Agilent

Certificate of Analysis

ULTRAgrade^{TM} Solution
Tellurium ICP / ICP-MS Standard
1000 µg/mL

Catalog Number: ICP-052
Lot Number: CM-1205
Lot Issue Date: 03/13/2015
Expiration Date: 04/30/2022

Starting Material:	tellurium oxide
Starting Material Purity:	99.999%
Starting Material Lot #:	RM07906
Matrix:	10% hydrochloric acid in low TOC water (< 50 ppb)
Atomic Weight Te:	127.61

Certified Value: 1001 ± 2 µg/mL

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.

Classical Wet Assay Method: Theoretical, based on gravimetric measurements

Confirmation by Inductively Coupled Plasma Spectroscopy (ICP / ICP/MS) vs. NIST SRM 3156

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.

Trace Metallic Impurities in Solution Standard in µg/mL:

*	Al	<0.005	ND
*	Sb	<0.005	ND
*	As	<0.005	ND
*	Ba	<0.005	ND
*	Be	<0.005	ND
*	Bi	<0.005	ND
*	B	<0.005	ND
*	Cd	<0.005	ND
*	Ca	<0.005	D
n	Ce		
n	Cs		
*	Cr	<0.005	ND
*	Co	<0.005	ND
*	Cu	<0.005	ND
n	Dy		
*	Er	<0.005	ND
*	Eu	<0.005	ND
*	Gd	<0.005	ND
*	Ga	<0.005	ND
n	Ge		
n	Au		
n	Hf		
n	Ho		
*	In	<0.005	ND
n	Ir		
*	Fe	<0.005	ND
*	La	<0.005	ND
*	Pb	<0.005	ND
*	Li	<0.005	ND
n	Lu		
*	Mg	<0.005	ND
*	Mn	<0.005	ND
*	Hg	<0.005	ND
*	Mo	<0.005	ND
n	Nd		
*	Ni	<0.005	ND
n	Nb		
n	Os		
*	Pd	<0.005	ND
*	P	<0.005	ND
*	Pt	<0.005	ND
*	K	<0.005	D
n	Pr		
n	Re		
n	Rh		
n	Rb		
n	Ru		
n	Sm		
n	Sc		
*	Se	<0.005	ND
*	Si	<0.005	ND
*	Ag	<0.005	ND
*	Na	<0.005	D
*	Sr	<0.005	ND
n	S		
n	Ta		
s	Te		
n	Tb		
*	Tl	<0.005	ND
n	Th		
n	Tm		
*	Sn	<0.005	ND
*	Ti	<0.005	ND
n	W		
n	U		
*	V	<0.005	ND
n	Yb		
n	Y		
*	Zn	<0.005	ND
n	Zr		

* - element checked for
ND – not detected
I – spectral interference
D – detected
n – not checked for
s – solution standard element

Density of Solution (measured at 20.00°C ± 0.05°C): 1.0289 g/mL

ACCREDITED

ISO 17025:2005
Accredited
A2LA
Cert. No. 0851.01

ISO 9001:2000
Registered
TUV USA, Inc.
Cert. No. 06-1004

William J. Leary
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