

REPORT OF ANALYSIS

Single-Element Aqueous RM

Tellurium (Te) – 1000 µg/mL

Product #: LK1-00520201

Matrix: 5% HNO₃

Lot #: 710902744A-3

Element	Certified Concentration
Te	999 µg/mL (w/v)
	949 µg/g (w/w)

Intended Use: This solution is intended for use as a reference material (RM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This RM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **9001 (TUV NORD Certificate No. 44 100 16560231), ISO Guide 34, and ISO/IEC 17025 (certificate number 2848.01) by the American Association of Laboratory Accreditation (A2LA)**. This RM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using high purity tellurium (Te) metal dissolved in high purity nitric acid (HNO₃) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this RM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration was determined based upon gravimetric procedures. Secondary verification of the certified concentration was performed using ICP-OES and is traceable to **NIST SRM 3156**. The uncertainty associated with the certified concentration is ±0.5% relative, which is the sum of the estimated errors due to the purity of the raw materials, the gravimetric preparation of the solution, and transpiration through the container. This represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/mL)											
Ag <0.001	Al 0.01	As <0.001	Au <0.002	B <0.001	Ba <0.001	Be <0.001	Bi <0.001	Ca 0.02	Cd <0.001		
Ce 0.001	Co <0.001	Cr <0.001	Cs 0.003	Cu <0.001	Dy <0.001	Er <0.001	Eu <0.001	Fe 0.002	Ga <0.001		
Gd <0.001	Ge <0.001	Hf <0.001	Hg <0.002	Ho <0.001	In <0.001	Ir <0.001	K <0.3	La <0.001	Li 0.001		
Lu <0.001	Mg 0.001	Mn 0.001	Mo <0.001	Na 0.004	Nb <0.001	Nd <0.001	Ni <0.001	Os N.A.	P <0.1		
Pb <0.001	Pd <0.001	Pr <0.001	Pt <0.001	Rb <0.001	Re <0.001	Rh <0.001	Ru <0.001	S N.A.	Sb <0.001		
Sc <0.001	Se <0.003	Si <0.1	Sm <0.001	Sn <0.001	Sr <0.001	Ta <0.001	Tb <0.001	Te Major	Th <0.001		
Ti <0.001	Tl <0.001	Tm <0.001	U <0.001	V <0.001	W <0.001	Y 0.005	Yb <0.001	Zn 0.01	Zr <0.001		

N.A. = Not Analyzed

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the RM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original RM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: LabKings ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.


Chuck Goudreau, Certifying Officer

See Exp. Date on Container
Certification Date

LabKings waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.