



*We flex to your specs*

2010-2011

INORGANIC STANDARDS & CUSTOM SOLUTIONS



Welcome to our 2010-2011 Catalog!

We are very excited at Inorganic Ventures about a number of things that we would like to share with you.

- Inorganic Ventures' official Ribbon Cutting Ceremony on October 14, 2009 marked the completion of our corporate relocation from Lakewood, New Jersey to Christiansburg, Virginia.
- On March 1, 2010 we'll be launching our new website. This will bring you online shopping improvements and a more user-friendly layout.
- In this very catalog, we've launched more than 75 new products designed to make your job easier:
  - Several new ICP-MS single element CRMs (beginning on page 12).
  - Rh in a nitric acid matrix with no trace chloride present (page 16).
  - 10,000 µg/mL Th and U CRMs (page 20).
  - Thirty-five new off-the-shelf instrument set-up, tuning and calibration solutions for your model of ICP-OES or ICP-MS (pages 26-33).
  - Three new ion chromatography CRMs (page 58).
  - Five new conductivity CRMs as low as 2 µmhos/cm (page 78).
  - A new line of pH buffers covering every pH from 2 thru 12 (pg 79).

We continue to place a strong emphasis on customer satisfaction. In that spirit, we've added several new chemists to our team who are looking forward to working with you.

In closing, I'd like to personally thank you for choosing Inorganic Ventures as your CRM manufacturer. We look forward to serving your needs in the years to come.

Paul R. Gaines, Ph.D.  
CEO & Fellow Chemist  
Serving You in Chemistry



## Dedicated...

I was given the task of developing a sample prep method for a unique suds suppressor material. Inorganic Ventures' Dr. Gaines was very helpful and was willing to spend what I considered significant consultation time with me on the phone, which saved me a bundle of time researching information through other sources.

*Tim Mills*  
Cincinnati, OH

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*We flex to your specs.* That's not just our motto—it's what we do. Inorganic Ventures is known for producing exactly what you need, when you need it. Others might come close to our quality, but no one can match our flexibility. We're small enough to avoid the bottlenecks that slow other suppliers. And since we're smaller, you'll always get support from a live person—never a computer. Yet we're big enough to have the manpower and facilities to create nearly any inorganic standard.

In every aspect of our business, from fast, friendly service to product customization, *we flex to your specs.*

## Inorganics

*A history of accreditation.* For nearly a decade, Inorganic Ventures has been registered to the three most important ISO certifications for Certified Reference Material producers (see right). Both A2LA and QMI have accredited our laboratory, giving you complete confidence in our standards. We've been registered to ISO Guide 34:2000, General Requirements for the Competence of Reference Materials Producers, longer than any other inorganic standards manufacturer. So you can rest easy knowing that our CRMs are:

- **Traceable**

We use NIST Standard Reference Materials (SRM and lot number specified on the certificate) for calibration and direct comparison.

- **Precise**

We have detailed Error Budgets that define the errors used in determining the uncertainty, giving us a unique value for each lot of material.

- **Pure**

We use ICP and ICP-MS to check the purity of all CRMs. Protocols are prepared for all new starting materials. We perform purifications and chemical modifications as required to meet predefined quality specifications.

- **Accurate**

We use two independent validated assay methods that are performed with a reliable QC standard.

- **Stable & Compatible**

We've conducted stability studies on all standards, including blends. Compatibility and stability have been demonstrated and fully documented.



### Innovative...

When they say, "We flex to your specs," they aren't kidding! Inorganic Ventures custom-made products for us that exceeded our expectations and were as well thought out, unique, and innovative as our mercury analyzers.

*Philip Dufresne*  
Cleveland, OH

## Customs

**Fast, credible, cooperative.** Whether you need two analytes or twenty, milliliters or liters, 0.001  $\mu\text{g/mL}$  or 10,000, we can make it for you—fast.

- Price quotes in hours, not days
- 99% ship in five business days or less
- Next-day RUSH manufacturing—at no additional cost

See page 8 to learn more.

## Flexible...

Inorganic Ventures has been flexible in providing us custom-blended ICP standards for about eight years. You guys have even reported the concentrations in a different format that suits our needs and makes it much easier for our analysts.

Floyd Myers  
Blacksbury, SC

## And More...

**On the web.** As one of our customers, it's important to us that you succeed. In that spirit, we invite you to visit our website at [www.inorganicventures.com](http://www.inorganicventures.com) where you'll find several indispensable tools for conducting your lab work. *Look for our new website coming March of 2010!*

**Analytical Periodic Table**  
Discover the best online tool for analytical chemists. Includes chemical compatibilities, preferred lines, major interferences, and additional data for 70+ elements.  
[www.inorganicventures.com/extras/pertable](http://www.inorganicventures.com/extras/pertable)

**ICP Operations Guide**  
A 16-part online guide intended for anyone preparing samples and standards for measurement using ICP. Topics cover many day-to-day tasks required by all operators.  
[www.inorganicventures.com/tech/icp-ops](http://www.inorganicventures.com/tech/icp-ops)

**Reliable Measurements Guide**  
An essential 17-part online guide for chemical analysts. Topics cover all phases of sample collection, preparation, measurement, and data analysis.  
[www.inorganicventures.com/tech/reliability](http://www.inorganicventures.com/tech/reliability)

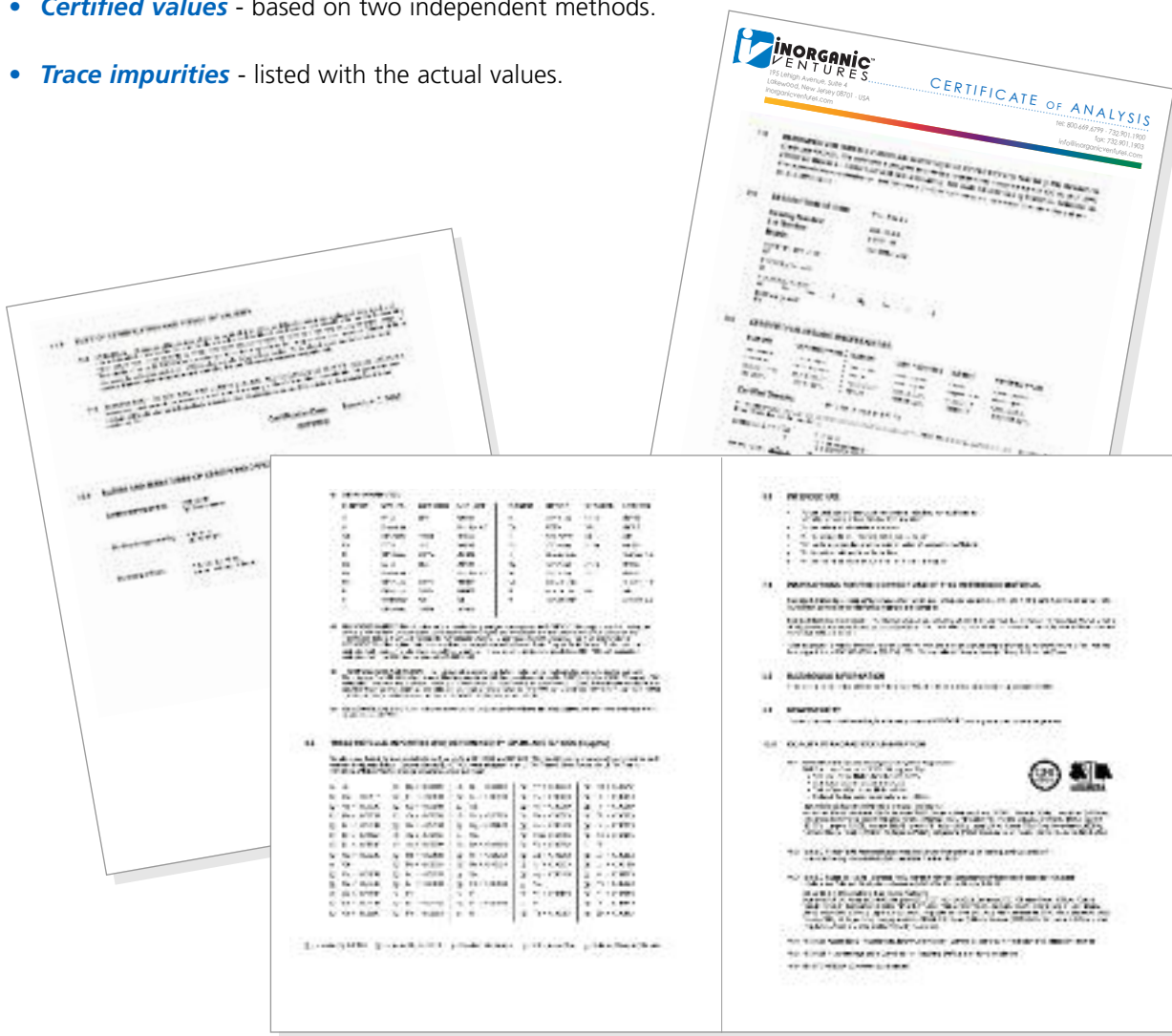
**Sample Preparation Guide**  
This expanding online guide features dozens of elements. Each part includes detailed preparation and solution chemistry for samples containing the element of interest.  
[www.inorganicventures.com/tech/samprep](http://www.inorganicventures.com/tech/samprep)

**In the lab.** Your inorganic analyses are supported every step of the way. The product documentation supplied with every standard can be referenced for traceability, impurities and certified values (see page 4). And our technical support is always available should you need a hand (see page 5).

# WE FLEX TO YOUR SPECS PRODUCT DOCUMENTATION

**Certificates of Analysis.** Our certificates probably show a lot more data than you're used to seeing, and with good reason. As a tri-tier ISO registered manufacturer, our certificates follow strict international guidelines. This ensures that they include extensive data to meet the quality prerequisites of any laboratory.

- **Traceable** - to specific NIST SRMs and lots.
- **Certified values** - based on two independent methods.
- **Trace impurities** - listed with the actual values.



You'll wonder how you ever got along without such a thorough certificate.  
[Contact us for a sample.](#)

**Material Safety Data Sheets.** Our EU-compliant 16-part MSDS format also complies with WHMIS standards for our Canadian and European customers. For samples and replacements, see our website.

*We're here to help.* Whether you need detailed assistance or quick troubleshooting, our expertise is yours for the asking. We can assist you with hundreds of topics ranging from problem elements to calculations. Technical advisors are available Monday through Friday from 8:00 AM – 6:00 PM (EST).

## Phone

- 1.800.669.6799 (US & Canada)
- 1.540.585.3030 (International)

## Email

- [info@inorganicventures.com](mailto:info@inorganicventures.com)

## Online

- [www.inorganicventures.com](http://www.inorganicventures.com)



## Tech Tips

1. Don't put pipettes directly into your standard bottles. Pour some of the standard into a disposable plastic container, remove your aliquot, and then discard the remainder.
2. Weigh your standard before storage and then just before its next use. The weight will decrease if there is significant transpiration.
3. Never use glass pipettes or transfer devices with standards containing HF. Free HF attacks glass.

*Get more technical advice at [www.inorganicventures.com](http://www.inorganicventures.com)!*



## We can assist you with...

- Sample preparation
- Spectral interferences
- Chemical compatibilities
- Various ICP & ICP-MS measurement issues

*Unquestionable integrity.* Every order that leaves our facility includes our *Declaration of Integrity*. This document guarantees, in no uncertain terms, if you're dissatisfied with your order for any reason, we'll bend over backwards to make it right.



### Committed...

We actually have Inorganic Ventures' Declaration of Integrity hanging up on our bulletin board in our office as a reminder for ourselves to provide the highest quality of service. We wouldn't think of switching to another vendor.

*James Piper*  
Mechanicsburg, PA



## Speed. Credibility. Cooperation.

We can prepare almost any inorganic blend within the boundaries of science. Whether you need two analytes or twenty, milliliters or liters, 0.001  $\mu\text{g}/\text{mL}$  or 10,000, we can make it for you — fast. It's our specialty.

**Customization** — The most prominent way that we flex to your specs.

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- ✓ **Traceable to NIST SRMs and lots**
- ✓ **Produced under ISO Guide 9001:2000**
- ✓ **Produced under ISO Guide 17025:2005**
- ✓ **Produced under ISO Guide 34:2000**
- ✓ **Assayed by optimal validated procedure**



CUSTOM STANDARDS  
TRUST THE SPECIALISTS



## If they were this easy, we'd be out of a job.

But custom blending isn't easy. It takes a specialist to do it well. And Inorganic Ventures is the only manufacturer to specialize in custom inorganic standards. We don't just make them your way, we make them the best way. Every solution is engineered to be stable, compatible and easy to use. And we make them fast—99% ship in five business days or less.

Next time you need a custom inorganic standard, contact Inorganic Ventures—*we flex to your specs.*



Our catalog reveals only a fraction of the inorganic solutions we're able to make. Much of our business is devoted entirely to custom blending. Laboratories in more than 50 countries trust us exclusively to manufacture their inorganic standards.



### Fast

Our specialization in custom blending means faster service, without sacrificing quality. Our experienced technicians can identify stability and compatibility issues before production even begins. Almost every blend we make is prepared, certified and shipped in five business days or less.



### Credible

Since 1999, our tri-tier ISO quality system has ensured that every standard we make is engineered to be stable, compatible and easy to use. These international accreditations guarantee that you're receiving a true Certified Reference Material.

- [ISO Guide 34](#) ensures the reliability of our reference materials.
- [ISO/IEC 17025](#) ensures the competency of our laboratory.
- [ISO 9001:2008](#) ensures the quality of our services.



### Cooperative

Speed and credibility often come at a higher price. But you'd be surprised how elastic that price can be. We offer specialized purchasing options and other incentives to better accommodate any budget. Just ask. We're happy to manufacture nearly any solution in bulk quantities. This prevents the need for repeat labor, which means you'll save money. Plus, there's no waiting when you reorder the material—it'll ship the day you order.

### Dependable...

Inorganic Ventures has been a super-dependable source of our custom calibration standards for ICP-MS. We have a succinct set of customs that are efficient to use, dependable and long-lasting. Inorganic Ventures is a big part of backing up our company motto: "Numbers you can count on."

*Jeff Yoshimoto  
Sparks, NV*



## Request your solutions.

Generate and request any number of custom solutions at [inorganicventures.com](http://inorganicventures.com). Or, call in your request to 1.800.669.6799 and discuss your needs with a specialist. You may also fax the quotation request form found on page 89.



## Review our quotation.

Often you'll receive our pricing in less than two hours. If you like what you see, place your order by phone, fax or web. However, if you're not happy with our quoted price, let us know. We may be able to better accommodate your budget.



## Receive your order.

99% of the custom orders we prepare ship in five business days or less. If we expect it to take longer, we'll let you know. When your need is truly urgent, we offer next-day RUSH manufacturing\* at no additional charge—just ask.

Plus, everything we make is backed by our Declaration of Integrity (see page 6). Your satisfaction is 100% guaranteed for the lifetime of the solution.

### Time-saving...

Because of our laboratory's broad calibration ranges, Inorganic Ventures has always been able to prepare wide-ranging calibration solutions for our particular operations. These customized solutions save us time and money and simplify our preparatory work considerably.

*Mark Ellison  
San Jose, CA*



\* 48-72 hour arrival time when you specify RUSH manufacturing.



Whether you use ICP or ICP-MS, we offer a wide selection of certified reference materials. At your request, we've expanded our line with more 500 mL sizes of 10,000 µg/mL standards and new instrument setup standards. And we'll continue to improve our selection based on your feedback.

**User-Driven Development** — Another fundamental way in which we flex to your specs.

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- ✓ **Traceable to NIST SRMs and lots**
- ✓ **Produced under ISO Guide 9001:2000**
- ✓ **Produced under ISO Guide 17025:2005**
- ✓ **Produced under ISO Guide 34:2000**
- ✓ **Assayed by validated Wet Chemical procedures**
- ✓ **Assayed by validated ICP-OES procedures**
- ✓ **Trace metallic impurities determined by ICP and ICP-MS**



10 µg/mL

## 10 µg/mL Standards

Custom 10 µg/mL standards are available upon request.

NEW

NEW

NEW

NEW

NEW

NEW

NEW

Analyte	Matrix	Starting Material	Volume	Catalog #
Aluminum, Al	HNO <sub>3</sub>	Al metal	125 mL	MSAL-10PPM
Antimony, Sb	HNO <sub>3</sub> / Tartaric	Sb metal	125 mL	MSSB-10PPM
Arsenic, As	HNO <sub>3</sub>	As metal	125 mL	MSAS-10PPM
Barium, Ba	HNO <sub>3</sub>	Ba(NO <sub>3</sub> ) <sub>2</sub>	125 mL	MSBA-10PPM
Beryllium, Be	HNO <sub>3</sub>	Be <sub>4</sub> O(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>6</sub>	125 mL	MSBE-10PPM
Bismuth, Bi	HNO <sub>3</sub>	Bi metal	125 mL	MSBI-10PPM
Boron, B	H <sub>2</sub> O	H <sub>3</sub> BO <sub>3</sub>	125 mL	MSB-10PPM
Cadmium, Cd	HNO <sub>3</sub>	Cd metal	125 mL	MSCD-10PPM
Calcium, Ca	HNO <sub>3</sub>	CaO	125 mL	MSCA-10PPM
Cerium, Ce	HNO <sub>3</sub>	CeO <sub>2</sub>	125 mL	MSCE-10PPM
Cesium, Cs	HNO <sub>3</sub>	CeO <sub>2</sub>	125 mL	MSCS-10PPM
Chromium <sup>+3</sup> , Cr <sup>+3</sup>	HNO <sub>3</sub>	Cr metal	125 mL	MSCR3-10PPM
Chromium <sup>+6</sup> , Cr <sup>+6</sup>	H <sub>2</sub> O	(NH <sub>4</sub> ) <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	125 mL	MSCR6-10PPM
Cobalt, Co	HNO <sub>3</sub>	Co metal	125 mL	MSCO-10PPM
Copper, Cu	HNO <sub>3</sub>	Cu metal	125 mL	MSCU-10PPM
Germanium, Ge	H <sub>2</sub> O / HNO <sub>3</sub> / HF	Ge metal	125 mL	MSGE-10PPM
Gold, Au	HCl	AuCl <sub>3</sub>	125 mL	MSAU-10PPM
Hafnium, Hf	H <sub>2</sub> O / HNO <sub>3</sub> / HF	HfO <sub>2</sub>	125 mL	MSHF-10PPM
Holmium, Ho	HNO <sub>3</sub>	Ho <sub>2</sub> O <sub>3</sub>	125 mL	MSHO-10PPM
Indium, In	HNO <sub>3</sub>	In metal	125 mL	MSIN-10PPM
Iron, Fe	HNO <sub>3</sub>	Fe metal	125 mL	MSFE-10PPM
Lead, Pb	HNO <sub>3</sub>	Pb(NO <sub>3</sub> ) <sub>2</sub>	125 mL	MSPB-10PPM
Lithium, Li	HNO <sub>3</sub>	Li <sub>2</sub> CO <sub>3</sub>	125 mL	MSLI-10PPM
<sup>6</sup> Lithium, <sup>6</sup> Li	HNO <sub>3</sub>	<sup>6</sup> Li metal	125 mL	MS6LI-10PPM
Magnesium, Mg	HNO <sub>3</sub>	Mg metal	125 mL	MSMG-10PPM
Manganese, Mn	HNO <sub>3</sub>	Mn metal	125 mL	MSMN-10PPM
Mercury, Hg	HCl	Hg metal	125 mL	MSHG-10PPM
Mercury, Hg	HNO <sub>3</sub>	Hg metal	125 mL	MSHGN-10PPM
Molybdenum, Mo	H <sub>2</sub> O / NH <sub>4</sub> OH	(NH <sub>4</sub> ) <sub>2</sub> MoO <sub>4</sub>	125 mL	MSMO-10PPM
Nickel, Ni	HNO <sub>3</sub>	Ni metal	125 mL	MSNI-10PPM
Osmium, Os	HCl	(NH <sub>4</sub> ) <sub>2</sub> OsCl <sub>6</sub>	125 mL	MSOS-10PPM
Phosphorus, P	H <sub>2</sub> O	H <sub>3</sub> PO <sub>4</sub>	125 mL	MSP-10PPM
Platinum, Pt	HCl	Pt Metal	125 mL	MSPT-10PPM
Potassium, K	HNO <sub>3</sub>	KNO <sub>3</sub>	125 mL	MSK-10PPM
Rhodium, Rh	HCl	RhCl <sub>3</sub>	125 mL	MSRH-10PPM
Rhodium, Rh	HNO <sub>3</sub>	RhNO <sub>3</sub>	125 mL	MSRHN-10PPM
Scandium, Sc	HNO <sub>3</sub>	Sc <sub>2</sub> O <sub>3</sub>	125 mL	MSSC-10PPM
Selenium, Se	HNO <sub>3</sub>	Se metal	125 mL	MSSE-10PPM
Silicon, Si	H <sub>2</sub> O / HNO <sub>3</sub> / HF	SiO <sub>2</sub>	125 mL	MSSI-10PPM
Silver, Ag	HNO <sub>3</sub>	Ag metal	125 mL	MSAG-10PPM
Sodium, Na	HNO <sub>3</sub>	Na <sub>2</sub> CO <sub>3</sub>	125 mL	MSNA-10PPM
Strontium, Sr	HNO <sub>3</sub>	SrCO <sub>3</sub>	125 mL	MSSR-10PPM
Sulfur, S	H <sub>2</sub> O	H <sub>2</sub> SO <sub>4</sub>	125 mL	MSS-10PPM
Tellurium, Te	HNO <sub>3</sub>	Te Metal	125 mL	MSTEN-10PPM
Terbium, Tb	HNO <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	125 mL	MSTB-10PPM
Thallium, Tl	HNO <sub>3</sub>	TlNO <sub>3</sub>	125 mL	MSTL-10PPM
Thorium, Th	HNO <sub>3</sub>	Th(NO <sub>3</sub> ) <sub>4</sub> ·xH <sub>2</sub> O	125 mL	MSTH-10PPM
Tin, Sn	H <sub>2</sub> O / HNO <sub>3</sub> / HF	Sn metal	125 mL	MSSN-10PPM
Titanium, Ti	HNO <sub>3</sub> / HF	Ti metal	125 mL	MSTI-10PPM
Tungsten, W	HNO <sub>3</sub> / HF	W Metal	125 mL	MSW-10PPM
Uranium, U	HNO <sub>3</sub>	UO <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub>	125 mL	MSU-10PPM
Vanadium, V	HNO <sub>3</sub>	V <sub>2</sub> O <sub>5</sub>	125 mL	MSV-10PPM
Yttrium, Y	HNO <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	125 mL	MSY-10PPM
Zinc, Zn	HNO <sub>3</sub>	Zn metal	125 mL	MSZN-10PPM

## 100 µg/mL Standards

Custom 100 µg/mL standards are available upon request.

