

ICP Standards

Quality standards ensure consistent results

ICP-MS Certification

All of our single-element standards are certified by ICP-OES or ICP-MS to levels below parts-per-billion. Our certificate of analysis shows trace levels of 68 metals down to picogram levels. We urge you to compare this analysis to that of our competitors. You'll find a higher-purity standard does not have to cost more!

Quality Ingredients Produce Quality Standards

We realize that standards are the cornerstone of your metals laboratory, and we proudly quality check our standards at four different steps during formulation. First, the incoming base material is checked for spectral purity before lot acceptance. Then the assay is verified by ICP-OES and ICP-MS technology. Each master solution is then analyzed by ICP/MS before it is used for any formulations. Finally, all mixes are scanned by ICP to spot any formulation errors or interferences. The pride we take in our quality translates to consistency in your laboratory, and that means fewer headaches for you.

Your Custom Blend is Only Custom Once!

If you need a special formulation, look to Environmental Express for fast hassle-free service. Custom blends can usually be quoted, ordered and shipped within five days—and we'll formulate any volume that you need, from 50 mL to 100 liters! After your first order, your custom blend becomes routine. Your mix receives its own Environmental Express catalog number, making re-ordering fast and accurate.

High-purity standards are manufactured to exact specifications in an environment that is certified to ISO 9001:2008 and ISO 17025:2005 ISO 17034:2016 accredited



