VERSION 18

ISO 17034 | ISO 17025 | ISO 9001

Inorganic Custom & Stock Certified Reference Materials

ESSLAB

Your partner in science since 1982

A DISTRIBUTOR OF INORGANIC VENTURES

Our People Are the Key

At Esslab we pride ourselves on delivering results through sales and customer support and our specialist services and training.

- Fully Trained Sales Team
- Customer Support
- Logistics
- Training Academy
- Instrument Servicing & Technical Support

Our company delivers for you.

TABLE OF CONTENTS

New Products

Check out our list of contents containing NEW products. As always, we strive to manufacture a higher class of analytical standards at a fair price. Our focus is and always has been to create precise standards faster and more affordably than other manufacturers. When creating NEW products, Inorganic Ventures continues to keep in mind our customers' specific needs, and with this we will continue flexing to your specs.

Our NEW products are highlighted throughout our catalog with the symbol: 

Quality

A history of accreditation. For more than 13 years, Inorganic Ventures has been accredited by A2LA to ISO 17034 & ISO 17025. These are the core standards of the analytical testing community, and Inorganic Ventures continues to lead the way in compliance to these quality standards. This means every CRM is engineered to be stable, compatible, NIST traceable and manufactured and tested under ISO 17034 & ISO 17025 guidelines.

A2LA ACCREDITED
CERT #883.01 & 883.02

ACCREDITED ISO 17025 0883.01 BY A2LA

ACCREDITED ISO 17034 0883.02 BY A2LA

OTHER ACCREDITATION

REGISTERED ISO 9001 QSR-1034 BY QSR

Customs

Custom standards are Inorganic Ventures' specialty. Our catalog reveals only a fraction of the inorganic reference materials we can prepare. More than two thirds of our business is devoted entirely to preparing custom standards. As the leading manufacturer of custom inorganic standards, we've produced tens of thousands of unique blends for laboratories worldwide. It's our area of expertise, and perhaps the most prominent way in which we flex to your specs.

And More...

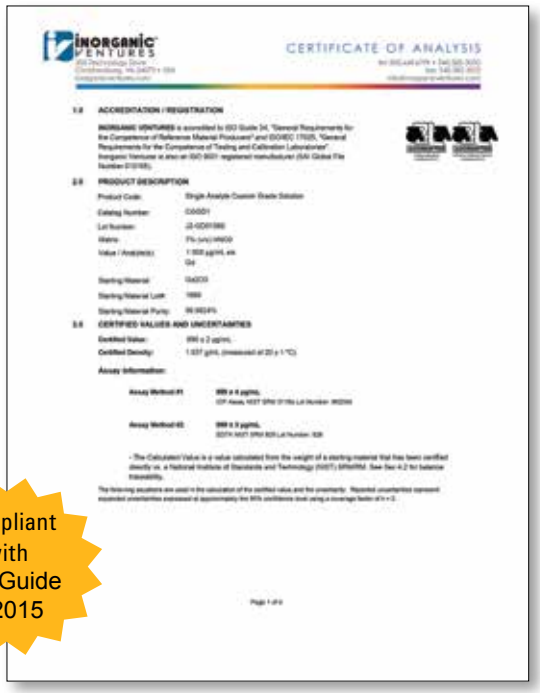
On the web. Our technical library has been expanding for over a decade. Topics include ICP operations, sample preparation, trace metals analysis and much more.* There you'll discover the best online tool for analytical chemists with our Interactive Periodic Table. It includes chemical compatibilities, preferred lines, major interferences and additional data for 70+ elements. **esslab.com/tech-center**

In the lab. All products ship with the required SDS and Certificate of Analysis. Additionally, our stock SDSs and CofAs can be found on our website for current lots as well as many older ones.

For more new features, see page 9.

WE FLEX TO YOUR SPECS

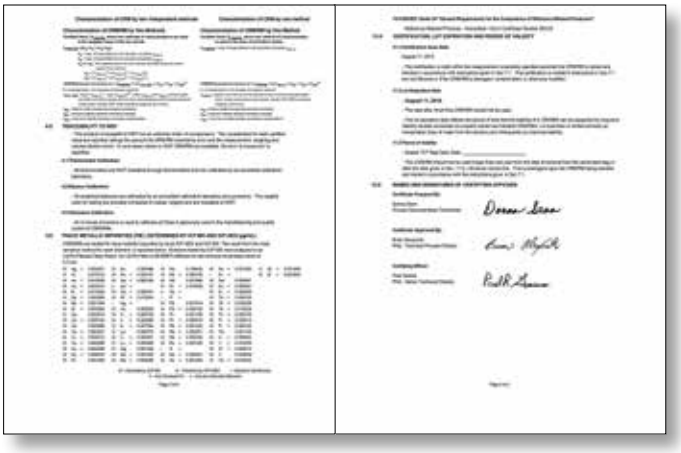
CERTIFICATE OF ANALYSIS



Compliant with ISO Guide 31:2015

You'll wonder how you ever got along without such a thorough certificate.

Contact us for a sample.



Certificate of Analysis (CoA)

Nearly every CRM we manufacture includes a highly detailed Certificate of Analysis. As an ISO 17034, A2LA accredited manufacturer, we provide certificates that include extensive data to meet the quality requirements of any laboratory:

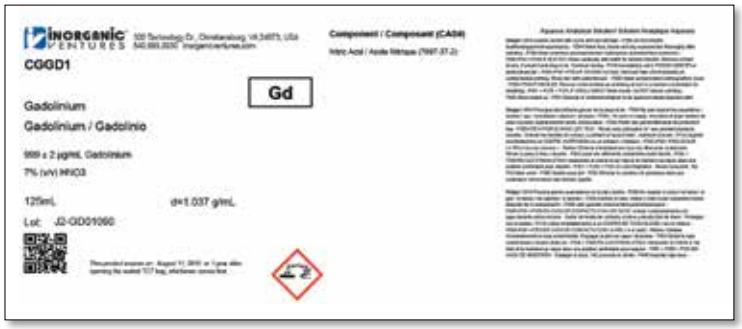
- **Traceability** — to specific NIST SRMs and lots
- **Certified Values** — based on two independent methods
- **Trace Impurities** — listed with the actual values
- **Uncertainties** — detailed information reported

ONLINE

All CoA and Safety Data Sheet (SDS) information is now available online, 24/7. Inorganic Ventures is also pleased to announce that all of our products are GHS compliant and our SDSs are available in nine different languages.

esslab.com/inorganic-standards

Inorganic Ventures Label



We're here to help. We don't just manufacture inorganic CRMs, we also provide technical support when it is needed so you can do your job. Because inorganic chemistry is all we do, Inorganic Ventures has a dedicated technical support team that can assist you with hundreds of topics: sample preparation, method development, ICP and ICP-MS measurement issues and much more. You'll be amazed when you talk to a real person with a technical background ready to help you.

Our technical advisors are available to assist you Monday to Friday, 9:00 a.m. to 5:30 p.m.

We can assist you with…

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

Technical Questions Answered

We've posted a variety of technical questions and answers pertaining to sample preparation, chemical stability and measurement.

esslab.com

Phone

- +44(0)1702 555577

Email

- sales@esslab.com

Online

- esslab.com/iv.html

OUR GUARANTEE

Unquestionable integrity.

We believe in our products. And we value our customers. That is why every order leaving our facilities includes our "Declaration of Integrity." This document guarantees your satisfaction. Simply said, if you're dissatisfied with your order for any reason and we cannot work through the problem with you, a full refund will be issued, no questions asked.


INORGANIC VENTURES'
Declaration of Integrity

While our reputation is nearly perfect, we are not infallible. That is why every order we ship includes this document. Herein we state, in no uncertain terms, that we are 100% accountable for the quality of our standards and service.

Therefore, if you are dissatisfied with your order for any reason, tell us. We will resolve the situation in whatever way works best for you:

- A full refund
- Complimentary technical services
- A replacement item rushed to you at no cost

Our company was founded on integrity. If our standards are not measuring up to yours, we want to know.

Paul R. Gaines, PhD
CEO, Inorganic Ventures

WE *flex* TO YOUR SPECS™

INORGANIC VENTURES

esslab.com | 800.669.6799 | 540.585.3030

TRANSPIRATION CONTROL TECHNOLOGY

TCT™

TRANSPIRATION CONTROL TECHNOLOGY

The cornerstone of the scientific community is accuracy. That's why Inorganic Ventures has always been committed to producing the industry's most exact Certified Reference Materials.

But our control…and the control of every standard manufacturer…ends shortly after a standard is calibrated and packaged. We are improving the way we deliver our quality standards.

What is transpiration?

Transpiration refers to the passage of water vapor through the walls of a container and/or evaporation from the container opening. Transpiration results in an increase in the concentration of the CRM/RM.

What is the solution?

Transpiration Control Technology extends the shelf-life of the product. Inorganic Ventures uses a specially designed aluminized bag that prevents an increase in concentration of the CRM/RM until the TCT bag is opened.

How it works.

The sealed TCT bag stops the loss of water vapor from the bottle when equilibrium is reached inside the bag.

Has the product changed?

The product has not changed, it is the same high-quality product you have come to depend on from Inorganic Ventures. It is the same but only better. TCT is an investment we are making to extend shelf life and give you more control at no extra charge. Our products and unconditional guarantee remain the same.

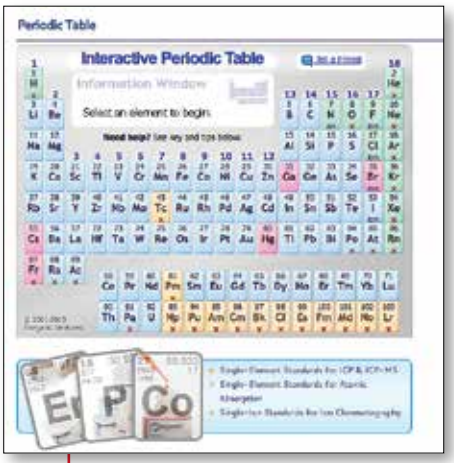
What this means for you.

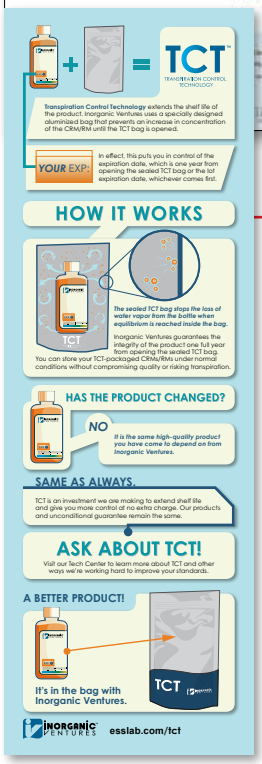
When you order stock standards from Inorganic Ventures, your product will be delivered in the TCT bag. This means you will be in control of the expiration date. Upon receiving the product, do not open the TCT bag until you are ready to use. To find out how long the product can be in the TCT bag before it expires, simply check the lot expiration found on the bottom left of the front label. Your product will expire on that date or one year after opening the sealed TCT bag, whichever comes first.

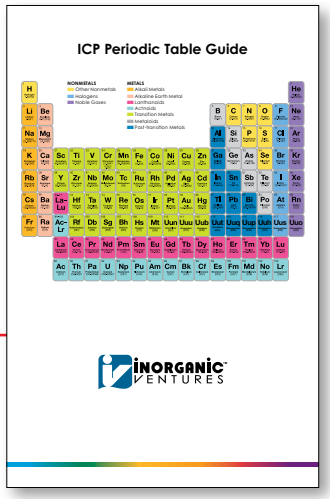
For more information on TCT, visit
esslab.com/TCT

esslab.com/iv-tech_center

Visit us online to see all of our upgraded features.







47 Ag

Interactive Periodic Table

Discover the best online tool for analytical chemists. Includes chemical comparabilities, preferred lines, major interferences and additional data for 70+ elements.

11 Na

Guides and Papers

Inorganic Ventures' online technical library has been expanding for more than a decade. Topics include ICP operations, sample preparation, trace metals analysis and much more.

TCT™ TRANSPIRATION CONTROL TECHNOLOGY

Transpiration Control Technology

With TCT, concerns about shipping or storage conditions are eliminated, as transpiration is no longer an issue.

Technical Videos

Watch technical videos pertaining to some of the most common questions in our "Ask a Chemist" video series.

CUSTOM STANDARDS

Speed. Credibility. Cooperation.

We can prepare almost any inorganic blend within the boundaries of science. Whether you need two analytes or 20, milliliters or liters, 0.001 µg/mL or 10,000 µg/mL, we can make it for you — fast. It's our specialty.

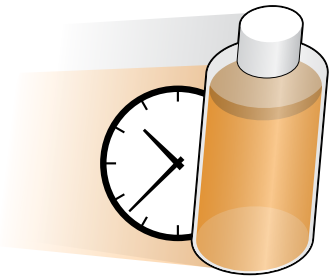
Customization — The most prominent way that we flex to your specs.

- ✓ **Up to three-year shelf life***
- ✓ **Traceable to NIST SRMs**
- ✓ **Produced under ISO 9001**
- ✓ **Produced under ISO 17025**
- ✓ **Produced under ISO 17034**
- ✓ **Assayed by optimal validated procedures**

*Call for details.

Contents

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 across the globe 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 to ten business days.

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 17034** ensures the reliability of our reference materials.
- **ISO 17025** ensures the competency of our laboratory.
- **ISO 9001** ensures the quality of our services.

Cooperative

Speed and credibility often come at a higher price. We offer specialized purchasing options and other incentives to better accommodate your 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.

1 REQUEST your customs.

Generate and request any number of custom solutions at esslab.com. Or call in your request to 01702 555577 and discuss your needs with a specialist. You may also fax the quotation request form to 1702 551772

2 REVIEW our quotation.

Often you'll receive our pricing within hours. If you like what you see, place your order by phone, fax or web. Each quote will contain pricing for several different quantities so you can choose the quantity that fits your budget.

3 RECEIVE your order.

Ninety-nine percent of the custom orders we prepare ship in five to ten business days. If we expect it to take longer, we'll let you know. When your need is truly urgent, we offer RUSH manufacturing. Plus, everything we make is backed by our Declaration of Integrity. Your satisfaction is 100 percent guaranteed for the lifetime of the solution.

QUOTATION REQUEST FORM

To: Essex Scientific Laboratory Supplies Limited
356-358 Prince Avenue
Westcliff-on-Sea
Essex, SS0 0NF

Page ____ of ____

1. Photocopy this page.
2. Fill out the form.
3. Fax to 01702 551772

Date: _____

From:

Name _____ Email _____

Company _____ Account No. _____

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	[ ] mg/L
[ ] µg/L	[ ] ng/mL
[ ] µg/g	[ ] ng/g
[ ] µg/Kg	[ ] g/mL

VOLUME:

[ ] 30 mL	[ ] quantity
[ ] 125 mL	[ ] quantity
[ ] 250 mL	[ ] quantity
[ ] 500 mL	[ ] quantity
[ ] 1,000 mL	[ ] quantity
[ ] _____ L	[ ] quantity

MATRIX:

[ ] _____

[ ] Inorganic Ventures can specify

Requested Delivery Date:

_____

[ ] **RUSH** Manufacturing
Additional charges may apply.

You may also request quotations online:
esslab.com

Specified Requirements: _____

_____

_____

_____

_____

ICP-OES & ICP–MS

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 new instrument setup standards. And we'll continue to improve our selection based on your feedback.

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

- ✓ **Up to four-year shelf life**
- ✓ **Traceable to NIST SRMs**
- ✓ **Produced under ISO 9001**
- ✓ **Produced under ISO 17025**
- ✓ **Produced under ISO 17034**
- ✓ **Assayed by validated wet chemical procedures**
- ✓ **Assayed by validated ICP-OES procedures**
- ✓ **Trace metallic impurities determined by ICP and ICP-MS**

Contents

10 µg/mL Standards

Custom 10 µg/mL standards are available upon request.

10 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Aluminum, Al	HNO_3	125 mL 500 mL	MSAL-10PPM-125ML MSAL-10PPM-500ML
Antimony, Sb	HNO_3/ Tartaric Acid	125 mL 500 mL	MSSB-10PPM-125ML MSSB-10PPM-500ML
Arsenic, As	HNO_3	125 mL 500 mL	MSAS-10PPM-125ML MSAS-10PPM-500ML
Barium, Ba	HNO_3	125 mL 500 mL	MSBA-10PPM-125ML MSBA-10PPM-500ML
Beryllium, Be	HNO_3	125 mL 500 mL	MSBE-10PPM-125ML MSBE-10PPM-500ML
Bismuth, Bi	HNO_3	125 mL 500 mL	MSBI-10PPM-125ML MSBI-10PPM-500ML
Boron, B	HNO_3	125 mL 500 mL	MSB-10PPM-125ML MSB-10PPM-500ML
Cadmium, Cd	HNO_3	125 mL 500 mL	MSCD-10PPM-125ML MSCD-10PPM-500ML
Calcium, Ca	HNO_3	125 mL 500 mL	MSCA-10PPM-125ML MSCA-10PPM-500ML
Cerium, Ce	HNO_3	125 mL 500 mL	MSCE-10PPM-125ML MSCE-10PPM-500ML
Cesium, Cs	HNO_3	125 mL 500 mL	MSCS-10PPM-125ML MSCS-10PPM-500ML
Chromium^{+3}, Cr^{+3}	HNO_3	125 mL 500 mL	MSCR(3)-10PPM-125ML MSCR(3)-10PPM-500ML
Chromium^{+6}, Cr^{+6}	H_2O	125 mL 500 mL	MSCR(6)-10PPM-125ML MSCR(6)-10PPM-500ML
Cobalt, Co	HNO_3	125 mL 500 mL	MSCO-10PPM-125ML MSCO-10PPM-500ML
Copper, Cu	HNO_3	125 mL 500 mL	MSCU-10PPM-125ML MSCU-10PPM-500ML
Germanium, Ge	HNO_3 / HF	125 mL 500 mL	MSGE-10PPM-125ML MSGE-10PPM-500ML
Gold, Au	HCl	125 mL 500 mL	MSAU-10PPM-125ML MSAU-10PPM-500ML
Hafnium, Hf	HNO_3 / HF	125 mL 500 mL	MSHF-10PPM-125ML MSHF-10PPM-500ML
Holmium, Ho	HNO_3	125 mL 500 mL	MSHO-10PPM-125ML MSHO-10PPM-500ML
Indium, In	HNO_3	125 mL 500 mL	MSIN-10PPM-125ML MSIN-10PPM-500ML
Iron, Fe	HNO_3	125 mL 500 mL	MSFE-10PPM-125ML MSFE-10PPM-500ML
Lead, Pb	HNO_3	125 mL 500 mL	MSPB-10PPM-125ML MSPB-10PPM-500ML
Lithium, Li	HNO_3	125 mL 500 mL	MSLI-10PPM-125ML MSLI-10PPM-500ML
^{6}Lithium, ^{6}Li	HNO_3	125 mL 500 mL	MS6LI-10PPM-125ML MS6LI-10PPM-500ML
Magnesium, Mg	HNO_3	125 mL 500 mL	MSMG-10PPM-125ML MSMG-10PPM-500ML
Manganese, Mn	HNO_3	125 mL 500 mL	MSMN-10PPM-125ML MSMN-10PPM-500ML
Mercury, Hg	HCl	125 mL 500 mL	MSHG-10PPM-125ML MSHG-10PPM-500ML
Mercury, Hg	HNO_3	125 mL 500 mL	MSHGN-10PPM-125ML MSHGN-10PPM-500ML

10 µg/mL Standards

Custom 10 µg/mL standards are available upon request.