100 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Aluminum, Al	HNO <sub>3</sub>	Al metal	125 mL	MSAL-100PPM
Antimony, Sb	HNO <sub>3</sub> / Tartaric	Sb metal	125 mL	MSSB-100PPM
Arsenic, As	HNO <sub>3</sub>	As metal	125 mL	MSAS-100PPM
Barium, Ba	HNO <sub>3</sub>	Ba(NO <sub>3</sub> ) <sub>2</sub>	125 mL	MSBA-100PPM
Beryllium, Be	HNO <sub>3</sub>	Be <sub>4</sub> O(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>6</sub>	125 mL	MSBE-100PPM
Bismuth, Bi	HNO <sub>3</sub>	Bi metal	125 mL	MSBI-100PPM
<b>NEW</b> Boron, B	H <sub>2</sub> O	H <sub>3</sub> BO <sub>3</sub>	125 mL	MSB-100PPM
Cadmium, Cd	HNO <sub>3</sub>	Cd metal	125 mL	MSCD-100PPM
Calcium, Ca	HNO <sub>3</sub>	CaO	125 mL	MSCA-100PPM
Cerium, Ce	HNO <sub>3</sub>	CeO <sub>2</sub>	125 mL	MSCE-100PPM
<b>NEW</b> Cesium, Cs	HNO <sub>3</sub>	CeO <sub>2</sub>	125 mL	MSCS-100PPM
Chromium <sup>+3</sup> , Cr <sup>+3</sup>	HNO <sub>3</sub>	Cr metal	125 mL	MSCR3-100PPM
<b>NEW</b> Chromium <sup>+6</sup> , Cr <sup>+6</sup>	H <sub>2</sub> O	(NH <sub>4</sub> ) <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	125 mL	MSCR6-100PPM
Cobalt, Co	HNO <sub>3</sub>	Co metal	125 mL	MSCO-100PPM
Copper, Cu	HNO <sub>3</sub>	Cu metal	125 mL	MSCU-100PPM
Germanium, Ge	H <sub>2</sub> O / HNO <sub>3</sub> / HF	Ge metal	125 mL	MSGE-100PPM
Gold, Au	HCl	AuCl <sub>3</sub>	125 mL	MSAU-100PPM
Hafnium, Hf	H <sub>2</sub> O / HNO <sub>3</sub> / HF	HfO <sub>2</sub>	125 mL	MSHF-100PPM
Holmium, Ho	HNO <sub>3</sub>	Ho <sub>2</sub> O <sub>3</sub>	125 mL	MSHO-100PPM
Indium, In	HNO <sub>3</sub>	In metal	125 mL	MSIN-100PPM
Iron, Fe	HNO <sub>3</sub>	Fe metal	125 mL	MSFE-100PPM
Lead, Pb	HNO <sub>3</sub>	Pb(NO <sub>3</sub> ) <sub>2</sub>	125 mL	MSPB-100PPM
Lithium, Li	HNO <sub>3</sub>	Li <sub>2</sub> CO <sub>3</sub>	125 mL	MSLI-100PPM
<sup>6</sup> Lithium, <sup>6</sup> Li	HNO <sub>3</sub>	<sup>6</sup> Li metal	125 mL	MS6LI-100PPM
Magnesium, Mg	HNO <sub>3</sub>	Mg metal	125 mL	MSMG-100PPM
Manganese, Mn	HNO <sub>3</sub>	Mn metal	125 mL	MSMN-100PPM
Mercury, Hg	HCl	Hg metal	125 mL	MSHG-100PPM
<b>NEW</b> Mercury, Hg	HNO <sub>3</sub>	Hg metal	125 mL	MSHGN-100PPM
Molybdenum, Mo	H <sub>2</sub> O / NH <sub>4</sub> OH	(NH <sub>4</sub> ) <sub>2</sub> MoO <sub>4</sub>	125 mL	MSMO-100PPM
<b>NEW</b> Nickel, Ni	HNO <sub>3</sub>	Ni metal	125 mL	MSNI-100PPM
Osmium, Os	HCl	(NH <sub>4</sub> ) <sub>2</sub> OsCl <sub>6</sub>	125 mL	MSOS-100PPM
Phosphorus, P	H <sub>2</sub> O	H <sub>3</sub> PO <sub>4</sub>	125 mL	MSP-100PPM
Platinum, Pt	HCl	Pt Metal	125 mL	MSPT-100PPM
Potassium, K	HNO <sub>3</sub>	KNO <sub>3</sub>	125 mL	MSK-100PPM
Rhodium, Rh	HCl	RhCl <sub>3</sub>	125 mL	MSRH-100PPM
<b>NEW</b> Rhodium, Rh	HNO <sub>3</sub>	RhNO <sub>3</sub>	125 mL	MSRHN-100PPM
Scandium, Sc	HNO <sub>3</sub>	Sc <sub>2</sub> O <sub>3</sub>	125 mL	MSSC-100PPM
Selenium, Se	HNO <sub>3</sub>	Se metal	125 mL	MSSE-100PPM
Silicon, Si	H <sub>2</sub> O / HNO <sub>3</sub> / HF	SiO <sub>2</sub>	125 mL	MSSI-100PPM
Silver, Ag	HNO <sub>3</sub>	Ag metal	125 mL	MSAG-100PPM
Sodium, Na	HNO <sub>3</sub>	Na <sub>2</sub> CO <sub>3</sub>	125 mL	MSNA-100PPM
Strontium, Sr	HNO <sub>3</sub>	SrCO <sub>3</sub>	125 mL	MSSR-100PPM
Sulfur, S	H <sub>2</sub> O	H <sub>2</sub> SO <sub>4</sub>	125 mL	MSS-100PPM
Tellurium, Te	HNO <sub>3</sub>	Te metal	125 mL	MSTEN-100PPM
Terbium, Tb	HNO <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	125 mL	MSTB-100PPM
Thallium, Tl	HNO <sub>3</sub>	TlNO <sub>3</sub>	125 mL	MSTL-100PPM
Thorium, Th	HNO <sub>3</sub>	Th(NO <sub>3</sub> ) <sub>4</sub> ·xH <sub>2</sub> O	125 mL	MSTH-100PPM
Tin, Sn	H <sub>2</sub> O / HNO <sub>3</sub> / HF	Sn metal	125 mL	MSSN-100PPM
Titanium, Ti	HNO <sub>3</sub> / HF	Ti metal	125 mL	MSTI-100PPM
Tungsten, W	HNO <sub>3</sub> / HF	W Metal	125 mL	MSW-100PPM
Uranium, U	HNO <sub>3</sub>	UO <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub>	125 mL	MSU-100PPM
Vanadium, V	HNO <sub>3</sub>	V <sub>2</sub> O <sub>5</sub>	125 mL	MSV-100PPM
Yttrium, Y	HNO <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	125 mL	MSY-100PPM
Zinc, Zn	HNO <sub>3</sub>	Zn metal	125 mL	MSZN-100PPM

1000 µg/mL

## 1000 µg/mL Standards

Custom 1000 µg/mL standards are available upon request.

Analyte	Matrix	Starting Material	Volume	Catalog #
<b>Aluminum, Al</b>	HNO <sub>3</sub>	Al metal	125 mL 500 mL	CGAL1-1 CGAL1-5
<b>Aluminum, Al</b>	HCl	Al metal	125 mL 500 mL	CGALCL1-1 CGALCL1-5
<b>Antimony, Sb</b>	HNO <sub>3</sub> / Tartaric Acid	Sb metal	125 mL 500 mL	CGSB1-1 CGSB1-5
<b>Antimony, Sb</b>	HNO <sub>3</sub> / HF	Sb metal	125 mL 500 mL	CGSBF1-1 CGSBF1-5
<b>Arsenic, As</b>	HNO <sub>3</sub>	As metal	125 mL 500 mL	CGAS1-1 CGAS1-5
<b>Barium, Ba</b>	HNO <sub>3</sub>	Ba(NO <sub>3</sub> ) <sub>2</sub>	125 mL 500 mL	CGBA1-1 CGBA1-5
<b>Beryllium, Be</b>	HNO <sub>3</sub>	Be <sub>4</sub> O(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>6</sub>	125 mL 500 mL	CGBE1-1 CGBE1-5
<b>Bismuth, Bi</b> Can be used as an Internal Standard for ICP-MS.	HNO <sub>3</sub>	Bi metal	125 mL 500 mL	CGBI1-1 CGBI1-5
<b>Boron, B</b>	H <sub>2</sub> O	H <sub>3</sub> BO <sub>3</sub>	125 mL 500 mL	CGB1-1 CGB1-5
<b>Bromide, Br<sup>-</sup></b> To be used for analyzing Bromide by ICP-OES.	H <sub>2</sub> O	NH <sub>4</sub> Br	125 mL 500 mL	CGICBR1-1 CGICBR1-5
<b>Cadmium, Cd</b>	HNO <sub>3</sub>	Cd metal	125 mL 500 mL	CGCD1-1 CGCD1-5
<b>Calcium, Ca</b>	HNO <sub>3</sub>	CaO	125 mL 500 mL	CGCA1-1 CGCA1-5
<b>Carbon, C</b>	HNO <sub>3</sub>	Tartaric acid	125 mL 500 mL	CGC1-1 CGC1-5
<b>Cerium, Ce</b>	HNO <sub>3</sub>	CeO <sub>2</sub>	125 mL 500 mL	CGCE1-1 CGCE1-5
<b>Cesium, Cs</b>	HNO <sub>3</sub>	CsNO <sub>3</sub>	125 mL 500 mL	CGCS1-1 CGCS1-5
<b>Chloride, Cl<sup>-</sup></b> To be used for analyzing Chloride by ICP-OES.	H <sub>2</sub> O	NH <sub>4</sub> Cl	125 mL 500 mL	CGICCL1-1 CGICCL1-5
<b>Chromium<sup>+3</sup>, Cr<sup>+3</sup></b>	HNO <sub>3</sub>	Cr metal	125 mL 500 mL	CGCR31-1 CGCR31-5
<b>Chromium<sup>+6</sup>, Cr<sup>+6</sup></b>	H <sub>2</sub> O	(NH <sub>4</sub> ) <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	125 mL 500 mL	CGCR61-1 CGCR61-5
<b>Cobalt, Co</b>	HNO <sub>3</sub>	Co metal	125 mL 500 mL	CGCO1-1 CGCO1-5
<b>Copper, Cu</b>	HNO <sub>3</sub>	Cu metal	125 mL 500 mL	CGCU1-1 CGCU1-5
<b>Dysprosium, Dy</b>	HNO <sub>3</sub>	Dy <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGDY1-1 CGDY1-5
<b>Erbium, Er</b>	HNO <sub>3</sub>	Er <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGER1-1 CGER1-5
<b>Europium, Eu</b>	HNO <sub>3</sub>	Eu <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGEU1-1 CGEU1-5

**1000 µg/mL Standards** (continued)

Custom 1000 µg/mL standards are available upon request.

**1000 µg/mL**

Analyte	Matrix	Starting Material	Volume	Catalog #
<b>Gadolinium, Gd</b>	HNO <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGGD1-1 CGGD1-5
<b>Gallium, Ga</b>	HNO <sub>3</sub>	Ga metal	125 mL 500 mL	CGGA1-1 CGGA1-5
<b>Germanium, Ge</b>	H <sub>2</sub> O / HNO <sub>3</sub> / HF	Ge metal	125 mL 500 mL	CGGE1-1 CGGE1-5
<b>Gold, Au</b>	HCl	AuCl <sub>3</sub>	125 mL 500 mL	CGAU1-1 CGAU1-5
<b>Gold, Au</b>	HNO <sub>3</sub>	AuCl <sub>3</sub>	125 mL 500 mL	CGAUN1-1 CGAUN1-5
<b>Hafnium, Hf</b>	H <sub>2</sub> O / HNO <sub>3</sub> / HF	HfO <sub>2</sub>	125 mL 500 mL	CGHF1-1 CGHF1-5
<b>Holmium, Ho</b>	HNO <sub>3</sub>	Ho <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGHO1-1 CGHO1-5
<small>Can be used as an Internal Standard for ICP-MS.</small>				
<b>Indium, In</b>	HNO <sub>3</sub>	In metal	125 mL 500 mL	CGIN1-1 CGIN1-5
<small>Can be used as an Internal Standard for ICP-MS.</small>				
<b>Iodide, I<sup>-</sup></b>	H <sub>2</sub> O / stabilizer	NH <sub>4</sub> I	125 mL 500 mL	ICI1-1 ICI1-5
<small>Can be used for analyzing Iodide by ICP-OES.</small>				
<b>Iridium, Ir</b>	HCl	IrCl <sub>3</sub>	125 mL 500 mL	CGIR1-1 CGIR1-5
<b>Iron, Fe</b>	HNO <sub>3</sub>	Fe metal	125 mL 500 mL	CGFE1-1 CGFE1-5
<b>Lanthanum, La</b>	HNO <sub>3</sub>	La <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGLA1-1 CGLA1-5
<b>Lead, Pb</b>	HNO <sub>3</sub>	Pb(NO <sub>3</sub> ) <sub>2</sub>	125 mL 500 mL	CGPB1-1 CGPB1-5
<b>Lithium, Li</b>	HNO <sub>3</sub>	Li <sub>2</sub> CO <sub>3</sub>	125 mL 500 mL	CGLI1-1 CGLI1-5
<b><sup>6</sup>Lithium, <sup>6</sup>Li</b>	HNO <sub>3</sub>	<sup>6</sup> Li metal	125 mL 500 mL	CG6LI1-1 CG6LI1-5
<small>Can be used as an Internal Standard for ICP-MS.</small>				
<b>Lutetium, Lu</b>	HNO <sub>3</sub>	Lu <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGLU1-1 CGLU1-5
<b>Magnesium, Mg</b>	HNO <sub>3</sub>	Mg metal	125 mL 500 mL	CGMG1-1 CGMG1-5
<b>Manganese, Mn</b>	HNO <sub>3</sub>	Mn metal	125 mL 500 mL	CGMN1-1 CGMN1-5
<b>Mercury, Hg</b>	HNO <sub>3</sub>	Hg metal	125 mL 500 mL	CGHG1-1 CGHG1-5
<b>Molybdenum, Mo</b>	H <sub>2</sub> O / NH <sub>4</sub> OH	(NH <sub>4</sub> ) <sub>2</sub> MoO <sub>4</sub>	125 mL 500 mL	CGMO1-1 CGMO1-5
<b>Neodymium, Nd</b>	HNO <sub>3</sub>	Nd <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGND1-1 CGND1-5
<b>Nickel, Ni</b>	HNO <sub>3</sub>	Ni metal	125 mL 500 mL	CGNI1-1 CGNI1-5
<b>Niobium, Nb</b>	H <sub>2</sub> O / HNO <sub>3</sub> / HF	Nb metal	125 mL 500 mL	CGNB1-1 CGNB1-5

**1000 µg/mL Standards** (continued)

Custom 1000 µg/mL standards are available upon request.

1000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
<b>Osmium, Os</b>	HCl	(NH <sub>4</sub> ) <sub>2</sub> OsCl <sub>6</sub>	125 mL	CGOS1-1
			500 mL	CGOS1-5
<b>Palladium, Pd</b>	HNO <sub>3</sub>	Pd(NO <sub>3</sub> ) <sub>2</sub>	125 mL	CGPDN1-1
			500 mL	CGPDN1-5
<b>Palladium, Pd</b>	HCl	Pd(NO <sub>3</sub> ) <sub>2</sub>	125 mL 500 mL	CGPD1-1 CGPD1-5
<b>Phosphorus, P</b>	H <sub>2</sub> O	H <sub>3</sub> PO <sub>4</sub>	125 mL 500 mL	CGP1-1 CGP1-5
<b>Platinum, Pt</b>	HNO <sub>3</sub> / HCl	Pt metal	125 mL	CGPTN1-1
			500 mL	CGPTN1-5
<b>Platinum, Pt</b>	HCl	Pt metal	125 mL 500 mL	CGPT1-1 CGPT1-5
<b>Potassium, K</b>	HNO <sub>3</sub>	KNO <sub>3</sub>	125 mL 500 mL	CGK1-1 CGK1-5
<b>Praseodymium, Pr</b>	HNO <sub>3</sub>	Pr <sub>6</sub> O <sub>11</sub>	125 mL 500 mL	CGPR1-1 CGPR1-5
<b>Rhenium, Re</b>	HNO <sub>3</sub>	Re metal	125 mL 500 mL	CGRE1-1 CGRE1-5
<b>Rhodium, Rh</b>	HCl	RhCl <sub>3</sub>	125 mL 500 mL	CGRH1-1 CGRH1-5
<b>Rhodium, Rh</b>	HNO <sub>3</sub>	RhNO <sub>3</sub>	125 mL 500 mL	CGRHN1-1 CGRHN1-5
<b>Rubidium, Rb</b>	HNO <sub>3</sub>	RbNO <sub>3</sub>	125 mL 500 mL	CGRB1-1 CGRB1-5
<b>Ruthenium, Ru</b>	HCl	NH <sub>4</sub> RuCl <sub>6</sub>	125 mL 500 mL	CGRU1-1 CGRU1-5
<b>Samarium, Sm</b>	HNO <sub>3</sub>	Sm <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGSM1-1 CGSM1-5
<b>Scandium, Sc</b>	HNO <sub>3</sub>	Sc <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGSC1-1 CGSC1-5
<b>Selenium<sup>+4</sup>, Se<sup>+4</sup></b>	HNO <sub>3</sub>	Se metal	125 mL 500 mL	CGSE41-1 CGSE41-5
<b>Silica, SiO<sub>2</sub></b>	HNO <sub>3</sub> / HF	SiO <sub>2</sub>	125 mL	CGSIO1-1
			500 mL	CGSIO1-5
<b>Silica, SiO<sub>2</sub></b>	NaOH	SiO <sub>2</sub>	125 mL 500 mL	CGSIONA1-1 CGSIONA1-5
<b>Silicon, Si</b>	H <sub>2</sub> O / HNO <sub>3</sub> / HF	SiO <sub>2</sub>	125 mL 500 mL	CGSI1-1 CGSI1-5
<b>Silicon, Si</b>	NaOH	SiO <sub>2</sub>	125 mL 500 mL	CGSINA1-1 CGSINA1-5
<b>Silver, Ag</b>	HNO <sub>3</sub>	Ag metal	125 mL 500 mL	CGAG1-1 CGAG1-5
<b>Sodium, Na</b>	HNO <sub>3</sub>	Na <sub>2</sub> CO <sub>3</sub>	125 mL 500 mL	CGNA1-1 CGNA1-5
<b>Strontium, Sr</b>	HNO <sub>3</sub>	SrCO <sub>3</sub>	125 mL 500 mL	CGSR1-1 CGSR1-5
<b>Sulfur, S</b>	H <sub>2</sub> O	Methanesulfonic acid	125 mL	CGMSA1-1
			500 mL	CGMSA1-5

**NEW**

Can be used as an Internal Standard for ICP-MS.

Can be used as an Internal Standard for ICP-MS.

Can be used as an Internal Standard for ICP-MS.

Prevents incompatibility issues when mixing with Ba and Pb.

**1000 µg/mL Standards** (continued)

Custom 1000 µg/mL standards are available upon request.

**1000 µg/mL**

Analyte	Matrix	Starting Material	Volume	Catalog #
<b>Sulfur, S</b>	H <sub>2</sub> O	H <sub>2</sub> SO <sub>4</sub>	125 mL 500 mL	CGS1-1 CGS1-5
<b>Tantalum, Ta</b>	HNO <sub>3</sub> / HF	Ta metal	125 mL 500 mL	CGTA1-1 CGTA1-5
<b>Tellurium, Te</b>	HCl	Te metal	125 mL 500 mL	CGTE1-1 CGTE1-5
<b>Tellurium, Te</b>	HNO <sub>3</sub>	Te metal	125 mL 500 mL	CGTEN1-1 CGTEN1-5
<b>Terbium, Tb</b> <small>Can be used as an Internal Standard for ICP-MS.</small>	HNO <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	125 mL 500 mL	CGTB1-1 CGTB1-5
<b>Thallium, Tl</b>	HNO <sub>3</sub>	TlNO <sub>3</sub>	125 mL 500 mL	CGTL1-1 CGTL1-5
<b>Thorium, Th</b>	HNO <sub>3</sub>	Th(NO <sub>3</sub> ) <sub>4</sub> ·xH <sub>2</sub> O	125 mL 500 mL	CGTH1-1 CGTH1-5
<b>Thulium, Tm</b>	HNO <sub>3</sub>	Tm <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGTM1-1 CGTM1-5
<b>Tin, Sn</b>	HCl	Sn metal	125 mL 500 mL	CGSNCL1-1 CGSNCL1-5
<b>Tin, Sn</b>	H <sub>2</sub> O / HNO <sub>3</sub> / HF	Sn metal	125 mL 500 mL	CGSN1-1 CGSN1-5
<b>Titanium, Ti</b>	HNO <sub>3</sub> / HF	Ti metal	125 mL 500 mL	CGTI1-1 CGTI1-5
<b>Tungsten, W</b>	HNO <sub>3</sub> / HF	W metal	125 mL 500 mL	CGW1-1 CGW1-5
<b>Uranium, U</b>	HNO <sub>3</sub>	UO <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub>	125 mL 500 mL	CGU1-1 CGU1-5
<b>Vanadium, V</b>	HNO <sub>3</sub>	V <sub>2</sub> O <sub>5</sub>	125 mL 500 mL	CGV1-1 CGV1-5
<b>Ytterbium, Yb</b>	HNO <sub>3</sub>	Yb <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGYB1-1 CGYB1-5
<b>Yttrium, Y</b> <small>Can be used as an Internal Standard for ICP-MS.</small>	HNO <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGY1-1 CGY1-5
<b>Zinc, Zn</b>	HNO <sub>3</sub>	Zn metal	125 mL 500 mL	CGZN1-1 CGZN1-5
<b>Zirconium, Zr</b>	H <sub>2</sub> O / HNO <sub>3</sub> / HF	ZrO <sub>2</sub>	125 mL 500 mL	CGZR1-1 CGZR1-5

**Exceptional...**

The quality of Inorganic Ventures' service is exceptional. There's always a live person when you call and I always get a response to every inquiry. With their level of quality in products and service, they've become the "NORDSTROM" of the "standards" industry.

*Sally Gemora  
Hayward, CA*

**10,000 µg/mL Standards**

Custom 10,000 µg/mL standards are available upon request.

**10,000 µg/mL**

Analyte	Matrix	Starting Material	Volume	Catalog #
<b>Aluminum, Al</b>	HNO <sub>3</sub>	Al metal	125 mL 500 mL	CGAL10-1 CGAL10-5
<b>Antimony, Sb</b>	HNO <sub>3</sub> / Tartaric Acid	Sb metal	125 mL 500 mL	CGSB10-1 CGSB10-5
<b>Arsenic, As</b>	HNO <sub>3</sub>	As metal	125 mL 500 mL	CGAS10-1 CGAS10-5
<b>Barium, Ba</b>	HNO <sub>3</sub>	Ba(NO <sub>3</sub> ) <sub>2</sub>	125 mL 500 mL	CGBA10-1 CGBA10-5
<b>Beryllium, Be</b>	HNO <sub>3</sub>	Be <sub>4</sub> O(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>6</sub>	125 mL 500 mL	CGBE10-1 CGBE10-5
<b>Bismuth, Bi</b>	HNO <sub>3</sub>	Bi metal	125 mL 500 mL	CGBI10-1 CGBI10-5
<b>Boron, B</b>	NH <sub>4</sub> OH	H <sub>3</sub> BO <sub>3</sub>	125 mL 500 mL	CGB10-1 CGB10-5
<b>Cadmium, Cd</b>	HNO <sub>3</sub>	Cd metal	125 mL 500 mL	CGCD10-1 CGCD10-5
<b>Calcium, Ca</b>	HNO <sub>3</sub>	CaO	125 mL 500 mL	CGCA10-1 CGCA10-5
<b>Carbon, C</b>	HNO <sub>3</sub>	Tartaric acid	125 mL 500 mL	CGC10-1 CGC10-5
<b>Cerium, Ce</b>	HNO <sub>3</sub>	CeO <sub>2</sub>	125 mL 500 mL	CGCE10-1 CGCE10-5
<b>Cesium, Cs</b>	HNO <sub>3</sub>	CsNO <sub>3</sub>	125 mL 500 mL	CGCS10-1 CGCS10-5
<b>Chromium<sup>+3</sup>, Cr<sup>+3</sup></b>	HNO <sub>3</sub>	Cr metal	125 mL 500 mL	CGCR310-1 CGCR310-5
<b>Cobalt, Co</b> <small>Can be used as an Internal Standard for ICP-OES</small>	HNO <sub>3</sub>	Co metal	125 mL 500 mL	CGCO10-1 CGCO10-5
<b>Copper, Cu</b>	HNO <sub>3</sub>	Cu metal	125 mL 500 mL	CGCU10-1 CGCU10-5
<b>Dysprosium, Dy</b>	HNO <sub>3</sub>	Dy <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGDY10-1 CGDY10-5
<b>Erbium, Er</b>	HNO <sub>3</sub>	Er <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGER10-1 CGER10-5
<b>Europium, Eu</b>	HNO <sub>3</sub>	Eu <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGEU10-1 CGEU10-5
<b>Gadolinium, Gd</b>	HNO <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGGD10-1 CGGD10-5
<b>Gallium, Ga</b>	HNO <sub>3</sub>	Ga metal	125 mL 500 mL	CGGA10-1 CGGA10-5
<b>Germanium, Ge</b>	H <sub>2</sub> O / HNO <sub>3</sub> / HF	Ge metal	125 mL 500 mL	CGGE10-1 CGGE10-5
<b>Gold, Au</b>	HCl	AuCl <sub>3</sub>	125 mL 500 mL	CGAU10-1 CGAU10-5
<b>Hafnium, Hf</b>	HNO <sub>3</sub> / HF	HfO <sub>2</sub>	125 mL 500 mL	CGHF10-1 CGHF10-5
<b>Holmium, Ho</b>	HNO <sub>3</sub>	Ho <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGHO10-1 CGHO10-5

**10,000 µg/mL Standards** (continued)

Custom 10,000 µg/mL standards are available upon request.