Single Element Standards

Element	Base metal	Matrix	1000 µg/mL	1000 µg/mL	1000 µg/mL	1000 µg/mL	10,000 µg/mL	10,000 µg/mL	10,000 µg/mL
			50 mL	100 mL	250 mL	500 mL	100 mL	250 mL	500 mL
			Catalog number	Catalog number	Catalog number	Catalog number	Catalog number	Catalog number	Catalog number
Aluminum	Al	HNO ₃	—	HP10001-1100	HP10001-1	HP10001-1500	HP10M1-1100	HP10M1-1250	HP10M1-1500
Antimony	Sb	HCl	—	HP10002-2100	HP10002-2	—	HP10M2-2100	—	—
Antimony	Sb	HNO ₃ + HF	HP10002-3-50	HP10002-3100	HP10002-3	HP10002-3500	HP10M2-3100	—	—
Arsenic	As	HNO ₃	HP10003-1-50	HP10003-1100	HP10003-1	HP10003-1500	HP10M3-1100	—	—
Arsenic +3	As ₂ O ₃	HCl	—	HP10003-6100	HP10003-6	—	—	—	—
Arsenic +5	Na ₂ HAsO ₄	H ₂ O	—	HP10003-7100	HP10003-7	—	—	—	—
Barium	BaSalt	HNO ₃	HP10004-1-50	HP10004-1100	HP10004-1	HP10004-1500	HP10M4-1100	HP10M4-1250	HP10M4-1500
Boron	H ₃ BO ₃	H ₂ O	HP10007-4-50	HP10007-4100	HP10007-4	HP10007-4500	HP5M7-4100†	—	—
Cadmium	Cd	HNO ₃	HP10008-1-50	HP10008-1100	HP10008-1	HP10008-1500	HP10M8-1100	—	—
Calcium	CaCO ₃	HNO ₃	—	HP10009-1100	HP10009-1	HP10009-1500	HP10M9-1100	HP10M9-1250	HP10M9-1500
Cerium	CeO ₂	HNO ₃	—	HP10010-1100	HP10010-1	—	HP10M10-1100	—	—
Cesium	Cs ₂ CO ₃	HNO ₃	—	HP10011-1100	HP10011-1	—	HP10M11-1100	—	—
Chromium	Cr	HNO ₃	HP10012-1-50	HP10012-1100	HP10012-1	HP10012-1500	HP10M12-1100	—	—
Chromium +6	K ₂ Cr ₂ O ₇	H ₂ O	—	HP10012-7100	HP10012-7	HP10012-7100	HP10M12-7100	—	—
Copper	Cu	HNO ₃	HP10014-1-50	HP10014-1100	HP10014-1	HP10014-1500	HP10M14-1100	—	—
Dysprosium	Dy ₂ O ₃	HNO ₃	—	HP10015-1100	HP10015-1	—	—	—	—
Erbium	Er ₂ O ₃	HNO ₃	—	HP10016-1100	—	—	—	—	—
Europium	Eu ₂ O ₃	HNO ₃	—	HP10017-1100	—	—	—	—	—
Gadolinium	Gd ₂ O ₃	HNO ₃	—	HP10018-1100	—	—	—	—	—
Gallium	Ga	HNO ₃	—	HP10019-1100	HP10019-1	—	HP10M19-1100	—	HP10M19-1500
Germanium	Ge	HNO ₃ + HF	—	HP10020-3100	HP10020-3	—	HP10M20-3100	—	—
Germanium	(NH ₄) ₂ GeF ₆	HNO ₃	—	HP10020-1100	HP10020-1	—	HP10M20-1100	—	—
Hafnium	Hf	HNO ₃ + HF	—	HP10022-3100	—	—	—	—	—
Iridium	IrCl ₄	HCl	—	HP10025-2100	HP10025-2	—	—	—	—
Iron	Fe	HNO ₃	HP10026-1-50	HP10026-1100	HP10026-1	HP10026-1500	HP10M26-1100	HP10M26-1250	HP10M26-1500
Lanthanum	La ₂ O ₃	HNO ₃	—	HP10027-1100	HP10027-1	—	HP10M27-1100	—	HP10M27-1500
Lead	Pb	HNO ₃	HP10028-1-50	HP10028-1100	HP10028-1	HP10028-1500	HP10M28-1100	HP10M28-1250	—
Magnesium	Mg	HNO ₃	—	HP10031-1100	HP10031-1	HP10031-1500	HP10M31-1100	HP10M31-1250	HP10M31-1500
Manganese	C ₄ H ₈ MnO ₄	HNO ₃	HP10032-1-50	HP10032-1100	HP10032-1	HP10032-1500	HP10M32-1100	HP10M32-1250	—
Mercury	Hg	HNO ₃	HP10033-1-50	HP10033-1100	HP10033-1	HP10033-1500	HP10M33-1100	—	—
Molybdenum-2	Mo	HCl	—	HP10034-2100	HP10034-2	HP10034-2500	HP10M34-2100	—	HP10M34-2500
Molybdenum-3	Mo	HNO ₃ + HF	HP10034-3-50	HP10034-3100	HP10034-3	HP10034-3500	HP10M34-3100	—	—