10 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Molybdenum, Mo	NH_4OH	125 mL 500 mL	MSMO-10PPM-125ML MSMO-10PPM-500ML
Nickel, Ni	HNO_3	125 mL 500 mL	MSNI-10PPM-125ML MSNI-10PPM-500ML
Osmium, Os	HCl	125 mL 500 mL	MSOS-10PPM-125ML MSOS-10PPM-500ML
Phosphorus, P	H_2O	125 mL 500 mL	MSP-10PPM-125ML MSP-10PPM-500ML
Platinum, Pt	HCl	125 mL 500 mL	MSPT-10PPM-125ML MSPT-10PPM-500ML
Potassium, K	HNO_3	125 mL 500 mL	MSK-10PPM-125ML MSK-10PPM-500ML
Rhodium, Rh	HCl	125 mL 500 mL	MSRH-10PPM-125ML MSRH-10PPM-500ML
Rhodium, Rh	HNO_3	125 mL 500 mL	MSRHN-10PPM-125ML MSRHN-10PPM-500ML
Scandium, Sc	HNO_3	125 mL 500 mL	MSSC-10PPM-125ML MSSC-10PPM-500ML
Selenium, Se	HNO_3	125 mL 500 mL	MSSE-10PPM-125ML MSSE-10PPM-500ML
Silicon, Si	HNO_3 / HF	125 mL 500 mL	MSSI-10PPM-125ML MSSI-10PPM-500ML
Silver, Ag	HNO_3	125 mL 500 mL	MSAG-10PPM-125ML MSAG-10PPM-500ML
Sodium, Na	HNO_3	125 mL 500 mL	MSNA-10PPM-125ML MSNA-10PPM-500ML
Strontium, Sr	HNO_3	125 mL 500 mL	MSSR-10PPM-125ML MSSR-10PPM-500ML
Sulfur, S	H_2O	125 mL 500 mL	MSS-10PPM-125ML MSS-10PPM-500ML
Tellurium, Te	HNO_3	125 mL 500 mL	MSTEN-10PPM-125ML MSTEN-10PPM-500ML
Terbium, Tb	HNO_3	125 mL 500 mL	MSTB-10PPM-125ML MSTB-10PPM-500ML
Thallium, Tl	HNO_3	125 mL 500 mL	MSTL-10PPM-125ML MSTL-10PPM-500ML
Thorium, Th	HNO_3	125 mL 500 mL	MSTH-10PPM-125ML MSTH-10PPM-500ML
Tin, Sn	HNO_3 / HF	125 mL 500 mL	MSSN-10PPM-125ML MSSN-10PPM-500ML
Titanium, Ti	HNO_3 / HF	125 mL 500 mL	MSTI-10PPM-125ML MSTI-10PPM-500ML
Tungsten, W	HNO_3 / HF	125 mL 500 mL	MSW-10PPM-125ML MSW-10PPM-500ML
Uranium, U	HNO_3	125 mL 500 mL	MSU-10PPM-125ML MSU-10PPM-500ML
Vanadium, V	HNO_3	125 mL 500 mL	MSV-10PPM-125ML MSV-10PPM-500ML
Yttrium, Y	HNO_3	125 mL 500 mL	MSY-10PPM-125ML MSY-10PPM-500ML
Zinc, Zn	HNO_3	125 mL 500 mL	MSZN-10PPM-125ML MSZN-10PPM-500ML

100 µg/mL Standards

Custom 100 µg/mL standards are available upon request.

100 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Aluminum, Al	HNO_3	125 mL 500 mL	MSAL-100PPM-125ML MSAL-100PPM-500ML
Antimony, Sb	HNO_3/ Tartaric Acid	125 mL 500 mL	MSSB-100PPM-125ML MSSB-100PPM-500ML
Arsenic, As	HNO_3	125 mL 500 mL	MSAS-100PPM-125ML MSAS-100PPM-500ML
Barium, Ba	HNO_3	125 mL 500 mL	MSBA-100PPM-125ML MSBA-100PPM-500ML
Beryllium, Be	HNO_3	125 mL 500 mL	MSBE-100PPM-125ML MSBE-100PPM-500ML
Bismuth, Bi	HNO_3	125 mL 500 mL	MSBI-100PPM-125ML MSBI-100PPM-500ML
Boron, B	HNO_3	125 mL 500 mL	MSB-100PPM-125ML MSB-100PPM-500ML
Cadmium, Cd	HNO_3	125 mL 500 mL	MSCD-100PPM-125ML MSCD-100PPM-500ML
Calcium, Ca	HNO_3	125 mL 500 mL	MSCA-100PPM-125ML MSCA-100PPM-500ML
Cerium, Ce	HNO_3	125 mL 500 mL	MSCE-100PPM-125ML MSCE-100PPM-500ML
Cesium, Cs	HNO_3	125 mL 500 mL	MSCS-100PPM-125ML MSCS-100PPM-500ML
Chromium^{+3}, Cr^{+3}	HNO_3	125 mL 500 mL	MSCR(3)-100PPM-125ML MSCR(3)-100PPM-500ML
Chromium^{+6}, Cr^{+6}	H_2O	125 mL 500 mL	MSCR(6)-100PPM-125ML MSCR(6)-100PPM-500ML
Cobalt, Co	HNO_3	125 mL 500 mL	MSCO-100PPM-125ML MSCO-100PPM-500ML
Copper, Cu	HNO_3	125 mL 500 mL	MSCU-100PPM-125ML MSCU-100PPM-500ML
Germanium, Ge	HNO_3 / HF	125 mL 500 mL	MSGE-100PPM-125ML MSGE-100PPM-500ML
Gold, Au	HCl	125 mL 500 mL	MSAU-100PPM-125ML MSAU-100PPM-500ML
Hafnium, Hf	HNO_3 / HF	125 mL 500 mL	MSHF-100PPM-125ML MSHF-100PPM-500ML
Holmium, Ho	HNO_3	125 mL 500 mL	MSHO-100PPM-125ML MSHO-100PPM-500ML
Indium, In	HNO_3	125 mL 500 mL	MSIN-100PPM-125ML MSIN-100PPM-500ML
Iron, Fe	HNO_3	125 mL 500 mL	MSFE-100PPM-125ML MSFE-100PPM-500ML
Lead, Pb	HNO_3	125 mL 500 mL	MSPB-100PPM-125ML MSPB-100PPM-500ML
Lithium, Li	HNO_3	125 mL 500 mL	MSLI-100PPM-125ML MSLI-100PPM-500ML
^{6}Lithium, ^{6}Li	HNO_3	125 mL 500 mL	MS6LI-100PPM-125ML MS6LI-100PPM-500ML
Magnesium, Mg	HNO_3	125 mL 500 mL	MSMG-100PPM-125ML MSMG-100PPM-500ML
Manganese, Mn	HNO_3	125 mL 500 mL	MSMN-100PPM-125ML MSMN-100PPM-500ML
Mercury, Hg	HCl	125 mL 500 mL	MSHG-100PPM-125ML MSHG-100PPM-500ML
Mercury, Hg	HNO_3	125 mL 500 mL	MSHGN-100PPM-125ML MSHGN-100PPM-500ML

100 µg/mL Standards

Custom 100 µg/mL standards are available upon request.

100 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Molybdenum, Mo	NH_4OH	125 mL 500 mL	MSMO-100PPM-125ML MSMO-100PPM-500ML
Nickel, Ni	HNO_3	125 mL 500 mL	MSNI-100PPM-125ML MSNI-100PPM-500ML
Osmium, Os	HCl	125 mL 500 mL	MSOS-100PPM-125ML MSOS-100PPM-500ML
Phosphorus, P	H_2O	125 mL 500 mL	MSP-100PPM-125ML MSP-100PPM-500ML
Platinum, Pt	HCl	125 mL 500 mL	MSPT-100PPM-125ML MSPT-100PPM-500ML
Potassium, K	HNO_3	125 mL 500 mL	MSK-100PPM-125ML MSK-100PPM-500ML
Rhodium, Rh	HCl	125 mL 500 mL	MSRH-100PPM-125ML MSRH-100PPM-500ML
Rhodium, Rh	HNO_3	125 mL 500 mL	MSRHN-100PPM-125ML MSRHN-100PPM-500ML
Scandium, Sc	HNO_3	125 mL 500 mL	MSSC-100PPM-125ML MSSC-100PPM-500ML
Selenium, Se	HNO_3	125 mL 500 mL	MSSE-100PPM-125ML MSSE-100PPM-500ML
Silicon, Si	HNO_3 / HF	125 mL 500 mL	MSSI-100PPM-125ML MSSI-100PPM-500ML
Silver, Ag	HNO_3	125 mL 500 mL	MSAG-100PPM-125ML MSAG-100PPM-500ML
Sodium, Na	HNO_3	125 mL 500 mL	MSNA-100PPM-125ML MSNA-100PPM-500ML
Strontium, Sr	HNO_3	125 mL 500 mL	MSSR-100PPM-125ML MSSR-100PPM-500ML
Sulfur, S	H_2O	125 mL 500 mL	MSS-100PPM-125ML MSS-100PPM-500ML
Tellurium, Te	HNO_3	125 mL 500 mL	MSTEN-100PPM-125ML MSTEN-100PPM-500ML
Terbium, Tb	HNO_3	125 mL 500 mL	MSTB-100PPM-125ML MSTB-100PPM-500ML
Thallium, Tl	HNO_3	125 mL 500 mL	MSTL-100PPM-125ML MSTL-100PPM-500ML
Thorium, Th	HNO_3	125 mL 500 mL	MSTH-100PPM-125ML MSTH-100PPM-500ML
Tin, Sn	HNO_3 / HF	125 mL 500 mL	MSSN-100PPM-125ML MSSN-100PPM-500ML
Titanium, Ti	HNO_3 / HF	125 mL 500 mL	MSTI-100PPM-125ML MSTI-100PPM-500ML
Tungsten, W	HNO_3 / HF	125 mL 500 mL	MSW-100PPM-125ML MSW-100PPM-500ML
Uranium, U	HNO_3	125 mL 500 mL	MSU-100PPM-125ML MSU-100PPM-500ML
Vanadium, V	HNO_3	125 mL 500 mL	MSV-100PPM-125ML MSV-100PPM-500ML
Yttrium, Y	HNO_3	125 mL 500 mL	MSY-100PPM-125ML MSY-100PPM-500ML
Zinc, Zn	HNO_3	125 mL 500 mL	MSZN-100PPM-125ML MSZN-100PPM-500ML

1,000 µg/mL Standards

Custom 1,000 µg/mL standards are available upon request.

1,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Aluminum, Al	HNO_3	30 mL 125 mL 500 mL	CGAL1-30ML CGAL1-125ML CGAL1-500ML
Aluminum, Al	HCl	30 mL 125 mL 500 mL	CGALCL1-30ML CGALCL1-125ML CGALCL1-500ML
Antimony, Sb	HNO_3 / Tartaric Acid	30 mL 125 mL 500 mL	CGSB1-30ML CGSB1-125ML CGSB1-500ML
Antimony, Sb	HNO_3 / HF	30 mL 125 mL 500 mL	CGSBF1-30ML CGSBF1-125ML CGSBF1-500ML
Arsenic, As	HNO_3	30 mL 125 mL 500 mL	CGAS1-30ML CGAS1-125ML CGAS1-500ML
Arsenic^{+3}, As^{+3}	HCl / NaOH / $NaHCO_3$	30 mL 125 mL 500 mL	CGAS(3)1-30ML CGAS(3)1-125ML CGAS(3)1-500ML
Arsenic^{+5}, As^{+5}	H_2O	30 mL 125 mL 500 mL	CGAS(5)1-30ML CGAS(5)1-125ML CGAS(5)1-500ML
Barium, Ba	HNO_3	30 mL 125 mL 500 mL	CGBA1-30ML CGBA1-125ML CGBA1-500ML
Beryllium, Be	HNO_3	30 mL 125 mL 500 mL	CGBE1-30ML CGBE1-125ML CGBE1-500ML
Bismuth, Bi Can be used as an Internal Standard for ICP-MS.	HNO_3	30 mL 125 mL 500 mL	CGBI1-30ML CGBI1-125ML CGBI1-500ML
Boron, B	NH_4OH	30 mL 125 mL 500 mLL	CGB1-30ML CGB1-125ML CGB1-500ML
Bromide, Br- To be used for analyzing Bromide by ICP-OES.	H_2O	30 mL 125 mL 500 mL	CGICBR1-30ML CGICBR1-125ML CGICBR1-500ML
Cadmium, Cd	HNO_3	30 mL 125 mL 500 mL	CGCD1-30ML CGCD1-125ML CGCD1-500ML
Calcium, Ca	HNO_3	30 mL 125 mL 500 mL	CGCA1-30ML CGCA1-125ML CGCA1-500ML
Carbon, C No metallic impurities.	HNO_3	30 mL 125 mL 500 mL	CGC1-30ML CGC1-125ML CGC1-500ML
Carbon, C To be used for TOC as per standard methods.	H_2O	125 mL 500 mL	TOCKHP1-125ML TOCKHP1-500ML
Cerium, Ce	HNO_3	30 mL 125 mL 500 mL	CGCE1-30ML CGCE1-125ML CGCE1-500ML

1,000 µg/mL Standards

Custom 1,000 µg/mL standards are available upon request.

1,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Cesium, Cs	HNO_3	30 mL 125 mL 500 mL	CGCS1-30ML CGCS1-125ML CGCS1-500ML
Chloride, Cl^- To be used for analyzing Chloride by ICP-OES.	H_2O	30 mL 125 mL 500 mL	CGICCL1-30ML CGICCL1-125ML CGICCL1-500ML
Chromium^{+3}, Cr^{+3}	HNO_3	30 mL 125 mL 500 mL	CGCR(3)1-30ML CGCR(3)1-125ML CGCR(3)1-500ML
Chromium^{+6}, Cr^{+6}	H_2O	30 mL 125 mL 500 mL	CGCR(6)1-30ML CGCR(6)1-125ML CGCR(6)1-500ML
Cobalt, Co	HNO_3	30 mL 125 mL 500 mL	CGCO1-30ML CGCO1-125ML CGCO1-500ML
Copper, Cu	HNO_3	30 mL 125 mL 500 mL	CGCU1-30ML CGCU1-125ML CGCU1-500ML
Dysprosium, Dy	HNO_3	30 mL 125 mL 500 mL	CGDY1-30ML CGDY1-125ML CGDY1-500ML
Erbium, Er	HNO_3	30 mL 125 mL 500 mL	CGER1-30ML CGER1-125ML CGER1-500ML
Europium, Eu	HNO_3	30 mL 125 mL 500 mL	CGEU1-30ML CGEU1-125ML CGEU1-500ML
Gadolinium, Gd	HNO_3	30 mL 125 mL 500 mL	CGGD1-30ML CGGD1-125ML CGGD1-500ML
Gallium, Ga	HNO_3	30 mL 125 mL 500 mL	CGGA1-30ML CGGA1-125ML CGGA1-500ML
Germanium, Ge	HNO_3 / HF	30 mL 125 mL 500 mL	CGGE1-30ML CGGE1-125ML CGGE1-500ML
Gold, Au Can be used to stabalize low-level Hg for ICP-MS.	HCl	30 mL 125 mL 500 mL	CGAU1-30ML CGAU1-125ML CGAU1-500ML
Gold, Au	HNO_3	30 mL 125 mL 500 mL	CGAUN1-30ML CGAUN1-125ML CGAUN1-500ML
Hafnium, Hf	HNO_3 / HF	30 mL 125 mL 500 mL	CGHF1-30ML CGHF1-125ML CGHF1-500ML
Holmium, Ho Can be used as an Internal Standard for ICP-MS.	HNO_3	30 mL 125 mL 500 mL	CGHO1-30ML CGHO1-125ML CGHO1-500ML

1,000 µg/mL Standards

Custom 1,000 µg/mL standards are available upon request.

1,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Indium, In Can be used as an Internal Standard for ICP-MS.	HNO_3	30 mL 125 mL 500 mL	CGIN1-30ML CGIN1-125ML CGIN1-500ML
Iodide, I^- Can be used for analyzing Iodide by ICP-OES.	H_2O / stabilizer	30 mL 125 mL 500 mL	CGICI1-30ML CGICI1-125ML CGICI1-500ML
Iridium, Ir	HCl	30 mL 125 mL 500 mL	CGIR1-30ML CGIR1-125ML CGIR1-500ML
Iron, Fe	HNO_3	30 mL 125 mL 500 mL	CGFE1-30ML CGFE1-125ML CGFE1-500ML
Lanthanum, La	HNO_3	30 mL 125 mL 500 mL	CGLA1-30ML CGLA1-125ML CGLA1-500ML
Lead, Pb	HNO_3	30 mL 125 mL 500 mL	CGPB1-30ML CGPB1-125ML CGPB1-500ML
Lithium, Li	HNO_3	30 mL 125 mL 500 mL	CGLI1-30ML CGLI1-125ML CGLI1-500ML
^{6}Lithium, ^{6}Li Can be used as an Internal Standard for ICP-MS.	HNO_3	30 mL 125 mL 500 mL	CG6LI1-30ML CG6LI1-125ML CG6LI1-500ML
Lutetium, Lu	HNO_3	30 mL 125 mL 500 mL	CGLU1-30ML CGLU1-125ML CGLU1-500ML
Magnesium, Mg	HNO_3	30 mL 125 mL 500 mL	CGMG1-30ML CGMG1-125ML CGMG1-500ML
Manganese, Mn	HNO_3	30 mL 125 mL 500 mL	CGMN1-30ML CGMN1-125ML CGMN1-500ML
Mercury, Hg	HNO_3	30 mL 125 mL 500 mL	CGHG1-30ML CGHG1-125ML CGHG1-500ML
Molybdenum, Mo	NH_4OH	30 mL 125 mL 500 mL	CGMO1-30ML CGMO1-125ML CGMO1-500ML
Neodymium, Nd	HNO_3	30 mL 125 mL 500 mL	CGND1-30ML CGND1-125ML CGND1-500ML
Nickel, Ni	HNO_3	30 mL 125 mL 500 mL	CGNI1-30ML CGNI1-125ML CGNI1-500ML
Niobium, Nb	HNO_3 / HF	30 mL 125 mL 500 mL	CGNB1-30ML CGNB1-125ML CGNB1-500ML

1,000 µg/mL Standards

Custom 1,000 µg/mL standards are available upon request.

1,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Niobium, Nb High purity, low Tantalum	HNO_3 / HF	130 mL 125 mL 500 mL	CGNB2O51-30ML CGNB2O51-125ML CGNB2O51-500ML
Osmium, Os	HCl	30 mL 125 mL 500 mL	CGOS1-30ML CGOS1-125ML CGOS1-500ML
Palladium, Pd	HCl	30 mL 125 mL 500 mL	CGPD1-30ML CGPD1-125ML CGPD1-500ML
Palladium, Pd	HNO_3	30 mL 125 mL 500 mL	CGPDN1-30ML CGPDN1-125ML CGPDN1-500ML
Phosphorus, P	H_2O	30 mL 125 mL 500 mL	CGP1-30ML CGP1-125ML CGP1-500ML
Platinum, Pt	HNO_3 / HCl	30 mL 125 mL 500 mL	CGPTN1-30ML CGPTN1-125ML CGPTN1-500ML
Platinum, Pt	HCl	30 mL 125 mL 500 mL	CGPT1-30ML CGPT1-125ML CGPT1-500ML
Platinum, Pt Chloride Free	HNO_3	30 mL 125 mL 500 mL	CGPTNO31-30ML CGPTNO31-125ML CGPTNO31-500ML
Potassium, K	HNO_3	30 mL 125 mL 500 mL	CGK1-30ML CGK1-125ML CGK1-500ML
Praseodymium, Pr	HNO_3	30 mL 125 mL 500 mL	CGPR1-30ML CGPR1-125ML CGPR1-500ML
Rhenium, Re	HNO_3	30 mL 125 mL 500 mL	CGRE1-30ML CGRE1-125ML CGRE1-500ML
Rhodium, Rh Can be used as an Internal Standard for ICP-MS.	HCl	30 mL 125 mL 500 mL	CGRH1-30ML CGRH1-125ML CGRH1-500ML
Rhodium, Rh Can be used as an Internal Standard for ICP-MS.	HNO_3	30 mL 125 mL 500 mL	CGRHN1-30ML CGRHN1-125ML CGRHN1-500ML
Rubidium, Rb	HNO_3	30 mL 125 mL 500 mL	CGRB1-30ML CGRB1-125ML CGRB1-500ML
Ruthenium, Ru	HCl	30 mL 125 mL 500 mL	CGRU1-30ML CGRU1-125ML CGRU1-500ML
Samarium, Sm	HNO_3	30 mL 125 mL 500 mL	CGSM1-30ML CGSM1-125ML CGSM1-500ML

1,000 µg/mL Standards

Custom 1,000 µg/mL standards are available upon request.

