

Product No.: 13848

## Beryllium Plasma Standard

Concentration:  $1,000 \pm 3 \mu\text{g/mL}^*$

Starting Material:  $\text{Be}_4\text{O}(\text{C}_2\text{H}_3\text{O}_2)_6$

Lot No.: 84-085804B

Matrix: 5%  $\text{HNO}_3$

Density:  $1.019 \pm 0.002 \text{ g/mL}$

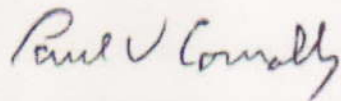
This solution is intended for use as a calibration standard for plasma emission spectroscopy (ICP or DCP). The certified concentration is based upon gravimetric procedures, i.e., weight per volume composition of high purity starting material dissolved in high purity acid and diluted with ASTM Type I water. The uncertainty associated with the certified concentration is approximated by summing the estimated errors due to the purity of the starting material, the gravimetric preparation of the solution, and transpiration of the solution through the container wall. The following trace impurities were determined by plasma emission spectroscopy:

### Trace Impurities Reported in $\mu\text{g/mL}$

Al	<.04	Ag	<.02	As	<.02	Au	<.08	B	<.02	Ba	<.02	Be	*	Bi	<.2	Ca	<.002	Cd	<.02
Ce	<.3	Co	<.02	Cr	<.02	Cs	<100	Cu	<.02	Dy	<.03	Er	<.02	Eu	<.02	Fe	<.02	Ga	<.03
Gd	<.07	Ge	<.1	Hf	<.05	Hg	<.2	Ho	<.02	In	<.2	Ir	<.2	K	<.5	La	<.03	Li	<.02
Lu	<.02	Mg	<.002	Mn	<.02	Mo	<.04	Na	<.1	Nb	<.05	Nd	<.05	Ni	<.02	Os	<.2	P	<.1
Pb	<.1	Pd	<.1	Pr	<.06	Pt	<.2	Rb	<50	Re	<.1	Rh	<.02	Ru	<.05	S	<.05	Sb	<.2
Sc	<.01	Se	<.5	Si	<.04	Sm	<.04	Sn	<.1	Sr	<.003	Ta	<.1	Tb	<.06	Te	<.5	Th	<.2
Ti	<.02	Tl	<.1	Tm	<.04	U	<.4	V	<.02	W	<.2	Y	<.02	Yb	<.01	Zn	<.02	Zr	<.04

**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 spectroscopy against NIST SRM 3105a.

**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.



Quality Control

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