**10,000 µg/mL**

Analyte	Matrix	Starting Material	Volume	Catalog #
<b>Indium, In</b>	HNO <sub>3</sub>	In metal	125 mL 500 mL	CGIN10-1 CGIN10-5
Can be used as an Internal Standard for ICP-OES.				
<b>Iridium, Ir</b>	HCl	IrCl <sub>3</sub>	125 mL 500 mL	CGIR10-1 CGIR10-5
<b>Iron, Fe</b>	HNO <sub>3</sub>	Fe metal	125 mL 500 mL	CGFE10-1 CGFE10-5
<b>Lanthanum, La</b>	HNO <sub>3</sub>	La <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGLA10-1 CGLA10-5
<b>Lead, Pb</b>	HNO <sub>3</sub>	Pb(NO <sub>3</sub> ) <sub>2</sub>	125 mL 500 mL	CGPB10-1 CGPB10-5
<b>Lithium, Li</b>	HNO <sub>3</sub>	Li <sub>2</sub> CO <sub>3</sub>	125 mL 500 mL	CGLI10-1 CGLI10-5
<b>Lutetium, Lu</b>	HNO <sub>3</sub>	Lu <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGLU10-1 CGLU10-5
<b>Magnesium, Mg</b>	HNO <sub>3</sub>	Mg metal	125 mL 500 mL	CGMG10-1 CGMG10-5
<b>Manganese, Mn</b>	HNO <sub>3</sub>	Mn metal	125 mL 500 mL	CGMN10-1 CGMN10-5
<b>Mercury, Hg</b>	HNO <sub>3</sub>	Hg metal	125 mL 500 mL	CGHG10-1 CGHG10-5
<b>Molybdenum, Mo</b>	H <sub>2</sub> O / NH <sub>4</sub> OH	(NH <sub>4</sub> ) <sub>2</sub> MoO <sub>4</sub>	125 mL 500 mL	CGMO10-1 CGMO10-5
<b>Neodymium, Nd</b>	HNO <sub>3</sub>	Nd <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGND10-1 CGND10-5
<b>Nickel, Ni</b>	HNO <sub>3</sub>	Ni metal	125 mL 500 mL	CGNI10-1 CGNI10-5
<b>Niobium, Nb</b>	H <sub>2</sub> O / HNO <sub>3</sub> / HF	Nb metal	125 mL 500 mL	CGNB10-1 CGNB10-5
<b>Palladium, Pd</b>	HCl	Pd(NO <sub>3</sub> ) <sub>2</sub>	125 mL 500 mL	CGPD10-1 CGPD10-5
<b>Phosphorus, P</b>	H <sub>2</sub> O	H <sub>3</sub> PO <sub>4</sub>	125 mL 500 mL	CGP10-1 CGP10-5
<b>Platinum, Pt</b>	HCl	Pt metal	125 mL 500 mL	CGPT10-1 CGPT10-5
<b>Potassium, K</b>	HNO <sub>3</sub>	KNO <sub>3</sub>	125 mL 500 mL	CGK10-1 CGK10-5
<b>Praseodymium, Pr</b>	HNO <sub>3</sub>	Pr <sub>6</sub> O <sub>11</sub>	125 mL 500 mL	CGPR10-1 CGPR10-5
<b>Rhenium, Re</b>	HNO <sub>3</sub>	Re metal	125 mL 500 mL	CGRE10-1 CGRE10-5
<b>Rhodium, Rh</b>	HCl	RhCl <sub>3</sub>	125 mL 500 mL	CGRH10-1 CGRH10-5
<b>Rubidium, Rb</b>	HNO <sub>3</sub>	RbNO <sub>3</sub>	125 mL 500 mL	CGRB10-1 CGRB10-5
<b>Ruthenium, Ru</b>	HCl	NH <sub>4</sub> RuCl <sub>6</sub>	125 mL 500 mL	CGRU10-1 CGRU10-5

**10,000 µg/mL Standards** (continued)

Custom 10,000 µg/mL standards are available upon request.

**10,000 µg/mL**

Analyte	Matrix	Starting Material	Volume	Catalog #
<b>Samarium, Sm</b>	HNO <sub>3</sub>	Sm <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGSM10-1 CGSM10-5
<b>Scandium, Sc</b>	HNO <sub>3</sub>	Sc <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGSC10-1 CGSC10-5
<small>Can be used as an Internal Standard for ICP-OES.</small>				
<b>Selenium, Se</b>	HNO <sub>3</sub>	Se metal	125 mL 500 mL	CGSE10-1 CGSE10-5
<b>Silicon, Si</b>	HNO <sub>3</sub> / HF	SiO <sub>2</sub>	125 mL 500 mL	CGSI10-1 CGSI10-5
<b>Silver, Ag</b>	HNO <sub>3</sub>	Ag metal	125 mL 500 mL	CGAG10-1 CGAG10-5
<b>Sodium, Na</b>	HNO <sub>3</sub>	Na <sub>2</sub> CO <sub>3</sub>	125 mL 500 mL	CGNA10-1 CGNA10-5
<b>Strontium, Sr</b>	HNO <sub>3</sub>	SrCO <sub>3</sub>	125 mL 500 mL	CGSR10-1 CGSR10-5
<b>Sulfur, S</b>	H <sub>2</sub> O	Methanesulfonic acid	125 mL 500 mL	CGMSA10-1 CGMSA10-5
<small>Prevents incompatibility issues when mixing with Ba and Pb.</small>				
<b>Sulfur, S</b>	H <sub>2</sub> O	H <sub>2</sub> SO <sub>4</sub>	125 mL 500 mL	CGS10-1 CGS10-5
<b>Tantalum, Ta</b>	HNO <sub>3</sub> / HF	Ta metal	125 mL 500 mL	CGTA10-1 CGTA10-5
<b>Tellurium, Te</b>	HCl	Te metal	125 mL 500 mL	CGTE10-1 CGTE10-5
<b>Terbium, Tb</b>	HNO <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	125 mL 500 mL	CGTB10-1 CGTB10-5
<b>Thallium, Tl</b>	HNO <sub>3</sub>	TlNO <sub>3</sub>	125 mL 500 mL	CGTL10-1 CGTL10-5
<b>Thorium, Th</b>	HNO <sub>3</sub>	Th(NO <sub>3</sub> ) <sub>4</sub> ·xH <sub>2</sub> O	125 mL 500 mL	CGTH10-1 CGTH10-5
<b>Thulium, Tm</b>	HNO <sub>3</sub>	Tm <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGTM10-1 CGTM10-5
<b>Tin, Sn</b>	H <sub>2</sub> O / HNO <sub>3</sub> / HF	Sn metal	125 mL 500 mL	CGSN10-1 CGSN10-5
<b>Titanium, Ti</b>	HNO <sub>3</sub> / HF	Ti metal	125 mL 500 mL	CGTI10-1 CGTI10-5
<b>Tungsten, W</b>	HNO <sub>3</sub> / HF	W metal	125 mL 500 mL	CGW10-1 CGW10-5
<b>Uranium, U</b>	HNO <sub>3</sub>	UO <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub>	125 mL 500 mL	CGU10-1 CGU10-5
<b>Vanadium, V</b>	HNO <sub>3</sub>	V <sub>2</sub> O <sub>5</sub>	125 mL 500 mL	CGV10-1 CGV10-5
<b>Ytterbium, Yb</b>	HNO <sub>3</sub>	Yb <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGYB10-1 CGYB10-5
<b>Yttrium, Y</b>	HNO <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGY10-1 CGY10-5
<small>Can be used as an Internal Standard for ICP-OES.</small>				
<b>Zinc, Zn</b>	HNO <sub>3</sub>	Zn metal	125 mL 500 mL	CGZN10-1 CGZN10-5
<b>Zirconium, Zr</b>	HF	ZrO <sub>2</sub>	125 mL 500 mL	CGZR10-1 CGZR10-5

NEW

NEW

Custom isotopic standards are available upon request.

Analyte	ug/mL	Matrix	Starting Material	Volume	Catalog #
<sup>135</sup> Barium, <sup>135</sup> Ba	10	HNO <sub>3</sub>	<sup>135</sup> BaCO <sub>3</sub>	100 mL	MS135BA-10PPM
<sup>10</sup> Boron, <sup>10</sup> B	10	NH <sub>4</sub> OH	<sup>10</sup> B oxide	100 mL	MS10B-10PPM
<sup>11</sup> Boron, <sup>11</sup> B	10	NH <sub>4</sub> OH	<sup>11</sup> B oxide	100 mL	MS11B-10PPM
<sup>106</sup> Cadmium, <sup>106</sup> Cd	10	HNO <sub>3</sub>	<sup>106</sup> Cd metal	100 mL	MS106CD-10PPM
<sup>50</sup> Chromium, <sup>50</sup> Cr	10	HNO <sub>3</sub>	<sup>50</sup> Cr metal	100 mL	MS50CR-10PPM
<sup>65</sup> Copper, <sup>65</sup> Cu	10	HNO <sub>3</sub>	<sup>65</sup> Cu metal	100 mL	MS65CU-10PPM
<sup>54</sup> Iron, <sup>54</sup> Fe	10	HNO <sub>3</sub>	<sup>54</sup> Fe metal	100 mL	MS54FE-10PPM
<sup>57</sup> Iron, <sup>57</sup> Fe	10	HNO <sub>3</sub>	<sup>57</sup> Fe metal	100 mL	MS57FE-10PPM
<sup>204</sup> Lead, <sup>204</sup> Pb	10	HNO <sub>3</sub>	<sup>204</sup> PbCO <sub>3</sub>	100 mL	MS204PB-10PPM
<sup>206</sup> Lead, <sup>206</sup> Pb	10	HNO <sub>3</sub>	<sup>206</sup> PbCO <sub>3</sub>	100 mL	MS206PB-10PPM
<sup>207</sup> Lead, <sup>207</sup> Pb	10	HNO <sub>3</sub>	<sup>207</sup> PbCO <sub>3</sub>	100 mL	MS207PB-10PPM
<sup>6</sup> Lithium, <sup>6</sup> Li	10	HNO <sub>3</sub>	<sup>6</sup> Li metal	125 mL	MS6LI-10PPM
<sup>6</sup> Lithium, <sup>6</sup> Li	100	HNO <sub>3</sub>	<sup>6</sup> Li metal	125 mL	MS6LI-100PPM
<sup>6</sup> Lithium, <sup>6</sup> Li	1000	HNO <sub>3</sub>	<sup>6</sup> Li metal	125 mL 500 mL	CG6LI1-1 CG6LI1-5
Can be used as an Internal Standard for ICP-MS.					
<sup>25</sup> Magnesium, <sup>25</sup> Mg	10	HNO <sub>3</sub>	<sup>25</sup> MgO	100 mL	MS25MG-10PPM
<sup>61</sup> Nickel, <sup>61</sup> Ni	10	HNO <sub>3</sub>	<sup>61</sup> Ni metal	100 mL	MS61NI-10PPM
<sup>78</sup> Selenium, <sup>78</sup> Se	10	HNO <sub>3</sub>	<sup>78</sup> Se metal	100 mL	MS78SE-10PPM
<sup>82</sup> Selenium, <sup>82</sup> Se	10	HNO <sub>3</sub>	<sup>82</sup> Se metal	100 mL	MS82SE-10PPM
<sup>109</sup> Silver, <sup>109</sup> Ag	10	HNO <sub>3</sub>	<sup>109</sup> Ag metal	100 mL	MS109AG-10PPM
<sup>86</sup> Strontium, <sup>86</sup> Sr	10	HNO <sub>3</sub>	<sup>86</sup> SrCO <sub>3</sub>	100 mL	MS86SR-10PPM
<sup>203</sup> Thallium, <sup>203</sup> Tl	10	HNO <sub>3</sub>	<sup>203</sup> Tl oxide	100 mL	MS203TL-10PPM
<sup>205</sup> Thallium, <sup>205</sup> Tl	10	HNO <sub>3</sub>	<sup>205</sup> Tl oxide	100 mL	MS205TL-10PPM
<sup>122</sup> Tin, <sup>122</sup> Sn	10	HNO <sub>3</sub> / HF	<sup>122</sup> Sn metal	100 mL	MS122SN-10PPM
<sup>67</sup> Zinc, <sup>67</sup> Zn	10	HNO <sub>3</sub>	<sup>67</sup> Zn metal	100 mL	MS67ZN-10PPM

*"In the lab, our primary goal is to produce accurate and dependable standards. Everything we make is backed by our 100% Satisfaction Guarantee."*

**Jenna Case**  
Manufacturing Technician



## SPECIATION STANDARDS

Custom speciation standards are available upon request.

Analyte	ug/mL	Matrix	Starting Material	Volume	Catalog #
Arsenic <sup>+3</sup> , As <sup>+3</sup>	1000	HCl / NaOH / NaHCO <sub>3</sub>	As <sub>2</sub> O <sub>3</sub>	125 mL 500 mL	CGAS31-1 CGAS31-5
Arsenic <sup>+5</sup> , As <sup>+5</sup>	1000	H <sub>2</sub> O	As <sub>2</sub> O <sub>5</sub>	125 mL 500 mL	CGAS51-1 CGAS51-5
Chromium <sup>+3</sup> , Cr <sup>+3</sup>	10	HNO <sub>3</sub>	Cr metal	125 mL	MSCR3-10PPM
Chromium <sup>+3</sup> , Cr <sup>+3</sup>	100	HNO <sub>3</sub>	Cr metal	125 mL	MSCR3-100PPM
Chromium <sup>+3</sup> , Cr <sup>+3</sup>	1000	HNO <sub>3</sub>	Cr metal	125 mL 500 mL	CGCR31-1 CGCR31-5
Chromium <sup>+3</sup> , Cr <sup>+3</sup>	10,000	HNO <sub>3</sub>	Cr metal	125 mL 500 mL	CGCR310-1 CGCR310-5
Chromium <sup>+6</sup> , Cr <sup>+6</sup>	1000	H <sub>2</sub> O	(NH <sub>4</sub> ) <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	125 mL 500 mL	CGCR61-1 CGCR61-5
Selenium <sup>+4</sup> , Se <sup>+4</sup>	1000	HNO <sub>3</sub>	Se metal	125 mL 500 mL	CGSE41-1 CGSE41-5
Selenium <sup>+6</sup> , Se <sup>+6</sup>	1000	H <sub>2</sub> O / HNO <sub>3</sub>	Selenic acid	125 mL 500 mL	CGSE61-1 CGSE61-5

## CYANIDE STANDARDS

## 1000 µg/mL Standards

Custom cyanide standards are available upon request.

Analyte	ug/mL	Matrix	Starting Material	Volume	Catalog #
Copper, Cu	1000	NaCN	Cu metal	125 mL 500 mL	AACUCN-1 AACUCN-5
Gold, Au	1000	NaCN	AuCl <sub>3</sub>	125 mL 500 mL	AAAUCN-1 AAAUCN-5
Silver, Ag	1000	NaCN	Ag metal	125 mL 500 mL	AAAGCN-1 AAAGCN-5
Zinc, Zn	1000	NaCN	Zn metal	125 mL 500 mL	AAZNCN-1 AAZNCN-5

## Convenient...

In addition to utilizing your off-the-shelf standards for IC and AA, our laboratory also utilizes custom ICP-MS standards. Aside from your usual exceptional quality, you package these 250 mL volumes in two 125 mL packages for ultimate convenience and efficiency at no extra cost.

*Jo Holcomb  
Grand Junction, CO*

## Calibration Standards

These elements are grouped for ease of use. Intended for ICP-MS, they can be used individually or combined in any combination upon dilution into 1% HNO<sub>3</sub>. Custom calibration standards are available upon request.

### 65-Element Group

#### Rare Earth ICP-MS Standard

CMS-1			
Volume	125 mL		
Matrix	HNO <sub>3</sub>		
Analyte	µg/mL	Analyte	µg/mL
Ce	10	Pr	10
Dy	10	Sc	10
Er	10	Sm	10
Eu	10	Tb	10
Gd	10	Th	10
Ho	10	Tm	10
La	10	U	10
Lu	10	Y	10
Nd	10	Yb	10

#### Precious Metals ICP-MS Standard

CMS-2			
Volume	125 mL		
Matrix	HCl		
Analyte	µg/mL	Analyte	µg/mL
Au	10	Re	10
Ir	10	Rh	10
Pd	10	Ru	10
Pt	10	Te	10

#### Fluoride Soluble ICP-MS Standard

CMS-3			
Volume	125 mL		
Matrix	HNO <sub>3</sub> / HF		
Analyte	µg/mL	Analyte	µg/mL
Ge	10	Ta	10
Hf	10	Ti	10
Mo	10	W	10
Nb	10	Zr	10
Sn	10		

#### Hot-Plasma ICP-MS Complete Standard

CMS-4			
Volume	125 mL		
Matrix	HNO <sub>3</sub>		
Analyte	µg/mL	Analyte	µg/mL
As	10	In	10
B	10	Pb	10
Ba	10	Sb	10
Be	10	Se	10
Bi	10	Tl	10
Cd	10	V	10
Ga	10		

#### Cool-Plasma ICP-MS Complete Standard

CMS-5			
Volume	125 mL		
Matrix	HNO <sub>3</sub>		
Analyte	µg/mL	Analyte	µg/mL
Ag	10	Li	10
Al	10	Mg	10
Ca	10	Mn	10
Co	10	Na	10
Cr	10	Ni	10
Cs	10	Rb	10
Cu	10	Sr	10
Fe	10	Zn	10
K	10		

### Educational...

We maintain a wide range of individual elements and a variety of custom standards made by Inorganic Ventures, which have all performed very well. Their website also contains a wealth of information, which continues to expand. The articles by Dr. Paul Gaines are very useful.

*Lynn Schurter  
Granville, OH*

**Calibration Standards** (continued)

Don't see what you need? Contact us with the solution part number and instrument manufacturer you're seeking and we'll give you a very competitive price!

**69-Element Group****Rare Earths ICP-MS Standard**

CCS-1			
Volume	125 mL		
Matrix	HNO <sub>3</sub>		
<b>Analyte</b>	<b>µg/mL</b>	<b>Analyte</b>	<b>µg/mL</b>
Ce	100	Pr	100
Dy	100	Sc	100
Er	100	Sm	100
Eu	100	Tb	100
Gd	100	Th	100
Ho	100	Tm	100
La	100	U	100
Lu	100	Y	100
Nd	100	Yb	100

**Precious Metals ICP-MS Standard**

CCS-2			
Volume	125 mL		
Matrix	HCl		
<b>Analyte</b>	<b>µg/mL</b>	<b>Analyte</b>	<b>µg/mL</b>
Au	100	Pt	100
Ir	100	Rh	100
Pd	100	Ru	100

**Alkali, Alkaline, Non-Transition ICP-MS Standard**

CCS-4			
Volume	125 mL		
Matrix	HNO <sub>3</sub>		
<b>Analyte</b>	<b>µg/mL</b>	<b>Analyte</b>	<b>µg/mL</b>
Al	100	In	100
As	100	K	100
Ba	100	Li	100
Be	100	Mg	100
Bi	100	Na	100
Ca	100	Rb	100
Cs	100	Se	100
Ga	100	Sr	100

**Fluoride Soluble ICP-MS Standard**

CCS-5			
Volume	125 mL		
Matrix	HNO <sub>3</sub> / HF		
<b>Analyte</b>	<b>µg/mL</b>	<b>Analyte</b>	<b>µg/mL</b>
B	100	Sb	100
Ge	100	Si	100
Hf	100	Sn	100
Mo	100	Ta	100
Nb	100	Ti	100
P	100	W	100
Re	100	Zr	100
S	100		

**Transition ICP-MS Standard**

CCS-6			
Volume	125 mL		
Matrix	HNO <sub>3</sub>		
<b>Analyte</b>	<b>µg/mL</b>	<b>Analyte</b>	<b>µg/mL</b>
Ag	100	Mn	100
Cd	100	Ni	100
Co	100	Pb	100
Cr	100	Tl	100
Cu	100	V	100
Fe	100	Zn	100
Hg	100		

**Tellurium ICP-MS Standard**

MSTEN-100PPM	
Volume	125 mL
Matrix	HNO <sub>3</sub>
<b>Analyte</b>	<b>µg/mL</b>
Te	100

## Calibration Standards (continued)

Don't see what you need? Contact us with the solution part number and instrument manufacturer you're seeking and we'll give you a very competitive price!

### 71-Element Group

#### ICP-MS Complete Standard

##### IV-ICPMS-71A

Volume 125 mL  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Ag	10	Lu	10
Al	10	Mg	10
As	10	Mn	10
B	10	Na	10
Ba	10	Nd	10
Be	10	Ni	10
Ca	10	P	10
Cd	10	Pb	10
Ce	10	Pr	10
Co	10	Rb	10
Cr	10	S	10
Cs	10	Se	10
Cu	10	Sm	10
Dy	10	Sr	10
Er	10	Th	10
Eu	10	Tl	10
Fe	10	Tm	10
Ga	10	U	10
Gd	10	V	10
Ho	10	Yb	10
K	10	Zn	10
La	10		

#### Lithium ICP-MS Standard

##### MSLI-10PPM

Volume 125 mL  
Matrix HNO<sub>3</sub>

Analyte µg/mL

Li 10

#### ICP-MS Refractory Elements Standard

##### IV-ICPMS-71B

Volume 125 mL  
Matrix HNO<sub>3</sub> / HF

Analyte	µg/mL	Analyte	µg/mL
Ge	10	Sn	10
Hf	10	Ta	10
Mo	10	Te	10
Nb	10	Ti	10
Sb	10	W	10
Si	10	Zr	10

#### ICP-MS Precious Metals Standard

##### IV-ICPMS-71C

Volume 125 mL  
Matrix HCl

Analyte	µg/mL	Analyte	µg/mL
Au	10	Pt	10
Ir	10	Re	10
Os	10	Rh	10
Pd	10	Ru	10

#### ICP-MS Mercury

##### MSHG-10PPM

Volume 125 mL  
Matrix HCl

Analyte µg/mL

Hg 10

#### ICP-MS Internal Standard

##### IV-ICPMS-71D

Volume 125 mL  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Bi	10	Sc	10
In	10	Tb	10
<sup>6</sup> Li	10	Y	10

### Well-versed...

I have never had problems with Inorganic Ventures' standards, both mixed and multi-element. Your prompt delivery of standards is well within the time that I need the material. The labeling of standards is also quite good. I also find your website most informative, from calculations to general information.

*Jules Bitay  
Morristown, NJ*

**Calibration Standards** (continued)

Don't see what you need? Contact us with the solution part number and instrument manufacturer you're seeking and we'll give you a very competitive price!

**VAR Calibration Standard 1**

## VAR-CAL-1

Volume 125 mL  
Matrix HNO<sub>3</sub> / HF

Analyte	µg/mL	Analyte	µg/mL
Mo	100	Sn	100
Sb	100	Ti	100

**VAR Calibration Standard 2**

## VAR-CAL-2

Volume 125 mL  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Ag	100	Mn	100
Al	100	Ni	100
As	100	Pb	100
Ba	100	Se	100
Be	100	Th	100
Cd	100	Tl	100
Co	100	U	100
Cr	100	V	100
Cu	100	Zn	100

**PE Calibration Standard 3**

## PE-CAL-3

Volume 125 mL  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Ca	1000	Tl	1000
Fe	1000	Y	1000
Li	1000		

**GENESIS Calibration Standard 4**

## GENESIS-ICAL

Volume 125 mL  
Matrix HNO<sub>3</sub> / HCl

Analyte	µg/mL	Analyte	µg/mL
Be	2	Na	5
Ca	1	Ni	10
Ce	10	P	10
Cu	10	S	50
Eu	10	Sc	5
Fe	10	Si	10
In	10	Sr	2
K	10	Ti	10
Li	2	V	10
Mn	5	Y	10
Mo	5	Zr	10

**VAR Calibration Standard 7**

## VAR-CAL-7

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Al	5	Mn	5
As	5	Mo	5
Ba	5	Ni	5
Cd	5	Pb	5
Co	5	Se	5
Cr <sup>+3</sup>	5	Sr	5
Cu	5	Zn	5
K	50		

*"Our focus is to give the highest level of technical support and customer service, making your loyalty our greatest success."*

**Christopher Gaines**  
Vice President of Operations



## Calibration Standards (continued)

Don't see what you need? Contact us with the solution part number and instrument manufacturer you're seeking and we'll give you a very competitive price!