1,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Scandium, Sc Can be used as an Internal Standard for ICP-MS.	HNO_3	30 mL 125 mL 500 mL	CGSC1-30ML CGSC1-125ML CGSC1-500ML
Selenium^{+4}, Se^{+4}	HNO_3	30 mL 125 mL 500 mL	CGSE(4)1-30ML CGSE(4)1-125ML CGSE(4)1-500ML
Selenium^{+6}, Se^{+6}	H_2O	30 mL 125 mL 500 mLL	CGSE(6)1-30ML CGSE(6)1-125ML CGSE(6)1-500ML
Silica, SiO_2	HNO_3 / HF	30 mL 125 mL 500 mLL	CGSIO1-30ML CGSIO1-125ML CGSIO1-500ML
Silica, SiO_2	NaOH	30 mL 125 mL 500 mL	CGSIONA1-30ML CGSIONA1-125ML CGSIONA1-500ML
Silicon, Si	HNO_3 / HF	30 mL 125 mL 500 mL	CGSI1-30ML CGSI1-125ML CGSI1-500ML
Silicon, Si	NaOH	30 mL 125 mL 500 mL	CGSINA1-30ML CGSINA1-125ML CGSINA1-500ML
Silver, Ag	HNO_3	30 mL 125 mL 500 mL	CGAG1-30ML CGAG1-125ML CGAG1-500ML
Sodium, Na	HNO_3	30 mL 125 mL 500 mL	CGNA1-30ML CGNA1-125ML CGNA1-500ML
Strontium, Sr	HNO_3	30 mL 125 mL 500 mL	CGSR1-30ML CGSR1-125ML CGSR1-500ML
Sulfur, S Prevents incompatability issues when mixing with Ba and Pb.	H_2O	30 mL 125 mL 500 mL	CGMSA1-30ML CGMSA1-125ML CGMSA1-500ML
Sulfur, S	H_2O	30 mL 125 mL 500 mL	CGS1-30ML CGS1-125ML CGS1-500ML
Tantalum, Ta	HNO_3 / HF	30 mL 125 mL 500 mL	CGTA1-30ML CGTA1-125ML CGTA1-500ML
Tellurium, Te	HCl	30 mL 125 mL 500 mL	CGTE1-30ML CGTE1-125ML CGTE1-500ML
Tellurium, Te	HNO_3	30 mL 125 mL 500 mL	CGTEN1-30ML CGTEN1-125ML CGTEN1-500ML
Terbium, Tb Can be used as an Internal Standard for ICP-MS.	HNO_3	30 mL 125 mL 500 mL	CGTB1-30ML CGTB1-125ML CGTB1-500ML

1,000 µg/mL Standards

Custom 1,000 µg/mL standards are available upon request.

1,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Thallium, Tl	HNO_3	30 mL 125 mL 500 mL	CGTL1-30ML CGTL1-125ML CGTL1-500ML
Thorium, Th	HNO_3	30 mL 125 mL 500 mL	CGTH1-30ML CGTH1-125ML CGTH1-500ML
Thulium, Tm	HNO_3	30 mL 125 mL 500 mL	CGTM1-30ML CGTM1-125ML CGTM1-500ML
Tin, Sn	HCl	30 mL 125 mL 500 mL	CGSNCL1-30ML CGSNCL1-125ML CGSNCL1-500ML
Tin, Sn	HNO_3 / HF	30 mL 125 mL 500 mL	CGSN1-30ML CGSN1-125ML CGSN1-500ML
Titanium, Ti	HNO_3 / HF	30 mL 125 mL 500 mL	CGTI1-30ML CGTI1-125ML CGTI1-500ML
Tungsten, W	HNO_3 / HF	30 mL 125 mL 500 mL	CGW1-30ML CGW1-125ML CGW1-500ML
Tungsten, W	H_2O	30 mL 125 mL 500 mL	CGWH2O1-30ML CGWH2O1-125ML CGWH2O1-500ML
Uranium, U	HNO_3	30 mL 125 mL 500 mL	CGU1-30ML CGU1-125ML CGU1-500ML
Vanadium, V	HNO_3	30 mL 125 mL 500 mL	CGV1-30ML CGV1-125ML CGV1-500ML
Ytterbium, Yb	HNO_3	30 mL 125 mL 500 mL	CGYB1-30ML CGYB1-125ML CGYB1-500ML
Yttrium, Y Can be used as an Internal Standard for ICP-MS.	HNO_3	30 mL 125 mL 500 mL	CGY1-30ML CGY1-125ML CGY1-500ML
Zinc, Zn	HNO_3	30 mL 125 mL 500 mL	CGZN1-30ML CGZN1-125ML CGZN1-500ML
Zirconium, Zr	HF	30 mL 125 mL 500 mL	CGZR1-30ML CGZR1-125ML CGZR1-500ML

See pg. 29 for our HF-free Zirconium, part number CGZRCL10-125ML or CGZRCL10-500ML.

10,000 µg/mL Standards

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

10,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Aluminum, Al	HNO_3	30 mL 125 mL 500 mL	CGAL10-30ML CGAL10-125ML CGAL10-500ML
Antimony, Sb	HNO_3 / Tartaric Acid	30 mL 125 mL 500 mL	CGSB10-30ML CGSB10-125ML CGSB10-500ML
Arsenic, As	HNO_3	30 mL 125 mL 500 mL	CGAS10-30ML CGAS10-125ML CGAS10-500ML
Barium, Ba	HNO_3	30 mL 125 mL 500 mL	CGBA10-30ML CGBA10-125ML CGBA10-500ML
Beryllium, Be	HNO_3	30 mL 125 mL 500 mL	CGBE10-30ML CGBE10-125ML CGBE10-500ML
Bismuth, Bi	HNO_3	30 mL 125 mL 500 mL	CGBI10-30ML CGBI10-125ML CGBI10-500ML
Boron, B	NH_4OH	30 mL 125 mL 500 mL	CGB10-30ML CGB10-125ML CGB10-500ML
Cadmium, Cd	HNO_3	30 mL 125 mL 500 mL	CGCD10-30ML CGCD10-125ML CGCD10-500ML
Calcium, Ca	HNO_3	30 mL 125 mL 500 mL	CGCA10-30ML CGCA10-125ML CGCA10-500ML
Carbon, C	HNO_3	30 mL 125 mL 500 mL	CGC10-30ML CGC10-125ML CGC10-500ML
Cerium, Ce	HNO_3	30 mL 125 mL 500 mL	CGCE10-30ML CGCE10-125ML CGCE10-500ML
Cesium, Cs	HNO_3	30 mL 125 mL 500 mL	CGCS10-30ML CGCS10-125ML CGCS10-500ML
Chromium^{+3}, Cr^{+3}	HNO_3	30 mL 125 mL 500 mL	CGCR(3)10-30ML CGCR(3)10-125ML CGCR(3)10-500ML
Cobalt, Co Can be used as an Internal Standard for ICP-OES.	HNO_3	30 mL 125 mL 500 mL	CGCO10-30ML CGCO10-125ML CGCO10-500ML
Copper, Cu	HNO_3	30 mL 125 mL 500 mL	CGCU10-30ML CGCU10-125ML CGCU10-500ML
Dysprosium, Dy	HNO_3	30 mL 125 mL 500 mL	CGDY10-30ML CGDY10-125ML CGDY10-500ML
Erbium, Er	HNO_3	30 mL 125 mL 500 mL	CGER10-30ML CGER10-125ML CGER10-500ML

10,000 µg/mL Standards

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

10,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Europium, Eu	HNO_3	30 mL 125 mL 500 mL	CGEU10-30ML CGEU10-125ML CGEU10-500ML
Gadolinium, Gd	HNO_3	30 mL 125 mL 500 mL	CGGD10-30ML CGGD10-125ML CGGD10-500ML
Gallium, Ga	HNO_3	30 mL 125 mL 500 mL	CGGA10-30ML CGGA10-125ML CGGA10-500ML
Germanium, Ge	HNO_3 / HF	30 mL 125 mL 500 mL	CGGE10-30ML CGGE10-125ML CGGE10-500ML
Gold, Au	HCl	30 mL 125 mL 500 mL	CGAU10-30ML CGAU10-125ML CGAU10-500ML
Hafnium, Hf	HNO_3 / HF	30 mL 125 mL 500 mL	CGHF10-30ML CGHF10-125ML CGHF10-500ML
Holmium, Ho	HNO_3	30 mL 125 mL 500 mL	CGHO10-30ML CGHO10-125ML CGHO10-500ML
Indium, In Can be used as an Internal Standard for ICP-OES.	HNO_3	30 mL 125 mL 500 mL	CGIN10-30ML CGIN10-125ML CGIN10-500ML
Iridium, Ir	HCl	30 mL 125 mL 500 mL	CGIR10-30ML CGIR10-125ML CGIR10-500ML
Iron, Fe	HNO_3	30 mL 125 mL 500 mL	CGFE10-30ML CGFE10-125ML CGFE10-500ML
Lanthanum, La	HNO_3	30 mL 125 mL 500 mL	CGLA10-30ML CGLA10-125ML CGLA10-500ML
Lead, Pb	HNO_3	30 mL 125 mL 500 mL	CGPB10-30ML CGPB10-125ML CGPB10-500ML
Lithium, Li	HNO_3	30 mL 125 mL 500 mL	CGLI10-30ML CGLI10-125ML CGLI10-500ML
Lutetium, Lu	HNO_3	30 mL 125 mL 500 mL	CGLU10-30ML CGLU10-125ML CGLU10-500ML
Magnesium, Mg	HNO_3	30 mL 125 mL 500 mL	CGMG10-30ML CGMG10-125ML CGMG10-500ML
Manganese, Mn	HNO_3	30 mL 125 mL 500 mL	CGMN10-30ML CGMN10-125ML CGMN10-500ML
Mercury, Hg	HNO_3	30 mL 125 mL 500 mL	CGHG10-30ML CGHG10-125ML CGHG10-500ML

10,000 µg/mL Standards

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

10,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Molybdenum, Mo	NH_4OH	30 mL 125 mL 500 mL	CGMO10-30ML CGMO10-125ML CGMO10-500ML
Neodymium, Nd	HNO_3	30 mL 125 mL 500 mL	CGND10-30ML CGND10-125ML CGND10-500ML
Nickel, Ni	HNO_3	30 mL 125 mL 500 mL	CGNI10-30ML CGNI10-125ML CGNI10-500ML
Niobium, Nb	HNO_3 / HF	30 mL 125 mL 500 mL	CGNB10-30ML CGNB10-125ML CGNB10-500ML
Niobium, Nb High purity, low Tantalum	HNO_3 / HF	30 mL 125 mL 500 mL	CGNB2O510-30ML CGNB2O510-125ML CGNB2O510-500ML
Palladium, Pd	HCl	30 mL 125 mL 500 mL	CGPD10-30ML CGPD10-125ML CGPD10-500ML
Phosphorus, P	H_2O	30 mL 125 mL 500 mL	CGP10-30ML CGP10-125ML CGP10-500ML
Platinum, Pt	HCl	30 mL 125 mL 500 mL	CGPT10-30ML CGPT10-125ML CGPT10-500ML
Potassium, K	HNO_3	30 mL 125 mL 500 mL	CGK10-30ML CGK10-125ML CGK10-500ML
Praseodymium, Pr	HNO_3	30 mL 125 mL 500 mL	CGPR10-30ML CGPR10-125ML CGPR10-500ML
Rhenium, Re	HNO_3	30 mL 125 mL 500 mL	CGRE10-30ML CGRE10-125ML CGRE10-500ML
Rhodium, Rh	HCl	30 mL 125 mL 500 mL	CGRH10-30ML CGRH10-125ML CGRH10-500ML
Rubidium, Rb	HNO_3	30 mL 125 mL 500 mL	CGRB10-30ML CGRB10-125ML CGRB10-500ML
Ruthenium, Ru	HCl	30 mL 125 mL 500 mL	CGRU10-30ML CGRU10-125ML CGRU10-500ML
Samarium, Sm	HNO_3	30 mL 125 mL 500 mL	CGSM10-30ML CGSM10-125ML CGSM10-500ML
Scandium, Sc Can be used as an Internal Standard for ICP-OES.	HNO_3	30 mL 125 mL 500 mL	CGSC10-30ML CGSC10-125ML CGSC10-500ML
Selenium, Se	HNO_3	30 mL 125 mL 500 mL	CGSE10-30ML CGSE10-125ML CGSE10-500ML

10,000 µg/mL Standards

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

10,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Silicon, Si	HNO_3 / HF	30 mL 125 mL 500 mL	CGSI10-30ML CGSI10-125ML CGSI10-500ML
Silver, Ag	HNO_3	30 mL 125 mL 500 mL	CGAG10-30ML CGAG10-125ML CGAG10-500ML
Sodium, Na	HNO_3	30 mL 125 mL 500 mL	CGNA10-30ML CGNA10-125ML CGNA10-500ML
Strontium, Sr	HNO_3	30 mL 125 mL 500 mL	CGSR10-30ML CGSR10-125ML CGSR10-500ML
Sulfur, S Prevents incompatability issues when mixing with Ba and Pb.	H_2O	30 mL 125 mL 500 mL	CGMSA10-30ML CGMSA10-125ML CGMSA10-500ML
Sulfur, S	H_2O	30 mL 125 mL 500 mL	CGS10-30ML CGS10-125ML CGS10-500ML
Tantalum, Ta	HNO_3 / HF	30 mL 125 mL 500 mL	CGTA10-30ML CGTA10-125ML CGTA10-500ML
Tellurium, Te	HCl	30 mL 125 mL 500 mL	CGTE10-30ML CGTE10-125ML CGTE10-500ML
Terbium, Tb	HNO_3	30 mL 125 mL 500 mL	CGTB10-30ML CGTB10-125ML CGTB10-500ML
Thallium, Tl	HNO_3	30 mL 125 mL 500 mL	CGTL10-30ML CGTL10-125ML CGTL10-500ML
Thorium, Th	HNO_3	30 mL 125 mL 500 mL	CGTH10-30ML CGTH10-125ML CGTH10-500ML
Thulium, Tm	HNO_3	30 mL 125 mL 500 mL	CGTM10-30ML CGTM10-125ML CGTM10-500ML
Tin, Sn	HNO_3 / HF	30 mL 125 mL 500 mL	CGSN10-30ML CGSN10-125ML CGSN10-500ML
Titanium, Ti	HNO_3 / HF	30 mL 125 mL 500 mL	CGTI10-30ML CGTI10-125ML CGTI10-500ML
Tungsten, W	HNO_3 / HF	30 mL 125 mL 500 mL	CGW10-30ML CGW10-125ML CGW10-500ML
Uranium, U	HNO_3	30 mL 125 mL 500 mL	CGU10-30ML CGU10-125ML CGU10-500ML
Vanadium, V	HNO_3	30 mL 125 mL 500 mL	CGV10-30ML CGV10-125ML CGV10-500ML

10,000 µg/mL Standards

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

10,000 µg/mL

ANALYTE	MATRIX	VOLUME	CATALOG #
Ytterbium, Yb	HNO_3	30 mL 125 mL 500 mL	CGYB10-30ML CGYB10-125ML CGYB10-500ML
Yttrium, Y Can be used as an Internal Standard for ICP-OES.	HNO_3	30 mL 125 mL 500 mL	CGY10-30ML CGY10-125ML CGY10-500ML
Zinc, Zn	HNO_3	30 mL 125 mL 500 mL	CGZN10-30ML CGZN10-125ML CGZN10-500ML
Zirconium, Zr	HF	30 mL 125 mL 500 mL	CGZR10-30ML CGZR10-125ML CGZR10-500ML
Zirconium, Zr HF free	HCl	30 mL 125 mL 500 mL	CGZRCL10-30ML CGZRCL10-125ML CGZRCL10-500ML

ISOTOPIC AND MERCURY STANDARDS

Isotopic Standards

ANALYTE	µg/mL	MATRIX	VOLUME	CATALOG #
^{135}Barium, ^{135}Ba	10	HNO_3	100 mL	MS135BA-10PPM-100ML
^{10}Boron, ^{10}B	10	HNO_3	100 mL	MS10B-10PPM-100ML
^{11}Boron, ^{11}B	10	HNO_3	100 mL	MS11B-10PPM-100ML
^{106}Cadmium, ^{106}Cd	10	HNO_3	100 mL	MS106CD-10PPM-100ML
^{50}Chromium, ^{50}Cr	10	HNO_3	100 mL	MS50CR-10PPM-100ML
^{65}Copper, ^{65}Cu	10	HNO_3	100 mL	MS65CU-10PPM-100ML
^{54}Iron, ^{54}Fe	10	HNO_3	100 mL	MS54FE-10PPM-100ML
^{57}Iron, ^{57}Fe	10	HNO_3	100 mL	MS57FE-10PPM-100ML
^{204}Lead, ^{204}Pb	10	HNO_3	100 mL	MS204PB-10PPM-100ML
^{206}Lead, ^{206}Pb	10	HNO_3	100 mL	MS206PB-10PPM-100ML
^{207}Lead, ^{207}Pb	10	HNO_3	100 mL	MS207PB-10PPM-100ML
^{6}Lithium, ^{6}Li	10	HNO_3	125 mL 500 mL	MS6LI-10PPM-125ML MS6LI-10PPM-500ML
^{6}Lithium, ^{6}Li	100	HNO_3	125 mL 500 mL	MS6LI-100PPM-125ML MS6LI-100PPM-500ML
^{6}Lithium, ^{6}Li Can be used as an Internal Standard for ICP-MS.	1,000	HNO_3	30 mL 125 mL 500 mL	CG6LI1-30ML CG6LI1-125ML CG6LI1-500ML
^{25}Magnesium, ^{25}Mg	10	HNO_3	100 mL	MS25MG-10PPM-100ML
^{61}Nickel, ^{61}Ni	10	HNO_3	100 mL	MS61NI-10PPM-100ML
^{78}Selenium, ^{78}Se	10	HNO_3	100 mL	MS78SE-10PPM-100ML
^{82}Selenium, ^{82}Se	10	HNO_3	100 mL	MS82SE-10PPM-100ML
^{109}Silver, ^{109}Ag	10	HNO_3	100 mL	MS109AG-10PPM-100ML
^{86}Strontium, ^{86}Sr	10	HNO_3	100 mL	MS86SR-10PPM-100ML
^{203}Thallium, ^{203}Tl	10	HNO_3	100 mL	MS203TL-10PPM-100ML
^{205}Thallium, ^{205}Tl	10	HNO_3	100 mL	MS205TL-10PPM-100ML
^{122}Tin, ^{122}Sn	10	HNO_3 / HF	100 mL	MS122SN-10PPM-100ML
^{67}Zinc, ^{67}Zn	10	HNO_3	100 mL	MS67ZN-10PPM-100ML

Mercury Standards

Custom mercury standards are available upon request.

100 ppb (µg/L)

ANALYTE	ppb (µg/L)	MATRIX	VOLUME	CATALOG #
Mercury, Hg	100	7% v/v HNO_3	125 mL 500 mL	IV-STOCK-72-125ML IV-STOCK-72-500ML
Mercury, Hg	100	10% v/v HCl	125 mL 500 mL	IV-STOCK-73-125ML IV-STOCK-73-500ML

Speciation Standards

Custom speciation standards are available upon request.

