1,000 µg/mL Standards

For the calibration of analytical instruments and validation of analytical methods as appropriate.

1,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Aluminum, Al	HNO_3	125 mL 500 mL	AAAL1-125ML AAAL1-500ML
Antimony, Sb	HNO_3 / Tartaric Acid	125 mL 500 mL	AASB1-125ML AASB1-500ML
Arsenic, As	HNO_3	125 mL 500 mL	AAAS1-125ML AAAS1-500ML
Barium, Ba	HNO_3	125 mL 500 mL	AABA1-125ML AABA1-500ML
Beryllium, Be	HNO_3	125 mL 500 mL	AABE1-125ML AABE1-500ML
Bismuth, Bi	HNO_3	125 mL 500 mL	AABI1-125ML AABI1-500ML
Boron, B	NH_4OH	125 mL 500 mL	AAB1-125ML AAB1-500ML
Cadmium, Cd	HNO_3	125 mL 500 mL	AACD1-125ML AACD1-500ML
Calcium, Ca	HNO_3	125 mL 500 mL	AACA1-125ML AACA1-500ML
Cerium, Ce	HNO_3	125 mL 500 mL	AACE1-125ML AACE1-500ML
Cesium, Cs	HNO_3	125 mL 500 mL	AACS1-125ML AACS1-500ML
Chromium, Cr	HNO_3	125 mL 500 mL	AACR1-125ML AACR1-500ML
Cobalt, Co	HNO_3	125 mL 500 mL	AACO1-125ML AACO1-500ML
Copper, Cu	HNO_3	125 mL 500 mL	AACU1-125ML AACU1-500ML
Dysprosium, Dy	HNO_3	125 mL 500 mL	AADY1-125ML AADY1-500ML
Erbium, Er	HNO_3	125 mL 500 mL	AAER1-125ML AAER1-500ML
Europium, Eu	HNO_3	125 mL 500 mL	AAEU1-125ML AAEU1-500ML
Gadolinium, Gd	HNO_3	125 mL 500 mL	AAGD1-125ML AAGD1-500ML
Gallium, Ga	HNO_3	125 mL 500 mL	AAGA1-125ML AAGA1-500ML
Germanium, Ge	HNO_3 / HF	125 mL 500 mL	AAGE1-125ML AAGE1-500ML
Gold, Au	HCl	125 mL 500 mL	AAAU1-125ML AAAU1-500ML
Hafnium, Hf	HNO_3 / HF	125 mL 500 mL	AAHF1-125ML AAHF1-500ML
Holmium, Ho	HNO_3	125 mL 500 mL	AAHO1-125ML AAHO1-500ML
Indium, In	HNO_3	125 mL 500 mL	AAIN1-125ML AAIN1-500ML

1,000 µg/mL Standards

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ANALYTE	MATRIX	VOLUME	CATALOG #
Iridium, Ir	HCl	125 mL 500 mL	AAIR1-125ML AAIR1-500ML
Iron, Fe	HNO_3	125 mL 500 mL	AAFE1-125ML AAFE1-500ML
Lanthanum, La	HNO_3	125 mL 500 mL	AALA1-125ML AALA1-500ML
Lead, Pb	HNO_3	125 mL 500 mL	AAPB1-125ML AAPB1-500ML
Lithium, Li	HNO_3	125 mL 500 mL	AALI1-125ML AALI1-500ML
Lutetium, Lu	HNO_3	125 mL 500 mL	AALU1-125ML AALU1-500ML
Magnesium, Mg	HNO_3	125 mL 500 mL	AAMG1-125ML AAMG1-500ML
Manganese, Mn	HNO_3	125 mL 500 mL	AAMN1-125ML AAMN1-500ML
Mercury, Hg	HNO_3	125 mL 500 mL	AAHG1-125ML AAHG1-500ML
Molybdenum, Mo	NH_4OH	125 mL 500 mL	AAMO1-125ML AAMO1-525ML
Neodymium, Nd	HNO_3	125 mL 500 mL	AAND1-125ML AAND1-500ML
Nickel, Ni	HNO_3	125 mL 500 mL	AANI1-125ML AANI1-500ML
Niobium, Nb	HNO_3 / HF	125 mL 500 mL	AANB1-125ML AANB1-500ML
Palladium, Pd	HCl	125 mL 500 mL	AAPD1-125ML AAPD1-500ML
Phosphorus, P	H_2O	125 mL 500 mL	AAP1-125ML AAP1-500ML
Platinum, Pt	HCl	125 mL 500 mL	AAPT1-125ML AAPT1-500ML
Potassium, K	HNO_3	125 mL 500 mL	AAK1-125ML AAK1-500ML
Praseodymium, Pr	HNO_3	125 mL 500 mL	AAPR1-125ML AAPR1-500ML
Rhenium, Re	HNO_3	125 mL 500 mL	AARE1-125ML AARE1-500ML
Rhodium, Rh	HCl	125 mL 500 mL	AARH1-125ML AARH1-500ML
Rubidium, Rb	HNO_3	125 mL 500 mL	AARB1-125ML AARB1-500ML
Ruthenium, Ru	HCl	125 mL 500 mL	AARU1-125ML AARU1-500ML
Samarium, Sm	HNO_3	125 mL 500 mL	AASM1-125ML AASM1-500ML
Scandium, Sc	HNO_3	125 mL 500 mL	AASC1-125ML AASC1-500ML