### ICP Calibration Standard 1

#### IV-STOCK-1

Volume 125 mL **NEW**  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Ag	50	Fe	15
Al	100	Ga	150
B	15	In	200
Ba	5	Mn	5
Be	1	Ni	50
Bi	200	Pb	200
Cd	20	Sr	1
Co	20	Tl	400
Cr <sup>+3</sup>	25	Zn	20
Cu	20		

### ICP Calibration Standard 2

#### IV-STOCK-2

Volume 125 mL **NEW**  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Ca	10,000	Mg	10,000
K	10,000	Na	10,000

### ICP Calibration Standard 3

#### IV-STOCK-3

Volume 125 mL **NEW**  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Ca	1,000	Mg	1,000
K	1,000	Na	1,000

### ICP Calibration Standard 4

#### IV-STOCK-4

Volume 125 mL **NEW**  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Ag	1,000	In	1,000
Al	1,000	K	1,000
B	1,000	Li	1,000
Ba	1,000	Mg	1,000
Bi	1,000	Mn	1,000
Ca	1,000	Na	1,000
Cd	1,000	Ni	1,000
Co	1,000	Pb	1,000
Cr <sup>+3</sup>	1,000	Sr	1,000
Cu	1,000	Tl	1,000
Fe	1,000	Zn	1,000
Ga	1,000		

### ICP Calibration Standard 8

#### IV-STOCK-8

Volume 125 mL **NEW**  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Al	100	K	100
B	100	Li	100
Ba	100	Mg	100
Be	100	Mn	100
Bi	100	Na	100
Ca	100	Ni	100
Cd	100	Pb	100
Co	100	Se	100
Cr <sup>+3</sup>	100	Sr	100
Cu	100	Te	100
Fe	100	Tl	100
Ga	100	Zn	100

## Supportive...

Inorganic Ventures gives us fast, reliable service with stock and custom standards. Your customer representatives are ALWAYS courteous and friendly. Additionally, your standards and QC are always high quality. And it is never a problem to speak with your top technicians. Thank you for your prompt, courteous, friendly, and reliable service.

Jeff Graham  
Hattiesburg, MS

## Calibration Standards (continued)

Don't see what you need? Contact us with the solution part number and instrument manufacturer you're seeking and we'll give you a very competitive price!

### ICP Calibration Standard - Toxic Elements

#### IV-STOCK-9

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
As	100	Pb	100
Be	100	Se	100
Cd	100	Tl	100
Ni	100		

### ICP Calibration Standard - Surface Water

#### IV-STOCK-10

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/L	Analyte	µg/L
As	50	Mg	15,000
B	100	Mn	30
Ba	50	Mo	100
Be	20	Na	8,000
Bi	10	Ni	50
Ca	35,000	Pb	25
Cd	20	Se	10
Co	25	Sr	100
Cr <sup>3+</sup>	20	Tl	10
Cu	20	V	50
Fe	100	Zn	50
K	3,000		

### ICP Calibration Standard - Sewage Sludge

#### IV-STOCK-11

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Cd	10	Ni	200
Cr <sup>3+</sup>	900	Pb	900
Cu	800	Zn	2,500

### ICP Calibration Standard - Trace Metals

#### IV-STOCK-13

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Al	500	Fe	100
As	100	Mn	100
Be	100	Ni	100
Cd	25	Pb	100
Co	100	Se	25
Cr <sup>3+</sup>	100	V	250
Cu	100	Zn	100

### ICP Calibration Standard - Earth Alkali Element

#### IV-STOCK-16

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Ba	1000	Mg	1000
Ca	1000	Sr	1000

### ICP-MS Calibration Standard 6

#### IV-STOCK-6

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Ag	10	Li	10
Al	10	Mg	10
As	100	Mn	10
B	100	Mo	10
Ba	10	Na	10
Be	100	Ni	10
Bi	10	Pb	10
Ca	1000	Rb	10
Cd	10	Se	100
Co	10	Sr	10
Cr <sup>3+</sup>	10	Te	10
Cu	10	Tl	10
Fe	100	U	10
Ga	10	V	10
K	10	Zn	100

**Calibration Standards** (continued)

Don't see what you need? Contact us with the solution part number and instrument manufacturer you're seeking and we'll give you a very competitive price!

**ICP-MS Calibration Standard 15**

## IV-STOCK-15

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Ca	10	Li	10
Fe	10	Na	10
K	10		

**ICP Calibration Standard - HCl Soluble Elements**

## IV-STOCK-17

Volume 125 mL  
Matrix HNO<sub>3</sub> / HCl / HF

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Hf	100	Ta	100
Ir	100	Ti	100
Sb	100	Zr	100
Sn	100		

**ICP-MS Calibration Standard 21**

## IV-STOCK-21

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Ag	10	K	10
Al	10	Li	10
As	10	Mg	10
Ba	10	Mn	10
Be	10	Na	10
Bi	10	Ni	10
Ca	10	Pb	10
Cd	10	Rb	10
Co	10	Se	10
Cr <sup>+3</sup>	10	Sr	10
Cs	10	Tl	10
Cu	10	U	10
Fe	10	V	10
Ga	10	Zn	10
In	10		

**ICP-MS Calibration Standard 22**

## IV-STOCK-22

Volume 125 mL  
Matrix HNO<sub>3</sub> / HCl

**NEW**

Analyte	µg/L	Analyte	µg/L
Cd	200	Pb	200
Cu	200	Rh	200
Mg	200		

**ICP-MS Calibration Standard 23**

## IV-STOCK-23

Volume 500 mL  
Matrix HNO<sub>3</sub> / HCl

**NEW**

Analyte	µg/L	Analyte	µg/L
B	1	Lu	1
Ba	1	Na	1
Co	1	Rh	1
Fe	1	Sc	1
Ga	1	Tl	1
In	1	U	1
K	1	Y	1
Li	1		

**ICP-MS Calibration Standard 26**

## IV-STOCK-26

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Ce	10	Pr	10
Dy	10	Sc	10
Er	10	Sm	10
Eu	10	Tb	10
Gd	10	Th	10
Ho	10	Tm	10
La	10	Y	10
Lu	10	Yb	10
Nd	10		

**Calibration Standards** (continued)

Don't see what you need? Contact us with the solution part number and instrument manufacturer you're seeking and we'll give you a very competitive price!

**ICP-MS Calibration Standard 27**

## IV-STOCK-27

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Ag	10	Li	10
Al	10	Mg	10
As	10	Mn	10
Ba	10	Na	10
Be	10	Ni	10
Ca	10	Pb	10
Cd	10	Rb	10
Co	10	Se	10
Cr <sup>+3</sup>	10	Sr	10
Cs	10	Tl	10
Cu	10	U	10
Fe	10	V	10
Ga	10	Zn	10
K	10		

**ICP-MS Calibration Standard 28**

## IV-STOCK-28

Volume 125 mL  
Matrix HCl / HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Au	10	Rh	10
Hf	10	Ru	10
Ir	10	Sb	10
Pd	10	Sn	10
Pt	10	Te	10

**ICP-MS Calibration Standard 29**

## IV-STOCK-29

Volume 125 mL  
Matrix HNO<sub>3</sub> / HF

**NEW**

Analyte	µg/mL	Analyte	µg/mL
B	10	S	10
Ge	10	Si	10
Mo	10	Ta	10
Nb	10	Ti	10
P	10	W	10
Re	10	Zr	10

**ICP-MS Calibration Standard 30**

## IV-STOCK-30

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Be	10	Mg	10
Bi	10	Ni	10
Ce	10	Pb	10
Co	10	U	10
In	10		

**ICP-MS Calibration Standard 31**

## IV-STOCK-31

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Al	1	Mg	0.2
Ba	0.2	Mn	1
Ca	0.2	Ni	5
Cu	1	P	10
K	5	Zn	0.2



*"We're here to help every lab, big and small."*

**Paul R. Gaines, Ph.D.**  
CEO & Fellow Chemist

**Calibration Standards** (continued)

Don't see what you need? Contact us with the solution part number and instrument manufacturer you're seeking and we'll give you a very competitive price!

**ICP-MS Calibration Standard 33**

## IV-STOCK-33

Volume 500 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Ca	500	Mg	500
Fe	500	Na	500
K	500		

**VAR Internal Standard Solution**

## VAR-IS-1

Volume 125 mL  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Bi	100	Sc	100
In	100	Tb	100
<sup>6</sup> Li	100	Y	100

**ICP-MS Detection Limit Standard**

## IV-STOCK-19

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/L	Analyte	µg/L
Be	10	Tl	10
Co	10	U	10
In	10		

**Trace Metals in Water**

## IV-STOCK-1643

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/L	Analyte	µg/L
Ag	1	Mg	8,000
Al	142	Mn	39
As	60	Mo	121
B	158	Na	21,000
Ba	544	Ni	62
Be	14	Pb	20
Bi	14	Rb	14
Ca	32,000	Re	113
Cd	7	Sb	58
Co	27	Se	12
Cr <sup>3+</sup>	20	Sr	323
Cu	23	Te	1
Fe	98	Tl	7
K	2,000	V	38
Li	17	Zn	79

**ICP-MS Plasma Setup Solution**

## IV-STOCK-20

Volume 1 Liter  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/L	Analyte	µg/L
Ba	10	Pb	10
Cd	10	Rh	10
Ce	10	Sc	10
Cu	10	Tb	10
Ge	10	Tl	10
Mg	10		

**PE Check Standard 1**

## PE-CHK-1

Volume 125 mL  
Matrix HNO<sub>3</sub> tr HF

Analyte	µg/mL	Analyte	µg/mL
Ag	10	Mn	10
Al	10	Ni	10
As	10	Pb	10
Ba	10	Sb	10
Be	10	Se	10
Cd	10	Tl	10
Co	10	V	10
Cr	10	Zn	10
Cu	10		

## Wavelength Calibration Standards (continued)

Don't see what you need? Contact us with the solution part number and instrument manufacturer you're seeking and we'll give you a very competitive price!

### Wavelength Calibration Standard 1

#### IV-STOCK-5

Volume 500 mL  
Matrix HCl

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Al	20	Mg	1
As	20	Mn	1
B	2	Na	20
Ba	2	Ni	5
Be	1	P	10
Ca	10	Pb	20
Cd	2	Sc	1
Cr <sup>+3</sup>	2	Se	20
Cu	2	Sr	1
Fe	2	Te	20
Hg	5	Ti	2
K	100	Y	1
Li	2	Zn	2

### Wavelength Calibration Standard 2

#### IV-STOCK-14

Volume 500 mL  
Matrix HCl tr HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
As	20	Na	20
K	100	Ni	20
La	20	P	100
Li	20	S	100
Mn	20	Sc	20
Mo	20		

## Tuning Solution Standards

Don't see what you need? Contact us with the solution part number and instrument manufacturer you're seeking and we'll give you a very competitive price!

### PE Tuning Solution

#### PE-TS-1

Volume 125 mL  
Matrix HNO<sub>3</sub> / HCl

Analyte	µg/mL	Analyte	µg/mL
Ba	10	Mg	10
Be	10	Pb	10
Ce	10	Rh	10
Co	10	Tl	10
In	10	U	10
Li	10	Y	10

### AGI Tuning Solution

#### AGI-TS-1

Volume 125 mL  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Ce	10	Tl	10
Co	10	Y	10
Li	10		

### CIROS Tuning Solution

#### CIROS-OES-TS

Volume 125 mL  
Matrix HCl / HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Fe	10	P	10
K	10	S	50
La	10	Sc	10
Mg	5	Ti	10
Mn	5		

### THM Tuning Solution

#### THM-TS-1

Volume 125 mL  
Matrix HNO<sub>3</sub> tr HCl

Analyte	µg/mL	Analyte	µg/mL
B	10	K	10
Ba	10	Rh	10
Co	10	Sc	10
Ga	10	Na	10
In	10	Th	10
Fe	10	U	10
Li	10	Y	10
Lu	10		

## Tuning Solution Standards (continued)

Don't see what you need? Contact us with the solution part number and instrument manufacturer you're seeking and we'll give you a very competitive price!

### VAR Tuning Solution

#### VAR-TS-MS

Volume 125 mL  
Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Ba	10	Mg	10
Be	10	Pb	10
Ce	10	Th	10
Co	10	Tl	10
In	10		

### Stock Tuning Solution 12

#### IV-STOCK-12

Volume 125 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Ba	10	In	10
Be	10	Li	10
Bi	10	Ni	10
Ce	10	Pb	10
Co	10	U	10

### Stock Tuning Solution 24

#### IV-STOCK-24

Volume 500 mL  
Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Al	50	Mn	50
As	50	Mo	50
Ba	50	Ni	50
Cd	50	Pb	50
Co	50	Se	50
Cr <sup>+3</sup>	50	Sr	50
Cu	50	Zn	50
K	500		

## Cost-effective...

We needed a 9-element standard with varying concentrations. Inorganic Ventures' ability to do this meant we did not have to prepare it ourselves. It was inexpensive and reliable.

Michael Clark  
Springfield, MO

*"Our pride shows in every standard we make."*

Vin DeAngelo  
Packaging Technician



## HIGH-PURITY IONIZATION BUFFERS

Ionization buffers are 99.999+% pure. They are analyzed using both axial-view ICP-OES and ICP-MS for 70+ impurities. Custom ionization buffers are available upon request.

## 1% Cesium Ionization Buffer

CSN-ISB-5  
Volume 500 mL  
Matrix HNO<sub>3</sub>

Analyte  $\mu\text{g/mL}$

Cs 10,000

High Purity buffer; ideal for Axial View ICP-OES

## 2% Lithium Ionization Buffer

LINB2-5  
Volume 500 mL  
Matrix HNO<sub>3</sub>

Analyte  $\mu\text{g/mL}$

Li 20,000

## 5% Cesium Ionization Buffer

CSN-ISB5-5  
Volume 500 mL  
Matrix HNO<sub>3</sub>

Analyte  $\mu\text{g/mL}$

Cs 50,000

## 1% Potassium Ionization Buffer

KN-ISB-5  
Volume 500 mL  
Matrix Water/HCl

Analyte  $\mu\text{g/mL}$

K 10,000

## EPA STANDARDS

## ILMO3.0

Standards for ILMO3.0 are designed for use with ICP-OES. Custom EPA standards are available upon request.

## Calibration Standards

## Calibration Standard 1

CLPP-CAL-1  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	$\mu\text{g/mL}$	Analyte	$\mu\text{g/mL}$
Ag	250	Fe	1000
Al	2000	K	5000
Ba	2000	Mg	5000
Be	50	Mn	500
Ca	5000	Na	5000
Co	500	Ni	500
Cr	200	V	500
Cu	250	Zn	500

## Calibration Standard 2

CGSB1-1  
Volume 125 mL  
Matrix HNO<sub>3</sub> / Tartaric Acid  
Dilution 1:100

Analyte	$\mu\text{g/mL}$
Sb	1000

## Calibration Standard 3

CLPP-CAL-3  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	$\mu\text{g/mL}$	Analyte	$\mu\text{g/mL}$
As	1000	Se	1000
Cd	500	Tl	1000
Pb	1000		

## ILMO3.0 (continued)

### CICV Standards

CICV - Continuing and Initial Calibration Verification.

#### CICV Standard 1<sup>†</sup>

##### QCP-CICV-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100 or 1:500

Analyte	µg/mL	Analyte	µg/mL
Ag	125	Fe	500
Al	1000	K	2500
Ba	1000	Mg	2500
Be	25	Mn	250
Ca	2500	Na	2500
Co	250	Ni	250
Cr	100	V	250
Cu	125	Zn	250

#### CICV Standard 2<sup>†</sup>

##### QCP-CICV-2

Volume 125 mL  
Matrix HNO<sub>3</sub> / Tartaric Acid  
Dilution 1:100 or 1:500

Analyte	µg/mL
Sb	500

#### CICV Standard 3<sup>†</sup>

##### QCP-CICV-3

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100 or 1:500

Analyte	µg/mL	Analyte	µg/mL
As	500	Se	500
Cd	250	Tl	500
Pb	500		

<sup>†</sup>Manufactured from in-house Second Source concentrates.

### CRDL Standards

CRDL - Contract Required Detection Limit.

#### CRDL Standard 1

##### CRI-CRA-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	200	Mn	300
Be	100	Ni	800
Co	1000	V	1000
Cr	200	Zn	400
Cu	500		

#### CRDL Standard 2

##### CRI-CRA-2

Volume 125 mL  
Matrix HNO<sub>3</sub> / Tartaric Acid  
Dilution 1:100

Analyte	µg/mL
Sb	600

#### CRDL Standard 3

##### CRI-CRA-3

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
As	100	Se	50
Cd	50	Tl	100
Pb	30		

## Interference Check Standards

#### Interference Check Standard A

##### CLPP-ICS-A

Volume 500 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:10

Analyte	µg/mL	Analyte	µg/mL
Al	5000	Fe	2000
Ca	5000	Mg	5000

#### Interference Check Standard B

##### CLPP-ICS-B

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	Cu	50
Ba	50	Mn	50
Be	50	Ni	100
Cd	100	Pb	100
Co	50	V	50
Cr	50	Zn	100

**ILMO3.0** (continued)**Soil & Water Spike Standards****Spike Standard 1\***

## CLPP-SPK-1

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:1000

Analyte	µg/mL	Analyte	µg/mL
Ag	50	Cu	250
Al	2000	Fe	1000
Ba	2000	Mn	500
Be	50	Ni	500
Co	500	V	500
Cr	200	Zn	500

**Spike Standard 2\***

## CLPP-SPK-2

Volume	125 mL
Matrix	HNO <sub>3</sub> / Tartaric Acid
Dilution	1:1000

Analyte	µg/mL
Sb	500

**Spike Standard 3\***

## CLPP-SPK-3

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:1000

Analyte	µg/mL	Analyte	µg/mL
As	2000	Se	2000
Cd	50	Tl	2000
Pb	500		

\*Instructions included.

**ILMO4.0**

Standards for ILMO4.0 are designed for use with ICP-OES. Custom EPA standards are available upon request.

**Calibration Standards****Calibration Standard 1**

## CLPP-CAL-1

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	250	Fe	1000
Al	2000	K	5000
Ba	2000	Mg	5000
Be	50	Mn	500
Ca	5000	Na	5000
Co	500	Ni	500
Cr	200	V	500
Cu	250	Zn	500

**Calibration Standard 2**

## CGSB1-1

Volume	125 mL
Matrix	HNO <sub>3</sub> / Tartaric Acid
Dilution	1:100

Analyte	µg/mL
Sb	1000

**Calibration Standard 3**

## CLPP-CAL-3

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	Analyte	µg/mL
As	1000	Se	1000
Cd	500	Tl	1000
Pb	1000		

## ILMO4.0 (continued)

### CICV Standards

CICV - Continuing and Initial Calibration Verification.

#### CICV Standard 1<sup>†</sup>

##### QCP-CICV-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100 or 1:500

Analyte	µg/mL	Analyte	µg/mL
Ag	125	Fe	500
Al	1000	K	2500
Ba	1000	Mg	2500
Be	25	Mn	250
Ca	2500	Na	2500
Co	250	Ni	250
Cr	100	V	250
Cu	125	Zn	250

#### CICV Standard 2<sup>†</sup>

##### QCP-CICV-2

Volume 125 mL  
Matrix HNO<sub>3</sub> / Tartaric Acid  
Dilution 1:100 or 1:500

Analyte	µg/mL
Sb	500

#### CICV Standard 3<sup>†</sup>

##### QCP-CICV-3

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100 or 1:500

Analyte	µg/mL	Analyte	µg/mL
As	500	Se	500
Cd	250	Tl	500
Pb	500		

<sup>†</sup>Manufactured from in-house Second Source concentrates.

### CRDL Standards

CRDL - Contract Required Detection Limit.

#### CRDL Standard 1

##### CRI-CRA-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	200	Mn	300
Be	100	Ni	800
Co	1000	V	1000
Cr	200	Zn	400
Cu	500		

#### CRDL Standard 2

##### CRI-CRA-2

Volume 125 mL  
Matrix HNO<sub>3</sub> / Tartaric Acid  
Dilution 1:100

Analyte	µg/mL
Sb	600

#### CRDL Standard 3

##### CRI-CRA-3

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
As	100	Se	50
Cd	50	Tl	100
Pb	30		

### Interference Check Standards

#### Interference Check Standard A

##### CLPP-ICS-A

Volume 500 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:10

Analyte	µg/mL	Analyte	µg/mL
Al	5000	Fe	2000
Ca	5000	Mg	5000

#### Interference Check Standard B4

##### CLPP-ICS-B4

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:1000

Analyte	µg/mL	Analyte	µg/mL
Ag	20	Mn	50
As	10	Ni	100
Ba	50	Pb	5
Be	50	Sb	60
Cd	100	Se	5
Co	50	Tl	10
Cr	50	V	50
Cu	50	Zn	100

**ILMO4.0** (continued)**Soil & Water Spike Standards****Spike Standard 1\***

CLPP-SPK-1  
 Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:1000

Analyte	µg/mL	Analyte	µg/mL
Ag	50	Cu	250
Al	2000	Fe	1000
Ba	2000	Mn	500
Be	50	Ni	500
Co	500	V	500
Cr	200	Zn	500

**Spike Standard 4\***

CLPP-SPK-4  
 Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:1000

Analyte	µg/mL	Analyte	µg/mL
As	40	Sb	100
Cd	50	Se	10
Pb	20	Tl	50

\*Instructions included.

**ILMO5.2 & ILMO5.3**

See individual products for recommended instrumentation and revision. Custom EPA standards are available upon request.

**Calibration Standards****Calibration Standard 1**

CLPP-CAL-1  
 Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	250	Fe	1000
Al	2000	K	5000
Ba	2000	Mg	5000
Be	50	Mn	500
Ca	5000	Na	5000
Co	500	Ni	500
Cr	200	V	500
Cu	250	Zn	500

For use with ICP-OES. Designed for ILMO5.2 and ILMO5.3.

**Calibration Standard 2**

CGSB1-1  
 Volume 125 mL  
 Matrix HNO<sub>3</sub> / Tartaric Acid  
 Dilution 1:100

Analyte	µg/mL
Sb	1000

For use with ICP-OES. Designed for ILMO5.2 and ILMO5.3.

**Calibration Standard 3**

CLPP-CAL-3  
 Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
As	1000	Se	1000
Cd	500	Tl	1000
Pb	1000		

For use with ICP-OES. Designed for ILMO5.2 and ILMO5.3.

**Calibration Standard 4**

CLP-MS-CAL  
 Volume 125 mL  
 Matrix HNO<sub>3</sub> / Tartaric Acid  
 Dilution 1:100 to 1:1000

Analyte	µg/mL	Analyte	µg/mL
Ag	20	Mg	20
Al	20	Mn	20
As	20	Ni	20
Ba	20	Pb	20
Be	20	Sb	20
Cd	20	Se	20
Co	20	Tl	20
Cr	20	V	20
Cu	20	Zn	20

For use with ICP-MS. Designed for ILMO5.2 and ILMO5.3.

## ILMO5.2 & ILMO5.3 (continued)

### CICV Standards

CICV - Continuing and Initial Calibration Verification.

#### CICV Standard 1<sup>†</sup>

##### QCP-CICV-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100 or 1:500

Analyte	µg/mL	Analyte	µg/mL
Ag	125	Fe	500
Al	1000	K	2500
Ba	1000	Mg	2500
Be	25	Mn	250
Ca	2500	Na	2500
Co	250	Ni	250
Cr	100	V	250
Cu	125	Zn	250

For use with ICP-OES. Designed for ILMO5.2 and ILMO5.3.