ANALYTE	µg/mL	MATRIX	VOLUME	CATALOG #
Arsenic^{+3}, As^{+3}	1,000	HCl / NaOH / $NaHCO_3$	30 mL 125 mL 500 mL	CGAS(3)1-30ML CGAS(3)1-125ML CGAS(3)1-500ML
Arsenic^{+5}, As^{+5}	1,000	H_2O	30 mL 125 mL 500 mL	CGAS(5)1-30ML CGAS(5)1-125ML CGAS(5)1-500ML
Chromium^{+3}, Cr^{+3}	10	HNO_3	125 mL 500 mL	MSCR(3)-10PPM-125ML MSCR(3)-10PPM-500ML
Chromium^{+3}, Cr^{+3}	100	HNO_3	125 mL 500 mL	MSCR(3)-100PPM-125ML MSCR(3)-100PPM-500ML
Chromium^{+3}, Cr^{+3}	1,000	HNO_3	30 mL 125 mL 500 mL	CGCR(3)1-30ML CGCR(3)1-125ML CGCR(3)1-500ML
Chromium^{+3}, Cr^{+3}	10,000	HNO_3	30 mL 125 mL 500 mL	CGCR(3)10-30ML CGCR(3)10-125ML CGCR(3)10-500ML
Chromium^{+6}, Cr^{+6}	10	H_2O	125 mL 500 mL	MSCR(6)-10PPM-125ML MSCR(6)-10PPM-500ML
Chromium^{+6}, Cr^{+6}	100	H_2O	125 mL 500 mL	MSCR(6)-100PPM-125ML MSCR(6)-100PPM-500ML
Chromium^{+6}, Cr^{+6}	1,000	H_2O	30 mL 125 mL 500 mL	CGCR(6)1-30ML CGCR(6)1-125ML CGCR(6)1-500ML
Selenium^{+6}, Se^{+6}	1,000	H_2O	30 mL 125 mL 500 mL	CGSE(6)1-30ML CGSE(6)1-125ML CGSE(6)1-500ML

Cyanide Standards

Custom cyanide standards are available upon request.

1,000 µg/mL

ANALYTE	µg/mL	MATRIX	VOLUME	CATALOG #
Copper, Cu	1,000	NaCN	125 mL 500 mL	AACUCN-125ML AACUCN-500ML
Gold, Au	1,000	NaCN	125 mL 500 mL	AAAUCN-125ML AAAUCN-500ML
Silver, Ag	1,000	NaCN	125 mL 500 mL	AAAGCN-125ML AAAGCN-500ML
Zinc, Zn	1,000	NaCN	125 mL 500 mL	AAZNCN-125ML AAZNCN-500ML

Instrument Cross-Reference Table

Inorganic Ventures is not affiliated with the companies and brands referenced on these pages (other than Inorganic Ventures), and their names and marks are owned by the respective company and/or brand. The names appear solely for the purpose of permitting cross-referencing and comparison of products and standards.

Identical or **near identical** formulations.

Agilent/Varian (AV)

Agilent/Varian#	Inorganic Ventures#	Page
5183-4681	IV-STOCK-53	p.41
5183-4688	IV-STOCK-50	p.41
5185-5959	IV-STOCK-74	p.42
5188-6524	IV-STOCK-51	p.41
5188-6525	IV-STOCK-75	p.42
5188-6564	AGI-TS-1	p.46
8500-6940	IV-STOCK-27	p.39
8500-6944	IV-STOCK-26	p.39
8500-6948	IV-STOCK-28	p.39
6610030000	IV-STOCK-24	p.39
6610030400	VAR-IS-1	p.49
6610030500	VAR-CAL-1	p.48
6610030600	VAR-CAL-2	p.48
6610030700	IV-STOCK-33	p.40

HORIBA Jobin Yvon (JY)

Jobin Yvon#	Inorganic Ventures#	Page
JYICP-MIX23	IV-STOCK-4	p.36
JYICP-MIXMAJ	IV-STOCK-34	p.40

Merck/MilliporeSigma (M)

Merck#	Inorganic Ventures#	Page
109410	IV-STOCK-23	p.39
109411	IV-STOCK-24	p.39
109480	IV-STOCK-13	p.37
109481	IV-STOCK-14	p.38
109492	IV-STOCK-8	p.37
109493	IV-STOCK-10	p.37
109494	IV-STOCK-9	p.37
109495	IV-STOCK-17	p.38
109498	IV-STOCK-21	p.38
109500	IV-STOCK-18	p.38
110322	IV-STOCK-7	p.37
110714	IV-STOCK-5	p.36

NIST Multi-Element Standards (N)

NIST#	Inorganic Ventures#	Page
SRM1643	IV-STOCK-1643	p.46

Cross-Reference Table Symbols

- (AV) Agilent/Varian
- (JY) HORIBA Jobin Yvon
- (M) Merck/MilliporeSigma
- (N) NIST
- (PE) Perkin Elmer
- (S) Spectro
- (T) Thermo Scientific
- (C) Common Multi-Element Standards
- (I) Common Multi-Ion Standards
- (U) USP Method <232>

Instrument Cross-Reference Table

Perkin Elmer (PE)

Perkin Elmer#	Inorganic Ventures#	Page
N0681470	IV-STOCK-14	p.38
N8125032	IV-STOCK-22	p.38
N8145051	IV-STOCK-77	p.42
N9300208	IV-STOCK-54	p.41
N9300218	IV-STOCK-34	p.40
N9300231	IV-STOCK-30	p.40
N9300232	IV-STOCK-26	p.39
N9300234	IV-STOCK-28	p.39
N9300235	IV-STOCK-29	p.40
N9301720	IV-STOCK-21	p.38
N9302946	IV-STOCK-55	p.41
N9303818	IV-STOCK-35	p.40
N9303821	PE-CHK-1	p.46
N9303832	IV-STOCK-53	p.41
N9303843	PE-TS-1	p.47

Spectro (S)

Spectro#	Inorganic Ventures#	Page
USA00875	CIROS-OES-TS	p.46
USA00888	GENESIS-ICAL	p.46

Thermo Scientific (T)

Thermo Scientific#	Inorganic Ventures#	Page
1323760	THERMO-5A	p.47
1323770	THERMO-4AREV	p.47
2G22950	TUNE F-X-SERIES	p.48

Common Multi-Element Standards (C)

Inorganic Ventures#	Page
CMS-SET (65 Element Set)	p.43
CCS-SET (69 Element Set)	p.44
IV-ICPMS-SET (71 Element Set)	p.45
IV-STOCK-2	p.36
IV-STOCK-3	p.36
IV-STOCK-31	p.40
IV-STOCK-36	p.40
IV-STOCK-56	p.42
IV-STOCK-57	p.42
IV-STOCK-58	p.42
THM-TS-1	p.47

USP Method <232> (U)

Inorganic Ventures#	Page
IV-STOCK-38	p.35
IV-STOCK-40	p.35
IV-STOCK-41	p.35
IV-STOCK-60	p.35
IV-STOCK-65	p.34
IV-STOCK-66	p.34
IV-STOCK-67	p.34
IV-STOCK-68	p.34
IV-STOCK-69	p.34
IV-STOCK-70	p.34

IONS

Common Multi-Ion Standards (I)

Inorganic Ventures#	Page
IC-FAS-1A	p.77
IC-SCS1	p.77
IV-STOCK-7	p.37, 77
IV-STOCK-59	p.77

USP Method <232> — Elemental Impurities Compliance Standards

For the pharmaceutical industry, Inorganic Ventures has developed CRMs to comply with the United States Pharmacopeia (USP) general chapters on elemental impurity USP <232> limits and USP <233> procedures. These methods are for testing inorganic impurities in pharmaceutical products by ICP. The International Conference on Harmonization (ICH) Working Group on Elemental Impurities is in the process of developing a harmonized approach for controlling these impurities as well.

USP <232> / ICH Q3D Class 1 Oral Elemental Impurities

IV-STOCK-65 (U)	Matrix: HNO_3
IV-STOCK-65-125ML IV-STOCK-65-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
As	15	Hg	30
Cd	5	Pb	5

USP <232> / ICH Q3D Class 2A Oral Elemental Impurities

IV-STOCK-66 (U)	Matrix: HNO_3
IV-STOCK-66-125ML IV-STOCK-66-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
Co	50	V	100
Ni	200		

USP <232> / ICH Q3D Oral Elemental Impurities

IV-STOCK-70 (U)	Matrix: HCl
IV-STOCK-70-125ML IV-STOCK-70-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
Ag	15	Ni	20
As	1.5	Os	10
Au	10	Pb	0.5
Ba	140	Pd	10
Cd	0.5	Pt	10
Co	5	Rh	10
Cr	1100	Ru	10
Cu	300	Sb	120
Hg	3	Se	15
Ir	10	Sn	600
Li	55	Tl	0.8
Mo	300	V	10

USP <232> / ICH Q3D Class 2B Oral Elemental Impurities

IV-STOCK-67 (U)	Matrix: HCl
IV-STOCK-67-125ML IV-STOCK-67-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
Au	100	Rh	100
Ir	100	Ru	100
Os	100	Se	150
Pd	100	Tl	8
Pt	100		

USP <232> / ICH Q3D Class 2B Oral Elemental Impurities

IV-STOCK-68 (U)	Matrix: HNO_3
IV-STOCK-68-125ML IV-STOCK-68-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
Ag*	150		

** Silver has been separated from the other Class 2B elements due to long-term stability concerns. However, IV-STOCK-68 can be combined with IV-STOCK-67 at working levels. Contact Technical Support or visit our Technical Forum for more information regarding Ag in HCl matrices.*

USP <232> / ICH Q3D Class 3 Oral Elemental Impurities

IV-STOCK-69 (U)	Matrix: HNO_3/tr HF
IV-STOCK-69-125ML IV-STOCK-69-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
Ba	140	Mo	300
Cr	1100	Sb	120
Cu	300	Sn	600
Li	55		

(U) USP Method <232>

USP Method <232> — Elemental Impurities Compliance Standards

USP <232> Precious Metals Elemental Impurities			
IV-STOCK-38 U		Matrix: HCl	
IV-STOCK-38-125ML **IV-STOCK-38-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ir	100	**Pt**	100
Os	100	**Rh**	100
Pd	100	**Ru**	100

USP <232> Parenteral Elemental Impurities			
IV-STOCK-41 U		Matrix: HNO_3	
IV-STOCK-41-125ML **IV-STOCK-41-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	1.5	**Mo**	10
Cd	2.5	**Ni**	50
Cu	100	**Pb**	5
Hg	1.5	**V**	10

USP <232> Oral Elemental Impurities			
IV-STOCK-40 U		Matrix: HNO_3	
IV-STOCK-40-125ML **IV-STOCK-40-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	1.5	**Mo**	100
Cd	25	**Ni**	500
Cu	1000	**Pb**	5
Hg	15	**V**	100

USP <232> Drug Substance and Excipients			
IV-STOCK-60 U		Matrix: HCl	
IV-STOCK-60-125ML **IV-STOCK-60-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	1.5	**Os**	10
Cd	0.5	**Pb**	0.5
Cr	1100	**Pd**	10
Cu	300	**Pt**	10
Hg	3	**Rh**	10
Ir	10	**Ru**	10
Mo	300	**V**	10
Ni	20		

ACCREDITED ISO 17025 0883.01 BY A2LA

ACCREDITED ISO 17034 0883.02 BY A2LA

Don't see exactly what you are looking for?

With the continuous USP <232> revisions over the years, you may require an older method or possibly a newer one. Contact us to find out the best USP method for your custom manufacturing needs. Just one way we flex to your specs.

Multi-Element Standards | Identical or **near identical** formulations

ICP Calibration Standard

IV-STOCK-2 (C)	Matrix: HNO_3
IV-STOCK-2-125ML IV-STOCK-2-500ML	Volume: 125 mL Volume: 500 mL

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

ICP Calibration Standard

IV-STOCK-3 (C)	Matrix: HNO_3
IV-STOCK-3-125ML IV-STOCK-3-500ML	Volume: 125 mL Volume: 500 mL

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

ICP Calibration Standard

IV-STOCK-4 (JY)	Matrix: HNO_3
IV-STOCK-4-125ML IV-STOCK-4-500ML	Volume: 125 mL Volume: 500 mL

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	1,000	Sr	1,000
Cu	1,000	Tl	1,000
Fe	1,000	Zn	1,000
Ga	1,000		

Wavelength Calibration Standard

IV-STOCK-5 (M)	Matrix: HCl / HF
IV-STOCK-5-125ML IV-STOCK-5-500ML	Volume: 125 mL Volume: 500 mL

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	2	Se	20
Cu	2	Sr	1
Fe	2	Te	20
Hg	5	Ti	2
K	100	Y	1
Li	2	Zn	2

ICP Calibration Standard

IV-STOCK-6	Matrix: HNO_3
IV-STOCK-6-125ML IV-STOCK-6-500ML	Volume: 125 mL Volume: 500 mL

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	1,000	Rb	10
Cd	10	Se	100
Co	10	Sr	10
Cr	10	Te	10
Cu	10	Tl	10
Fe	100	U	10
Ga	10	V	10
K	10	Zn	100

C Common Multi-Element Standards

JY HORIBA Jobin Yvon

M Merck/MilliporeSigma

Identical or **near identical** formulations | **Multi-Element Standards**

Cation Calibration Standard

IV-STOCK-7 (M) (I)	Matrix: HNO_3		
IV-STOCK-7-125ML IV-STOCK-7-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ba^{+2}	100	Mn^{+2}	100
Ca^{+2}	100	Na^{+}	100
K^{+}	100	NH_4^{+}	100
Li^{+}	100	Sr^{+2}	100
Mg^{+2}	100		

ICP Calibration Standard

IV-STOCK-8 (M)	Matrix: HNO_3		
IV-STOCK-8-125ML IV-STOCK-8-500ML	Volume: 125 mL Volume: 500 mL		
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	100	Sr	100
Cu	100	Te	100
Fe	100	Tl	100
Ga	100	Zn	100

ICP Calibration Standard – Toxic Elements

IV-STOCK-9 (M)	Matrix: HNO_3		
IV-STOCK-9-125ML IV-STOCK-9-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	100	Pb	100
Be	100	Se	100
Cd	100	Tl	100
Ni	100		

(I) Common Multi-Ion Standards

(M) Merck/MilliporeSigma

ICP Calibration Standard – Surface Water

IV-STOCK-10 (M)	Matrix: HNO_3		
IV-STOCK-10-125ML IV-STOCK-10-500ML	Volume: 125 mL Volume: 500 mL		
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	20	Tl	10
Cu	20	V	50
Fe	100	Zn	50
K	3,000		

*Parts per billion

ICP-MS Calibration Standard

IV-STOCK-12	Matrix: HNO_3		
IV-STOCK-12-125ML IV-STOCK-12-500ML	Volume: 125 mL Volume: 500 mL		
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

ICP Calibration Standard – Trace Metals

IV-STOCK-13 (M)	Matrix: HNO_3		
IV-STOCK-13-125ML IV-STOCK-13-500ML	Volume: 125 mL Volume: 500 mL		
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	100	V	250
Cu	100	Zn	100

Identical or **near identical** formulations | **Multi-Element Standards**

Wavelength Calibration Standard

IV-STOCK-14 (M) (PE)	Matrix: HCl / HNO_3 / HF		
IV-STOCK-14-125ML IV-STOCK-14-500ML	Volume: 125 mL Volume: 500 mL		
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		

ICP-MS Calibration Standard

IV-STOCK-15	Matrix: HNO_3		
IV-STOCK-15-125ML IV-STOCK-15-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ca	10	Li	10
Fe	10	Na	10
K	10		

ICP Calibration Standard – Alkaline Earth Element

IV-STOCK-16	Matrix: HNO_3		
IV-STOCK-16-125ML IV-STOCK-16-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ba	1,000	Mg	1,000
Ca	1,000	Sr	1,000

ICP Calibration Standard – HCl Soluble Elements

IV-STOCK-17 (M)	Matrix: HCl/HNO_3/HF		
IV-STOCK-17-125ML IV-STOCK-17-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Hf	100	Ta	100
Ir	100	Ti	100
Sb	100	Zr	100
Sn	100		

(M) Merck/MilliporeSigma

(PE) Perkin Elmer

GFAA Calibration Standard

IV-STOCK-18 (M)	Matrix: HNO_3		
IV-STOCK-18-125ML IV-STOCK-18-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
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	20	Tl	100

ICP Calibration Standard

IV-STOCK-21 (M) (PE)	Matrix: HNO_3		
IV-STOCK-21-125ML IV-STOCK-21-500ML	Volume: 125 mL Volume: 500 mL		
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	10	Sr	10
Cs	10	Tl	10
Cu	10	U	10
Fe	10	V	10
Ga	10	Zn	10
In	10		

ICP Calibration Standard

IV-STOCK-22 (PE)	Matrix: HNO_3		
IV-STOCK-22-125ML IV-STOCK-22-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/L***	**Analyte**	**µg/L***
Cd	200	Pb	200
Cu	200	Rh	200
Mg	200		

*Parts per billion

Identical or **near identical** formulations | **Multi-Element Standards**

ICP Calibration Standard

IV-STOCK-23 (M) — Matrix: HNO_3

IV-STOCK-23-125ML — Volume: 125 mL
IV-STOCK-23-500ML — Volume: 500 mL

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		

*Parts per billion

Tuning Solution

IV-STOCK-24 (AV) (M) — Matrix: HNO_3

IV-STOCK-24-125ML — Volume: 125 mL
IV-STOCK-24-500ML — Volume: 500 mL

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	50	Sr	50
Cu	50	Zn	50
K	500		

ICP Calibration Standard

IV-STOCK-26 (AV) (PE) — Matrix: HNO_3

IV-STOCK-26-125ML — Volume: 125 mL
IV-STOCK-26-500ML — Volume: 500 mL

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		

ICP Calibration Standard

IV-STOCK-27 (AV) — Matrix: HNO_3

IV-STOCK-27-125ML — Volume: 125 mL
IV-STOCK-27-500ML — Volume: 500 mL

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	10	Sr	10
Cs	10	Tl	10
Cu	10	U	10
Fe	10	V	10
Ga	10	Zn	10
K	10		

ICP Calibration Standard

IV-STOCK-28 (AV) (PE) — Matrix: HCl / HNO_3

IV-STOCK-28-125ML — Volume: 125 mL
IV-STOCK-28-500ML — Volume: 500 mL

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

(AV) Agilent/Varian
(M) Merck/MilliporeSigma
(PE) Perkin Elmer

Identical or **near identical** formulations | **Multi-Element Standards**

ICP Calibration Standard

IV-STOCK-29 (PE) — Matrix: HNO_3/ HF

IV-STOCK-29-125ML — Volume: 125 mL
IV-STOCK-29-500ML — Volume: 500 mL

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 Calibration Standard

IV-STOCK-30 (PE) — Matrix: HNO_3

IV-STOCK-30-125ML — Volume: 125 mL
IV-STOCK-30-500ML — Volume: 500 mL

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 Calibration Standard

IV-STOCK-31 (C) — Matrix: HNO_3

IV-STOCK-31-125ML — Volume: 125 mL
IV-STOCK-31-500ML — Volume: 500 mL

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

Calibration Standard – Mix Majors

IV-STOCK-33 (AV) — Matrix: HNO_3

IV-STOCK-33-125ML — Volume: 125 mL
IV-STOCK-33-500ML — Volume: 500 mL

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

ICP Calibration Standard

IV-STOCK-34 (PE) (JY) — Matrix: HNO_3

IV-STOCK-34-125ML — Volume: 125 mL
IV-STOCK-34-500ML — Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
Ca	5,000	Mg	5,000
K	5,000	Na	5,000

