

ATOMIC ABSORPTION PURO-GRAPHIC™ STANDARDS & REAGENTS

Buck Scientific, Inc. provides a complete line of Standard solutions and Spectroscopic Reagents for use on Flame, Furnace, Cold Vapor, and Hydride A.A. analyses. Buck Solutions are prepared from specially purified starting materials, 18 MegOhm Water, and high-purity CMOS grade acids to provide the lowest levels of contaminants and interferences. All our standards are analyzed by two analytical procedures to insure concentration accuracy to ± 5 PPM, and are traceable to N.I.S.T., A.S.T.M., and I.U.P.A.C. (where reference materials exist). Manufacturing practices follow very strict protocols. The organic-based standards are synthesized from pure carboxylic acids and high-purity inorganic salts. Buck employs stabilizing matrices that allow analysts to mix standards and make spike additions without significant errors or incompatibilities.



Element	Matrix	AA Grade	Organo-Metallic	Plasma Grade
		500ml - 1000PPM P/N	50ml - 5000PPM P/N	500ml - 1000PPM P/N
Aluminum	2% HNO ₃	AQ-AL	ORG-AL	PL-AL
Antimony	5% HCL	AQ-SB	ORG-SB	PL-SB
Arsenic	2% HNO ₃	AQ-AS	ORG-AS	PL-AS
Barium	2% HNO ₃	AQ-BA	ORG-BA	PL-BA
Beryllium	2% HNO ₃	AQ-BE	ORG-BE	PL-BE
Bismuth	5% HNO ₃	AQ-BI	ORG-BI	PL-BI
Boron	Water	AQ-B	ORG-B	PL-B
Cadmium	2% HNO ₃	AQ-CD	ORG-CD	PL-CD
Calcium	2% HNO ₃	AQ-CA	ORG-CA	PL-CA
Cesium	2% HNO ₃	AQ-CS	ORG-CS	PL-CS
Chromium	2% HNO ₃	AQ-CR	ORG-CR	PL-CR
Cobalt	2% HNO ₃	AQ-CO	ORG-CO	PL-CO
Copper	2% HNO ₃	AQ-CU	ORG-CU	PL-CU
Dysprosium	2% HNO ₃	AQ-DY	ORG-DY	PL-DY
Erbium	2% HNO ₃	AQ-ER	ORG-ER	PL-ER
Europium	2% HNO ₃	AQ-EU	ORG-EU	PL-EU
Gadolinium	2% HNO ₃	AQ-GD	ORG-GD	PL-GD
Gallium	2% HNO ₃	AQ-GA	ORG-GA	PL-GA
Germanium	2% HNO ₃	AQ-GE	ORG-GE	PL-GE
Gold	10% HCl	AQ-AU	ORG-AU	PL-AU
Hafnium	2% HNO ₃	AQ-HF	ORG-HF	PL-HF
Holmium	2% HNO ₃	AQ-HO	ORG-HO	PL-HO
Indium	2% HNO ₃	AQ-IN	ORG-IN	PL-IN
Iridium	10% HCl	AQ-IR	ORG-IR	PL-IR
Iron	2% HNO ₃	AQ-FE	ORG-FE	PL-FE
Lanthanum	2% HNO ₃	AQ-LA	ORG-LA	PL-LA
Lead	2% HNO ₃	AQ-PB	ORG-PB	PL-PB
Lithium	2% HNO ₃	AQ-LI	ORG-LI	PL-LI
Magnesium	2% HNO ₃	AQ-MG	ORG-MG	PL-MG
Manganese	2% HNO ₃	AQ-MN	ORG-MN	PL-MN
Mercury	5% HNO ₃	AQ-HG	ORG-HG	PL-HG

Atomic Absorption Standards are available as 1000PPM Aqueous Concentrates packaged in cleaned 500ml polyethylene bottles for best stability. They are also available as 2 ounce (50ml) bottles of 5000PPM (mg/kg) Organo-Metallic Solutions in light Mineral Oil suitable for dilution in a wide variety of solvents (hexane, MIBK, methylene chloride, kerosene, etc.). Certificates of Analyses for all Standard Solutions are available upon request.