1,000 µg/mL Standards

1,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Selenium, Se	HNO_3	125 mL 500 mL	AASE1-125ML AASE1-500ML
Silicon, Si	HNO_3 / HF	125 mL 500 mL	AASI1-125ML AASI1-500ML
Silver, Ag	HNO_3	125 mL 500 mL	AAAG1-125ML AAAG1-500ML
Sodium, Na	HNO_3	125 mL 500 mL	AANA1-125ML AANA1-500ML
Strontium, Sr	HNO_3	125 mL 500 mL	AASR1-125ML AASR1-500ML
Sulfur, S	H_2O	125 mL 500 mL	AAS1-125ML AAS1-500ML
Tantalum, Ta	HNO_3 / HF	125 mL 500 mL	AATA1-125ML AATA1-500ML
Tellurium, Te	HCl	125 mL 500 mL	AATE1-125ML AATE1-500ML
Terbium, Tb	HNO_3	125 mL 500 mL	AATB1-125ML AATB1-500ML
Thallium, Tl	HNO_3	125 mL 500 mL	AATL1-125ML AATL1-500ML
Thorium, Th	HNO_3	125 mL 500 mL	AATH1-125ML AATH1-500ML
Thulium, Tm	HNO_3	125 mL 500 mL	AATM1-125ML AATM1-500ML
Tin, Sn	HNO_3 / HF	125 mL 500 mL	AASN1-125ML AASN1-500ML
Titanium, Ti	HNO_3 / HF	125 mL 500 mL	AATI1-125ML AATI1-500ML
Tungsten, W	HNO_3 / HF	125 mL 500 mL	AAW1-125ML AAW1-500ML
Uranium, U	HNO_3	125 mL 500 mL	AAU1-125ML AAU1-500ML
Vanadium, V	HNO_3	125 mL 500 mL	AAV1-125ML AAV1-500ML
Ytterbium, Yb	HNO_3	125 mL 500 mL	AAYB1-125ML AAYB1-500ML
Yttrium, Y	HNO_3	125 mL 500 mL	AAY1-125ML AAY1-500ML
Zinc, Zn	HNO_3	125 mL 500 mL	AAZN1-125ML AAZN1-500ML
Zirconium, Zr	HF	125 mL 500 mL	AAZR1-125ML AAZR1-500ML

MODIFIERS, BUFFERS & RELEASING AGENTS

Custom modifiers, buffers and releasing agents are available upon request.

1% Lanthanum Releasing Agent*	
LACB1	Matrix: HCl
LACB1-500ML	Volume: 500 mL
Analyte	**µg/mL**
La	10,000

Used as a releasing agent (primarily for Ca in the presence of phosphate).

2% Lithium Ionization Buffer*	
LINB2	Matrix: HNO_3
LINB2-125ML	Volume: 125 mL
Analyte	**µg/mL**
Li	20,000

Supplies an excess of electrons to plasma/flame to minimize impact of ionization interferences.

1% Magnesium Nitrate Modifier*	
MM-MG-10	Matrix: H_2O
MM-MG-10-125ML	Volume: 125 mL
Analyte	**µg/mL**
$Mg(NO_3)_2$	10,000

Used to change the volatility of the sample to prevent loss of analyte or to facilitate removal of interfering matrix components.

4% Phosphate Modifier*	
MM-P-40	Matrix: H_2O
MM-P-40-125ML	Volume: 125 mL
Analyte	**µg/mL**
PO_4	40,000

Used to change the volatility of the sample to prevent loss of analyte or to facilitate removal of interfering matrix components.

0.5% Palladium Modifier*	
MM-PD-5	Matrix: HNO_3
MM-PD-5-125ML **MM-PD-5-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Pd	5,000

Used to change the volatility of the sample to prevent loss of analyte or to facilitate removal of interfering matrix components.

1% Palladium Modifier*	
MM-PD-10	Matrix: HNO_3
MM-PD-10-125ML **MM-PD-10-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Pd	10,000

Used to change the volatility of the sample to prevent loss of analyte or to facilitate removal of interfering matrix components.

0.3% Palladium / 0.2% Magnesium Nitrate Modifier*			
MM-PDMG-32		Matrix: HNO_3	
MM-PDMG-32-125ML **MM-PDMG-32-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
$Mg(NO_3)_2$	2,000	**Pd**	3,000

Used to change the volatility of the sample to prevent loss of analyte or to facilitate removal of interfering matrix components.

*Not to be used as a calibration standard, for analytical reagent use only. ISO 17034 Reference Material; Supplied with Product Information Sheet.