ICP Calibration Standard

IV-STOCK-35 (PE) — Matrix: HNO_3

IV-STOCK-35-125ML — Volume: 125 mL
IV-STOCK-35-500ML — Volume: 500 mL

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

ICP Calibration Standard

IV-STOCK-36 (C) — Matrix: HCl

IV-STOCK-36-125ML — Volume: 125 mL
IV-STOCK-36-500ML — Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
Au	100	Pt	100
Pd	100		

(AV) Agilent/Varian
(C) Common Multi-Element Standards
(JY) HORIBA Jobin Yvon
(PE) Perkin Elmer

Identical or **near identical** formulations | **Multi-Element Standards**

Environmental Calibration Standard

IV-STOCK-50 (AV)	Matrix: HNO_3 / HF		
IV-STOCK-50-125ML IV-STOCK-50-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	10	Mn	10
Al	10	Mo	10
As	10	Na	1000
Ba	10	Ni	10
Be	10	Pb	10
Ca	1000	Sb	10
Cd	10	Se	10
Co	10	Th	10
Cr	10	Tl	10
Cu	10	U	10
Fe	1000	V	10
K	1000	Zn	10
Mg	1000		

7500 Series PA Tuning Solution 1
(commonly used with IV-Stock-52)

IV-STOCK-51 (AV)	Matrix: HNO_3		
IV-STOCK-51-125ML IV-STOCK-51-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Al	5	Mn	5
As	20	Na	5
Ba	5	Ni	10
Be	20	Pb	10
Bi	5	Sc	5
Cd	20	Sr	5
Co	5	Th	5
Cr	5	Tl	5
Cu	5	U	5
In	5	V	5
^6Li	5	Y	2.5
Lu	5	Yb	2.5
Mg	10	Zn	20

7500 Series PA Tuning Solution 2
(commonly used with IV-Stock-51)

IV-STOCK-52	Matrix: HCl		
IV-STOCK-52-125ML IV-STOCK-52-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ge	10	Ru	10
Ir	5	Sb	10
Mo	10	Sn	10
Pd	10	Ti	5

Internal Standard

IV-STOCK-53 (AV) (PE)	Matrix: HNO_3 / HF		
IV-STOCK-53-125ML IV-STOCK-53-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Bi	10	Sc	10
Ge	10	Tb	10
In	10	Y	10
^6Li	10		

Interference Check Standard

IV-STOCK-54 (PE)	Matrix: HNO_3		
IV-STOCK-54-125ML IV-STOCK-54-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Al	1200	Mg	3000
Ca	6000	Na	1000
Fe	5000		

Wavecal Standard

IV-STOCK-55 (PE)	Matrix: HNO_3		
IV-STOCK-55-125ML IV-STOCK-55-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ba	1	Li	10
Ca	1	Mn	10
K	50	Na	10
La	10	Sr	10

(AV) Agilent/Varian
(PE) Perkin Elmer

Identical or **near identical** formulations | **Multi-Element Standards**

ICP Calibration Standard

IV-STOCK-56 (C)	Matrix: HNO_3 / HF
IV-STOCK-56-125ML IV-STOCK-56-500ML	Volume: 125 mL Volume: 500 mL

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

ICP Calibration Standard

IV-STOCK-57 (C)	Matrix: HNO_3 / HF
IV-STOCK-57-125ML IV-STOCK-57-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
Mo	10	Sn	10
Sb	10	Ti	10

ICP Calibration Standard

IV-STOCK-58 (C)	Matrix: HCl
IV-STOCK-58-125ML IV-STOCK-58-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
Au	100	Pt	100
Ir	100	Re	100
Os	100	Rh	100
Pd	100	Ru	100

(N) ICP-MS Tuning Solution

IV-STOCK-71	Matrix: HNO_3
IV-STOCK-71-125ML IV-STOCK-71-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/L*	Analyte	µg/L*
Be	10	Co	5
Bi	2	In	2
Ce	2	Mn	5

*Parts per billion

(N) ICP-MS Tuning Solution

IV-STOCK-74 (AV)	Matrix: HNO_3
IV-STOCK-74-125ML IV-STOCK-74-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/L*	Analyte	µg/L*
Ce	1	Mg	1
Co	1	Tl	1
Li	1	Y	1

*Parts per billion

(N) ICP-MS Internal Standard

IV-STOCK-75 (AV)	Matrix: HNO_3 / HF
IV-STOCK-75-125ML IV-STOCK-75-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
Bi	100	Lu	100
Ge	100	Rh	100
In	100	Sc	100
^{6}Li	100	Tb	100

(N) ICP-MS Tuning Solution

IV-STOCK-77 (PE)	Matrix: HNO_3
IV-STOCK-77-125ML IV-STOCK-77-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/L*	Analyte	µg/L*
Be	1	Li	1
Ce	1	Mg	1
Fe	1	Pb	1
In	1	U	1

*Parts per billion

(AV) Agilent/Varian

(C) Common Multi-Element Standards

(PE) Perkin Elmer

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_3. Custom ICP-MS/OES calibration standards are available upon request.

65–Element Group

Rare Earth ICP-MS Standard

CMS-1 C	Matrix: HNO_3
CMS-1-125ML CMS-1-500ML	Volume: 125 mL Volume: 500 mL

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 C	Matrix: HCl
CMS-2-125ML CMS-2-500ML	Volume: 125 mL Volume: 500 mL

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 C	Matrix: HNO_3/HF
CMS-3-125ML CMS-3-500ML	Volume: 125 mL Volume: 500 mL

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 C	Matrix: HNO_3
CMS-4-125ML CMS-4-500ML	Volume: 125 mL Volume: 500 mL

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 C	Matrix: HNO_3
CMS-5-125ML CMS-5-500ML	Volume: 125 mL Volume: 500 mL

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		

C Common Multi-Element Standard

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_3. Custom ICP-MS/OES calibration standards are available upon request.

69–Element Group

Rare Earth ICP-MS Standard

CCS-1 (C)	Matrix: HNO_3
CCS-1-125ML CCS-1-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
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 (C)	Matrix: HCl
CCS-2-125ML CCS-2-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
Au	100	Pt	100
Ir	100	Rh	100
Pd	100	Ru	100

Alkali, Alkaline, Non-Transition ICP-MS Standard

CCS-4 (C)	Matrix: HNO_3
CCS-4-125ML CCS-4-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
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 (C)	Matrix: HNO_3/HF
CCS-5-125ML CCS-5-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
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 (C)	Matrix: HNO_3
CCS-6-125ML CCS-6-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	Analyte	µg/mL
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 (C)	Matrix: HNO_3
MSTEN-100PPM-125ML MSTEN-100PPM-500ML	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL
Te	100

(C) Common Multi-Element Standard

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_3. Custom ICP-MS/OESw calibration standards are available upon request.

71–Element Group

ICP-MS Complete Standard			
IV-ICPMS-71A C	Matrix: HNO_3		
IV-ICPMS-71A-125ML **IV-ICPMS-71A-500ML**	Volume: 125 mL Volume: 500 mL		
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 C	Matrix: HNO_3
MSLI-10PPM-125ML **MSLI-10PPM-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Li	10

C Common Multi-Element Standard

ICP-MS Refractory Elements Standard			
IV-ICPMS-71B C	Matrix: HNO_3 / HF		
IV-ICPMS-71B-125ML **IV-ICPMS-71B-500ML**	Volume: 125 mL Volume: 500 mL		
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 C	Matrix: HCl		
IV-ICPMS-71C-125ML **IV-ICPMS-71C-500ML**	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Au	10	Pt	10
Ir	10	Re	10
Os	10	Rh	10
Pd	10	Ru	10

ICP-MS Internal Standard			
IV-ICPMS-71D C	Matrix: HNO_3		
IV-ICPMS-71D-125ML **IV-ICPMS-71D-500ML**	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Bi	10	Sc	10
In	10	Tb	10
^{6}Li	10	Y	10

Mercury ICP-MS Standard	
MSHG-10PPM C	Matrix: HCl
MSHG-10PPM-125ML **MSHG-10PPM-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Hg	10

Identical or **near identical** formulations | **Multi-Element Standards**

AGI Tuning Solution

AGI-TS-1 (AV)	Matrix: HNO_3		
AGI-TS-1-125ML AGI-TS-1-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ce	10	Tl	10
Co	10	Y	10
Li	10		

CIROS Tuning Solution

CIROS-OES-TS (S)	Matrix: HCl / HNO_3		
CIROS-OES-TS-125ML CIROS-OES-TS-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Fe	10	P	10
K	10	S	50
La	10	Sc	10
Mg	5	Ti	10
Mn	5		

GENESIS Calibration Standard

GENESIS-ICAL (S)	Matrix: HNO_3 / HCl / HF		
GENESIS-ICAL-125ML GENESIS-ICAL-500ML	Volume: 125 mL Volume: 500 mL		
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

Trace Metals in Water– SRM1643

IV-STOCK-1643 (N)	Matrix: HNO_3		
IV-STOCK-1643-125ML IV-STOCK-1643-500ML	Volume: 125 mL Volume: 500 mL		
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	20	Sr	323
Cu	23	Te	1
Fe	98	Tl	7
K	2,000	V	38
Li	17	Zn	79

*Parts per billion

Instrument Check Standard

PE-CHK-1 (PE)	Matrix: HNO_3 / HF		
PE-CHK-1-125ML PE-CHK-1-500ML	Volume: 125 mL Volume: 500 mL		
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		

AV Agilent/Varian

N NIST

PE Perkin Elmer

S Spectro

Tuning Solution			
PE-TS-1 (PE)		Matrix: HNO_3	
PE-TS-1-125ML **PE-TS-1-500ML**		Volume: 125 mL Volume: 500 mL	
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

ICP-MS Tuning Solution – Tune B iCAP			
THERMO-4AREV (T)		Matrix: HNO_3/HCl	
THERMO-4AREV-500ML **THERMO-4AREV-1L**		Volume: 500 mL Volume: 1 L	
Analyte	**µg/L***	**Analyte**	**µg/L***
Ba	1	**In**	1
Bi	1	**Li**	1
Ce	1	**U**	1
Co	1		

*Parts per billion

ICP-MS Tuning Solution – iCAP Q			
THERMO-5A (T)		Matrix: HNO_3	
THERMO-5A-125ML **THERMO-5A-250ML**		Volume: 125 mL Volume: 250 mL	
Analyte	**µg/L***	**Analyte**	**µg/L***
Ag	6	**Mg**	10
Al	10	**Mn**	6
Ba	4	**Ni**	15
Be	35	**Rh**	3
Bi	3	**Sc**	8
Ce	3	**Sr**	5
Co	8	**Ta**	3
Cs	3	**Tb**	3
Cu	15	**Tl**	4
Ga	10	**U**	3
Ho	3	**Y**	3
In	3	**Zn**	20
Li	8		

*Parts per billion

Tuning Solution			
THM-TS-1 (C)		Matrix: HNO_3	
THM-TS-1-125ML **THM-TS-1-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
B	10	**Lu**	10
Ba	10	**Na**	10
Co	10	**Rh**	10
Fe	10	**Sc**	10
Ga	10	**Th**	10
In	10	**U**	10
K	10	**Y**	10
Li	10		

(C) Common Multi-Element Standard
(PE) Perkin Elmer
(T) Thermo Scientific

Identical or **near identical** formulations | **Multi-Element Standards**

Tune F-X-Series Tuning Solution

TUNE F-X-SERIES (T)	Matrix: HNO_3/HF
TUNE F-X-SERIES-125ML	Volume: 125 mL

Analyte	ng/mL*	Analyte	ng/mL*
Ag	40	Na	40
Al	50	Nb	20
As	250	Nd	45
B	200	Ni	150
Ba	50	P	1000
Be	500	Pb	10
Bi	5	Pd	100
Ca	1000	Pr	10
Cd	100	Rb	30
Ce	10	Re	15
Co	35	Sb	40
Cr	40	Sc	30
Cs	15	Se	1250
Cu	150	Si	1000
Dy	25	Sm	45
Er	15	Sn	45
Eu	10	Sr	20
Fe	20	Ta	5
Ga	45	Tb	5
Gd	45	Te	500
Ge	150	Th	5
Hf	15	Ti	500
Ho	5	Tl	10
In	10	Tm	5
K	35	U	5
La	10	V	40
Li	100	W	25
Lu	5	Y	15
Mg	50	Yb	25
Mn	20	Zn	150
Mo	100	Zr	35

*Parts per billion

Calibration Standard

VAR-CAL-1 (AV)	Matrix: HNO_3 / HF
VAR-CAL-1-125ML VAR-CAL-1-500ML	Volume: 125 mL Volume: 500 mL

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

Calibration Standard

VAR-CAL-2 (AV)	Matrix: HNO_3
VAR-CAL-2-125ML VAR-CAL-2-500ML	Volume: 125 mL Volume: 500 mL

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

Calibration Standard

VAR-CAL-7 (AV)	Matrix: HNO_3/HF
VAR-CAL-7-125ML VAR-CAL-7-500ML	Volume: 125 mL Volume: 500 mL

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	5	Sr	5
Cu	5	Zn	5
K	50		

(AV) Agilent/Varian

(T) Thermo Scientific

Multi-Element Standards

Identical or **near identical** formulations

ICP Internal Standard			
VAR-IS-1 (AV)		Matrix: HNO_3	
VAR-IS-1-125ML **VAR-IS-1-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	µg/mL	Analyte	µg/mL
Bi	100	Sc	100
In	100	Tb	100
^{6}Li	100	Y	100

Tuning Solution			
VAR-TS-MS (AV)		Matrix: HNO_3	
VAR-TS-MS-125ML **VAR-TS-MS-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	µg/mL	Analyte	µg/mL
Ba	10	Mg	10
Be	10	Pb	10
Ce	10	Th	10
Co	10	Tl	10
In	10		

(AV) Agilent/Varian

HIGH-PURITY IONIZATION BUFFERS

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	Matrix: HNO_3
CSN-ISB-125ML **CSN-ISB-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	µg/mL
Cs	10,000
High Purity buffer; ideal for Axial View ICP-OES	

2% Lithium Ionization Buffer	
LINB2	Matrix: HNO_3
LINB2-125ML **LINB2-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	µg/mL
Li	20,000

5% Cesium Ionization Buffer	
CSN-ISB5	Matrix: HNO_3
CSN-ISB5-125ML **CSN-ISB5-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	µg/mL
Cs	50,000

EPA STANDARDS

Over the years, we've developed a unique line of EPA standards. If you do not see what you are looking for, please contact us with an EPA custom request and we will get you competitive pricing guaranteed.

Industry Advancements — Developing new technology that drives us forward is another way we Flex to Your Specs.

- ✓ **Up to four-year shelf life**
- ✓ **Traceable to NIST SRMs**
- ✓ **Produced under ISO 9001**
- ✓ **Produced under ISO 17025**
- ✓ **Produced under ISO 17034**
- ✓ **Assayed by validated Wet Chemical procedures**
- ✓ **Assayed by validated instrument procedures**

Contents

ILMO3.0

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

Calibration Standard			
CLPP-CAL-1		Matrix: HNO_3 Dilution 1:100	
CLPP-CAL-1-125ML **CLPP-CAL-1-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	250	**Fe**	1,000
Al	2,000	**K**	5,000
Ba	2,000	**Mg**	5,000
Be	50	**Mn**	500
Ca	5,000	**Na**	5,000
Co	500	**Ni**	500
Cr	200	**V**	500
Cu	250	**Zn**	500

Calibration Standard			
CLPP-CAL-3		Matrix: HNO_3 Dilution 1:100	
CLPP-CAL-3-125ML **CLPP-CAL-3-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	1,000	**Se**	1,000
Cd	500	**Tl**	1,000
Pb	1,000		

Calibration Standard	
CGSB1	Matrix: HNO_3/Tartaric Acid Dilution 1:100
CGSB1-30ML **CGSB1-125ML** **CGSB1-500ML**	Volume: 30 mL Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Sb	1,000

CICV Standards – Continuing and Initial Calibration Verification

CICV Standard†			
QCP-CICV-1		Matrix: HNO_3 Dilution 1:100 or 1:500	
QCP-CICV-1-125ML **QCP-CICV-1-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	125	**Fe**	500
Al	1,000	**K**	2,500
Ba	1,000	**Mg**	2,500
Be	25	**Mn**	250
Ca	2,500	**Na**	2,500
Co	250	**Ni**	250
Cr	100	**V**	250
Cu	125	**Zn**	250

†Manufactured from in-house Second Source concentrates, whenever possible.

CICV Standard†	
QCP-CICV-2	Matrix: HNO_3/Tartaric Acid Dilution 1:100 or 1:500
QCP-CICV-2-125ML **QCP-CICV-2-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Sb	500

†Manufactured from in-house Second Source concentrates, whenever possible.

CICV Standard†			
QCP-CICV-3		Matrix: HNO_3 Dilution 1:100 or 1:500	
QCP-CICV-3-125ML **QCP-CICV-3-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	500	**Se**	500
Cd	250	**Tl**	500
Pb	500		

†Manufactured from in-house Second Source concentrates, whenever possible.

ILMO3.0

CRDL Standards – Contract Required Detection Limit

We can create any CRDL standard to best fit your needs.

Custom solutions are our specialty.

Soil & Water Spike Standards

Spike Standard*			
CLPP-SPK-1		Matrix: HNO_3 Dilution 1:1,000	
CLPP-SPK-1-125ML CLPP-SPK-1-500ML		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	50	**Cu**	250
Al	2,000	**Fe**	1,000
Ba	2,000	**Mn**	500
Be	50	**Ni**	500
Co	500	**V**	500
Cr	200	**Zn**	500

Spike Standard*	
CLPP-SPK-2	Matrix: HNO_3/Tartaric Acid Dilution 1:1,000
CLPP-SPK-2-125ML CLPP-SPK-2-500ML	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Sb	500

*Instructions included.

Interference Check Standards

Interference Check Standard			
CLPP-ICS-A		Matrix: HNO_3 Dilution 1:10	
CLPP-ICS-A-125ML CLPP-ICS-A-500ML		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Al	5,000	**Fe**	2,000
Ca	5,000	**Mg**	5,000

Interference Check Standard			
CLPP-ICS-B		Matrix: HNO_3 Dilution 1:100	
CLPP-ICS-B-125ML CLPP-ICS-B-500ML		Volume: 125 mL Volume: 500 mL	
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

ILMO4.0

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

Calibration Standards

Calibration Standard			
CLPP-CAL-1		Matrix: HNO_3 Dilution 1:100	
CLPP-CAL-1-125ML **CLPP-CAL-1-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	250	**Fe**	1,000
Al	2,000	**K**	5,000
Ba	2,000	**Mg**	5,000
Be	50	**Mn**	500
Ca	5,000	**Na**	5,000
Co	500	**Ni**	500
Cr	200	**V**	500
Cu	250	**Zn**	500

Calibration Standard			
CLPP-CAL-3		Matrix: HNO_3 Dilution 1:100	
CLPP-CAL-3-125ML **CLPP-CAL-3-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	1,000	**Se**	1,000
Cd	500	**Tl**	1,000
Pb	1,000		

Calibration Standard	
CGSB1	Matrix: HNO_3/Tartaric Acid Dilution 1:100
CGSB1-30ML **CGSB1-125ML** **CGSB1-500ML**	Volume: 30 mL Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Sb	1,000

CICV Standards – Continuing and Initial Calibration Verification

CICV Standard†			
QCP-CICV-1		Matrix: HNO_3 Dilution 1:100 or 1:500	
QCP-CICV-1-125ML **QCP-CICV-1-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	125	**Fe**	500
Al	1,000	**K**	2,500
Ba	1,000	**Mg**	2,500
Be	25	**Mn**	250
Ca	2,500	**Na**	2,500
Co	250	**Ni**	250
Cr	100	**V**	250
Cu	125	**Zn**	250

CICV Standard†	
QCP-CICV-2	Matrix: HNO_3/Tartaric Acid Dilution 1:100 or 1:500
QCP-CICV-2-125ML **QCP-CICV-2-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Sb	500

CICV Standard†			
QCP-CICV-3		Matrix: HNO_3 Dilution 1:100 or 1:500	
QCP-CICV-3-125ML **QCP-CICV-3-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	500	**Se**	500
Cd	250	**Tl**	500
Pb	500		

†Manufactured from in-house Second Source concentrates, whenever possible.