#### CICV Standard 2<sup>†</sup>

##### QCP-CICV-2

Volume 125 mL  
Matrix HNO<sub>3</sub> / Tartaric Acid  
Dilution 1:100 or 1:500

Analyte	µg/mL
Sb	500

For use with ICP-OES. Designed for ILMO5.2 and ILMO5.3.

#### CICV Standard 3<sup>†</sup>

##### QCP-CICV-3

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100 or 1:500

Analyte	µg/mL	Analyte	µg/mL
As	500	Se	500
Cd	250	Tl	500
Pb	500		

For use with ICP-OES. Designed for ILMO5.2 and ILMO5.3.

<sup>†</sup>Manufactured from in-house Second Source concentrates.

#### CICV Standard 4<sup>†</sup>

##### CLP-MS-CICV

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100 to 1:1000

Analyte	µg/mL	Analyte	µg/mL
Ag	10	Mg	10
Al	10	Mn	10
As	10	Ni	10
Ba	10	Pb	10
Be	10	Sb	10
Cd	10	Se	10
Co	10	Tl	10
Cr	10	V	10
Cu	10	Zn	10

For use with ICP-MS. Designed for ILMO5.2 and ILMO5.3.

#### CICV Standard 5<sup>†</sup>

##### QCP-ICV-1REV

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100 to 1:1000

Analyte	µg/mL	Analyte	µg/mL
Ag	10	Mn	10
Al	10	Ni	10
As	10	Pb	10
Ba	10	Sb	10
Be	10	Se	10
Cd	10	Tl	10
Co	10	V	10
Cr	10	Zn	10
Cu	10		

For use with ICP-MS. Designed for ILMO5.2 and ILMO5.3.

*"All of us are constantly striving to flex to your specs in everything we do."*

**Jhiam Marasigan**  
Accounting Supervisor



## ILMO5.2 &amp; ILMO5.3 (continued)

## CRDL &amp; CRQL Standards

CRDL - Contract Required Detection Limit. CRQL - Contract Required Quantitation Limit.

## CRDL Standard

CLP-AES-CRDL  
 Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
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See [inorganicventures.com](http://inorganicventures.com) for analytes.

For use with ICP-OES. Designed for ILMO5.2 and ILMO5.3.

## CRQL Standard 1

CLP-AES-CRQL  
 Volume 125 mL  
 Matrix HNO<sub>3</sub> / Tartaric Acid  
 Dilution 1:100 (water samples); 1:500 (soil samples)

Analyte	µg/mL	Analyte	µg/mL
Ag	1	K	500
Al	20	Mg	500
As	1.5	Mn	1.5
Ba	20	Na	500
Be	0.5	Ni	4
Ca	500	Pb	1
Cd	0.5	Sb	6
Co	5	Se	3.5
Cr	1	Tl	2.5
Cu	2.5	V	5
Fe	10	Zn	6

For use with ICP-OES. Designed for ILMO5.2.

## CRQL Standard 2

CLP-AES-CRQL-2  
 Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:100 (water samples); 1:500 (soil samples)

Analyte	µg/mL	Analyte	µg/mL
Ag	1	K	500
Al	20	Mg	500
As	1	Mn	1.5
Ba	20	Na	500
Be	0.5	Ni	4
Ca	500	Pb	1
Cd	0.5	Sb	6
Co	5	Se	3.5
Cr	1	Tl	2.5
Cu	2.5	V	5
Fe	10	Zn	6

For use with ICP-OES. Designed for ILMO5.3.

## CRQL Standard 3

CLP-MS-CRQL  
 Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:1000

Analyte	µg/mL	Analyte	µg/mL
Ag	1	Mn	0.5
Al	30	Ni	1
As	1	Pb	1
Ba	10	Sb	2
Be	1	Se	5
Cd	1	Tl	1
Co	5	V	1
Cr	2	Zn	1
Cu	1		

For use with ICP-MS. Designed for ILMO5.2.

## CRQL Standard 4

CLP-MS-CRQL-2  
 Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:1000

Analyte	µg/mL	Analyte	µg/mL
Ag	1	Mn	1
As	1	Ni	1
Ba	10	Pb	1
Be	1	Sb	2
Cd	1	Se	5
Co	1	Tl	1
Cr	2	V	1
Cu	2	Zn	2

For use with ICP-MS. Designed for ILMO5.3.

## CRQL Standard 5

CLP-MS-CRQL-3  
 Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:1000

Analyte	µg/mL	Analyte	µg/mL
Ag	1	Mn	1
As	1	Ni	1
Ba	10	Pb	1
Be	1	Sb	2
Cd	1	Se	5
Co	1	Tl	1
Cr	2	V	5
Cu	2	Zn	2

## ILMO5.2 & ILMO5.3 (continued)

### Interference Check Standards

#### Interference Check Standard A

CLPP-ICS-A  
Volume 500 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:10

Analyte	µg/mL	Analyte	µg/mL
Al	5000	Fe	2000
Ca	5000	Mg	5000

For use with ICP-OES and ICP-MS. Designed for ILMO5.2 and ILMO5.3.

#### Interference Check Standard B

CLPP-ICS-B  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	2	Mg	2
Al	2	Mn	2
As	2	Ni	2
Ba	2	Pb	2
Be	2	Sb	2
Cd	2	Se	2
Co	2	Tl	2
Cr	2	V	2
Cu	2	Zn	2

For use with ICP-MS. Designed for ILMO5.2 and ILMO5.3.

#### Interference Check Standard B4

CLPP-ICS-B4  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	20	Mn	50
As	10	Ni	100
Ba	50	Pb	5
Be	50	Sb	60
Cd	100	Se	5
Co	50	Tl	10
Cr	50	V	50
Cu	50	Zn	100

For use with ICP-OES. Designed for ILMO5.2 and ILMO5.3.

### Soil & Water Spike Standards

#### Spike Standard

CLP-MS-SPK  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	5	Mn	50
Al	200	Ni	50
As	4	Pb	2
Ba	200	Sb	10
Be	5	Se	1
Cd	5	Tl	5
Co	50	V	50
Cr	20	Zn	50
Cu	25		

For use with ICP-MS. Instructions included. Designed for ILMO5.2 and ILMO5.3.

#### Spike Standard 1

CLPP-SPK-1  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:1000

Analyte	µg/mL	Analyte	µg/mL
Ag	50	Cu	250
Al	2000	Fe	1000
Ba	2000	Mn	500
Be	50	Ni	500
Co	500	V	500
Cr	200	Zn	500

For use with ICP-OES. Instructions included. Designed for ILMO5.2 and ILMO5.3.

#### Spike Standard 5

CLPP-SPK-5  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:1000

Analyte	µg/mL	Analyte	µg/mL
As	40	Sb	100
Cd	50	Se	50
Pb	20	Tl	50

For use with ICP-OES. Instructions included. Designed for ILMO5.2 and ILMO5.3.



## ILMO5.2 & ILMO5.3 (continued)

### Internal Standards & Tuning Solutions

#### Internal Standard

##### 6020ISS

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	Analyte	µg/mL
Bi	10	Rh	10
Ho	10	Sc	10
In	10	Tb	10
<sup>6</sup> Li	10	Y	10

For use with ICP-MS. Designed for ILMO5.2 and ILMO5.3.

#### Tuning Solution

##### 6020TS

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	Analyte	µg/mL
Co	10	Li	10
In	10	Tl	10

For use with ICP-MS. Designed for ILMO5.2 and ILMO5.3.

#### Tuning Solution

##### 2008TS

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100 to 1:1000

Analyte	µg/mL	Analyte	µg/mL
Be	10	Mg	10
Co	10	Pb	10
In	10		

For use with ICP-MS. Designed for ILMO5.2 and ILMO5.3.

### Blank & Rinse Solutions

Blank & rinse solutions are prepared using double-distilled nitric acid and ASTM Type 1 water. They come packaged in ultra-clean LDPE bottles.

#### 1% (v/v) Nitric Acid Calibration Blank

##### CLP-MS-BLANK

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	RTU

For use with ICP-MS. Designed for ILMO5.2 and ILMO5.3.

#### 2% (v/v) Nitric Acid Rinse

##### CLP-MS-RINSE

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	RTU

For use with ICP-MS. Designed for ILMO5.2 and ILMO5.3.

## Customer-focused...

Inorganic Ventures has always provided us with fast, reliable and friendly service during a time when great customer service is becoming the exception rather than the rule. Thanks Inorganic Ventures!

*Julie Dickerson*  
Largo, MD

## Method 200.7

Standards for Method 200.7 are designed for use with ICP-OES.  
Custom EPA standards are available upon request.

### 200.7 Calibration

Standards designed for Method 200.7 (1982), Method 3120, Method 6010A Rev. 1, and Method 200.7 CLP-M.

#### Calibration Standard 1A

WW-CAL-1A  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	λ(nm)
Ag	50	328.068
As	1000	193.759
B	100	249.678
Ba	100	493.409
Ca	1000	315.887
Cd	200	226.502
Cu	200	324.754
Mn	200	257.610
Se	500	196.090
Sr	100	421.552

NOTE: Sr does not exhibit spectral interference problems with any of the EPA Method 200.7 analytes.

#### Calibration Standard 1B

CLPP-SPK-2  
Volume 125 mL  
Matrix HNO<sub>3</sub> / Tartaric Acid  
Dilution 1:100

Analyte	µg/mL	λ(nm)
Sb	500	206.833

#### Calibration Standard 2

WW-CAL-2  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	λ(nm)
K	2000	766.491
Li	500	670.784
Mo	1000	203.844
Na	1000	588.995
Ti	1000	334.941

#### Calibration Standard 3

WW-CAL-3  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	λ(nm)
Ce	200	413.765
Co	200	228.616
P	1000	214.914
V	200	292.402

#### Calibration Standard 4A

WW-CAL-4A  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	λ(nm)
Al	1000	308.215
Cr	500	205.552
Hg	200	194.227
Zn	500	213.856

#### Calibration Standard 4B

WW-CAL-4B  
Volume 125 mL  
Matrix HNO<sub>3</sub> / HF  
Dilution 1:100

Analyte	µg/mL	λ(nm)
SiO <sub>2</sub>	1000	251.611
Sn	400	189.980

#### Calibration Standard 5

WW-CAL-5  
Volume 125 mL  
Matrix HNO<sub>3</sub> / HF  
Dilution 1:100

Analyte	µg/mL	λ(nm)
Be	100	313.042
Fe	1000	259.940
Mg	1000	279.079
Ni	200	231.604
Pb	1000	220.353
Tl	500	190.864

**Method 200.7** (continued)**200.7 Interference Checks****Interference Check Standard 1**

## 2007ICS-1

Volume 125 mL  
 Matrix HNO<sub>3</sub> / HF  
 Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
B	500	Si	230
Mo	300	Ti	1000

**Interference Check Standard 2**

## CGSB1-1

Volume 125 mL  
 Matrix HNO<sub>3</sub> / Tartaric Acid  
 Dilution 1:100

Analyte	µg/mL
Sb	1000

**Interference Check Standard 3**

## 2007ICS-3

Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	300	K	20,000
As	1000	Mn	200
Ba	300	Ni	300
Be	100	Pb	1000
Cd	300	Se	500
Co	300	Tl	1000
Cr	300	V	300
Cu	300	Zn	300

**Interference Check Standard 4**

## 2007ICS-4

Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:50

Analyte	µg/mL	Analyte	µg/mL
Al	3000	Mg	7500
Ca	15,000	Na	2500
Fe	12,500		

**200.7 Quality Controls****Quality Control Standard 1<sup>†</sup>**

## QCP-QCS-1

Volume 125 mL  
 Matrix HNO<sub>3</sub>  
 Dilution 1:100

Analyte	µg/mL	λ (nm)
Ag	25	328.068
Al	100	308.215
As	200	193.759
B	100	249.678
Ba	100	493.409
Be	100	313.042
Ca	100	315.887
Cd	100	226.502
Ce	100	413.765
Co	100	228.616
Cr	100	205.552
Cu	100	324.754
Fe	100	259.940
Hg	200	194.227
K	500	766.491
Li	100	670.784
Mg	100	279.079
Mn	100	257.610
Na	100	588.995
Ni	100	231.604
P	500	214.914
Pb	200	220.353
Se	100	196.099
Sr	100	421.552
Tl	500	190.864
V	100	292.402
Zn	100	213.856

**Quality Control Standard 2<sup>†</sup>**

## QCP-QCS-2

Volume 125 mL  
 Matrix HNO<sub>3</sub> / HF  
 Dilution 1:100

Analyte	µg/mL	λ (nm)
Mo	100	203.844
Sb	200	206.833
SiO <sub>2</sub>	500	251.611
Sn	500	189.980
Ti	100	334.941

<sup>†</sup>Manufactured from in-house Second Source concentrates.

## Method 200.7 (continued)

### 200.7 Quality Controls (continued)

#### Quality Control Standard 7<sup>†</sup>

IV-7  
Volume 125 mL  
Matrix HNO<sub>3</sub> tr HF  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	K	1000
Al	100	Na	100
B	100	Si	50
Ba	100		

#### Quality Control Standard 19<sup>†</sup>

IV-19  
Volume 125 mL  
Matrix HNO<sub>3</sub> tr HF  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
As	100	Mo	100
Be	100	Ni	100
Ca	100	Pb	100
Cd	100	Sb	100
Co	100	Se	100
Cr	100	Ti	100
Cu	100	Tl	100
Fe	100	V	100
Mg	100	Zn	100
Mn	100		

#### Quality Control Standard 21<sup>†</sup>

IV-21  
Volume 125 mL  
Matrix HNO<sub>3</sub> tr HF  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
As	100	Mo	100
Be	100	Ni	100
Ca	100	Pb	100
Cd	100	Sb	100
Co	100	Se	100
Cr	100	Sr	100
Cu	100	Ti	100
Fe	100	Tl	100
Li	100	V	100
Mg	100	Zn	100
Mn	100		

#### Quality Control Standard 26<sup>†</sup>

IV-26  
Volume 125 mL  
Matrix HNO<sub>3</sub> / HF  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	Mg	100
Al	100	Mn	100
As	100	Mo	100
B	100	Na	100
Ba	100	Ni	100
Be	100	Pb	100
Ca	100	Sb	100
Cd	100	Se	100
Co	100	Si	50
Cr	100	Ti	100
Cu	100	Tl	100
Fe	100	V	100
K	1000	Zn	100

#### Quality Control Standard 28<sup>†</sup>

IV-28  
Volume 125 mL  
Matrix HNO<sub>3</sub> tr HF  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	Mg	100
Al	100	Mn	100
As	100	Mo	100
B	100	Na	100
Ba	100	Ni	100
Be	100	Pb	100
Ca	100	Sb	100
Cd	100	Se	100
Co	100	Si	50
Cr	100	Sr	100
Cu	100	Ti	100
Fe	100	Tl	100
K	1000	V	100
Li	100	Zn	100

<sup>†</sup>Manufactured from in-house Second Source concentrates.

**Method 200.7** (continued)**Rev. 3.3 & 4.4 Calibrations**

Standards may be used for either revision.

**Calibration Standard 1A****WW-CAL-1A**

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	λ (nm)
Ag	50	328.068
As	1000	193.759
B	100	249.678
Ba	100	493.409
Ca	1000	315.887
Cd	200	226.502
Cu	200	324.754
Mn	200	257.610
Se	500	196.090
Sr	100	421.552

NOTE: Sr does not exhibit spectral interference problems with any of the EPA Method 200.7 analytes.

**Calibration Standard 1B****CLPP-SPK-2**

Volume	125 mL
Matrix	HNO <sub>3</sub> / Tartaric Acid
Dilution	1:100

Analyte	µg/mL	λ (nm)
Sb	500	206.833

**Calibration Standard 2****WW-CAL-2**

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	λ (nm)
K	2000	766.491
Li	500	670.784
Mo	1000	203.844
Na	1000	588.995
Ti	1000	334.941

**Calibration Standard 3****WW-CAL-3**

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	λ (nm)
Ce	200	413.765
Co	200	228.616
P	1000	214.914
V	200	292.402

**Calibration Standard 4A****WW-CAL-4A**

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	λ (nm)
Al	1000	308.215
Cr	500	205.552
Hg	200	194.227
Zn	500	213.856

**Calibration Standard 4B****WW-CAL-4B**

Volume	125 mL
Matrix	HNO <sub>3</sub> / HF
Dilution	1:100

Analyte	µg/mL	λ (nm)
SiO <sub>2</sub>	1000	251.611
Sn	400	189.980

**Calibration Standard 5****WW-CAL-5**

Volume	125 mL
Matrix	HNO <sub>3</sub> / HF
Dilution	1:100

Analyte	µg/mL	λ (nm)
Be	100	313.042
Fe	1000	259.940
Mg	1000	279.079
Ni	200	231.604
Pb	1000	220.353
Tl	500	190.864

## Method 200.7 (continued)

### Rev. 3.3 & 4.4 Instrument Performance Checks

#### Instrument Performance Check 1

##### WW-IPC-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	λ (nm)
Ag	25	328.068
Al	200	308.215
As	200	193.759
B	200	249.678
Ba	200	493.409
Be	200	313.042
Ca	200	315.887
Cd	200	226.502
Ce	200	413.765
Co	200	228.616
Cr	200	205.552
Cu	200	324.754
Fe	200	259.940
Hg	200	194.227
K	1000	766.491
Li	200	670.784
Mg	200	279.079
Mn	200	257.610
Na	200	588.995
Ni	200	231.604
P	1000	214.914
Pb	200	220.353
Se	200	196.090
Sr	200	421.552
Tl	200	190.864
V	200	292.402
Zn	200	213.856

#### Instrument Performance Check 3

##### WW-IPC-3

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	λ (nm)
Ag	25	328.068
Al	200	308.215
As	200	193.759
B	200	249.678
Ba	200	493.409
Be	200	313.042
Ca	200	315.887
Cd	200	226.502
Co	200	228.616
Cr	200	205.552
Cu	200	324.754
Fe	200	259.940
K	1000	766.491
Li	200	670.784
Mg	200	279.079
Mn	200	257.610
Na	200	588.995
Ni	200	231.604
P	1000	214.914
Pb	200	220.353
Se	200	196.090
Sr	200	421.552
Tl	200	190.864
V	200	292.402
Zn	200	213.856

#### Instrument Performance Check 2

##### WW-IPC-2

Volume 125 mL  
Matrix HNO<sub>3</sub> / HF  
Dilution 1:100

Analyte	µg/mL	λ (nm)
Mo	200	203.844
Sb	200	206.833
SiO <sub>2</sub>	1000	251.611
Sn	200	189.980
Ti	200	334.941

*"The sky's the limit when it comes to satisfying our customers!"*

**Denise Bottazzi**  
Manufacturing Technician



## Method 200.7 (continued)

## Rev. 3.3 &amp; 4.4 Laboratory Fortified Stocks

## Laboratory Fortified Stock Solution 1

## WW-LFS-1

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	λ(nm)
Ag	7.5	328.068
Al	200	308.215
As	80	193.759
B	30	249.678
Ba	20	493.409
Be	20	313.042
Ca	100	315.887
Cd	20	226.502
Ce	200	413.765
Co	20	228.616
Cr	40	205.552
Cu	30	324.754
Fe	300	259.940
Hg	70	194.227
K	1000	766.491
Li	20	670.784
Mg	200	279.079
Mn	20	257.610
Na	300	588.995
Ni	50	231.604
P	600	214.914
Pb	100	220.353
Se	200	196.090
Sr	20	421.552
Tl	200	190.864
V	30	292.402
Zn	20	213.856

## Laboratory Fortified Stock Solution 2

## WW-LFS-2

Volume	125 mL
Matrix	HNO <sub>3</sub> / HF
Dilution	1:100

Analyte	µg/mL	λ(nm)
Mo	40	203.844
Sb	80	206.833
SiO <sub>2</sub>	200	251.611
Sn	70	189.980
Ti	20	334.941

## Rev. 3.3 &amp; 4.4 Quality Controls

Quality Control Standard 1<sup>†</sup>

## QCP-QCS-1

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	λ(nm)
Ag	25	328.068
Al	100	308.215
As	200	193.759
B	100	249.678
Ba	100	493.409
Be	100	313.042
Ca	100	315.887
Cd	100	226.502
Ce	100	413.765
Co	100	228.616
Cr	100	205.552
Cu	100	324.754
Fe	100	259.940
Hg	200	194.227
K	500	766.491
Li	100	670.784
Mg	100	279.079
Mn	100	257.610
Na	100	588.995
Ni	100	231.604
P	500	214.914
Pb	200	220.353
Se	100	196.090
Sr	100	421.552
Tl	500	190.864
V	100	292.402
Zn	100	213.856

Quality Control Standard 2<sup>†</sup>

## QCP-QCS-2

Volume	125 mL
Matrix	HNO <sub>3</sub> / HF
Dilution	1:100

Analyte	µg/mL	λ(nm)
Mo	100	203.844
Sb	200	206.833
SiO <sub>2</sub>	500	251.611
Sn	500	189.980
Ti	100	334.941

<sup>†</sup>Manufactured from in-house Second Source concentrates.

## Method 200.7 (continued)

### Rev. 3.3 & 4.4 Quality Controls (continued)

#### Quality Control Standard 7<sup>†</sup>

IV-7  
Volume 125 mL  
Matrix HNO<sub>3</sub> tr HF  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	K	1000
Al	100	Na	100
B	100	Si	50
Ba	100		

#### Quality Control Standard 19<sup>†</sup>

IV-19  
Volume 125 mL  
Matrix HNO<sub>3</sub> tr HF  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
As	100	Mo	100
Be	100	Ni	100
Ca	100	Pb	100
Cd	100	Sb	100
Co	100	Se	100
Cr	100	Ti	100
Cu	100	Tl	100
Fe	100	V	100
Mg	100	Zn	100
Mn	100		

#### Quality Control Standard 21<sup>†</sup>

IV-21  
Volume 125 mL  
Matrix HNO<sub>3</sub> tr HF  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
As	100	Mo	100
Be	100	Ni	100
Ca	100	Pb	100
Cd	100	Sb	100
Co	100	Se	100
Cr	100	Sr	100
Cu	100	Ti	100
Fe	100	Tl	100
Li	100	V	100
Mg	100	Zn	100
Mn	100		

#### Quality Control Standard 26<sup>†</sup>

IV-26  
Volume 125 mL  
Matrix HNO<sub>3</sub> / HF  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	Mg	100
Al	100	Mn	100
As	100	Mo	100
B	100	Na	100
Ba	100	Ni	100
Be	100	Pb	100
Ca	100	Sb	100
Cd	100	Se	100
Co	100	Si	50
Cr	100	Ti	100
Cu	100	Tl	100
Fe	100	V	100
K	1000	Zn	100

#### Quality Control Standard 28<sup>†</sup>

IV-28  
Volume 125 mL  
Matrix HNO<sub>3</sub> tr HF  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	Mg	100
Al	100	Mn	100
As	100	Mo	100
B	100	Na	100
Ba	100	Ni	100
Be	100	Pb	100
Ca	100	Sb	100
Cd	100	Se	100
Co	100	Si	50
Cr	100	Sr	100
Cu	100	Ti	100
Fe	100	Tl	100
K	1000	V	100
Li	100	Zn	100

<sup>†</sup>Manufactured from in-house Second Source concentrates.



## Method 200.8

Standards for Method 200.8 are designed for use with ICP-MS. Custom EPA standards are available upon request.

### Rev. 4.4 & 5.4 Calibration

See individual products for recommended revisions.

#### Calibration Standard 1

2008CAL-1  
Volume 125 mL  
Matrix HNO<sub>3</sub> / HF  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Mo	20	Sb	20

Designed for Rev. 4.4 and Rev. 5.4.

#### Calibration Standard 2

2008CAL-2  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	20	Mn	20
Al	20	Ni	20
As	20	Pb	20
Ba	20	Se	20
Be	20	Th	20
Cd	20	Tl	20
Co	20	U	20
Cr	20	V	20
Cu	20	Zn	20

Designed for Rev. 4.4.

