



Traceable® Certificate of Analysis for Conductivity Solution

Identification

Item Number: 00652-50 Lot Analysis No. : 5217 Manufacturer: Control Company

Standards Used	Model	Serial No.	Recall Date	Reference
Cond Calibration Std 1000.6 uS	100 mS/m	05120801PHH	1/27/2007	DFM CRM0602
Conductivity Probe	CD866T	378-11-020	12/1/2006	CD88:1041
Conductivity Meter	CDM230	654R044 N025		
Temperature Calibration Bath	7011	93139		

Certificate Information

Cal Date: 6/5/2006 Technician: 68 Expiration Date: 6/5/2007

Procedure: CAL-41

Environment: 24.50 °C 45.00 %RH 1012 mb/hPa

Analysis Data

Micromho/cm 1415

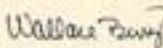
Additional Information

Microsiemen/cm 1415
Ohms/cm 707
PPM D.S. 943.3
Bath Temperature 25.0°C ±0.01°C

Expanded measurement uncertainty at K=2: ± 2.30 micromhos/cm

Accuracy

This Conductivity Solution Analysis was determined using instrumentation traceable to the National Institute of Standards and Technology. Uncertainty evaluation includes solutions under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. This uncertainty includes the combined effects of measurement error and variation among bottles. The results contained herein relate only to the analysis number listed. This certificate shall not be reproduced except in full.


Wallace Berry, Technical Manager

Storage and Handling

This certificate is valid only if the solution is not mishandled, contaminated, modified, or outdated. The solution should be open for the minimum time required to dispense the solution. Store below 25°C and above 5°C. Discard the solution under the following circumstances: if the expiration date is past due, six months after opening, or if any color, turbidity, or visible microbiological growth become evident. Solutions which have been opened are not protected from microbiological growth and may need to be discarded within one to six months after opening.

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Control Company is an ISO 17025 Accredited Calibration Laboratory. (A2LA) American Association for Laboratory Accreditation Certificate No. 1750.01.
Control Company is an ISO 9001 Accredited Company. (DNV) Det Norske Veritas Certificate No. CERT-01805-AQ-HOU-RAB.



Calibration Compatibility and Temperature Information

ANALYSIS NUMBER 5217

Compatibility Information

Traceable® Conductivity Calibration Standards are traceable to standards provided by National Institute of Standards and Technology (NIST). Traceable® Conductivity Calibration Standards are 100% compatible with all makes of conductivity equipment and are 100% compatible with all conductivity accreditation analysis requirements. This Traceable® Conductivity Calibration Standard complies with the requirements of ISO 9000 Certification. It meets accreditation requirements for U.S. Government CAP, ASTM, NCCLS, ACS, and APHA. It may be used to calibrate instruments and to determine a conductivity cell constant.

Temperature Correction Chart in micromhos/cm³

	0.0°C	0.1°C	0.2°C	0.3°C	0.4°C	0.5°C	0.6°C	0.7°C	0.8°C	0.9°C
15°C	1147	1150	1152	1155	1158	1160	1163	1166	1168	1171
16°C	1174	1176	1179	1182	1184	1187	1190	1192	1195	1198
17°C	1200	1203	1206	1208	1211	1214	1216	1219	1221	1224
18°C	1227	1229	1232	1235	1237	1240	1243	1245	1248	1251
19°C	1254	1256	1259	1262	1264	1267	1270	1272	1275	1278
20°C	1280	1283	1286	1288	1291	1294	1296	1299	1302	1304
21°C	1307	1310	1312	1315	1318	1321	1323	1326	1329	1331
22°C	1334	1337	1339	1342	1345	1347	1350	1353	1356	1358
23°C	1361	1364	1366	1369	1372	1375	1377	1380	1383	1385
24°C	1388	1391	1394	1396	1399	1402	1404	1407	1410	1413
25°C	1415	1418	1421	1423	1426	1429	1432	1434	1437	1440
26°C	1443	1445	1448	1451	1453	1456	1459	1462	1464	1467
27°C	1470	1473	1475	1478	1481	1484	1486	1489	1492	1495
28°C	1497	1500	1503	1506	1508	1511	1514	1517	1519	1522
29°C	1525	1528	1531	1533	1536	1539	1542	1544	1547	1550
30°C	1553	1555	1558	1561	1564	1567	1569	1572	1575	1578
31°C	1580	1583	1586	1589	1592	1594	1597	1600	1603	1606
32°C	1608	1611	1614	1617	1620	1622	1625	1628	1631	1634
33°C	1636	1639	1642	1645	1648	1651	1653	1656	1659	1662
34°C	1665	1668	1670	1673	1676	1679	1682	1684	1687	1690
35°C	1693	1696	1699	1702	1704	1707	1710	1713	1716	1719
<u>2.019 %</u>										

Temperature Correction Information

If your conductivity meter allows you to set a temperature coefficient (temperature correction) then the underlined number shown above is the best approximation for this specific Analysis Number for this specific Traceable® Calibration Standard. For more precise measurements use the chart. Use the above chart only if you are making absolute measurements. That is, measurements without any automatic temperature correction (temperature coefficient set to 0). Using a thermometer, measure the temperature of this standard. Shown on the chart is temperature (in the far left column) in whole degrees. Shown across the top row is temperature in tenths of a degree. Locate the measured temperature in whole numbers on the far left column, then follow across the row to the temperature in tenths of a degree. At the intersection is the value at that specific temperature. Standardize your meter using that value. Example: Measured temperature is 25.0°C. Find 25°C in the far left column, find the row 0.0°C. Where 25°C and 0.0°C intersect, read the value in micromhos/cm³.

The temperature correction chart and temperature coefficient are protected by Control Company's Copyright. All patent rights are reserved by Control Company for the algorithms used for the temperature correction chart.

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