Matrix Modifiers for Furnace work and Spectrographic Buffers for Flame procedures are prepared as concentrates to minimize sample dilution and provide a low Blank level when added to calibration standards. All solutions come with abbreviated instructions for their proper use.

Spectrographic Buffers / Releasing Agents:
(500ml bottles)

Buck P/N

- A - 1% Potassium (as Nitrate)
- B - 1% Lanthanum (as Nitrate)
- C - 1% Lanthanum (as Nitrate)

Matrix Modifiers: (100ml bottle)

Buck P/N

- D - 1.5% Ammonium Sulfate
- E - 1.5% Ammonium Nitrate
- F - 4.0% Phosphate (as Ammonium)
- G - 1.0% Magnesium Nitrate
- H - 2.0% Nickel Nitrate
- I - 0.5% Calcium Nitrate
- J - 5.0 % Lanthanum Nitrate
- K - 0.2% Palladium (as Nitrate)

Element	Matrix	AA Grade	Organo-Metallic	Plasma Grade
		500ml - 1000PPM P/N	50ml - 5000PPM P/N	500ml - 1000PPM P/N
Molybdenum	Water	AQ-MO	ORG-MO	PL-MO
Neodymium	2% NHO ₃	AQ-ND	ORG-ND	PL-ND
Nickel	2% HNO ₃	AQ-NI	ORG-NI	PL-NI
Niobium	2% NHO ₃	AQ-NB	ORG-NB	PL-NB
Osmium	10% HCl	AQ-OS	ORG-OS	PL-OS
Palladium	10% HCl	AQ-PD	ORG-PD	PL-PD
Phosphorus	2% NHO ₃	AQ-P	ORG-P	PL-P
Platinum	10% HCl	AQ-PT	ORG-PT	PL-PT
Potassium	2% NHO ₃	AQ-K	ORG-K	PL-K
Praseodymium	2% HNO ₃	AQ-PR	ORG-PR	PL-PR
Rhenium	5% HNO ₃	AQ-RE	ORG-RE	PL-RE
Rhodium	10% HCl	AQ-RH	ORG-RH	PL-RH
Rubidium	2% NHO ₃	AQ-RB	ORG-RB	PL-RB
Ruthenium	10% HCl	AQ-RU	ORG-RU	PL-RU
Samarium	2% NHO ₃	AQ-SM	ORG-SM	PL-SM
Scandium	2% HNO ₃	AQ-SC	ORG-SC	PL-SC
Selenium	2% NHO ₃	AQ-SE	ORG-SE	PL-SE
Silicon	Water	AQ-SI	ORG-SI	PL-SI
Silver	5% NHO ₃	AQ-AG	ORG-AG	PL-AG
Sodium	2% HNO ₃	AQ-NA	ORG-NA	PL-NA
Strontium	2% NHO ₃	AQ-SR	ORG-SR	PL-SR
Tantalum	2% HNO ₃	AQ-TA	ORG-TA	PL-TA
Tellurium	5% HCl	AQ-TE	ORG-TE	PL-TE
Terbium	2% NHO ₃	AQ-TB	ORG-TB	PL-TB
Thallium	2% HNO ₃	AQ-TL	ORG-TL	PL-TL
Tin	5% HCl	AQ-SN	ORG-SN	PL-SN
Tungsten	2% NHO ₃	AQ-W	ORG-W	PL-W
Uranium	5% HNO ₃	AQ-U	ORG-U	PL-U
Vanadium	2% NHO ₃	AQ-V	ORG-V	PL-V
Ytterbium	2% HNO ₃	AQ-YB	ORG-YB	PL-YB
Yttrium	2% NHO ₃	AQ-Y	ORG-Y	PL-Y
Zinc	2% HNO ₃	AQ-ZN	ORG-ZN	PL-ZN
Zirconium	2% NHO ₃	AQ-ZR	ORG-ZR	PL-ZR