

Certificate of Analysis

CLP ICP Interference Check Standard #2

Catalog Number: ICM-442

Lot Number: R00034

Job Number: J00015732

Lot Issue Date: 01/17/2013

Expiration Date: 02/28/2017

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
barium	50.00	\pm	0.25 $\mu\text{g/mL}$	ICP / ICP-MS	3104a
beryllium	50.00	\pm	0.25 $\mu\text{g/mL}$	ICP / ICP-MS	3105a
cadmium	100.0	\pm	0.5 $\mu\text{g/mL}$	ICP / ICP-MS	3108
chromium	50.00	\pm	0.25 $\mu\text{g/mL}$	ICP / ICP-MS	3112a
cobalt	50.00	\pm	0.25 $\mu\text{g/mL}$	ICP / ICP-MS	3113
copper	50.00	\pm	0.25 $\mu\text{g/mL}$	ICP / ICP-MS	3114
lead	100.0	\pm	0.5 $\mu\text{g/mL}$	ICP / ICP-MS	3128
manganese	50.00	\pm	0.25 $\mu\text{g/mL}$	ICP / ICP-MS	3132
nickel	100.0	\pm	0.5 $\mu\text{g/mL}$	ICP / ICP-MS	3136
* silver	100.0	\pm	0.5 $\mu\text{g/mL}$	ICP / ICP-MS	3151
* vanadium	50.00	\pm	0.25 $\mu\text{g/mL}$	ICP / ICP-MS	3165
zinc	100.0	\pm	0.5 $\mu\text{g/mL}$	ICP / ICP-MS	3168a

Matrix: 5% nitric acid in low TOC water (< 50 ppb)

* light sensitive

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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William J. Leary
Quality Assurance Manager