#### Calibration Standard 2A

WW-MSCAL-2  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	20	Mn	20
Al	20	Ni	20
As	20	Pb	20
Ba	20	Se	100
Be	20	Th	20
Cd	20	Tl	20
Co	20	U	20
Cr	20	V	20
Cu	20	Zn	20

Designed for Rev. 5.4.

#### Calibration Standard 3

WW-MSCAL-1  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:1000

Analyte	µg/mL
Hg	5

Designed for Rev. 5.4.



*"Our goal at Inorganic Ventures is to provide the best customer service world wide. We always guarantee 100% satisfaction!"*

**Noelle Newman**  
International Sales

## Method 200.8 (continued)

### Rev. 4.4 & 5.4 Internal Standards

#### Internal Standard

2008ISS  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100 to 1:1000

Analyte	µg/mL	Analyte	µg/mL
Bi	20	Tb	20
In	20	Y	20
Sc	20		

Designed for Rev. 4.4 and 5.4. Recommended working level is 200 µg/L for Rev. 4.4; 20-200 µg/L for Rev. 5.4. Use this solution with CGAUN1-1 for Rev. 5.4 if Hg is to be determined by direct analysis.

#### Mercury Preservation Solution

CGAUN1-1  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL
Au	1000

Designed for Rev. 5.4. Add an aliquot of this solution to 2008ISS, sufficient to provide a concentration of 100 µg/L in the final dilution of all blanks, calibration standards, and samples.

### Rev. 4.4 & 5.4 Quality Controls

#### Quality Control Standard 3<sup>†</sup>

QCP-QCS-3  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	10	Mn	10
Al	10	Mo	10
As	10	Na	10
Ba	10	Ni	10
Be	10	Pb	10
Ca	10	Sb	10
Cd	10	Se	50
Co	10	Th	10
Cr	10	Tl	10
Cu	10	U	10
Fe	10	V	10
K	10	Zn	10
Mg	10		

Designed for Rev. 4.4 and Rev. 5.4.

#### Quality Control Standard 4<sup>†</sup>

QCP-QCS-4  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL
Hg	5

Designed for Rev. 4.4 and Rev. 5.4.

<sup>†</sup>Manufactured from in-house Second Source concentrates

### Rev. 4.4 & 5.4 Tuning

#### Tuning Solution

2008TS  
Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100 to 1:1000

Analyte	µg/mL	Analyte	µg/mL
Be	10	Mg	10
Co	10	Pb	10
In	10		

Designed for Rev. 4.4 and Rev. 5.4.

### Fast...

One thing that Inorganic Ventures never fails at is a timely delivery. When I, or any of my associates, place an order—whether it be via telephone or internet—it is received normally within 1-2 business days. I wish more companies had quick turnaround like that!

Susan Hogan  
La Verne, CA

## Method 6020

Standards for Method 6020 are designed for use with ICP-MS.  
Custom EPA standards are available upon request.

### CLP-M Version 8

#### Calibration Standard

##### 6020CAL-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	20	K	20
Al	20	Mg	20
As	20	Mn	20
Ba	20	Na	20
Be	20	Ni	20
Ca	20	Pb	20
Cd	20	Sb	20
Co	20	Se	20
Cr	20	Tl	20
Cu	20	V	20
Fe	20	Zn	20

#### Interference Check Standard A

##### 6020ICS-8A

Volume 500 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:10

Analyte	µg/mL	Analyte	µg/mL
Al	1000	Mg	1000
C	2000	Mo	20
Ca	3000	Na	2500
Cl <sup>-</sup>	18,000	P	1000
Fe	2500	S	1000
K	1000	Ti	20

#### Interference Check Standard B

##### 6020ICS-8B

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	20	Mn	20
As	10	Ni	20
Cd	10	Se	10
Co	20	V	20
Cr	20	Zn	10
Cu	20		

#### Internal Standard

##### 6020ISS

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Bi	10	Rh	10
Ho	10	Sc	10
In	10	Tb	10
<sup>6</sup> Li	10	Y	10

#### Memory Check Standard 1

##### 6020MCC-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:2

Analyte	µg/mL	Analyte	µg/mL
Ag	20	Mg	1000
Al	1000	Mn	20
As	20	Mo	20
Ba	20	Na	1000
Be	20	Ni	20
C	2000	Pb	20
Ca	1000	Sb	20
Cd	20	Se	20
Co	20	Ti	20
Cr	20	Tl	20
Cu	20	V	20
Fe	1000	Zn	20
K	1000		

NOTE: For use with 6020MCC-2. When combined, these concentrates will precipitate. The precipitate will not adversely effect the results for his method.

#### Memory Check Standard 2

##### 6020MCC-2

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:2

Analyte	µg/mL	Analyte	µg/mL
Cl <sup>-</sup>	7200	S	1000
P	1000		

NOTE: For use with 6020MCC-1. When combined, these concentrates will precipitate. The precipitate will not adversely effect the results for this method.

## Method 6020 (continued)

### CLP-M Version 8 (continued)

#### Spike Standard - Soil

##### 6020SPK-S

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	10	Ni	25
As	10	Pb	20
Ba	50	Sb	20
Be	5	Se	5
Cd	10	Tl	5
Co	20	V	30
Cr	50	Zn	50
Cu	50		

#### Spike Standard - Water

##### 6020SPK-W

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	5	Mn	20
As	10	Ni	20
Ba	50	Pb	10
Be	5	Sb	20
Cd	5	Se	5
Co	20	Tl	5
Cr	20	V	20
Cu	20	Zn	50
Fe	100		

#### Tuning Solution

##### 6020TS

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Co	10	Li	10
In	10	Tl	10

### CLP-M Version 9

#### Calibration Standard

##### 6020CAL-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	20	K	20
Al	20	Mg	20
As	20	Mn	20
Ba	20	Na	20
Be	20	Ni	20
Ca	20	Pb	20
Cd	20	Sb	20
Co	20	Se	20
Cr	20	Tl	20
Cu	20	V	20
Fe	20	Zn	20

#### Interference Check Standard A

##### 6020ICS-9A

Volume 500 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:10

Analyte	µg/mL	Analyte	µg/mL
Al	1000	Mg	1000
C	2000	Mo	20
Ca	3000	Na	2500
Cl <sup>-</sup>	21,215	P	1000
Fe	2500	S	1000
K	1000	Ti	20

#### Interference Check Standard B

##### 6020ICS-9B

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	5	Mn	20
As	10	Ni	20
Cd	10	Se	10
Co	20	V	20
Cr	20	Zn	10
Cu	20		

**Method 6020** (continued)**CLP-M Version 9** (continued)**Internal Standard****6020ISS**

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	Analyte	µg/mL
Bi	10	Rh	10
Ho	10	Sc	10
In	10	Tb	10
<sup>6</sup> Li	10	Y	10

**Memory Check Standard 1****6020MCC-1**

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:2

Analyte	µg/mL	Analyte	µg/mL
Ag	20	Mg	1000
Al	1000	Mn	20
As	20	Mo	20
Ba	20	Na	1000
Be	20	Ni	20
C	2000	Pb	20
Ca	1000	Sb	20
Cd	20	Se	20
Co	20	Ti	20
Cr	20	Tl	20
Cu	20	V	20
Fe	1000	Zn	20
K	1000		

NOTE: For use with 6020MCC-2. When combined, these concentrates will precipitate. The precipitate will not adversely effect the results for this method.

**Memory Check Standard 2****6020MCC-2**

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:2

Analyte	µg/mL	Analyte	µg/mL
Cl <sup>-</sup>	7200	S	1000
P	1000		

NOTE: For use with 6020MCC-1. When combined, these concentrates will precipitate. The precipitate will not adversely effect the results for this method.

**Spike Standard - Soil****6020SPK-S**

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	10	Ni	25
As	10	Pb	20
Ba	50	Sb	20
Be	5	Se	5
Cd	10	Tl	5
Co	20	V	30
Cr	50	Zn	50
Cu	50		

**Spike Standard - Water****6020SPK-W**

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	5	Mn	20
As	10	Ni	20
Ba	50	Pb	10
Be	5	Sb	20
Cd	5	Se	5
Co	20	Tl	5
Cr	20	V	20
Cu	20	Zn	50
Fe	100		

**Tuning Solution****6020TS**

Volume	125 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	µg/mL	Analyte	µg/mL
Co	10	Li	10
In	10	Tl	10

## Method 6020 (continued)

### Rev. 0

#### Calibration Standard

##### 6020CAL-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	20	K	20
Al	20	Mg	20
As	20	Mn	20
Ba	20	Na	20
Be	20	Ni	20
Ca	20	Pb	20
Cd	20	Sb	20
Co	20	Se	20
Cr	20	Tl	20
Cu	20	V	20
Fe	20	Zn	20

#### CICV Standard 5<sup>†</sup>

##### QCP-ICV-1REV

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100 to 1:1000

Analyte	µg/mL	Analyte	µg/mL
Ag	10	Mn	10
Al	10	Ni	10
As	10	Pb	10
Ba	10	Sb	10
Be	10	Se	10
Cd	10	Tl	10
Co	10	V	10
Cr	10	Zn	10
Cu	10		

<sup>†</sup> Manufactured from in-house Second Source concentrates.

#### Interference Check Standard A

##### 6020ICS-0A

Volume 500 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:10

Analyte	µg/mL	Analyte	µg/mL
Al	1000	Mg	1000
C	2000	Mo	20
Ca	1000	Na	1000
Cl <sup>-</sup>	10,000	P	1000
Fe	1000	S	1000
K	1000	Ti	20

#### Interference Check Standard B

##### 6020ICS-0B

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	2	Cu	2
As	2	Mn	2
Cd	2	Ni	2
Co	2	Zn	2
Cr	2		

#### Internal Standard

##### 6020ISS

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Bi	10	Rh	10
Ho	10	Sc	10
In	10	Tb	10
<sup>6</sup> Li	10	Y	10

## Accurate...

We'll question any analysis that we determine to be outside of the norm. But we never question the ICP standards we receive from Inorganic Ventures. Thanks for supplying a quality product at a fair price.

*Kevin Campbell*  
Rock Hill, SC



## Method 6020 (continued)

Rev. 0 (continued)

### Memory Check Standard 1

#### 6020MCC-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:2

Analyte	µg/mL	Analyte	µg/mL
Ag	20	Mg	1000
Al	1000	Mn	20
As	20	Mo	20
Ba	20	Na	1000
Be	20	Ni	20
C	2000	Pb	20
Ca	1000	Sb	20
Cd	20	Se	20
Co	20	Ti	20
Cr	20	Tl	20
Cu	20	V	20
Fe	1000	Zn	20
K	1000		

NOTE: For use with 6020MCC-2. When combined, these concentrates will precipitate. The precipitate will not adversely effect the results for this method.

### Memory Check Standard 2

#### 6020MCC-2

Volume 125 mL  
Matrix H<sub>2</sub>O  
Dilution 1:2

Analyte	µg/mL	Analyte	µg/mL
Cl <sup>-</sup>	7200	S	1000
P	1000		

NOTE: For use with 6020MCC-1. When combined, these concentrates will precipitate. The precipitate will not adversely effect the results for this method.



*"We're always searching for new ways to improve our services and website with all eyes on flexing to your specs."*

**Brian Brolin**  
Director of Marketing and E-commerce

### Spike Standard - Soil

#### 6020SPK-S

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	10	Ni	25
As	10	Pb	20
Ba	50	Sb	20
Be	5	Se	5
Cd	10	Tl	5
Co	20	V	30
Cr	50	Zn	50
Cu	50		

### Spike Standard - Water

#### 6020SPK-W

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	5	Mn	20
As	10	Ni	20
Ba	50	Pb	10
Be	5	Sb	20
Cd	5	Se	5
Co	20	Tl	5
Cr	20	V	20
Cu	20	Zn	50
Fe	100		

### Tuning Solution

#### 6020TS

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Co	10	Li	10
In	10	Tl	10

# ION CHROMATOGRAPHY



If you've been searching for an atypical Ion Chromatography standard, look no further. Over the years, we've developed the most complete line of IC standards on the market. Our technicians have stabilized more than a dozen rare anion and cation standards that you won't find anywhere else.

**Product Innovation** — An integral part of how we flex to your specs.

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- ✓ **Traceable to NIST SRMs and lots**
- ✓ **Produced under ISO Guide 9001:2000**
- ✓ **Produced under ISO Guide 17025:2005**
- ✓ **Produced under ISO Guide 34:2000**
- ✓ **Assayed by validated Wet Chemical procedures**
- ✓ **Assayed by validated IC procedures**



1000 µg/mL

1000 µg/mL Anions

Custom anion standards are available upon request.

Analyte	Matrix	Starting Material	Volume	Catalog #
Acetate, C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>-</sup>	H <sub>2</sub> O	Sodium acetate	125 mL 500 mL	ICOAC1-1 ICOAC1-5
<b>NEW</b> Adipate, C <sub>6</sub> H <sub>8</sub> O <sub>4</sub>	H <sub>2</sub> O	Adipic acid	125 mL 500 mL	ICADP1-1 ICADP1-5
Benzoate, C <sub>6</sub> H <sub>5</sub> CO <sub>2</sub> <sup>-</sup>	H <sub>2</sub> O	Benzoic acid	125 mL 500 mL	ICBEN1-1 ICBEN1-5
Bromate, BrO <sub>3</sub> <sup>-</sup>	H <sub>2</sub> O	KBrO <sub>3</sub>	125 mL 500 mL	ICBRO31-1 ICBRO31-5
Bromide, Br <sup>-</sup>	H <sub>2</sub> O	KBr	125 mL 500 mL	ICBR1-1 ICBR1-5
<b>NEW</b> Butyrate, C <sub>4</sub> H <sub>7</sub> O <sub>2</sub>	H <sub>2</sub> O	Butyric Acid	125 mL 500 mL	ICBTR1-1 ICBTR1-5
Carbonate, CO <sub>3</sub> <sup>-2</sup>	H <sub>2</sub> O	Na <sub>2</sub> CO <sub>3</sub>	125 mL 500 mL	ICCO31-1 ICCO31-5
Chlorate, ClO <sub>3</sub> <sup>-</sup>	H <sub>2</sub> O	KClO <sub>3</sub>	125 mL 500 mL	ICCLO31-1 ICCLO31-5
Chloride, Cl <sup>-</sup>	H <sub>2</sub> O	KCl	125 mL 500 mL	ICCL1-1 ICCL1-5
Chlorite, ClO <sub>2</sub> <sup>-</sup>	H <sub>2</sub> O	NaClO <sub>2</sub>	125 mL 500 mL	ICCLO21-1 ICCLO21-5
Chromate, CrO <sub>4</sub> <sup>-2</sup>	H <sub>2</sub> O	NH <sub>4</sub> Cr <sub>2</sub> O <sub>7</sub>	125 mL 500 mL	ICCRO41-1 ICCRO41-5
Citrate, C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> <sup>-3</sup>	H <sub>2</sub> O	Citric Acid	125 mL 500 mL	ICIT1-1 ICIT1-5
Fluoride, F <sup>-</sup>	H <sub>2</sub> O	NaF	125 mL 500 mL	ICF1-1 ICF1-5
Formate, HCO <sub>2</sub> <sup>-</sup>	H <sub>2</sub> O	Sodium Formate	125 mL 500 mL	ICHCO1-1 ICHCO1-5
<b>NEW</b> Glutarate, C <sub>5</sub> H <sub>6</sub> O <sub>4</sub>	H <sub>2</sub> O	Glutaric Acid	125 mL 500 mL	ICGTR1-1 ICGTR1-5
Glycolate, C <sub>2</sub> H <sub>3</sub> O <sub>3</sub> <sup>-</sup>	H <sub>2</sub> O	Glycolic acid	125 mL 500 mL	ICGLY1-1 ICGLY1-5
Iodide, I <sup>-</sup>	H <sub>2</sub> O / stabilizer	NH <sub>4</sub> I	125 mL 500 mL	ICI1-1 ICI1-5
Lactate, C <sub>3</sub> H <sub>5</sub> O <sub>3</sub> <sup>-</sup>	H <sub>2</sub> O	Lactic acid	125 mL 500 mL	ICLCT1-1 ICLCT1-5
Malate, C <sub>4</sub> H <sub>4</sub> O <sub>5</sub> <sup>-2</sup>	H <sub>2</sub> O	Malic acid	125 mL 500 mL	ICMLA1-1 ICMLA1-5
Maleate, C <sub>4</sub> H <sub>2</sub> O <sub>4</sub> <sup>-2</sup>	H <sub>2</sub> O	Maleic acid	125 mL 500 mL	ICMLE1-1 ICMLE1-5
<b>NEW</b> Malonate, C <sub>3</sub> H <sub>2</sub> O <sub>4</sub>	H <sub>2</sub> O	Malonic Acid	125 mL 500 mL	ICMLO1-1 ICMLO1-5
Methanesulfonate, CH <sub>3</sub> SO <sub>3</sub> <sup>-</sup>	H <sub>2</sub> O	Methanesulfonic acid	125 mL 500 mL	ICMSA1-1 ICMSA1-5
Nitrate, NO <sub>3</sub> <sup>-</sup>	H <sub>2</sub> O	NaNO <sub>3</sub>	125 mL 500 mL	ICNO31-1 ICNO31-5

**1000 µg/mL Anions** (continued)

Custom anion standards are available upon request.

**1000 µg/mL**

Analyte	Matrix	Starting Material	Volume	Catalog #
Nitrate as N	H <sub>2</sub> O	NaNO <sub>3</sub>	125 mL 500 mL	ICNNO31-1 ICNNO31-5
Nitritotriacetate, NC <sub>6</sub> H <sub>6</sub> O <sub>6</sub> <sup>-3</sup>	H <sub>2</sub> O	Nitritotriacetic acid	125 mL 500 mL	ICNTA1-1 ICNTA1-5
Nitrite, NO <sub>2</sub> <sup>-</sup>	H <sub>2</sub> O	NaNO <sub>2</sub>	125 mL 500 mL	ICNO21-1 ICNO21-5
Nitrite as N	H <sub>2</sub> O	NaNO <sub>2</sub>	125 mL 500 mL	ICNNO21-1 ICNNO21-5
Oxalate, C <sub>2</sub> O <sub>4</sub> <sup>-2</sup>	H <sub>2</sub> O	Sodium oxalate	125 mL 500 mL	ICOX1-1 ICOX1-5
Perchlorate, ClO <sub>4</sub> <sup>-</sup>	H <sub>2</sub> O	KClO <sub>4</sub>	125 mL 500 mL	ICCLO41-1 ICCLO41-5
Phosphate, PO <sub>4</sub> <sup>-3</sup>	H <sub>2</sub> O	NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub>	125 mL 500 mL	ICPO41-1 ICPO41-5
Phosphate as P	H <sub>2</sub> O	NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub>	125 mL 500 mL	ICPPO41-1 ICPPO41-5
Phthalate, C <sub>6</sub> H <sub>4</sub> (CO <sub>2</sub> ) <sub>2</sub> <sup>-2</sup>	H <sub>2</sub> O	Potassium hydrogen phthalate	125 mL 500 mL	ICKHP1-1 ICKHP1-5
Propionate, C <sub>2</sub> H <sub>5</sub> CO <sub>2</sub> <sup>-</sup>	H <sub>2</sub> O	Sodium propionate	125 mL 500 mL	ICOPR1-1 ICOPR1-5
Succinate, C <sub>4</sub> H <sub>4</sub> O <sub>4</sub> <sup>-2</sup>	H <sub>2</sub> O	Succinic acid	125 mL 500 mL	ICSCC1-1 ICSCC1-5
Sulfate, SO <sub>4</sub> <sup>-2</sup>	H <sub>2</sub> O	K <sub>2</sub> SO <sub>4</sub>	125 mL 500 mL	ICSO41-1 ICSO41-5
Tartrate, C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> <sup>-2</sup>	H <sub>2</sub> O	Tartaric acid	125 mL 500 mL	ICTRTR1-1 ICTRTR1-5
Thiocyanate, SCN <sup>-</sup>	H <sub>2</sub> O	KSCN	125 mL 500 mL	ICSCN1-1 ICSCN1-5
Thiosulfate, S <sub>2</sub> O <sub>3</sub> <sup>-2</sup>	H <sub>2</sub> O	Sodium thiosulfate	125 mL 500 mL	ICS2O31-1 ICS2O31-5

**Devoted...**

We love Inorganic Ventures. Every time we need something, the staff that we deal with is so helpful and kind. It really seems that we are their most important customer at that time.

Randi Richey  
Huntsville, AL

*"We work hard to get your orders out on time!"*

**Jeanette Eason**  
Packaging Technician



1000 µg/mL

1000 µg/mL Cation

Custom cation standards are available upon request.

Analyte	Matrix	Starting Material	Volume	Catalog #
3-Methoxypropylamine, CH <sub>3</sub> O(CH <sub>2</sub> ) <sub>3</sub> NH <sub>2</sub>	HCl	3-Methoxypropylamine	125 mL	ICMPA1-1
			500 mL	ICMPA1-5
Ammonium, NH <sub>4</sub> <sup>+</sup>	H <sub>2</sub> O	NH <sub>4</sub> Cl	125 mL	ICNH41-1
			500 mL	ICNH41-5
Ammonium as N	H <sub>2</sub> O	NH <sub>4</sub> Cl	125 mL	ICNNH41-1
			500 mL	ICNNH41-5
Barium, Ba <sup>+2</sup>	HNO <sub>3</sub>	Ba(NO <sub>3</sub> ) <sub>2</sub>	125 mL	ICBA1-1
			500 mL	ICBA1-5
Calcium, Ca <sup>+2</sup>	HNO <sub>3</sub>	CaO	125 mL	ICCA1-1
			500 mL	ICCA1-5
Cesium, Cs <sup>+</sup>	HNO <sub>3</sub>	CsNO <sub>3</sub>	125 mL	ICCS1-1
			500 mL	ICCS1-5
Diethanolamine, (HOCH <sub>2</sub> CH <sub>2</sub> ) <sub>2</sub> NH	H <sub>2</sub> O	Diethanolamine	125 mL	ICDEA1-1
			500 mL	ICDEA1-5
Dimethylamine, NH(CH <sub>3</sub> ) <sub>2</sub>	HCl	Dimethylamine	125 mL	ICDMA1-1
			500 mL	ICDMA1-5
Lithium, Li <sup>+</sup>	HNO <sub>3</sub>	Li <sub>2</sub> CO <sub>3</sub>	125 mL	ICLI1-1
			500 mL	ICLI1-5
Magnesium, Mg <sup>+2</sup>	HNO <sub>3</sub>	Mg metal	125 mL	ICMG1-1
			500 mL	ICMG1-5
Monoethanolamine, HOCH <sub>2</sub> CH <sub>2</sub> NH <sub>2</sub>	H <sub>2</sub> O	Monoethanolamine	125 mL	ICMEA1-1
			500 mL	ICMEA1-5
Monomethylamine, NH <sub>2</sub> CH <sub>3</sub>	HCl	Monomethylamine	125 mL	ICMMA1-1
			500 mL	ICMMA1-5
Potassium, K <sup>+</sup>	HNO <sub>3</sub>	KNO <sub>3</sub>	125 mL	ICK1-1
			500 mL	ICK1-5
Rubidium, Rb <sup>+</sup>	HNO <sub>3</sub>	RbNO <sub>3</sub>	125 mL	ICRB1-1
			500 mL	ICRB1-5
Sodium, Na <sup>+</sup>	HNO <sub>3</sub>	Na <sub>2</sub> CO <sub>3</sub>	125 mL	ICNA1-1
			500 mL	ICNA1-5
Strontium, Sr <sup>+2</sup>	HNO <sub>3</sub>	SrCO <sub>3</sub>	125 mL	ICSR1-1
			500 mL	ICSR1-5
Tetramethylammonium, N <sup>+</sup> (CH <sub>3</sub> ) <sub>4</sub>	H <sub>2</sub> O	Tetramethylammonium hydroxide	125 mL	ICTMAH1-1
			500 mL	ICTMAH1-5
Triethanolamine, (HOCH <sub>2</sub> CH <sub>2</sub> ) <sub>3</sub> N	H <sub>2</sub> O	Triethanolamine	125 mL	ICTEA1-1
			500 mL	ICTEA1-5
Triethylamine, (CH <sub>3</sub> CH <sub>2</sub> ) <sub>3</sub> N	HCl	Triethylamine	125 mL	ICTA1-1
			500 mL	ICTA1-5
Trimethylamine, (CH <sub>3</sub> ) <sub>3</sub> N	HCl	Trimethylamine	125 mL	ICTMA1-1
			500 mL	ICTMA1-5

Custom multi-ion standards are available upon request.

