carbon dioxide content from the atmosphere. As a percentage of the standard value, higher standards are less influenced by contamination. Thornton instruments and sensors provide excellent linearity across their ranges including ultrapure water. Therefore more accurate results are normally achieved through verification and/or calibration using 25 or 100 $\mu\text{S/cm}$ standards than could be obtained using standards with lower values.

Certificate of Analysis

Conductivity Standard Solution

Part no:	58 078 001
Nominal value:	25 µS/cm at 25 °C
Certified value:	24.78 µS/cm at 25 °C ±3%
Temperature coefficient:	2.0 %/°C (20-30 °C)
Lot no:	LJS051806h1
Prepared by:	LJS
Analysis date:	17-May-2006
Expiration date:	18-Nov-2006
Storage temperature:	5-50 °C
Material:	hydrochloric acid in water

Traceability:
This standard was analyzed in our ISO 9001 certified facility by instrumentation traceable to NIST based on standards according to ASTM D1125.

Instrument:	775-VA0, S/N 706011234
Calibration due:	01-Jul-2006
Sensor:	230-211, S/N 06011234
Calibration due:	15-Nov-2006

For further information on the use of this standard, see http://www.thorntoninc.com/tech_notes.htm#technotes

Richard Cranitch
Richard Cranitch
Quality Manager

METTLER TOLEDO

Example conductivity standard certificate of analysis

Mettler-Toledo Thornton, Inc.

36 Middlesex Turnpike Bedford, MA 01730 USA
Phone: +1-781-301-8600 Fax: +1-781-301-8701
Toll-Free: 1-800-510-PURE
info@thorntoninc.com

Customer/Technical Service

Phone: +1-781-301-8690
Toll-Free: 1-800-642-4418
Cust Service Fax: +1-781-271-0214
Tech Service Fax: +1-781-271-0675

Subject to Technical Changes
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Visit for more information



Quality certificate.

Development, production and testing to ISO 9001.