

Certificate of Analysis

ICP-MS Plasma Setup Solution

Catalog Number: IMS-133-L

Lot Number: CP-1202

Lot Issue Date: 03/16/2016

Expiration Date: 04/30/2020

This Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system. The analyte concentration(s) were prepared and verified by and ISO Guide 34 / ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte is determined gravimetrically.

Analyte	True Value			Analytical Method	NIST SRM
	Value	±	Uncertainty		
barium	10.00	±	0.05 ng/mL	ICP / ICP-MS	3104a
cerium	10.00	±	0.05 ng/mL	ICP / ICP-MS	3110
cadmium	10.00	±	0.05 ng/mL	ICP / ICP-MS	3108
copper	10.00	±	0.05 ng/mL	ICP / ICP-MS	3114
germanium	10.00	±	0.05 ng/mL	ICP / ICP-MS	3120a
magnesium	10.00	±	0.05 ng/mL	ICP / ICP-MS	3131a
lead	10.00	±	0.05 ng/mL	ICP / ICP-MS	3128
rhodium	10.00	±	0.05 ng/mL	ICP / ICP-MS	3144
scandium	10.00	±	0.05 ng/mL	ICP / ICP-MS	3148a
terbium	10.00	±	0.05 ng/mL	ICP / ICP-MS	3157a
thallium	10.00	±	0.05 ng/mL	ICP / ICP-MS	3158

Matrix: 1% nitric acid with trace hydrochloric and trace hydrofluoric acid in low TOC water (< 50 ppb)

ULTRA uses purified acids, 18 megaohm 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.