ILMO4.0

CRDL Standards – Contract Required Detection Limit

We can create any CRDL standard to best fit your needs.

Custom solutions are our specialty.

Soil & Water Spike Standards

Spike Standard*			
CLPP-SPK-1		Matrix: HNO_3 Dilution 1:1,000	
CLPP-SPK-1-125ML CLPP-SPK-1-500ML		Volume: 125 mL Volume: 500 mL	
Analyte	µg/mL	Analyte	µg/mL
Ag	50	Cu	250
Al	2,000	Fe	1,000
Ba	2,000	Mn	500
Be	50	Ni	500
Co	500	V	500
Cr	200	Zn	500

*Instructions included.

Don't see what you need?

Contact us with the solution part number and instrument manufacturer you're seeking, and we'll check our extensive library of solutions.

Interference Check Standards

Interference Check Standard A			
CLPP-ICS-A		Matrix: HNO_3 Dilution 1:10	
CLPP-ICS-A-125ML CLPP-ICS-A-500ML		Volume: 125 mL Volume: 500 mL	
Analyte	µg/mL	Analyte	µg/mL
Al	5,000	Fe	2,000
Ca	5,000	Mg	5,000

Interference Check Standard B4			
CLPP-ICS-B4		Matrix: HNO_3 Dilution 1:100	
CLPP-ICS-B4-125ML CLPP-ICS-B4-500ML		Volume: 125 mL Volume: 500 mL	
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

ILMO5.2 & ILMO5.3

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

Calibration Standards

Calibration Standard	
CGSB1	Matrix: HNO_3/Tartaric Acid Dilution 1:100
CGSB1-30ML **CGSB1-125ML** **CGSB1-500ML**	Volume: 30 mL Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Sb	1,000

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

Calibration Standard			
CLPP-CAL-1		Matrix: HNO_3 Dilution 1:100	
CLPP-CAL-1-125ML **CLPP-CAL-1-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	250	**Fe**	1,000
Al	2,000	**K**	5,000
Ba	2,000	**Mg**	5,000
Be	50	**Mn**	500
Ca	5,000	**Na**	5,000
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			
CLPP-CAL-3		Matrix: HNO_3 Dilution 1:100	
CLPP-CAL-3-125ML **CLPP-CAL-3-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	1,000	**Se**	1,000
Cd	500	**Tl**	1,000
Pb	1,000		

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

CICV Standards – Continuing and Initial Calibration Verification

CICV Standard†			
QCP-CICV-1		Matrix: HNO_3 Dilution 1:100 or 1:500	
QCP-CICV-1-125ML **QCP-CICV-1-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	125	**Fe**	500
Al	1,000	**K**	2,500
Ba	1,000	**Mg**	2,500
Be	25	**Mn**	250
Ca	2,500	**Na**	2,500
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†	
QCP-CICV-2	Matrix: HNO_3/Tartaric Acid Dilution 1:100 or 1:500
QCP-CICV-2-125ML **QCP-CICV-2-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Sb	500

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

CICV Standard†			
QCP-CICV-3		Matrix: HNO_3 Dilution 1:100 or 1:500	
QCP-CICV-3-125ML **QCP-CICV-3-500ML**		Volume: 125 mL Volume: 500 mL	
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.

†Manufactured from in-house Second Source concentrates, whenever possible.

ILMO5.2 & ILMO5.3

Contract Required Detection Limit (CRDL) and Contract Required Quantitation Limit (CRQL) Standards

CRQL Standard			
CLP-AES-CRQL-2		Matrix: HNO_3 Dilution 1:100 (water samples) 1:500 (soil samples)	
CLP-AES-CRQL-2-125ML **CLP-AES-CRQL-2-500ML**		Volume: 125 mL Volume: 500 mL	
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.

Interference Check Standards

Interference Check Standard A			
CLPP-ICS-A		Matrix: HNO_3 Dilution 1:10	
CLPP-ICS-A-125ML **CLPP-ICS-A-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Al	5,000	**Fe**	2,000
Ca	5,000	**Mg**	5,000

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

Interference Check Standard B4			
CLPP-ICS-B4		Matrix: HNO_3 Dilution 1:100	
CLPP-ICS-B4-125ML **CLPP-ICS-B4-500ML**		Volume: 125 mL Volume: 500 mL	
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 and ICP-MS. Designed for ILMO5.2 and ILMO5.3.

ILMO5.2 & ILMO5.3

Soil & Water Spike Standards

Spike Standard			
CLP-MS-SPK		Matrix: HNO_3 Dilution 1:100	
CLP-MS-SPK-125ML **CLP-MS-SPK-500ML**		Volume: 125 mL Volume: 500 mL	
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. Designed for ILMO5.2 and ILMO5.3.

Spike Standard			
CLPP-SPK-1		Matrix: HNO_3 Dilution 1:1,000	
CLPP-SPK-1-125ML **CLPP-SPK-1-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	50	**Cu**	250
Al	2,000	**Fe**	1,000
Ba	2,000	**Mn**	500
Be	50	**Ni**	500
Co	500	**V**	500
Cr	200	**Zn**	500

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

Internal Standards & Tuning Solutions

Internal Standard			
6020ISS		Matrix: HNO_3 Dilution 1:100	
6020ISS-125ML **6020ISS-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Bi	10	**Rh**	10
Ho	10	**Sc**	10
In	10	**Tb**	10
^{6}Li	10	**Y**	10

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

Tuning Solution			
6020TS		Matrix: HNO_3 Dilution 1:100	
6020TS-125ML **6020TS-500ML**		Volume: 125 mL Volume: 500 mL	
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		Matrix: HNO_3 Dilution 1:100 to 1:1,000	
2008TS-125ML **2008TS-500ML**		Volume: 125 mL Volume: 500 mL	
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.

ILMO5.2 & ILMO5.3

Blank & Rinse Solutions

Blank & Rinse solutions are prepared using double-distilled reagents and 18 megohm (MΩ) deionized water. They come packaged in ultra-clean LDPE bottles and are ready to use. Custom solutions are available upon request.

2% (v/v) Nitric Acid Rinse	
CLP-MS-RINSE	Matrix: HNO_3
CLP-MS-RINSE-125ML **CLP-MS-RINSE-500ML**	Volume: 125 mL Volume: 500 mL

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

See page 100 for more options.

Method 200.7

200.7 Calibration

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

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

Calibration Standard		
CLPP-SPK-2	Matrix: HNO_3/Tartaric Acid Dilution 1:100	
CLPP-SPK-2-125ML **CLPP-SPK-2-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Sb	500	206.833

Calibration Standard		
WW-CAL-1A	Matrix: HNO_3 Dilution 1:100	
WW-CAL-1A-125ML **WW-CAL-1A-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Ag	50	328.068
As	1,000	193.759
B	100	249.678
Ba	100	493.409
Ca	1,000	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		
WW-CAL-2	Matrix: HNO_3 / HF Dilution 1:100	
WW-CAL-2-125ML **WW-CAL-2-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
K	2,000	766.491
Li	500	670.784
Mo	1,000	203.844
Na	1,000	588.995
Ti	1,000	334.941

Calibration Standard		
WW-CAL-3	Matrix: HNO_3 Dilution 1:100	
WW-CAL-3-125ML **WW-CAL-3-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Ce	200	413.765
Co	200	228.616
P	1,000	214.914
V	200	292.402

Method 200.7

200.7 Calibration

Calibration Standard		
WW-CAL-4A	Matrix: HNO_3 Dilution 1:100	
WW-CAL-4A-125ML **WW-CAL-4A-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Al	1,000	308.215
Cr	500	205.552
Hg	200	194.227
Zn	500	213.856

Calibration Standard		
WW-CAL-4B	Matrix: HNO_3 / HF Dilution 1:100	
WW-CAL-4B-125ML **WW-CAL-4B-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
SiO_2	1,000	251.611
Sn	400	189.980

Calibration Standard		
WW-CAL-5	Matrix: HNO_3 Dilution 1:100	
WW-CAL-5-125ML **WW-CAL-5-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Be	100	313.042
Fe	1,000	259.940
Mg	1,000	279.079
Ni	200	231.604
Pb	1,000	220.353
Tl	500	190.864

200.7 Interference Checks

Interference Check Standard	
CGSB1	Matrix: HNO_3/Tartaric Acid Dilution 1:100
CGSB1-125ML **CGSB1-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Sb	1,000

Interference Check Standard			
2007ICS-1	Matrix: HNO_3 / HF Dilution 1:100		
2007ICS-1-125ML **2007ICS-1-500ML**	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
B	500	**Si**	230
Mo	300	**Ti**	1,000

Interference Check Standard			
2007ICS-3	Matrix: HNO_3 Dilution 1:100		
2007ICS-3-125ML **2007ICS-3-500ML**	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	300	**K**	20,000
As	1,000	**Mn**	200
Ba	300	**Ni**	300
Be	100	**Pb**	1,000
Cd	300	**Se**	500
Co	300	**Tl**	1,000
Cr	300	**V**	300
Cu	300	**Zn**	300

Interference Check Standard			
2007ICS-4	Matrix: HNO_3 Dilution 1:50		
2007ICS-4-125ML **2007ICS-4-500ML**	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Al	3,000	**Mg**	7,500
Ca	15,000	**Na**	2,500
Fe	12,500		

Method 200.7

200.7 Quality Controls

Quality Control Standard†		
QCP-QCS-1	Matrix: HNO_3 Dilution 1:100	
QCP-QCS-1-125ML QCP-QCS-1-500ML	Volume: 125 mL Volume: 500 mL	
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†		
QCP-QCS-2	Matrix: HNO_3 / HF Dilution 1:100	
QCP-QCS-2-125ML QCP-QCS-2-500ML	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Mo	100	203.844
Sb	200	206.833
SiO_2	500	251.611
Sn	500	189.980
Ti	100	334.941

Quality Control Standard†			
IV-7		Matrix: HNO_3 / HF Dilution 1:100	
IV-7-125ML IV-7-500ML		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	100	K	1,000
Al	100	Na	100
B	100	Si	50
Ba	100		

Quality Control Standard†			
IV-19		Matrix: HNO_3 / HF Dilution 1:100	
IV-19-125ML IV-19-500ML		Volume: 125 mL Volume: 500 mL	
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		

†Manufactured from in-house Second Source concentrates, whenever possible.

Method 200.7

200.7 Quality Controls

Quality Control Standard†			
IV-21		Matrix: HNO_3 / HF Dilution 1:100	
IV-21-125ML IV-21-500ML		Volume: 125 mL Volume: 500 mL	
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†			
IV-26		Matrix: HNO_3 / HF Dilution 1:100	
IV-26-125ML IV-26-500ML		Volume: 125 mL Volume: 500 mL	
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	1,000	Zn	100

Quality Control Standard†			
IV-28		Matrix: HNO_3 / HF Dilution 1:100	
IV-28-125ML IV-28-500ML		Volume: 125 mL Volume: 500 mL	
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	1,000	V	100
Li	100	Zn	100

Don't see what you need?
Contact us with the solution part number and instrument manufacturer you're seeking, and we can check our extensive library of solutions.

†Manufactured from in-house Second Source concentrates, whenever possible.

Method 200.7

Rev. 3.3 & 4.4 Calibrations – Standards may be used for either revision.

Calibration Standard		
CLPP-SPK-2	Matrix: HNO_3/Tartaric Acid Dilution 1:100	
CLPP-SPK-2-125ML **CLPP-SPK-2-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Sb	500	206.833

Calibration Standard		
WW-CAL-1A	Matrix: HNO_3 Dilution 1:100	
WW-CAL-1A-125ML **WW-CAL-1A-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Ag	50	328.068
As	1,000	193.759
B	100	249.678
Ba	100	493.409
Ca	1,000	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		
WW-CAL-2	Matrix: HNO_3 / HF Dilution 1:100	
WW-CAL-2-125ML **WW-CAL-2-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
K	2,000	766.491
Li	500	670.784
Mo	1,000	203.844
Na	1,000	588.995
Ti	1,000	334.941

Calibration Standard		
WW-CAL-3	Matrix: HNO_3 Dilution 1:100	
WW-CAL-3-125ML **WW-CAL-3-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Ce	200	413.765
Co	200	228.616
P	1,000	214.914
V	200	292.402

Calibration Standard		
WW-CAL-4A	Matrix: HNO_3 Dilution 1:100	
WW-CAL-4A-125ML **WW-CAL-4A-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Al	1,000	308.215
Cr	500	205.552
Hg	200	194.227
Zn	500	213.856

Calibration Standard		
WW-CAL-4B	Matrix: HNO_3 / HF Dilution 1:100	
WW-CAL-4B-125ML **WW-CAL-4B-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
SiO_2	1,000	251.611
Sn	400	189.980

Calibration Standard		
WW-CAL-5	Matrix: HNO_3 Dilution 1:100	
WW-CAL-5-125ML **WW-CAL-5-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Be	100	313.042
Fe	1,000	259.940
Mg	1,000	279.079
Ni	200	231.604
Pb	1,000	220.353
Tl	500	190.864

Method 200.7

Rev. 3.3 & 4.4 Instrument Performance Checks – Standards may be used for either revision.

Instrument Performance Check	
WW-IPC-1	Matrix: HNO_3 Dilution 1:100
WW-IPC-1-125ML **WW-IPC-1-500ML**	Volume: 125 mL Volume: 500 mL

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	1,000	766.491
Li	200	670.784
Mg	200	279.079
Mn	200	257.610
Na	200	588.995
Ni	200	231.604
P	1,000	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	
WW-IPC-2	Matrix: HNO_3 / HF Dilution 1:100
WW-IPC-2-125ML **WW-IPC-2-500ML**	Volume: 125 mL Volume: 500 mL

Analyte	µg/mL	λ(nm)
Mo	200	203.844
Sb	200	206.833
SiO_2	1,000	251.611
Sn	200	189.980
Ti	200	334.941

Instrument Performance Check	
WW-IPC-3	Matrix: HNO_3 Dilution 1:100
WW-IPC-3-125ML **WW-IPC-3-500ML**	Volume: 125 mL Volume: 500 mL

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	1,000	766.491
Li	200	670.784
Mg	200	279.079
Mn	200	257.610
Na	200	588.995
Ni	200	231.604
P	1,000	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

Method 200.7

Rev. 3.3 & 4.4 Laboratory Fortified Stocks – Standards may be used for either revision.

Laboratory Fortified Stock Solution		
WW-LFS-1	Matrix: HNO_3 Dilution 1:100	
WW-LFS-1-125ML **WW-LFS-1-500ML**	Volume: 125 mL Volume: 500 mL	
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	1,000	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		
WW-LFS-2	Matrix: HNO_3 / HF Dilution 1:100	
WW-LFS-2-125ML **WW-LFS-2-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Mo	40	203.844
Sb	80	206.833
SiO_2	200	251.611
Sn	70	189.980
Ti	20	334.941

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Method 200.7

Rev. 3.3 & 4.4 Quality Controls – Standards may be used for either revision.

Quality Control Standard†		
QCP-QCS-1	Matrix: HNO_3 Dilution 1:100	
QCP-QCS-1-125ML **QCP-QCS-1-500ML**	Volume: 125 mL Volume: 500 mL	
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†		
QCP-QCS-2	Matrix: HNO_3 / HF Dilution 1:100	
QCP-QCS-2-125ML **QCP-QCS-2-500ML**	Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**λ(nm)**
Mo	100	203.844
Sb	200	206.833
SiO_2	500	251.611
Sn	500	189.980
Ti	100	334.941

Quality Control Standard†			
IV-7	Matrix: HNO_3 / HF Dilution 1:100		
IV-7-125ML **IV-7-500ML**	Volume: 125 mL Volume: 500 mL		
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	100	**K**	1,000
Al	100	**Na**	100
B	100	**Si**	50
Ba	100		

Quality Control Standard†			
IV-19	Matrix: HNO_3 / HF Dilution 1:100		
IV-19-125ML **IV-19-500ML**	Volume: 125 mL Volume: 500 mL		
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		

†Manufactured from in-house Second Source concentrates, whenever possible.

Method 200.7

Rev. 3.3 & 4.4 Quality Controls – Standards may be used for either revision.

Quality Control Standard†			
IV-21		Matrix: HNO_3 / HF Dilution 1:100	
IV-21-125ML **IV-21-500ML**		Volume: 125 mL Volume: 500 mL	
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†			
IV-26		Matrix: HNO_3 / HF Dilution 1:100	
IV-26-125ML **IV-26-500ML**		Volume: 125 mL Volume: 500 mL	
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	1,000	**Zn**	100

Quality Control Standard†			
IV-28		Matrix: HNO_3 / HF Dilution 1:100	
IV-28-125ML **IV-28-500ML**		Volume: 125 mL Volume: 500 mL	
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	1,000	**V**	100
Li	100	**Zn**	100

†Manufactured from in-house Second Source concentrates, whenever possible.

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			
2008CAL-1		Matrix: HNO_3 / HF Dilution 1:100	
2008CAL-1-125ML **2008CAL-1-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Mo	20	**Sb**	20

Designed for Rev. 4.4 and 5.4.

Calibration Standard	
WW-MSCAL-1	Matrix: HNO_3 Dilution 1:1,000
WW-MSCAL-1-125ML **WW-MSCAL-1-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Hg	5

Designed for Rev. 5.4.

Calibration Standard			
2008CAL-2		Matrix: HNO_3 Dilution 1:100	
2008CAL-2-125ML **2008CAL-2-500ML**		Volume: 125 mL Volume: 500 mL	
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			
WW-MSCAL-2		Matrix: HNO_3 Dilution 1:100	
WW-MSCAL-2-125ML **WW-MSCAL-2-500ML**		Volume: 125 mL Volume: 500 mL	
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.

Mercury Standard	
MSHG-1PPM	Matrix: HCl
MSHG-1PPM-125ML **MSHG-1PPM-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Hg	1

Method 200.8

Rev. 4.4 & 5.4 Internal Standards

Internal Standard			
2008ISS		Matrix: HNO_3 Dilution 1:100 to 1:1,000	
2008ISS-125ML **2008ISS-500ML**		Volume: 125 mL Volume: 500 mL	
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 for Rev. 5.4 if Hg is to be determined by direct analysis.

Mercury Preservation Solution	
CGAUN1	Matrix: HNO_3 Dilution 1:100
CGAUN1-30ML **CGAUN1-125ML** **CGAUN1-500ML**	Volume: 30 mL Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Au	1,000

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†			
QCP-QCS-3		Matrix: HNO_3 Dilution 1:100	
QCP-QCS-3-125ML **QCP-QCS-3-500ML**		Volume: 125 mL Volume: 500 mL	
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 5.4.

Quality Control Standard†	
QCP-QCS-4	Matrix: HNO_3 Dilution 1:100
QCP-QCS-4-125ML **QCP-QCS-4-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Hg	5

Designed for Rev. 4.4 and 5.4.
†Manufactured from in-house Second Source concentrates, whenever possible.

Rev. 4.4 & 5.4 Tuning

Tuning Solution			
2008TS		Matrix: HNO_3 Dilution 1:100 to 1:1,000	
2008TS-125ML **2008TS-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Be	10	**Mg**	10
Co	10	**Pb**	10
In	10		

Designed for Rev. 4.4 and 5.4.

