

Certificate of analysis

Product No. 45294

Cesium Nitrate Ionization Buffer Solution

Concentration: **10,000 ± 50 µg/mL of Cesium Nitrate**Starting Material: Cs₂CO₃

Lot No.: 04-18640D

Matrix: 5% HNO₃

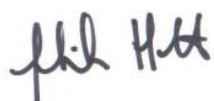
This solution is intended for use as a matrix modifier for graphite furnace atomic absorption spectroscopy (GFAA). The certified concentration is based upon gravimetric procedures, i.e., weight per volume composition of high purity raw material dissolved in high purity acid and diluted with ASTM Type I water. The uncertainty associated with the certified concentration is approximated by summing the estimated errors due to the purity of the raw material, the gravimetric preparation of the solution, and transpiration of the solution through the container wall.

NIST Traceability: All balances and class A volumetrics are calibrated regularly in accordance with NIST recommended procedures. In order to verify the concentration, the final solution was checked by plasma emission spectrometry (ICP or DCP) against NIST SRM 3111a. The following trace impurities were determined by plasma emission spectroscopy:

Trace Impurities Reported in µg/mL

Ag	<0.02	Ce	<0.3	Ge	<0.1	Mg	<0.02	Pd	<0.1	Sm	<0.04	U	<0.4
Al	<0.04	Cr	<0.02	Hf	<0.05	Mn	<0.02	Pr	<0.06	Sn	<0.1	V	<0.02
As	<0.2	Co	<0.02	Hg	<0.2	Mo	<0.04	Pt	<0.1	Sr	<0.01	W	<0.2
Au	<0.1	Cu	<0.02	Ho	<0.02	Na	0.4	Re	<0.1	Ta	<0.1	Y	<0.02
B	<0.02	Dy	<0.03	In	<0.2	Nb	<0.05	Rh	<0.02	Tb	<0.06	Yb	<0.02
Ba	0.1	Er	<0.02	Ir	<0.2	Nd	<0.05	Ru	<0.05	Te	<0.5	Zn	<0.02
Be	<0.01	Eu	<0.02	K	<0.5	Ni	<0.02	Sb	<0.2	Th	<0.2	Zr	<0.04
Bi	<0.2	Fe	<0.02	La	<0.03	Os	<0.5	Sc	<0.01	Ti	<0.02	Cs	Major
Ca	<0.05	Ga	<0.03	Li	<0.02	P	<0.2	Se	<0.5	Tl	<0.1		
Cd	<0.02	Gd	<0.07	Lu	<0.02	Pb	<0.2	Si	<0.1	Tm	<0.04		

Shelf Life: Alfa Aesar guarantees the accuracy of this Specpure® solution for one year from the shipping date, provided it is kept tightly capped and stored under normal laboratory conditions. We recommend preparing fresh working solutions daily by diluting with the same matrix and using certified class A volumetrics.



Product Specialist

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