### Anion Calibration Standard

IC-FAS-1A

Volume 125 mL

Matrix H<sub>2</sub>O

Analyte	µg/mL	Analyte	µg/mL
Br <sup>-</sup>	100	NO <sub>2</sub> <sup>-</sup>	100
Cl <sup>-</sup>	30	PO <sub>4</sub> <sup>-3</sup>	150
F <sup>-</sup>	20	SO <sub>4</sub> <sup>-2</sup>	150
NO <sub>3</sub> <sup>-</sup>	100		

Used for daily calibration.

### Cation Calibration Standard 2

IV-STOCK-7

Volume 125 mL

Matrix HNO<sub>3</sub>

**NEW**

Analyte	µg/mL	Analyte	µg/mL
Ba <sup>+2</sup>	100	Mn <sup>+2</sup>	100
Ca <sup>+2</sup>	100	Na <sup>+</sup>	100
K <sup>+</sup>	100	NH <sub>4</sub> <sup>+</sup>	100
Li <sup>+</sup>	100	Sr <sup>+2</sup>	100
Mg <sup>+2</sup>	100		

Used for daily calibration.

### Cation Calibration Standard 1

IC-SCS1-1

\$105.00

Volume 125 mL

Matrix HNO<sub>3</sub>

Analyte	µg/mL	Analyte	µg/mL
Ca <sup>+2</sup>	1000	Mg <sup>+2</sup>	200
K <sup>+</sup>	200	Na <sup>+</sup>	200
Li <sup>+</sup>	50	NH <sub>4</sub> <sup>+</sup>	400

Used for daily calibration.

## ELUENT CONCENTRATES

Custom eluent concentrates are available upon request.

### 0.18 M Sodium Carbonate / 0.17 M Sodium Bicarbonate

ELUENT1817-1 100 mL

ELUENT1817-5 500 mL

Matrix H<sub>2</sub>O

Dilution 1:100

For preparation of 1.8 mM CO<sub>3</sub><sup>-2</sup> / 1.7 mM HCO<sub>3</sub><sup>-</sup> eluent.

### 0.5 M Sodium Carbonate

CARB-1 100 mL

CARB-5 500 mL

Matrix H<sub>2</sub>O

Dilution 1:100

For preparation of various CO<sub>3</sub><sup>-2</sup> / HCO<sub>3</sub><sup>-</sup> eluents.

### 0.35 M Sodium Carbonate / 0.10 M Sodium Bicarbonate

ELUENT3510-1 100 mL

ELUENT3510-5 500 mL

Matrix H<sub>2</sub>O

Dilution 1:100

For preparation of 3.5 mM CO<sub>3</sub><sup>-2</sup> / 1.0 mM HCO<sub>3</sub><sup>-</sup> eluent.

### 1.8 M Methanesulfonic Acid

MSAELUENT-1 100 mL

MSAELUENT-5 500 mL

Matrix H<sub>2</sub>O

Dilution 1:100

For preparation of 18 mM CH<sub>3</sub>SO<sub>3</sub>H eluent for analyzing cations.

### 0.5 M Sodium Bicarbonate

BICARB-1 100 mL

BICARB-5 500 mL

Matrix H<sub>2</sub>O

Dilution 1:100

For preparation of various CO<sub>3</sub><sup>-2</sup> / HCO<sub>3</sub><sup>-</sup> eluents.



## Method 300.0 & 300.1

Custom EPA standards are available upon request.

### 300.0 Rev. 2.1 Part A

#### 0.18 M Sodium Carbonate / 0.17 M Sodium Bicarbonate

ELUENT1817-1     100 mL  
 ELUENT1817-5     500 mL  
 Matrix            H<sub>2</sub>O  
 Dilution          1:100

For preparation of 1.8 mM CO<sub>3</sub><sup>-2</sup> / 1.7 mM HCO<sub>3</sub><sup>-</sup> eluent.

#### Calibration Standard

300-CAL-A  
 Volume          125 mL  
 Matrix            H<sub>2</sub>O  
 Dilution          1:10 to 1:100

Analyte	µg/mL	Analyte	µg/mL
Br <sup>-</sup>	100	Nitrite as N	30
Cl <sup>-</sup>	30	Nitrate as N	25
F <sup>-</sup>	20	SO <sub>4</sub> <sup>-2</sup>	150
Phosphate as P	50		

#### Laboratory Fortification Stock Standard

300-LFS-A  
 Volume          125 mL  
 Matrix            H<sub>2</sub>O  
 Dilution          1:100 to 1:1000

Analyte	µg/mL	Analyte	µg/mL
Br <sup>-</sup>	1000	Nitrite as N	300
Cl <sup>-</sup>	300	Nitrate as N	300
F <sup>-</sup>	200	SO <sub>4</sub> <sup>-2</sup>	1500
Phosphate as P	500		

This standard is used to prepare the Laboratory Fortified Blank and the Laboratory Fortified Sample Matrix.

#### QC Standard / Instrument Performance Check<sup>†</sup>

QCP-QCS-5  
 Volume          125 mL  
 Matrix            H<sub>2</sub>O  
 Dilution          1:10 to 1:100

Analyte	µg/mL	Analyte	µg/mL
Br <sup>-</sup>	50	Nitrite as N	15
Cl <sup>-</sup>	15	Nitrate as N	10
F <sup>-</sup>	10	SO <sub>4</sub> <sup>-2</sup>	75
Phosphate as P	25		

Can be used to prepare the QC Sample or the IPC Solution.  
<sup>†</sup>Manufactured from in-house Second Source concentrates.



*"Here at Inorganic Ventures, we set the standards and our standards are set for excellence."*

**Angela Sinclair**  
Product Documentation

## Method 300.0 & 300.1 (continued)

Custom EPA standards are available upon request.

### 300.1 Part A

#### 0.18 M Sodium Carbonate / 0.17 M Sodium Bicarbonate

ELUENT1817-1	100 mL
ELUENT1817-5	500 mL
Matrix	H <sub>2</sub> O
Dilution	1:100

For preparation of 1.8 mM CO<sub>3</sub><sup>2-</sup> / 1.7 mM HCO<sub>3</sub><sup>-</sup> eluent.

#### Calibration Standard

##### 300-CAL-A

Volume	125 mL
Matrix	H <sub>2</sub> O
Dilution	1:10 to 1:100

Analyte	µg/mL	Analyte	µg/mL
Br <sup>-</sup>	100	Nitrite as N	30
Cl <sup>-</sup>	30	Nitrate as N	25
F <sup>-</sup>	20	SO <sub>4</sub> <sup>2-</sup>	150
Phosphate as P	50		

#### Dichloroacetate Standard

ICDCA-S-1	125 mL
ICDCA-S-5	500 mL
Matrix	H <sub>2</sub> O

Analyte	µg/mL
Cl <sub>2</sub> HC <sub>2</sub> O <sub>2</sub> <sup>-</sup>	500

For use as a surrogate analyte.

#### Laboratory Fortification Stock Standard

##### 300-LFS-A

Volume	125 mL
Matrix	H <sub>2</sub> O
Dilution	1:100 to 1:1000

Analyte	µg/mL	Analyte	µg/mL
Br <sup>-</sup>	1000	Nitrite as N	300
Cl <sup>-</sup>	300	Nitrate as N	300
F <sup>-</sup>	200	SO <sub>4</sub> <sup>2-</sup>	1500
Phosphate as P	500		

This standard is used to prepare the Laboratory Fortified Blank and the Laboratory Fortified Sample Matrix.

#### QC Standard / Instrument Performance Check†

##### QCP-QCS-5

Volume	125 mL
Matrix	H <sub>2</sub> O
Dilution	1:10 to 1:100

Analyte	µg/mL	Analyte	µg/mL
Br <sup>-</sup>	50	Nitrite as N	15
Cl <sup>-</sup>	15	Nitrate as N	10
F <sup>-</sup>	10	SO <sub>4</sub> <sup>2-</sup>	75
Phosphate as P	25		

Can be used to prepare the QC Sample or the IPC Solution.

†Manufactured from in-house Second Source concentrates.

## Reliable...

We are currently using your cation and anion standards for IC analysis. The solutions give very reliable calibration. We are going to use more of your ion standards in the future.

Jianguo Chen  
Sunnyvale, CA



## Method 300.0 & 300.1 (continued)

Custom EPA standards are available upon request.

### 300.1 Part B

#### Bromate

ICBRO31-1  
Volume 125 mL  
Matrix H<sub>2</sub>O

**Analyte** **µg/mL**

BrO<sub>3</sub><sup>-</sup> 1000

#### Bromide

ICBR1-1  
Volume 125 mL  
Matrix H<sub>2</sub>O

**Analyte** **µg/mL**

Br<sup>-</sup> 1000

#### Chlorate

ICCLO31-1  
Volume 125 mL  
Matrix H<sub>2</sub>O

**Analyte** **µg/mL**

ClO<sub>3</sub><sup>-</sup> 1000

#### Chlorite

ICCLO21-1  
Volume 125 mL  
Matrix H<sub>2</sub>O

**Analyte** **µg/mL**

ClO<sub>2</sub><sup>-</sup> 1000

NOTE: Contains less than 10ppm ClO<sub>3</sub><sup>-</sup>.

#### Dichloroacetate Standard

ICDCA-S-1 125 mL  
ICDCA-S-5 500 mL  
Matrix H<sub>2</sub>O

**Analyte** **µg/mL**

Cl<sub>2</sub>HC<sub>2</sub>O<sub>2</sub><sup>-</sup> 500

For use as a surrogate analyte.

## Method 314.0

Custom EPA standards are available upon request.

#### 1400 µmhos/cm Conductivity at 25 °C

CON1400-25  
Volume 125 mL  
Matrix H<sub>2</sub>O

#### Perchlorate

ICCLO41-1  
Volume 125 mL  
Matrix H<sub>2</sub>O

**Analyte** **µg/mL**

ClO<sub>4</sub><sup>-</sup> 1000

#### Mixed Anion Stock Solution

314-ANION-STOCK  
Volume 125 mL  
Matrix H<sub>2</sub>O

Analyte	µg/mL	Analyte	µg/mL
Cl <sup>-</sup>	25,000	SO <sub>4</sub> <sup>-2</sup>	25,000
CO <sub>3</sub> <sup>-2</sup>	25,000		

NOTE: This is not a CRM. This is the anion stock solution used to determine the MCT (Matrix Conductivity Threshold) for Method 314.0.

# ATOMIC ABSORPTION



If Atomic Absorption is your instrument of choice, we think you'll appreciate our improved line of AA standards. We've more than doubled our previous selection of analytical elements. And if you still can't find what you need, just ask. Customization is our specialty.

**Improved Selection** — One more way that we flex to your specs.

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- ✓ **Traceable to NIST SRMs and lots**
- ✓ **Produced under ISO Guide 9001:2000**
- ✓ **Assayed by validated procedures**



ATOMIC ABSORPTION  
SINGLE-ELEMENT STANDARDS



## 1000 µg/mL Standards

Custom atomic absorption standards are available upon request.

# 1000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Aluminum, Al	HNO <sub>3</sub>	Al metal	125 mL	AAAL1-1
			500 mL	AAAL1-5
Antimony, Sb	HNO <sub>3</sub> / Tartaric Acid	Sb metal	125 mL	AASB1-1
			500 mL	AASB1-5
Arsenic, As	HNO <sub>3</sub>	As metal	125 mL	AAAS1-1
			500 mL	AAAS1-5
Barium, Ba	HNO <sub>3</sub>	Ba(NO <sub>3</sub> ) <sub>2</sub>	125 mL	AABA1-1
			500 mL	AABA1-5
Beryllium, Be	HNO <sub>3</sub>	Be <sub>4</sub> O(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>6</sub>	125 mL	AABE1-1
			500 mL	AABE1-5
Bismuth, Bi	HNO <sub>3</sub>	Bi metal	125 mL	AABI1-1
			500 mL	AABI1-5
Boron, B	H <sub>2</sub> O	H <sub>3</sub> BO <sub>3</sub>	125 mL	AAB1-1
			500 mL	AAB1-5
Cadmium, Cd	HNO <sub>3</sub>	Cd metal	125 mL	AACD1-1
			500 mL	AACD1-5
Calcium, Ca	HNO <sub>3</sub>	CaO	125 mL	AACA1-1
			500 mL	AACA1-5
Cerium, Ce	HNO <sub>3</sub>	CeO <sub>2</sub>	125 mL	AACE1-1
			500 mL	AACE1-5
Cesium, Cs	HNO <sub>3</sub>	CsNO <sub>3</sub>	125 mL	AACS1-1
			500 mL	AACS1-5
Chromium, Cr	HNO <sub>3</sub>	Cr metal	125 mL	AACR1-1
			500 mL	AACR1-5
Cobalt, Co	HNO <sub>3</sub>	Co metal	125 mL	AACO1-1
			500 mL	AACO1-5
Copper, Cu	HNO <sub>3</sub>	Cu metal	125 mL	AACU1-1
			500 mL	AACU1-5
Dysprosium, Dy	HNO <sub>3</sub>	Dy <sub>2</sub> O <sub>3</sub>	125 mL	AADY1-1
			500 mL	AADY1-5
Erbium, Er	HNO <sub>3</sub>	Er <sub>2</sub> O <sub>3</sub>	125 mL	AAER1-1
			500 mL	AAER1-5
Europium, Eu	HNO <sub>3</sub>	Eu <sub>2</sub> O <sub>3</sub>	125 mL	AAEU1-1
			500 mL	AAEU1-5
Gadolinium, Gd	HNO <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>	125 mL	AAGD1-1
			500 mL	AAGD1-5
Gallium, Ga	HNO <sub>3</sub>	Ga metal	125 mL	AAGA1-1
			500 mL	AAGA1-5
Germanium, Ge	H <sub>2</sub> O/HNO <sub>3</sub> /HF	Ge metal	125 mL	AAGE1-1
			500 mL	AAGE1-5
Gold, Au	HCl	AuCl <sub>3</sub>	125 mL	AAAU1-1
			500 mL	AAAU1-5
Hafnium, Hf	H <sub>2</sub> O/HNO <sub>3</sub> /HF	HfO <sub>2</sub>	125 mL	AAHF1-1
			500 mL	AAHF1-5
Holmium, Ho	HNO <sub>3</sub>	Ho <sub>2</sub> O <sub>3</sub>	125 mL	AAHO1-1
			500 mL	AAHO1-5
Indium, In	HNO <sub>3</sub>	In metal	125 mL	AAIN1-1
			500 mL	AAIN1-5

**1000 µg/mL Standards** (continued)

Custom atomic absorption standards are available upon request.

**1000 µg/mL**

Analyte	Matrix	Starting Material	Volume	Catalog #
Iridium, Ir	HCl	IrCl <sub>3</sub>	125 mL	AAIR1-1
			500 mL	AAIR1-5
Iron, Fe	HNO <sub>3</sub>	Fe metal	125 mL	AAFE1-1
			500 mL	AAFE1-5
Lanthanum, La	HNO <sub>3</sub>	La <sub>2</sub> O <sub>3</sub>	125 mL	AALA1-1
			500 mL	AALA1-5
Lead, Pb	HNO <sub>3</sub>	Pb(NO <sub>3</sub> ) <sub>2</sub>	125 mL	AAPB1-1
			500 mL	AAPB1-5
Lithium, Li	HNO <sub>3</sub>	Li <sub>2</sub> CO <sub>3</sub>	125 mL	AALI1-1
			500 mL	AALI1-5
Lutetium, Lu	HNO <sub>3</sub>	Lu <sub>2</sub> O <sub>3</sub>	125 mL	AALU1-1
			500 mL	AALU1-5
Magnesium, Mg	HNO <sub>3</sub>	Mg metal	125 mL	AAMG1-1
			500 mL	AAMG1-5
Manganese, Mn	HNO <sub>3</sub>	Mn metal	125 mL	AAMN1-1
			500 mL	AAMN1-5
Mercury, Hg	HNO <sub>3</sub>	Hg metal	125 mL	AAHG1-1
			500 mL	AAHG1-5
Molybdenum, Mo	H <sub>2</sub> O/NH <sub>4</sub> OH	(NH <sub>4</sub> ) <sub>2</sub> MoO <sub>4</sub>	125 mL	AAMO1-1
			500 mL	AAMO1-5
Neodymium, Nd	HNO <sub>3</sub>	Nd <sub>2</sub> O <sub>3</sub>	125 mL	AAND1-1
			500 mL	AAND1-5
Nickel, Ni	HNO <sub>3</sub>	Ni metal	125 mL	AANI1-1
			500 mL	AANI1-5
Niobium, Nb	H <sub>2</sub> O/HNO <sub>3</sub> /HF	Nb metal	125 mL	AANB1-1
			500 mL	AANB1-5
Palladium, Pd	HCl	Pd(NO <sub>3</sub> ) <sub>2</sub>	125 mL	AAPD1-1
			500 mL	AAPD1-5
Phosphorus, P	H <sub>2</sub> O	H <sub>3</sub> PO <sub>4</sub>	125 mL	AAP1-1
			500 mL	AAP1-5
Platinum, Pt	HCl	Pt metal	125 mL	AAPT1-1
			500 mL	AAPT1-5
Potassium, K	HNO <sub>3</sub>	KNO <sub>3</sub>	125 mL	AAK1-1
			500 mL	AAK1-5
Praseodymium, Pr	HNO <sub>3</sub>	Pr <sub>6</sub> O <sub>11</sub>	125 mL	AAPR1-1
			500 mL	AAPR1-5
Rhenium, Re	HNO <sub>3</sub>	Re metal	125 mL	AARE1-1
			500 mL	AARE1-5
Rhodium, Rh	HCl	RhCl <sub>3</sub>	125 mL	AARH1-1
			500 mL	AARH1-5
Rubidium, Rb	HNO <sub>3</sub>	RbNO <sub>3</sub>	125 mL	AARB1-1
			500 mL	AARB1-5
Ruthenium, Ru	HCl	NH <sub>4</sub> RuCl <sub>6</sub>	125 mL	AARU1-1
			500 mL	AARU1-5
Samarium, Sm	HNO <sub>3</sub>	Sm <sub>2</sub> O <sub>3</sub>	125 mL	AASM1-1
			500 mL	AASM1-5
Scandium, Sc	HNO <sub>3</sub>	Sc <sub>2</sub> O <sub>3</sub>	125 mL	AASC1-1
			500 mL	AASC1-5

ATOMIC ABSORPTION  
SINGLE-ELEMENT STANDARDS



**1000 µg/mL Standards** (continued)

Custom atomic absorption standards are available upon request.

**1000 µg/mL**

Analyte	Matrix	Starting Material	Volume	Catalog #
Selenium, Se	HNO <sub>3</sub>	Se metal	125 mL	AASE1-1
			500 mL	AASE1-5
Silicon, Si	H <sub>2</sub> O/HNO <sub>3</sub> /HF	SiO <sub>2</sub>	125 mL	AASI1-1
			500 mL	AASI1-5
Silver, Ag	HNO <sub>3</sub>	Ag metal	125 mL	AAAG1-1
			500 mL	AAAG1-5
Sodium, Na	HNO <sub>3</sub>	Na <sub>2</sub> CO <sub>3</sub>	125 mL	AANA1-1
			500 mL	AANA1-5
Strontium, Sr	HNO <sub>3</sub>	SrCO <sub>3</sub>	125 mL	AASR1-1
			500 mL	AASR1-5
Sulfur, S	H <sub>2</sub> O	H <sub>2</sub> SO <sub>4</sub>	125 mL	AAS1-1
			500 mL	AAS1-5
Tantalum, Ta	HNO <sub>3</sub> /HF	Ta metal	125 mL	AATA1-1
			500 mL	AATA1-5
Tellurium, Te	HCl	Te metal	125 mL	AATE1-1
			500 mL	AATE1-5
Terbium, Tb	HNO <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	125 mL	AATB1-1
			500 mL	AATB1-5
Thallium, Tl	HNO <sub>3</sub>	TlNO <sub>3</sub>	125 mL	AATL1-1
			500 mL	AATL1-5
Thorium, Th	HNO <sub>3</sub>	Th(NO <sub>3</sub> ) <sub>4</sub> ·xH <sub>2</sub> O	125 mL	AATH1-1
			500 mL	AATH1-5
Thulium, Tm	HNO <sub>3</sub>	Tm <sub>2</sub> O <sub>3</sub>	125 mL	AATM1-1
			500 mL	AATM1-5
Tin, Sn	H <sub>2</sub> O/ HNO <sub>3</sub> /HF	Sn metal	125 mL	AASN1-1
			500 mL	AASN1-5
Titanium, Ti	HNO <sub>3</sub> /HF	Ti metal	125 mL	AATI1-1
			500 mL	AATI1-5
Tungsten, W	HNO <sub>3</sub> /HF	W metal	125 mL	AAW1-1
			500 mL	AAW1-5
Uranium, U	HNO <sub>3</sub>	UO <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub>	125 mL	AAU1-1
			500 mL	AAU1-5
Vanadium, V	HNO <sub>3</sub>	V <sub>2</sub> O <sub>5</sub>	125 mL	AAV1-1
			500 mL	AAV1-5
Ytterbium, Yb	HNO <sub>3</sub>	Yb <sub>2</sub> O <sub>3</sub>	125 mL	AAYB1-1
			500 mL	AAYB1-5
Yttrium, Y	HNO <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	125 mL	AAY1-1
			500 mL	AAY1-5
Zinc, Zn	HNO <sub>3</sub>	Zn metal	125 mL	AAZN1-1
			500 mL	AAZN1-5
Zirconium, Zr	H <sub>2</sub> O/HF	ZrO <sub>2</sub>	125 mL	AAZR1-1
			500 mL	AAZR1-5

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

#### 0.3% Palladium / 0.2% Magnesium Modifier

MM-PDMG-32			
Volume	125 mL		
Matrix	HNO <sub>3</sub>		
<b>Analyte</b>	<b>µg/mL</b>	<b>Analyte</b>	<b>µg/mL</b>
Mg(NO <sub>3</sub> ) <sub>2</sub>	2000	Pd	3000

#### 1% Palladium Modifier

MM-PD-10	
Volume	125 mL
Matrix	HNO <sub>3</sub>
<b>Analyte</b>	<b>µg/mL</b>
Pd	10,000

#### 0.5% Palladium Modifier

MM-PD-5	
Volume	125 mL
Matrix	HNO <sub>3</sub>
<b>Analyte</b>	<b>µg/mL</b>
Pd	5000

#### 2% Lithium Ionization Buffer

LINB2-5	
Volume	500 mL
Matrix	HNO <sub>3</sub>
<b>Analyte</b>	<b>µg/mL</b>
Li	20,000

#### 1% Lanthanum Releasing Agent

LACB1-5	
Volume	500 mL
Matrix	HCl
<b>Analyte</b>	<b>µg/mL</b>
La	10,000

#### 4% Phosphate Modifier

MM-P-40	
Volume	125 mL
Matrix	H <sub>2</sub> O
<b>Analyte</b>	<b>µg/mL</b>
NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub>	40,000

#### 1% Magnesium Nitrate Modifier

MM-MG-10	
Volume	125 mL
Matrix	HNO <sub>3</sub>
<b>Analyte</b>	<b>µg/mL</b>
Mg(NO <sub>3</sub> ) <sub>2</sub>	10,000

## MULTI-ELEMENT STANDARDS

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

#### GFAA Calibration Standard

IV-STOCK-18 <b>NEW</b>			
Volume	125 mL		
Matrix	HNO <sub>3</sub>		
<b>Analyte</b>	<b>µg/mL</b>	<b>Analyte</b>	<b>µg/mL</b>
Ag	10	Cu	50
Al	100	Fe	20
As	100	Mn	20
Ba	50	Ni	50
Be	5	Pb	100
Cd	5	Sb	100
Co	50	Se	100
Cr <sup>+3</sup>	20	Tl	100

#### AA Calibration Standard

IV-STOCK-25 <b>NEW</b>			
Volume	500 mL		
Matrix	HNO <sub>3</sub>		
<b>Analyte</b>	<b>µg/mL</b>	<b>Analyte</b>	<b>µg/mL</b>
Cr <sup>+3</sup>	3	Ni	10



## Toxicity Characteristic Leachate Procedure (TCLP)

Custom EPA standards are available upon request.