Molybdenum-4	(NH ₄) ₂ MoO ₄	H ₂ O	—	HP10034-4100	HP10034-4	—	—	—	—
Neodymium	Nd ₂ O ₃	HNO ₃	—	HP10035-1100	HP10035-1	—	—	—	—
Nickel	Ni	HNO ₃	HP10036-1-50	HP10036-1100	HP10036-1	HP10036-1500	HP10M36-1100	—	HP10M36-1500
Niobium	Nb	HNO ₃ + HF	—	HP10037-3100	HP10037-3	—	HP10M37-3100	—	—
Palladium	Pd	HNO ₃ + HCl	—	HP10038-1100	HP10038-1	—	HP10M38-1100	—	—
Palladium-2	Pd	HCl	—	HP10038-2100	HP10038-2	—	HP10M38-2100	—	—
Phosphorus	NH ₄ H ₂ PO ₄	HNO ₃	HP10039-1-50	HP10039-1100	HP10039-1	HP10039-1500	HP10M39-1100	HP10M39-1250	HP10M39-1500
Platinum	Pt	HCl	—	HP10040-2100	HP10040-2	—	HP10M40-2100	—	—
Potassium	KNO ₃	HNO ₃	HP10041-1-50	HP10041-1100	HP10041-1	HP10041-1500	HP10M41-1100	HP10M41-1250	HP10M41-1500
Praseodymium	Pr ₆ O ₁₁	HNO ₃	—	HP10042-1100	—	—	—	—	—
Rhenium	Re	HNO ₃	—	HP10043-1100	HP10043-1	—	HP10M43-1100	—	—
Rubidium	RbNO ₃	HNO ₃	—	HP10045-1100	HP10045-1	—	HP10M45-1100	—	—
Ruthenium	(NH ₄) ₂ RuCl ₆	HCl	—	HP10046-2100	HP10046-2	—	HP10M46-2100	—	—
Samarium	Sm ₂ O ₃	HNO ₃	—	HP10047-1100	—	—	HP10M47-1100	—	—
Selenium	Se	HNO ₃	HP10049-1-50	HP10049-1100	HP10049-1	HP10049-1500	HP10M49-1100	—	—
Silicon	Na ₂ SiO ₃	H ₂ O	—	HP10050-4100	HP10050-4	HP10050-4500	HP10M50-4100	—	—
Silicon-F	(NH ₄) ₂ SiF ₆	H ₂ O	—	HP10050-4F100	HP10050-4F	HP10050-4F100	HP10M50-4F100	—	HP10M50-4F-500
Silver	Ag	HNO ₃	HP10051-1-50	HP10051-1100	HP10051-1	HP10051-1500	HP10M51-1100	—	—
Sodium	Na ₂ CO ₃	HNO ₃	HP10052-1-50	HP10052-1100	HP10052-1	HP10052-1500	HP10M52-1100	HP10M52-1250	HP10M52-1500
Strontium	SrSalt	HNO ₃	—	HP10053-1100	HP10053-1	HP10053-1500	HP10M53-1100	—	—
Sulfur	H ₂ SO ₄	H ₂ O	—	HP10054-5100	HP10054-5	HP10054-5100	HP10M54-5100	HP10M54-5250	HP10M54-5500
Tantalum	Ta	HNO ₃ + HF	—	HP10055-3100	HP10055-3	—	—	—	—
Tellurium	Te	HCl	—	HP10056-2100	HP10056-2	—	HP10M56-2100	—	—
Tellurium	Te	HNO ₃ + HF	—	HP10056-3100	—	—	—	—	—
Thallium	Tl	HNO ₃	HP10058-1-50	HP10058-1100	HP10058-1	HP10058-1500	HP10M58-1100	—	—
Thorium	ThO ₂	HNO ₃	—	HP10059-1100	HP10059-1	—	—	—	—
Tin	Sn	HCl	—	HP10061-2100	HP10061-2	HP10061-2500	HP10M61-2100	—	—
Tin	Sn	HNO ₃ + HF	—	HP10061-3100	HP10061-3	—	HP10M61-3100	—	—
Titanium	Ti	HCl	—	HP10062-2100	HP10062-2	HP10062-2500	HP10M62-2100	—	—
Titanium-3	Ti	HNO ₃ + HF	—	HP10062-3100	HP10062-3	—	HP10M62-3100	—	—
Tungsten	W	HNO ₃ + HF	—	HP10063-3100	HP10063-3	—	HP10M63-3100	—	—
Uranium	UsO ₈ or UO ₂	HNO ₃	—	HP10064-1100	HP10064-1	—	HP10M64-1100	—	—
Uranium	Depleted U	HNO ₃	—	HP10064-1100DEP	HP10064-1DEP	—	HP10M64-1100DEP	—	—
Vanadium	NH ₄ VO ₃	HNO ₃	—	HP10065-1100	HP10065-1	—	HP10M65-1100	—	—
Ytterbium	Yb ₂ O ₃	HNO ₃	—	HP10066-1100	—	—	—	—	—
Zinc	Zn	HNO ₃	HP10068-1-50	HP10068-1100	HP10068-1	HP10068-1500	HP10M68-1100	—	HP10M68-1500
Zirconium	Zr	HNO ₃ + HF	—	HP10069-3100	HP10069-3	—	HP10M69-3100	—	—

