

# Certificate of Analysis

**ICP-MS Tuning Solution  
Low Concentration**

**Catalog Number: CICM-699**

**Lot Number: CM-3945**

**Lot Issue Date: 07/21/2015**

**Expiration Date: 08/31/2017**

This Certified Reference Material (CRM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system. The analyte concentration(s) were prepared and verified by an ISO Guide 34 / ISO 17025 accredited laboratory, and compared to calibration standards independently prepared using NIST SRM(s). The certified value and uncertainty value at the 95% confidence level for each analyte is determined gravimetrically.

Analyte	True Value			Analytical Method	NIST SRM
lithium	1.00	±	0.01 µg/L	ICP / ICP-MS	3129a
yttrium	1.00	±	0.01 µg/L	ICP / ICP-MS	3167a
cerium	1.00	±	0.01 µg/L	ICP / ICP-MS	3110
thallium	1.00	±	0.01 µg/L	ICP / ICP-MS	3158
cobalt	1.00	±	0.01 µg/L	ICP / ICP-MS	3113
magnesium	1.00	±	0.01 µg/L	ICP / ICP-MS	3131a

**Matrix:** 2% nitric acid in low TOC water (< 50 ppb)

ULTRA uses purified acids, 18 megaohm double deionized water, calibrated Class A glassware, and meticulously cleaned bottles in the manufacturing of ULTRAgrade standards. Balances used in the manufacturing of this standard are calibrated with weights traceable to NIST in compliance with ANSI/NC SL Z-540-1 and ISO 9001.