

Certificate of Analysis

ICP-MS Tuning Solution
Low Concentration

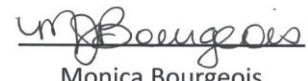
Catalog Number: CICM-699
Lot Number: CR-2319
Lot Issue Date: 05/19/2017
Expiration Date: 06/30/2019

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.


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