

Certificate of Analysis

IC Cations Mixture #1
Catalog Number: ICC-300
Lot Number: P01219
Job Number: J00015558
Lot Issue Date: 11/16/2012
Expiration Date: 12/31/2016

This Certified Reference Material (CRM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system. The analyte concentrations were verified by our ISO 17025 accredited laboratory to be within $\pm 5.0\%$, when 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
ammonium	400.0	\pm	2.0	$\mu\text{g/mL}$	IC	n/a
calcium	1000	\pm	5	$\mu\text{g/mL}$	ICP / ICP-MS	3109a
lithium	50.00	\pm	0.25	$\mu\text{g/mL}$	ICP / ICP-MS	3129a
magnesium	200.0	\pm	1.0	$\mu\text{g/mL}$	ICP / ICP-MS	3131a
potassium	200.0	\pm	1.0	$\mu\text{g/mL}$	ICP / ICP-MS	3141a
sodium	200.0	\pm	1.0	$\mu\text{g/mL}$	ICP / ICP-MS	3152a

Matrix: 0.2% nitric acid (trace) in low TOC water (< 50 ppb)

ULTRA uses purified acids, 18 megohm double deionized water, calibrated Class A glassware & 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/NCSL Z-540-1 and ISO 9001



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