### TCLP Hg Standard

TCLP-AA-HG

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution As required

Analyte	µg/mL
Hg	20

### TCLP Standard

TCLP-1REV

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:5

Analyte	µg/mL	Analyte	µg/mL
Ag	25	Cr	25
As	25	Pb	25
Ba	500	Se	5
Cd	5		

## CLP Graphite Furnace Standards

Custom EPA standards are available upon request.

### Analytical Spiking Standard

CLPF-ASPK-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:10

Analyte	µg/mL	Analyte	µg/mL
As	20	Sb	120
Cd	10	Se	10
Pb	20	Tl	20

### CCV / ICV Standard 4<sup>†</sup>

QCP-CICV-4

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:50

Analyte	µg/mL	Analyte	µg/mL
As	25	Sb	50
Cd	5	Se	50
Pb	25	Tl	25

### Calibration Standard

CLPF-CAL-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
As	50	Sb	100
Cd	10	Se	100
Pb	50	Tl	50

### Predigestion Spiking Standard

CLPF-PSPK-1

Volume 125 mL  
Matrix HNO<sub>3</sub>  
Dilution 1:1000

Analyte	µg/mL	Analyte	µg/mL
As	40	Sb	100
Cd	5	Se	10
Pb	20	Tl	50

<sup>†</sup>Manufactured from in-house Second Source concentrates.

## Unquestionable...

Inorganic Ventures always has what I need for Atomic Absorption and ICP. Their service is always spot-on and the integrity of their standards is unquestionable. Thanks for doing the very best.

*John Thiel  
Sparks, NV*



Should you ever have a problem with any standard, Water QC or otherwise, let us know. We'll immediately investigate the problem by testing a retained sample of your solution. If the error is on our end, you'll be offered a full refund or a free replacement – your choice. Our priority is your total satisfaction.

**Customer Satisfaction** — The primary reason we flex to your specs.

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Wastewater Standards .....	74-76
Custom QC Standards .....	see pages 7-10

- ✓ **Traceable to NIST SRMs and lots**
- ✓ **Produced under ISO Guide 9001:2000**
- ✓ **Produced under ISO Guide 17025:2005**
- ✓ **Produced under ISO Guide 34:2000**
- ✓ **Assayed by optimal validated procedure**



Custom potable water standards are available upon request.

### Bromate

#### ICBRO31-1

Volume	125 mL
Matrix	H <sub>2</sub> O

<b>Analyte</b>	<b>µg/mL</b>
----------------	--------------

BrO <sub>3</sub> <sup>-</sup>	1000
-------------------------------	------

### Bromide

#### ICBR1-1

Volume	125 mL
Matrix	H <sub>2</sub> O

<b>Analyte</b>	<b>µg/mL</b>
----------------	--------------

Br <sup>-</sup>	1000
-----------------	------

### Cation Standard

#### QCP-CAT

Volume	20 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

<b>Analyte</b>	<b>Range</b>
----------------	--------------

Ca <sup>+2</sup>	5-200 mg/L
K <sup>+</sup>	1-100 mg/L
Mg <sup>+2</sup>	1-200 mg/L
Na <sup>+</sup>	6-250 mg/L

### Chlorate

#### ICCLO31-1

Volume	125 mL
Matrix	H <sub>2</sub> O

<b>Analyte</b>	<b>µg/mL</b>
----------------	--------------

ClO <sub>3</sub> <sup>-</sup>	1000
-------------------------------	------

### Chlorite

#### ICCLO21-1

Volume	125 mL
Matrix	H <sub>2</sub> O

<b>Analyte</b>	<b>µg/mL</b>
----------------	--------------

ClO <sub>2</sub> <sup>-</sup>	1000
-------------------------------	------

NOTE: Contains less than 10ppm ClO<sub>3</sub><sup>-</sup>.

### Cyanide Standard

#### QCP-CN

Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:200

<b>Analyte</b>	<b>Range</b>
----------------	--------------

Total Cyanide	0.04-1 mg/L
Free Cyanide	0.02-0.5 mg/L
Cyanide Amenable to Chlorination	0.02-0.5 mg/L

### Demand Standard

#### QCP-DMD

Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:200

<b>Analyte</b>	<b>Range</b>
----------------	--------------

TOC	6-200 mg/L
COD	15-450 mg/L
CBOD	15-300 mg/L
BOD	15-300 mg/L

### Hg Standard

#### QCP-HG

Volume	20 mL
Matrix	HNO <sub>3</sub>
Dilution	1:200

<b>Analyte</b>	<b>Range</b>
----------------	--------------

Hg	0.5-30 µg/L
----	-------------

Used in conjunction with QCP-TMS and QCP-MTL.

### Water Hardness Standard

#### QCP-WH

Volume	500 mL
Matrix	H <sub>2</sub> O/HNO <sub>3</sub>
Dilution	Ready to use

<b>Analyte</b>	<b>Range</b>
----------------	--------------

Ca	3.5-150 mg/L
Mg	0.9-50 mg/L
Hardness as CaCO <sub>3</sub>	45-575 mg/L

Custom potable water standards are available upon request.

### Metals Standard

QCP-MTL	
Volume	20 mL
Matrix	HNO <sub>3</sub>
Dilution	1:200

Analyte	Range
Ag	4-500 µg/L
Al	40-2000 µg/L
As	4-500 µg/L
Ba	40-2000 µg/L
Be	4-500 µg/L
Ca	30-75 mg/L
Cd	4-500 µg/L
Cr	40-2000 µg/L
Cu	40-2000 µg/L
Fe	40-2000 µg/L
Mn	40-2000 µg/L
Ni	40-2000 µg/L
Pb	2-250 µg/L
Sb	4-500 µg/L
Se	4-500 µg/L
Tl	4-500 µg/L
Zn	100-1000 µg/L

### Minerals Standard

QCP-MIN	
Volume	500 mL
Matrix	H <sub>2</sub> O
Dilution	Ready to use

Analyte	Range
Cl <sup>-</sup>	10-250 mg/L
F <sup>-</sup>	0.2-10 mg/L
K <sup>+</sup>	2.6-150 mg/L
Nitrate as N	0.5-10 mg/L
Conductivity	50-1050 µmhos
Alkalinity	10-150 mg/L
Na <sup>+</sup>	7-300 mg/L
SO <sub>4</sub> <sup>-2</sup>	5-150 mg/L

### Nitrite Standard

QCP-NT	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:100

Analyte	Range
Nitrite as N	0.1-2 mg/L

### pH Standard

QCP-PH	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:100

Analyte	Range
pH	5-10 units

### Simple Nutrients Standard

QCP-NUT-1	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:200

Analyte	Range
Phosphate as P	0.05-10 mg/L
Nitrate plus Nitrite as N	0.25-40 mg/L
Nitrate as N	0.25-40 mg/L
Ammonium as N	0.25-20 mg/L

### Simulated Rainwater Standard

QCP-RAIN	
Volume	125 mL
Matrix	H <sub>2</sub> O
Dilution	Ready to use

Analyte	Range
Ca <sup>+2</sup>	0.05-0.5 mg/L
Cl <sup>-</sup>	0.1-5 mg/L
F <sup>-</sup>	0.05-1 mg/L
K <sup>+</sup>	0.05-1 mg/L
Mg <sup>+2</sup>	0.05-0.5 mg/L
pH	3.5-4.5 units
Conductivity	20-120 µmhos
Na <sup>+</sup>	0.2-2 mg/L
NH <sub>4</sub> <sup>+</sup>	0.1-1.5 mg/L
NO <sub>3</sub> <sup>-</sup>	0.1-10 mg/L
SO <sub>4</sub> <sup>-2</sup>	1-12 mg/L

### Total Residual Chlorine Standard

QCP-TRC	
Volume	10 mL
Matrix	H <sub>2</sub> O
Dilution	1:200

Analyte	Range
Total Residual Chlorine	0.15-5 mg/L

### Turbidity Standard

QCP-TURB	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:100

Analyte	Range
Turbidity	0.3-40 NTU

Custom wastewater standards are available upon request.

### Cation Standard

QCP-CAT	
Volume	20 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	Range
Ca <sup>+2</sup>	5-200 mg/L
K <sup>+</sup>	1-100 mg/L
Mg <sup>+2</sup>	1-200 mg/L
Na <sup>+</sup>	6-250 mg/L

### Chromium<sup>+6</sup> Standard

QCP-CR6	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:100

Analyte	Range
Cr <sup>+6</sup>	10-1000 µg/L

### Complex Nutrients Standard

QCP-NUT-2	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:200

Analyte	Range
Total Organic Phosphorus as P	0.15-10 mg/L
Total Kjeldahl Nitrogen as N	0.35-35 mg/L

### Cyanide Standard

QCP-CN	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:200

Analyte	Range
Total Cyanide	0.04-1 mg/L
Free Cyanide	0.02-0.5 mg/L
Cyanide Amenable to Chlorination	0.02-0.5 mg/L

### Demand Standard

QCP-DMD	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:200

Analyte	Range
TOC	6-200 mg/L
COD	15-450 mg/L
CBOD	15-300 mg/L
BOD	15-300 mg/L

### Hardness Standard

QCP-WH	
Volume	500 mL
Matrix	H <sub>2</sub> O/HNO <sub>3</sub>
Dilution	Ready to use

Analyte	Range
Ca	3.5-150 mg/L
Mg	0.9-50 mg/L
Hardness as CaCO <sub>3</sub>	45-575 mg/L

## Accredited...

Our laboratory often needs multi-element quality control standards to validate the analyses we provide. Unfortunately, governing bodies can't quite agree on what the standard should be. We utilize Inorganic Ventures to help us meet the specifications of each governing body and still keep our turnaround time for analyses low.

David Rogers  
Taylorsville, UT

Custom wastewater standards are available upon request.

### Hg Standard

QCP-HG	
Volume	20 mL
Matrix	HNO <sub>3</sub>
Dilution	1:200

Analyte	Range
---------	-------

Hg	0.5-30 µg/L
----	-------------

Used in conjunction with QCP-TMS and QCP-MTL.

### Minerals Standard

QCP-MIN	
Volume	500 mL
Matrix	H <sub>2</sub> O
Dilution	Ready to use

Analyte	Range
---------	-------

Cl <sup>-</sup>	10-250 mg/L
F <sup>-</sup>	0.2-10 mg/L
K <sup>+</sup>	2.6-150 mg/L
Nitrate as N	0.5-10 mg/L
Conductivity	50-1050 µmhos
Alkalinity	10-150 mg/L
Na <sup>+</sup>	7-300 mg/L
SO <sub>4</sub> <sup>-2</sup>	5-150 mg/L

### Oil & Grease Standard 1

QCP-OG-A	
Volume	20 mL
Matrix	Acetone
Dilution	1:100

Analyte	Range
---------	-------

Oil & Grease	8-150 mg/L
--------------	------------

Applicable to gravimetric methods only.

### Oil & Grease Standard 2

QCP-OG-W	
Volume	250 mL
Matrix	H <sub>2</sub> O
Dilution	Ready to use

Analyte	Range
---------	-------

Oil & Grease	8-150 mg/L
--------------	------------

### pH Standard

QCP-PH	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	Ready to use

Analyte	Range
---------	-------

pH	5-10 units
----	------------

### Phenolics Standard

QCP-PHEN	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:200

Analyte	Range
---------	-------

Total Phenolics	0.02-5 mg/L
-----------------	-------------

### Simple Nutrients Standard

QCP-NUT-1	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:200

Analyte	Range
---------	-------

Phosphate as P	0.05-10 mg/L
Nitrate plus Nitrite as N	0.25-40 mg/L
Nitrate as N	0.25-40 mg/L
Ammonium as N	0.25-20 mg/L

### Cooperative...

Inorganic Ventures is always willing to meet my needs or specifications. They put the customer first and always produce quality products that meet or exceed my expectations.

*Stephen Gahan*  
Covington, GA

Custom wastewater standards are available upon request.

### Solids Standard

QCP-SLD	
Volume	450 mL
Matrix	H <sub>2</sub> O
Dilution	Ready to use

Analyte	Range
Total Solids (total residue)	70-5200 mg/L
Suspended Solids (nonfilterable residue)	20-200 mg/L
Dissolved Solids (filterable residue)	50-5000 mg/L

### Total Residual Chlorine Standard

QCP-TRC	
Volume	10 mL
Matrix	H <sub>2</sub> O
Dilution	1:200

Analyte	Range
Total Residual Chlorine	0.15-5 mg/L

### Experienced...

For custom-mixed standards, I'll tell Inorganic Ventures what I want, and they make it happen. I trust their expertise when it comes to putting compatible elements together. They give me the highest quality product at the best price.

*David Johnson  
Muskegon, MI*

### Trace Metals Standard

QCP-TMS	
Volume	20 mL
Matrix	HNO <sub>3</sub>
Dilution	1:100

Analyte	Range
Ag	20-600 µg/L
Al	100-4000 µg/L
As	20-900 µg/L
B	50-1000 µg/L
Ba	100-2500 µg/L
Be	8-900 µg/L
Cd	8-750 µg/L
Co	28-1000 µg/L
Cr	17-1000 µg/L
Cu	18-1000 µg/L
Fe	30-4000 µg/L
Mn	70-4000 µg/L
Mo	24-1000 µg/L
Ni	80-3000 µg/L
Pb	70-3000 µg/L
Sb	20-900 µg/L
Se	20-2000 µg/L
Sr	3.5-1000 µg/L
Tl	20-900 µg/L
V	100-10,000 µg/L
Zn	30-2000 µg/L

### Turbidity Standard

QCP-TURB	
Volume	20 mL
Matrix	H <sub>2</sub> O
Dilution	1:100

Analyte	Range
Turbidity	0.3-40 NTU

*"For over 20 years, getting to know our customers has been just as important as knowing how to manufacture a flawless standard."*

**Michael Scott**  
Executive Vice President





At times, Wet Chemistry involves some difficult and unusual techniques. If you find yourself in a bind, give us a call. One of our experts will be happy to assist you. Plus, we offer analytical advice and in-depth technical guides on our website, [www.inorganicventures.com](http://www.inorganicventures.com).

**Shared Knowledge** — The most rewarding part of how we flex to your specs.

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- ✓ **Traceable to NIST SRMs and lots\***
- ✓ **Produced under ISO Guide 9001:2000**
- ✓ **Produced under ISO Guide 17025:2005\***
- ✓ **Produced under ISO Guide 34:2000\***
- ✓ **Assayed by optimal validated procedure\***

\*Not applicable for sample preparation products.



## Conductivity Standards

Custom conductivity standards are available upon request.

### 2 $\mu\text{mhos/cm}$ Conductivity at 25 °C

CON2-25

Volume 125 mL  
Matrix H<sub>2</sub>O

**NEW**

### 1200 $\mu\text{mhos/cm}$ Conductivity at 25 °C

CON1200-25

Volume 125 mL  
Matrix H<sub>2</sub>O

**NEW**

### 10 $\mu\text{mhos/cm}$ Conductivity at 25 °C

CON10-25

Volume 125 mL  
Matrix H<sub>2</sub>O

### 1400 $\mu\text{mhos/cm}$ Conductivity at 25 °C

CON1400-25

Volume 125 mL  
Matrix H<sub>2</sub>O

### 100 $\mu\text{mhos/cm}$ Conductivity at 25 °C

CON100-25

Volume 125 mL  
Matrix H<sub>2</sub>O

### 1430 $\mu\text{mhos/cm}$ Conductivity at 25 °C

CON1430-25

Volume 125 mL  
Matrix H<sub>2</sub>O

**NEW**

### 147 $\mu\text{mhos/cm}$ Conductivity at 25 °C

CON147-25

Volume 125 mL  
Matrix H<sub>2</sub>O

**NEW**

### 10,000 $\mu\text{mhos/cm}$ Conductivity at 25 °C

CON10000-25

Volume 125 mL  
Matrix H<sub>2</sub>O

### 500 $\mu\text{mhos/cm}$ Conductivity at 25 °C

CON500-25

Volume 125 mL  
Matrix H<sub>2</sub>O

**NEW**

### 100,000 $\mu\text{mhos/cm}$ Conductivity at 25 °C

CON100000-25

Volume 125 mL  
Matrix H<sub>2</sub>O

### 1000 $\mu\text{mhos/cm}$ Conductivity at 25 °C

CON1000-25

Volume 125 mL  
Matrix H<sub>2</sub>O

## Cyanide Standards

Custom cyanide standards are available upon request..

### 1000 $\mu\text{g/mL}$ Total Cyanide

CN-1000-25

Volume 20 mL  
Matrix H<sub>2</sub>O

Analyte  $\mu\text{g/mL}$

CN<sup>-</sup> 1000

## pH Calibration Standards

Custom pH calibration standards are available upon request.

### pH 2 Standard

PH-2  
 Volume 250 mL  
 Matrix H<sub>2</sub>O **NEW**

### pH 3 Standard

PH-3  
 Volume 250 mL  
 Matrix H<sub>2</sub>O **NEW**

### pH 4 Standard

PH-4  
 Volume 250 mL  
 Matrix H<sub>2</sub>O

### pH 5 Standard

PH-5  
 Volume 250 mL  
 Matrix H<sub>2</sub>O **NEW**

### pH 6 Standard

PH-6  
 Volume 250 mL  
 Matrix H<sub>2</sub>O **NEW**

### pH 7 Standard

PH-7  
 Volume 250 mL  
 Matrix H<sub>2</sub>O

### pH 8 Standard

PH-8  
 Volume 250 mL  
 Matrix H<sub>2</sub>O **NEW**

### pH 9 Standard

PH-9  
 Volume 250 mL  
 Matrix H<sub>2</sub>O **NEW**

### pH 10 Standard

PH-10  
 Volume 250 mL  
 Matrix H<sub>2</sub>O

### pH 11 Standard

PH-11  
 Volume 250 mL  
 Matrix H<sub>2</sub>O **NEW**

### pH 12 Standard

PH-12  
 Volume 250 mL  
 Matrix H<sub>2</sub>O **NEW**

*"We always make sure our packages are delivered quickly and safely to our customers."*

**Ivy Agosto**  
 Packaging Technician



## Dissolution Reagents

Designed for the preparation and measurement of samples containing silica mixed with fluoride insoluble elements, including: zeolites, alumina and/or silica based catalysts, sand, limestone, coal fly ash, and talc. The dissolution of these types of materials requires HF. See the article entitled *Elemental Analysis of Zeolites* on our website for more information.

### Acid Dissolution Reagent 1

UA-1 - 500 mL

Recommended for the dissolution of aluminosilicates, such as zeolites.

### Acid Dissolution Reagent 2<sup>†</sup>

UA-2 - 500 mL

Designed to dissolve coal fly ash and aluminosilicates.

### Acid Dissolution Reagent 3<sup>\*</sup>

UA-3 - 500 mL

Similar to UA-2, except UA-3 can handle higher levels of iron.

### Acid Dissolution Reagent 4

UA-4 - 500 mL

Designed for the dissolution of aluminosilicates, such as zeolites, containing moderate to high levels of fluoride-insoluble elements.

### Acid Dissolution Reagent 5

UA-5 - 500 mL

Designed to handle samples high in calcium, such as limestone.

### Acid Dissolution Reagent 6

UA-6 - 500 mL

Designed for samples high in magnesium, such as dolomite.

### Acid Dissolution Reagent 7

UA-7 - 500 mL

Designed for the determination of trace elements in samples containing predominately silica, such as silica gel.

<sup>†</sup>Boron cannot be determined.

<sup>\*</sup>Boron and Phosphorus cannot be determined.

## Blank Solutions

Custom blank solutions are available upon request.

### 5% (v/v) Nitric Acid Blank

IV-ACID-BLANK

Volume	500 mL
Matrix	HNO <sub>3</sub>

### Deionized Water Blank

IV-DI-BLANK

Volume	500 mL
Matrix	H <sub>2</sub> O

## Neutralizers & Stabilizers

These products are applicable to the determination of aluminosilicates containing various elements. For details, refer to the description for Dissolution Reagents on the preceding page.

### Stabilizing Reagent 1

UNS-1      2.5 L

Designed for use with UA-1.

### Stabilizing Reagent 2

UNS-2      2.5 L

Two reagent set consisting of equal amounts of UNS-2A and UNS-2B. Recommended for use with UA-2, UA-3, UA-4, or UA-5.

### Stabilizing Reagent 3

UNS-3      2.5 L

Designed for use with UA-7.

### Stabilizing Reagent 4

UNS-4      2.5 L

Prevents salting-out effects from borate fusions and/or boric acid treated HF preparations. Also recommended for use with UA-6.

### Stabilizing Reagent 100

UNS-100      2.5 L

For use with all acids and applications. Improved capacity. Contact us for more information.

### Stabilizing Reagent 300

UNS-300      2.5 L

For use with all acids and applications. Improved capacity. Contact us for more information.

---

## Fusion Fluxes

Custom fusion fluxes are available upon request.

### Lithium Carbonate

FF-LICO3      500 g

See section 13 of the Reliable Measurements Guide found on our website for a sample preparation method designed to work perfectly with this product.

*"Our emphasis on quality remains consistent with each customer and drives us to excel in our manufacturing efforts."*

**Jennifer Farinella**  
Manufacturing Technician



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CUSTOM INORGANIC STANDARDS

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### Shipping

Orders shipped from our European Facility in Spain are sent via FedEx or TNT. Other carriers are also available. If you prefer a specific carrier, let us know. Orders shipped out of the United States are sent FOB shipping point via UPS or Federal Express.

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CUSTOM STANDARD  
**QUOTATION REQUEST FORM**

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To: Sales Department  
 Inorganic Ventures  
 300 Technology Drive  
 Christiansburg, VA 24073

- 1 Photocopy this page.
- 2 Fill out the form.
- 3 Fax to 1.540.585.3012.

From: Name \_\_\_\_\_

Date\* \_\_\_\_\_

Company \_\_\_\_\_

Account No. \_\_\_\_\_  
(optional)

Address \_\_\_\_\_

Phone \_\_\_\_\_

\_\_\_\_\_

Fax \_\_\_\_\_

**Describe your blend:**

Analyte	Concentration	Analyte	Concentration
1. _____	_____	21. _____	_____
2. _____	_____	22. _____	_____
3. _____	_____	23. _____	_____
4. _____	_____	24. _____	_____
5. _____	_____	25. _____	_____
6. _____	_____	26. _____	_____
7. _____	_____	27. _____	_____
8. _____	_____	28. _____	_____
9. _____	_____	29. _____	_____
10. _____	_____	30. _____	_____
11. _____	_____	31. _____	_____
12. _____	_____	32. _____	_____
13. _____	_____	33. _____	_____
14. _____	_____	34. _____	_____
15. _____	_____	35. _____	_____
16. _____	_____	36. _____	_____
17. _____	_____	37. _____	_____
18. _____	_____	38. _____	_____
19. _____	_____	39. _____	_____
20. _____	_____	40. _____	_____

**Units:**

- µg/mL
- µg/L
- µg/g
- µg/Kg
- mg/L
- ng/mL
- ng/g
- g/mL

**Volume:**

- 125 mL
- 250 mL
- 500 mL
- 1000 mL
- \_\_\_\_\_ L
- \_\_\_\_\_ units
- \_\_\_\_\_ units
- \_\_\_\_\_ units
- \_\_\_\_\_ units
- \_\_\_\_\_ units

**Matrix:**

- \_\_\_\_\_
- Inorganic Ventures can specify

Requested Delivery Date: \_\_\_\_\_

**Next-Day RUSH Manufacturing**  
 Solution will arrive in 48-72 business hours  
 at no additional charge.

Comments: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

You may also request quotations online:  
[www.inorganicventures.com](http://www.inorganicventures.com)

\*Quotations are void 60 days after quotation date.





Calle de Villafranca, 17  
Porteria (Local 8)  
Madrid, Spain 28028  
info@inorganicventures.com



[www.inorganicventures.com](http://www.inorganicventures.com)