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		Matrix: HNO_3 / HF Dilution 1:100	
6020CAL-1-125ML **6020CAL-1-500ML**		Volume: 125 mL Volume: 500 mL	
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			
6020ICS-8A		Matrix: HNO_3 Dilution 1:10	
6020ICS-8A-125ML **6020ICS-8A-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Al	1,000	**Mg**	1,000
C	2,000	**Mo**	20
Ca	3,000	**Na**	2,500
Cl^-	18,000	**P**	1,000
Fe	2,500	**S**	1,000
K	1,000	**Ti**	20

Internal Standard			
6020ISS		Matrix: HNO_3 Dilution 1:100	
6020ISS-125ML **6020ISS-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Bi	10	**Rh**	10
Ho	10	**Sc**	10
In	10	**Tb**	10
^6Li	10	**Y**	10

Spike Standard – Soil			
6020SPK-S		Matrix: HNO_3 Dilution 1:100	
6020SPK-S-125ML **6020SPK-S-500ML**		Volume: 125 mL Volume: 500 mL	
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		Matrix: HNO_3 Dilution 1:100	
6020SPK-W-125ML **6020SPK-W-500ML**		Volume: 125 mL Volume: 500 mL	
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		Matrix: HNO_3 Dilution 1:100	
6020TS-125ML **6020TS-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Co	10	**Li**	10
In	10	**Tl**	10

Method 6020

CLP-M Version 9

Calibration Standard			
6020CAL-1		Matrix: HNO_3 / HF Dilution 1:100	
6020CAL-1-125ML 6020CAL-1-500ML		Volume: 125 mL Volume: 500 mL	
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			
6020ICS-9A		Matrix: HNO_3 Dilution 1:10	
6020ICS-9A-125ML 6020ICS-9A-500ML		Volume: 125 mL Volume: 500 mL	
Analyte	µg/mL	Analyte	µg/mL
Al	1,000	Mg	1,000
C	2,000	Mo	20
Ca	3,000	Na	2,500
Cl^-	21,215	P	1,000
Fe	2,500	S	1,000
K	1,000	Ti	20

Interference Check Standard			
6020ICS-9B		Matrix: HNO_3 Dilution 1:100	
6020ICS-9B-125ML 6020ICS-9B-500ML		Volume: 125 mL Volume: 500 mL	
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		

Internal Standard			
6020ISS		Matrix: HNO_3 Dilution 1:100	
6020ISS-125ML 6020ISS-500ML		Volume: 125 mL Volume: 500 mL	
Analyte	µg/mL	Analyte	µg/mL
Bi	10	Rh	10
Ho	10	Sc	10
In	10	Tb	10
^6Li	10	Y	10

Spike Standard – Soil			
6020SPK-S		Matrix: HNO_3 Dilution 1:100	
6020SPK-S-125ML 6020SPK-S-500ML		Volume: 125 mL Volume: 500 mL	
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		Matrix: HNO_3 Dilution 1:100	
6020SPK-W-125ML 6020SPK-W-500ML		Volume: 125 mL Volume: 500 mL	
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		

Method 6020

CLP-M Version 9

Tuning Solution			
6020TS		Matrix: HNO_3 Dilution 1:100	
6020TS-125ML 6020TS-500ML		Volume: 125 mL Volume: 500 mL	
Analyte	µg/mL	Analyte	µg/mL
Co	10	Li	10
In	10	Tl	10

REV. 0

Calibration Standard			
6020CAL-1		Matrix: HNO_3 / HF Dilution 1:100	
6020CAL-1-125ML 6020CAL-1-500ML		Volume: 125 mL Volume: 500 mL	
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

Internal Standard			
6020ISS		Matrix: HNO_3 Dilution 1:100	
6020ISS-125ML 6020ISS-500ML		Volume: 125 mL Volume: 500 mL	
Analyte	µg/mL	Analyte	µg/mL
Bi	10	Rh	10
Ho	10	Sc	10
In	10	Tb	10
^6Li	10	Y	10

Interference Check Standard			
6020ICS-0A		Matrix: HNO_3 Dilution 1:10	
6020ICS-0A-125ML 6020ICS-0A-500ML		Volume: 125 mL Volume: 500 mL	
Analyte	µg/mL	Analyte	µg/mL
Al	1,000	Mg	1,000
C	2,000	Mo	20
Ca	1,000	Na	1,000
Cl^-	10,000	P	1,000
Fe	1,000	S	1,000
K	1,000	Ti	20

Interference Check Standard			
6020ICS-0B		Matrix: HNO_3 Dilution 1:100	
6020ICS-0B-125ML 6020ICS-0B-500ML		Volume: 125 mL Volume: 500 mL	
Analyte	µg/mL	Analyte	µg/mL
Ag	2	Cu	2
As	2	Mn	2
Cd	2	Ni	2
Co	2	Zn	2
Cr	2		

Method 6020

REV. 0

Spike Standard – Soil			
6020SPK-S		Matrix: HNO_3 Dilution 1:100	
6020SPK-S-125ML **6020SPK-S-500ML**		Volume: 125 mL Volume: 500 mL	
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		

Tuning Solution			
6020TS		Matrix: HNO_3 Dilution 1:100	
6020TS-125ML **6020TS-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Co	10	**Li**	10
In	10	**Tl**	10

Spike Standard – Water			
6020SPK-W		Matrix: HNO_3 Dilution 1:100	
6020SPK-W-125ML **6020SPK-W-500ML**		Volume: 125 mL Volume: 500 mL	
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		

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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.

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An integral part of how we flex to your specs.

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- ✓ **Traceable to NIST SRMs**
- ✓ **Produced under ISO 9001**
- ✓ **Produced under ISO 17025**
- ✓ **Produced under ISO 17034**
- ✓ **Assayed by validated Wet Chemical procedures**
- ✓ **Assayed by validated IC procedures**

Contents

ION CHROMATOGRAPHY

ANION STANDARDS

1,000 µg/mL Anions

Custom anion standards are available upon request.

1,000 µg/mL

ANALYTE	MATRIX	STARTING MATERIAL	VOLUME	CATALOG #
Acetate, $C_2H_3O_2^-$	H_2O	Sodium acetate	125 mL 500 mL	ICOAC1-125ML ICOAC1-500ML
Adipate, $C_6H_8O_4^{-2}$	H_2O	Adipic acid	125 mL 500 mL	ICADP1-125ML ICADP1-500ML
Benzoate, $C_6H_5CO_2^-$	H_2O	Benzoic acid	125 mL 500 mL	ICBEN1-125ML ICBEN1-500ML
Bromate, BrO_3^-	H_2O	$KBrO_3$	125 mL 500 mL	ICBRO31-125ML ICBRO31-500ML
Bromide, Br^-	H_2O	KBr	125 mL 500 mL	ICBR1-125ML ICBR1-500ML
Butyrate, $C_4H_7O_2^-$	H_2O	Butyric acid	125 mL 500 mL	ICBTR1-125ML ICBTR1-500ML
Carbonate, CO_3^{-2}	H_2O	Na_2CO_3	125 mL 500 mL	ICCO31-125ML ICCO31-500ML
Chlorate, ClO_3^-	H_2O	$KClO_3$	125 mL 500 mL	ICCLO31-125ML ICCLO31-500ML
Chloride, Cl^-	H_2O	KCl	125 mL 500 mL	ICCL1-125ML ICCL1-500ML
Chlorite, ClO_2^-	H_2O	$NaClO_2$	125 mL 500 mL	ICCLO21-125ML ICCLO21-500ML
Chromate, CrO_4^{-2}	H_2O	$(NH_4)_2\ Cr_2O_7$	125 mL 500 mL	ICCRO41-125ML ICCRO41-500ML
Citrate, $C_6H_5O_7^{-3}$	H_2O	Citric acid	125 mL 500 mL	ICCIT1-125ML ICCIT1-500ML
Cyanide, NaCN	H_2O	Sodium cyanide	20 mL	CN-1000-25-20ML
Fluoride, F^-	H_2O	NaF	125 mL 500 mL	ICF1-125ML ICF1-500ML
Formate, HCO_2^-	H_2O	Sodium formate	125 mL 500 mL	ICHCO1-125ML ICHCO1-500ML
Glutarate, $C_5H_6O_4^{-2}$	H_2O	Glutaric acid	125 mL 500 mL	ICGTR1-125ML ICGTR1-500ML
Glycolate, $C_2H_3O_3^-$	H_2O	Glycolic acid	125 mL 500 mL	ICGLY1-125ML ICGLY1-500ML
Iodide, I^-	H_2O / stabilizer	NH_4I	125 mL 500 mL	ICI1-125ML ICI1-500ML
Lactate, $C_3H_5O_3^-$	H_2O	Lactic acid	125 mL 500 mL	ICLCT1-125ML ICLCT1-500ML
Malate, $C_4H_4O_5^{-2}$	H_2O	Malic acid	125 mL 500 mL	ICMLA1-125ML ICMLA1-500ML
Maleate, $C_4H_2O_4^{-2}$	H_2O	Maleic acid	125 mL 500 mL	ICMLE1-125ML ICMLE1-500ML
Malonate, $C_3H_2O_4^{-2}$	H_2O	Malonic acid	125 mL 500 mL	ICMLO1-125ML ICMLO1-500ML
Methanesulfonate, $CH_3SO_3^-$	H_2O	Methanesulfonic acid	125 mL 500 mL	ICMSA1-125ML ICMSA1-500ML
Nitrate, NO_3^-	H_2O	$NaNO_3$	125 mL 500 mL	ICNO31-125ML ICNO31-500ML

1,000 µg/mL Anions

Custom anion standards are available upon request.

1,000 µg/mL

ANALYTE	MATRIX	STARTING MATERIAL	VOLUME	CATALOG #
Nitrate as Nitrogen	H_2O	$NaNO_3$	125 mL 500 mL	ICNNO31-125ML ICNNO31-500ML
Nitrilotriacetate, $NC_6H_6O_6^{-3}$	H_2O	Nitrilotriacetic acid	125 mL 500 mL	ICNTA1-125ML ICNTA1-500ML
Nitrite, NO_2^-	H_2O	$NaNO_2$	125 mL 500 mL	ICNO21-125ML ICNO21-500ML
Nitrite as Nitrogen	H_2O	$NaNO_2$	125 mL 500 mL	ICNNO21-125ML ICNNO21-500ML
Oxalate, $C_2O_4^{-2}$	H_2O	Sodium oxalate	125 mL 500 mL	ICOXA1-125ML ICOXA1-500ML
Perchlorate, ClO_4^-	H_2O	$KClO_4$	125 mL 500 mL	ICCLO41-125ML ICCLO41-500ML
Phosphate, PO_4^{-3}	H_2O	$NH_4H_2PO_4$	125 mL 500 mL	ICPO41-125ML ICPO41-500ML
Phosphate as Phosphorus	H_2O	$NH_4H_2PO_4$	125 mL 500 mL	ICPPO41-125ML ICPPO41-500ML
Phthalate, $C_6H_4(CO_2)_2^{-2}$	H_2O	Potassium hydrogen phthalate	125 mL 500 mL	ICKHP1-125ML ICKHP1-500ML
Propionate, $C_2H_5CO_2^-$	H_2O	Sodium propionate	125 mL 500 mL	ICOPR1-125ML ICOPR1-500ML
Succinate, $C_4H_4O_4^{-2}$	H_2O	Succinic acid	125 mL 500 mL	ICSCC1-125ML ICSCC1-500ML
Sulfate, SO_4^{-2}	H_2O	K_2SO_4	125 mL 500 mL	ICSO41-125ML ICSO41-500ML
Tartrate, $C_4H_4O_6^{-2}$	H_2O	Tartaric acid	125 mL 500 mL	ICTRTR1-125ML ICTRTR1-500ML
Thiocyanate, SCN^-	H_2O	KSCN	125 mL 500 mL	ICSCN1-125ML ICSCN1-500ML
Thiosulfate, $S_2O_3^{-2}$	H_2O	Sodium thiosulfate	125 mL 500 mL	ICS2O31-125ML ICS2O31-500ML

10,000 µg/mL

Custom anion standards are available upon request.

10,000 µg/mL

ANALYTE	MATRIX	STARTING MATERIAL	VOLUME	CATALOG #
Chloride, Cl^-	H_2O	KCl	125 mL 500 mL	ICCL10-125ML ICCL10-500ML
Sulfate, SO_4^{-2}	H_2O	K_2SO_4	125 mL 500 mL	ICSO410-125ML ICSO410-500ML

100 ppm

Custom anion standards are available upon request.

100 ppm

ANALYTE	MATRIX	µg/mL	VOLUME	CATALOG #
Nitrite, NO_2^-	H_2O	100	125 mL 500 mL	ICNO2-100PPM-125ML ICNO2-100PPM-500ML

CATION STANDARDS

1,000 µg/mL Cations

Custom cation standards are available upon request.

1,000 µg/mL

ANALYTE	MATRIX	STARTING MATERIAL	VOLUME	CATALOG #
3-Methoxypropylamine $CH_3O(CH_2)_3NH_2$	HCl	3-Methoxypropylamine	125 mL 500 mL	ICMPA1-125ML ICMPA1-500ML
Ammonium, NH_4^+	H_2O	NH_4Cl	125 mL 500 mL	ICNH41-125ML ICNH41-500ML
Ammonium as Nitrogen	H_2O	NH_4Cl	125 mL 500 mL	ICNNH41-125ML ICNNH41-500ML
Barium, Ba^{+2}	HNO_3	$Ba(NO_3)_2$	125 mL 500 mL	ICBA1-125ML ICBA1-500ML
Calcium, Ca^{+2}	HNO_3	CaO	125 mL 500 mL	ICCA1-125ML ICCA1-500ML
Cesium, Cs^+	HNO_3	$CsNO_3$	125 mL 500 mL	ICCS1-125ML ICCS1-500ML
Diethanolamine, $(HOCH_2CH_2)_2NH$	H_2O	Diethanolamine	125 mL 500 mL	ICDEA1-125ML ICDEA1-500ML
Dimethylamine, $NH(CH_3)_2$	HCl	Dimethylamine	125 mL 500 mL	ICDMA1-125ML ICDMA1-500ML
Lithium, Li^+	HNO_3	Li_2CO_3	125 mL 500 mL	ICLI1-125ML ICLI1-500ML
Magnesium, Mg^{+2}	HNO_3	Mg metal	125 mL 500 mL	ICMG1-125ML ICMG1-500ML
Monoethanolamine, $HOCH_2CH_2NH_2$	H_2O	Monoethanolamine	125 mL 500 mL	ICMEA1-125ML ICMEA1-500ML
Monomethylamine, NH_2CH_3	HCl	Monomethylamine	125 mL 500 mL	ICMMA1-125ML ICMMA1-500ML
Potassium, K^+	HNO_3	KNO_3	125 mL 500 mL	ICK1-125ML ICK1-500ML
Rubidium, Rb^+	HNO_3	$RbNO_3$	125 mL 500 mL	ICRB1-125ML ICRB1-500ML
Sodium, Na^+	HNO_3	Na_2CO_3	125 mL 500 mL	ICNA1-125ML ICNA1-500ML
Strontium, Sr^{+2}	HNO_3	$SrCO_3$	125 mL 500 mL	ICSR1-125ML ICSR1-500ML
Tetramethylammonium, $N^+(CH_3)_4$	H_2O	Tetramethylammonium hydroxide	125 mL 500 mL	ICTMAH1-125ML ICTMAH1-500ML
Triethanolamine, $(HOCH_2CH_2)_3N$	H_2O	Triethanolamine	125 mL 500 mL	ICTEA1-125ML ICTEA1-500ML
Triethylamine, $(CH_3CH_2)_3N$	HCl	Triethylamine	125 mL 500 mL	ICTA1-125ML ICTA1-500ML
Trimethylamine, $(CH_3)_3N$	HCl	Trimethylamine	125 mL 500 mL	ICTMA1-125ML ICTMA1-500ML

Multi-Ion Standards

Anion Calibration Standard

IC-FAS-1A (I)	Matrix: H_2O		
IC-FAS-1A-125ML IC-FAS-1A-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	µg/mL	Analyte	µg/mL
Br^-	100	NO_2^-	100
Cl^-	30	PO_4^{-3}	150
F^-	20	SO_4^{-2}	150
NO_3^-	100		

Anion Calibration Standard

IV-STOCK-59 (I)	Matrix: H_2O		
IV-STOCK-59-125ML IV-STOCK-59-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	µg/mL	Analyte	µg/mL
Br^-	1000	NO_2^-	1000
Cl^-	1000	PO_4^{-3}	1000
F^-	1000	SO_4^{-2}	1000
NO_3^-	1000		

Cation Calibration Standard

IC-SCS1 (I)	Matrix: HNO_3		
IC-SCS1-125ML IC-SCS1-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	µg/mL	Analyte	µg/mL
Ca^{+2}	1,000	Mg^{+2}	200
K^+	200	Na^+	200
Li^+	50	NH_4^+	400

Used for daily calibration.

Cation Calibration Standard

IV-STOCK-7 (I)	Matrix: HNO_3		
IV-STOCK-7-125ML IV-STOCK-7-500ML	Volume: 125 mL Volume: 500 mL		
Analyte	µg/mL	Analyte	µg/mL
Ba^{+2}	100	Mn^{+2}	100
Ca^{+2}	100	Na^+	100
K^+	100	NH_4^+	100
Li^+	100	Sr^{+2}	100
Mg^{+2}	100		

Used for daily calibration.

(N) Anion Mix A

IV-STOCK-61	Matrix: H_2O
IV-STOCK-61-125ML IV-STOCK-61-500ML	Volume: 125 mL Volume: 500 mL
Analyte	Range
Br^-	20
F^-	10
NO_2^-	20
SO_4^{-2}	30
Cl^-	20
NO_3^-	20
PO_4^{-3}	30

(N) Cation Mix B

IV-STOCK-62	Matrix: H_2O
IV-STOCK-62-125ML IV-STOCK-62-500ML	Volume: 125 mL Volume: 500 mL
Analyte	Range
Br^-	20
F^-	10
NO_2^-	20
SO_4^{-2}	30
Cl^-	20
NO_3^-	20
PO_4^{-3}	30

(I) Common Multi-Ion Standards

MULTI-ION STANDARDS

Multi-Ion Standards

N Anion Mix 4	
IV-STOCK-63	Matrix: H_2O
IV-STOCK-63-125ML **IV-STOCK-63-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**Range**
Br^-	40
F^-	20
NO_2^-	40
Cl^-	40
NO_3^-	40
SO_4^{-2}	40

N Anion Mix 5	
IV-STOCK-64	Matrix: H_2O
IV-STOCK-64-125ML **IV-STOCK-64-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**Range**
Br^-	50
Cl^-	50
Fl^-	25
NO_3^-	50
NO_2^-	50
PO_4^{-3}	50
SO_4^{-2}	50

Eluent Concentrates

Custom eluent concentrates are available upon request.

0.18 M Sodium Carbonate/0.17 M Sodium Bicarbonate		
ELUENT1817-100ML **ELUENT1817-500ML**	Volume: 100 mL Volume: 500 mL	Matrix: H_2O Dilution: 1:100
For preparation of 1.8 mM CO_3^{-2} / 1.7 mM HCO_3^- eluent.		

0.35 M Sodium Carbonate/0.10 M Sodium Bicarbonate		
ELUENT3510-100ML **ELUENT3510-500ML**	Volume: 100 mL Volume: 500 mL	Matrix: H_2O Dilution: 1:100
For preparation of 3.5 mM CO_3^{-2} / 1.0 mM HCO_3^- eluent.		

0.5 M Sodium Bicarbonate		
BICARB-100ML **BICARB-500ML**	Volume: 100 mL Volume: 500 mL	Matrix: H_2O Dilution: 1:100
For preparation of various CO_3^{-2} / HCO_3^- eluents.		

0.5 M Sodium Carbonate		
CARB-100ML **CARB-500ML**	Volume: 100 mL Volume: 500 mL	Matrix: H_2O Dilution: 1:100
For preparation of various CO_3^{-2} / HCO_3^- eluents.		

1.8 M Methanesulfonic Acid		
MSAELUENT-100ML **MSAELUENT-500ML**	Volume: 100 mL Volume: 500 mL	Matrix: H_2O Dilution: 1:100
For preparation of 18 mM CH_3SO_3H eluent for analyzing cations.		