Note: Starting sources and purities are subject to change. Contact us for additional volumes and other packaging options. Hazardous shipping rates apply. †Available only in 5000 µg/mL.

Internal Solutions for ICP and ICP-MS

Element	Base metal	Matrix	1000 µg/mL 50 mL	1000 µg/mL 100 mL	1000 µg/mL 250 mL	1000 µg/mL 500 mL	10,000 µg/mL 100 mL	10,000 µg/mL 250 mL	10,000 µg/mL 500 mL
			Catalog number	Catalog number	Catalog number	Catalog number	Catalog number	Catalog number	Catalog number
Beryllium	Be acetate	HNO ₃	HP10005-1-50	HP10005-1100	HP10005-1	—	HP10M5-1100	—	—
Bismuth	Bi	HNO ₃	—	HP10006-1100	HP10006-1	—	HP10M6-1100	—	—
Cobalt	Co	HNO ₃	—	HP100013-1100	HP100013-1	—	HP10M13-1100	—	—
Germanium	Ge	HNO ₃	—	HP100020-1100	HP100020-1	—	HP10M20-3100	—	—
Germanium	Ge	HNO ₃ + HF	—	HP100020-3100	HP100020-3	—	HP10M20-3100	—	—
Gold	Au	HCl	—	HP100021-2100	HP100021-2	HP100021-2500	HP10M21-2100	—	—
Holmium	Ho ₂ O ₃	HNO ₃	—	HP100023-1100	HP100023-1	—	—	—	—
Indium	In	HNO ₃	—	HP100024-1100	HP100024-1	HP100024-1500	HP10M24-1100	HP10M24-1250	—
Lithium	Li ₂ CO ₃	HNO ₃	—	HP100029-1100	HP100029-1	—	HP10M29-1100	—	—
Lithium+6	6Li ₂ CO ₃	HNO ₃	HP100029-6I100	HP100029-6I100	—	—	—	—	—
Lutetium	Lu ₂ O ₃	HNO ₃	—	HP100030-1100	—	—	—	—	—
Rhodium	RhCl ₃	HCl	—	HP100044-2100	HP100044-2	—	HP10M44-2100	—	—
Scandium	Sc ₂ O ₃	HNO ₃	—	HP100048-1100	HP100048-1	HP100048-1500	HP10M48-1100	HP10M48-1250	—
Terbium	Tb ₂ O ₃	HNO ₃	—	HP100057-1100	HP100057-1	—	HP10M57-1100	—	—
Thulium	Tm ₂ O ₃	HNO ₃	—	HP100060-1100	—	—	—	—	—
Yttrium	Y ₂ O ₃	HNO ₃	—	HP100067-1100	HP100067-1	HP100067-1500	HP10M67-1100	HP10M67-1250	HP10M67-1500

Note: Starting sources and purities are subject to change. Contact us for additional volumes and other packaging options. Hazardous shipping rates apply.



More options available

We have multi-element standards and standards for quality control, water, calibration, and interference check. We can also create **custom blends** in any volume you need from 50 mL to 100 L. Use form on next page to get started today!

Contact us today!
1-800-745-8218

ICP and MS Standards / Multi-Element Standards: Custom Blends

Your Custom Blend is only custom once!

Fill out the form below and email to sales@envexp.com with your custom blend specifications.

We will send you a quote for your blend. When you place your order, your blend will be assigned a part number and stored in our system for future reference, making re-ordering fast and accurate. Custom blends are typically quoted within a few business days. Once ordered, they usually ship within 5 business days. You can also download this form from our website.

Company Name	Account #
Your Name	Job Title
Phone	Fax
	Email

Fill out the Specifications for your Custom Blend below. Please add concentrations next to elements needed.

Volume:	Preferred Matrix:
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Does the Standard require ISO 17034 certification? (circle one): YES NO

Element	Concentration µg/mL	Element	Concentration µg/mL	Element	Concentration µg/mL
Aluminum (Al)		Indium (In)		Samarium (Sm)	
Antimony (Sb)		Iridium (Ir)		Scandium (Sc)	
Arsenic (As)		Iron (Fe)		Selenium (Se)	
Barium (Ba)		Lead (Pb)		Silicon (Si)	
Beryllium (Be)		Lithium (Li)		Silver (Ag)	
Bismuth (Bi)		Lithium 6 (Li+6)		Sodium (Na)	
Boron (B)		Lutetium (Lu)		Strontium (Sr)	
Cadmium (Cd)		Magnesium (Mg)		Sulfur (S)	
Calcium (Ca)		Manganese (Mn)		Tantalum (Ta)	
Carbon (C)		Mercury (Hg)		Tellurium (Te)	
Cerium (Ce)		Molybdenum (Mo)		Terbium (Tb)	
Cesium (Cs)		Neodymium (Nd)		Thallium (Tl)	
Chromium (Cr)		Nickel (Ni)		Thorium (Th)	
Cobalt (Co)		Niobium (Nb)		Thulium (Tm)	
Copper (Cu)		Osmium (Os)		Tin (Sn)	
Dysprosium (Dy)		Palladium (Pd)		Titanium (Ti)	
Erbium (Er)		Phosphorus (P)		Tungsten (W)	
Europium (Eu)		Platinum (Pt)		Uranium (U)	
Gadolinium (Gd)		Potassium (K)		Vanadium (V)	
Gallium (Ga)		Praseodymium (Pr)		Ytterbium (Yb)	
Germanium (Ge)		Yttrium (Y)		Rhenium (Re)	
Gold (Au)		Rhodium (Rh)		Zinc (Zn)	
Hafnium (Hf)		Rubidium (Rb)		Zirconium (Zr)	
Holmium (Ho)		Ruthenium (Ru)			

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