Method 300.0 & 300.1

300.0 Rev. 2.1 Part A / 300.1 Part A

Custom EPA standards are available upon request.

0.18 M Sodium Carbonate/0.17 M Sodium Bicarbonate		
ELUENT1817-100ML **ELUENT1817-500ML**	Volume: 100 mL Volume: 500 mL	Matrix: H_2O Dilution 1:100

For preparation of 1.8 mM CO_3^{-2} / 1.7 mM HCO_3^- eluent.

Calibration Standard			
300-CAL-A-125ML **300-CAL-A-500ML**		Volume: 125 mL Volume: 500 mL	Matrix: H_2O Dilution 1:10 to 1:100
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Br^-	100	**Nitrite as Nitrogen**	30
Cl^-	30	**Nitrate as Nitrogen**	25
F^-	20	**Phosphate as Phosphorus**	50
SO_4^{-2}	150		

Dichloroacetate Standard		
ICDCA-S-125ML **ICDCA-S-500ML**	Volume: 125 mL Volume: 500 mL	Matrix: H_2O
Analyte	**µg/mL**	
$Cl_2HC_2O_2^-$	500	

For use as a surrogate analyte.

Laboratory Fortification Stock Standard			
300-LFS-A-125ML **300-LFS-A-500ML**		Volume: 125 mL Volume: 500 mL	Matrix: H_2O Dilution 1:100 to 1:1,000
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Br^-	1,000	**Nitrite as Nitrogen**	300
Cl^-	300	**Nitrate as Nitrogen**	300
F^-	200	**Phosphate as Phosphorus**	500
SO_4^{-2}	1,500		

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

QC Standard/Instrument Performance Check†			
QCP-QCS-5-125ML **QCP-QCS-5-500ML**		Volume: 125 mL Volume: 500 mL	Matrix: H_2O Dilution 1:10 to 1:100
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Br^-	50	**Nitrite as Nitrogen**	15
Cl^-	15	**Nitrate as Nitrogen**	10
F^-	10	**Phosphate as Phosphorus**	25
SO_4^{-2}	75		

†Manufactured from in-house Second Source concentrates.

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

Method 300.0 & 300.1

300.1 Part B Custom EPA standards are available upon request.

Bromate	
ICBRO31	Matrix: H_2O
ICBRO31-125ML **ICBRO31-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
BrO_3^-	1,000

Chlorate	
ICCLO31	Matrix: H_2O
ICCLO31-125ML **ICCLO31-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
ClO_3^-	1,000

Bromide	
ICBR1	Matrix: H_2O
ICBR1-125ML **ICBR1-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Br^-	1,000

Dichloracetate Standard	
ICDCA-S	Matrix: H_2O
ICDCA-S-125ML **ICDCA-S-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
$Cl_2HC_2O_2^-$	500

For use as a surrogate analyte.

Chlorite	
ICCLO21	Matrix: H_2O
ICCLO21-125ML **ICCLO21-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
ClO_2^-	1,000

NOTE: Contains less than 10ppm ClO_3^-.

Method 314.0

Custom EPA standards are available upon request.

1,400 µmhos/cm Conductivity at 25°C	
CON1400-25	Matrix: H_2O
CON1400-25-125ML **CON1400-25-500ML** **CON1400-25-1L**	Volume: 125 mL Volume: 500 mL Volume: 1 L

Perchlorate	
ICCLO41	Matrix: H_2O
ICCLO41-125ML **ICCLO41-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
ClO_4^-	1,000

If Atomic Absorption (AA) is your technique of choice, we think you'll appreciate our full line of AA standards.

- ✓ **Up to four-year shelf life**
- ✓ **Traceable to NIST SRMs**
- ✓ **Produced under ISO 9001**
- ✓ **Assayed by validated procedures**

Contents

ATOMIC ABSORPTION

SINGLE-ELEMENT STANDARDS

1,000 µg/mL Standards

1,000 µg/mL

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

1,000 µg/mL Standards

1,000 µg/mL

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

1,000 µg/mL Standards

1,000 µg/mL

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

Modifiers, Buffers & Releasing Agents

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

1% Lanthanum Releasing Agent	
LACB1	Matrix: HCl
LACB1-125ML **LACB1-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
La	10,000

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

2% Lithium Ionization Buffer	
LINB2	Matrix: HNO_3
LINB2-125ML **LINB2-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Li	20,000

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

1% Magnesium Nitrate Modifier	
MM-MG-10	Matrix: HNO_3
MM-MG-10-125ML **MM-MG-10-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
$Mg(NO_3)_2$	10,000

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

4% Phosphate Modifier	
MM-P-40	Matrix: H_2O
MM-P-40-125ML **MM-P-40-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
PO_4	40,000

Don't see what you need?

Contact us with the solution part number and instrument manufacturer you're seeking, and we'll check our extensive library of solutions.

Multi-Element Standards

GFAA Calibration Standard			
IV-STOCK-18 (M)		Matrix: HNO_3	
IV-STOCK-18-125ML **IV-STOCK-18-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
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	20	**Tl**	100

AA Calibration Standard			
IV-STOCK-25 (C)		Matrix: HNO_3	
IV-STOCK-25-125ML **IV-STOCK-25-500ML**		Volume: 125 mL Volume: 500 mL	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Cr	3	**Ni**	10

(C) Common Multi-Element Standards

(M) Merck/MilliporeSigma

TCLP

Toxicity Characteristic Leachate Procedure (TCLP)

Custom EPA standards are available upon request.

TCLP Hg Standard	
TCLP-AA-HG	Matrix: HNO_3 Dilution: As required
TCLP-AA-HG-125ML **TCLP-AA-HG-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Hg	20

TCLP Standard			
TCLP-1REV		Matrix: HNO_3 Dilution: As required	
TCLP-1REV-125ML **TCLP-1REV-500ML**		Volume: 125 mL Volume: 500 mL	
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.

We can create any CLP Graphite Furnace Standard to best fit your needs.

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.

- ✓ **Up to four-year shelf life**
- ✓ **Traceable to NIST SRMs**
- ✓ **Produced under ISO 9001**
- ✓ **Produced under ISO 17025**
- ✓ **Produced under ISO 17034**
- ✓ **Assayed by optimal validated procedures**

Contents

POTABLE WATER STANDARDS

Potable Water Standards

Custom potable water standards for certain products are available upon request.

Bromate	
ICBRO31	Matrix: H_2O
ICBRO31-125ML **ICBRO31-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
BrO_3^-	1,000

Bromide	
ICBR1	Matrix: H_2O
ICBR1-125ML **ICBR1-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Br^-	1,000

Cation Standard	
QCP-CAT-20ML	Volume: 20 mL Matrix: HNO_3 Dilution 1:100
Analyte	**Range**
Ca^{+2}	3.5 –110 mg/L
K^+	4–40 mg/L
Mg^{+2}	2–40 mg/L
Na^+	6–100 mg/L

Chlorate	
ICCLO31	Matrix: H_2O
ICCLO31-125ML **ICCLO31-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
ClO_3^-	1,000

Chlorite	
ICCLO21	Matrix: H_2O
ICCLO21-125ML **ICCLO21-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
ClO_2^-	1,000

NOTE: Contains less than 10ppm ClO_3^-.

Cyanide Standard	
QCP-CN-20ML	Volume: 20 mL Matrix: H_2O Dilution 1:200
Analyte	**Range**
Total Cyanide	0.1–1 mg/L
Free Cyanide	0.05–0.5 mg/L
Cyanide Amenable to Chlorination	0.05–0.5 mg/L

Demand Standard	
QCP-DMD-20ML	Volume: 20 mL Matrix: H_2O Dilution 1:200
Analyte	**Range**
TOC	6–100 mg/L
COD	30–250 mg/L
CBOD	15–250 mg/L
BOD	15–250 mg/L

Hg Standard	
QCP-HG-20ML	Volume: 20 mL Matrix: HNO_3 Dilution 1:200
Analyte	**Range***
Hg	2–30 µg/L

Used in conjunction with QCP-TMS and QCP-MTL. *Parts per billion

Potable Water Standards

Water Hardness Standard	
QCP-WH-500ML	Volume: 500 mL Matrix: H_2O Dilution: Ready to Use
Analyte	**Range**
Ca	8.7–275 mg/L
Mg	2.9–92 mg/L
Hardness as $CaCO_3$	17–440 mg/L

pH Standard	
QCP-PH-20ML	Volume: 20 mL Matrix: H_2O Dilution: Ready to Use
Analyte	**Range**
pH	5–10 units

Metals Standard	
QCP-MTL-20ML	Volume: 20 mL Matrix: HNO_3 Dilution 1:200
Analyte	**Range***
Ag	26–1,000 µg/L
Al	200–4,000 µg/L
As	70–900 µg/L
Ba	100–2,500 µg/L
Be	8–900 µg/L
Ca	3.5–110 mg/L
Cd	8–1,000 µg/L
Cr	17–1,000 µg/L
Cu	40–1,000 µg/L
Fe	200–4,000 µg/L
Mn	70–4,000 µg/L
Ni	80–3,000 µg/L
Pb	70–3,000 µg/L
Sb	90–900 µg/L
Se	90–2,000 µg/L
Tl	60–900 µg/L
Zn	100–2,000 µg/L

*Parts per billion

Minerals Standard	
QCP-MIN-500ML	Volume: 500 mL Matrix: H_2O Dilution: Ready to Use
Analyte	**Range**
Cl^-	35–275 mg/L
F^-	0.3–4 mg/L
K^+	4–40 mg/L
Nitrate as Nitrogen	0.25–40 mg/L
Conductivity	200–1,200 µmhos
Alkalinity	10–400 mg/L
Na^+	6–100 mg/L
SO_4^{-2}	5–125 mg/L

Nitrite Standard	
QCP-NT-20ML	Volume: 20 mL Matrix: H_2O Dilution: 1:100
Analyte	**Range**
Nitrite as Nitrogen	0.4–4 mg/L

Simple Nutrients Standard	
QCP-NUT-1-20ML	Volume: 20 mL Matrix: H_2O Dilution 1:200
Analyte	**Range**
Phosphate as Phosphorus	0.5–5.5 mg/L
Nitrate plus Nitrite as Nitrogen	0.25–40 mg/L
Nitrate as Nitrogen	0.25–40 mg/L
Ammonium as Nitrogen	0.65–20 mg/L

POTABLE WATER STANDARDS

Potable Water Standards

Simulated Rainwater Standard	
QCP-RAIN-125ML	Volume: 125 mL Matrix: H_2O Dilution: Ready to Use
Analyte	**Range**
Ca^{+2}	0.05–0.5 mg/L
Cl^-	0.1–5 mg/L
F^-	0.05–1 mg/L
K^+	0.05–1 mg/L
Mg^{+2}	0.05–0.5 mg/L
pH	3.5–4.5 units
Conductivity	20–120 µmhos
Na^+	0.2–2 mg/L
NH_4^+	0.1–1.5 mg/L
NO_3^-	0.1–10 mg/L
SO_4^{-2}	1–12 mg/L

Total Residual Chlorine Standard	
QCP-TRC-10ML	Volume: 10 mL Matrix: H_2O Dilution: 1:200
Analyte	**Range**
Total Residual Chlorine	0.5–3.0 mg/L

Turbidity Standard	
QCP-TURB-20ML	Volume: 20 mL Matrix: H_2O Dilution: 1:100
Analyte	**Range**
Turbidity	2–30 NTU

Wastewater Standards

Custom wastewater standards for certain products are available upon request.

Cation Standard	
QCP-CAT-20ML	Volume: 20 mL Matrix: HNO_3 Dilution 1:100
Analyte	**Range**
Ca^{+2}	3.5–110 mg/L
K^+	4–40 mg/L
Mg^{+2}	2–40 mg/L
Na^+	6–100 mg/L

Chromium^{+6} Standard	
QCP-CR6-20ML	Volume: 20 mL Matrix: H_2O Dilution 1:100
Analyte	**Range***
Cr^{+6}	45–900 µg/L

*Parts per billion

Complex Nutrients Standard	
QCP-NUT-2-20ML	Volume: 20 mL Matrix: H_2O Dilution 1:200
Analyte	**Range**
Total Organic Phosphorus as Phosphorus (P)	0.5–10 mg/L
Total Kjeldahl Nitrogen as Nitrogen (N)	1.5–35 mg/L

Cyanide Standard	
QCP-CN-20ML	Volume: 20 mL Matrix: H_2O Dilution 1:200
Analyte	**Range**
Total Cyanide	0.01–1 mg/L
Free Cyanide	0.05–0.5 mg/L
Cyanide Amenable to Chlorination	0.05–0.5 mg/L

Wastewater Standards

Demand Standard	
QCP-DMD-20ML	Volume: 20 mL Matrix: H_2O Dilution 1:200
Analyte	**Range**
TOC	6–100 mg/L
COD	30–250 mg/L
CBOD	15–250 mg/L
BOD	15–250 mg/L

Water Hardness Standard	
QCP-WH-500ML	Volume: 500 mL Matrix: HNO_3 Dilution: Certificate of Analysis
Analyte	**Range**
Ca	8.7–275 mg/L
Mg	2.9–92 mg/L
Hardness as $CaCO_3$	17–440 mg/L

Hg Standard	
QCP-HG-20ML	Volume: 20 mL Matrix: HNO_3 Dilution 1:200
Analyte	**Range***
Hg	2–30 µg/L

Can be used in conjunction with QCP-TMS and QCP-MTL. *Parts per billion.

Minerals Standard	
QCP-MIN-500ML	Volume: 500 mL Matrix: H_2O Dilution: Ready to Use
Analyte	**Range**
Cl^-	35–275 mg/L
F^-	0.3–4 mg/L
K^+	4–40 mg/L
Nitrate as Nitrogen	0.25–40 mg/L
Conductivity	200–1,200 µmhos
Alkalinity	10–400 mg/L
Na^+	6–100 mg/L
SO_4^{-2}	5–125 mg/L

Oil & Grease Standard	
QCP-OG-A-20ML	Volume: 20 mL Matrix: Acetone Dilution 1:100
Analyte	**Range**
Oil & Grease	20–200 mg/L

Applicable to gravimetric methods only.

Oil & Grease Standard	
QCP-OG-W-250ML	Volume: 250 mL Matrix: H_2O Dilution: See Certificate of Analysis
Analyte	**Range**
Oil & Grease	20–200 mg/L

pH Standard	
QCP-PH-20ML	Volume: 20 mL Matrix: H_2O Dilution: Ready to Use
Analyte	**Range**
pH	5–10 units

Phenolics Standard	
QCP-PHEN-20ML	Volume: 20 mL Matrix: H_2O Dilution 1:200
Analyte	**Range**
Total Phenolics	0.06–5 mg/L

Simple Nutrients Standard	
QCP-NUT-1-20ML	Volume: 20 mL Matrix: H_2O Dilution 1:200
Analyte	**Range**
Phosphate as Phosphorus	0.5–5.5 mg/L
Nitrate plus Nitrite as Nitrogen	0.25–40 mg/L
Nitrate as Nitrogen	0.25–40 mg/L
Ammonium as Nitrogen	0.65–20 mg/L

Wastewater Standards

Solids Standard	
QCP-SLD-450ML	Volume: 450 mL Matrix: H_2O Dilution: Ready to Use
Analyte	**Range**
Total Solids (total residue)	140–800 mg/L
Suspended Solids (nonfilterable residue)	20–100 mg/L
Dissolved Solids (filterable residue)	140–800 mg/L

Total Residual Chlorine Standard	
QCP-TRC-10ML	Volume: 10 mL Matrix: H_2O Dilution: 1:200
Analyte	**Range**
Total Residual Chlorine	0.5–3.0 mg/L

1,000 µg/mL Total Cyanide	
CN-1000-25-20ML	Volume: 20 mL Matrix: H_2O
Analyte	**µg/mL**
CN^-	1,000

1,000 µg/mL Total Cyanide (Set of 6)	
CN-1000-25-6	Volume: 20 mL X 6 Matrix: H_2O
Analyte	**µg/mL**
CN^-	1,000

For confidence in your results, keep refrigerated/frozen and use individual vials as needed.

Mercury Standard	
MSHG-1PPM	Matrix: HCl
MSHG-1PPM-125ML **MSHG-1PPM-500ML**	Volume: 125 mL Volume: 500 mL
Analyte	**µg/mL**
Hg	1

Trace Metals Standard	
QCP-TMS-20ML	Volume: 20 mL Matrix: HNO_3 Dilution 1:100
Analyte	**Range***
Ag	26–1,000 ug/L
Al	200–4,000 ug/L
As	70–900 ug/L
B	800–2,000 ug/L
Ba	100–2,500 ug/L
Be	8–900 ug/L
Cd	8–1,000 ug/L
Co	28–1,000 ug/L
Cr	17–1,000 ug/L
Cu	40–1,000 ug/L
Fe	200–4,000 ug/L
Mn	70–4,000 ug/L
Mo	60–600 ug/L
Ni	80–3,000 ug/L
Pb	70–3,000 ug/L
Sb	90–900 ug/L
Se	90–2,000 ug/L
Sr	30–500 ug/L
Tl	60–900 ug/L
V	50–2,000 ug/L
Zn	100–2,000 ug/L

*Parts per billion

Turbidity Standard	
QCP-TURB-20ML	Volume: 20 mL Matrix: H_2O Dilution: 1:100
Analyte	**Range**
Turbidity	2–30 NTU

TOTAL ORGANIC CARBON (TOC) STANDARDS

TOC Standards

Custom wastewater standards are available upon request.

ANALYTE	MATRIX	STARTING MATERIAL	VOLUME	CATALOG #
Carbon, C	H_2O	KHP	125 mL 500 mL	TOCKHP1-125ML TOCKHP1-500ML

Don't see exactly what you are looking for?

Give us a call. Custom reference materials are our specialty.

WET CHEMISTRY

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, esslab.com.

- ✓ **Up to four-year shelf life**
- ✓ **Traceable to NIST SRMs**
- ✓ **Produced under ISO 9001**
- ✓ **Produced under ISO 17025**
- ✓ **Produced under ISO 17034**
- ✓ **Assayed by optimal validated procedures**

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

Each pH standard is manufactured to be compatible with your instrumentation and meets all requirements for calibration by a true Certified Reference Material. Each standard is traceable to a NIST SRM and engineered for homogeneity and long-term/short-term stability testing. Manufactured under our ISO 17025 and ISO 17034 accreditations and ISO 9001 registered, each pH standard comes with a CoA with a temperature chart for your convenience. Detailed error budgets provide accurate and consistent certified values and uncertainties. Each product is packaged in our TCT technology, where each lot has up to a three- to four-year shelf life and a one-year* expiration date from opening. Also provided is a GHS-compliant SDS and GHS label and temperature chart on the product and TCT foil bag.

**For most products.*

Contents

Conductivity Standards

Custom conductivity standards are available upon request. |

2 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON2-25-125ML	Volume: 125 mL
CON2-25-500ML	Volume: 500 mL

N 5 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON5-25-125ML	Volume: 125 mL
CON5-25-500ML	Volume: 500 mL

10 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON10-25-125ML	Volume: 125 mL
CON10-25-500ML	Volume: 500 mL

84 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON84-25-125ML	Volume: 125 mL
CON84-25-500ML	Volume: 500 mL
CON84-25-1L	Volume: 1 L

100 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON100-25-125ML	Volume: 125 mL
CON100-25-500ML	Volume: 500 mL
CON100-25-1L	Volume: 1 L

147 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON147-25-125ML	Volume: 125 mL
CON147-25-500ML	Volume: 500 mL
CON147-25-1L	Volume: 1 L

500 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON500-25-125ML	Volume: 125 mL
CON500-25-500ML	Volume: 500 mL
CON500-25-1L	Volume: 1 L

1,000 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON1000-25-125ML	Volume: 125 mL
CON1000-25-500ML	Volume: 500 mL
CON1000-25-1L	Volume: 1 L

1,200 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON1200-25-125ML	Volume: 125 mL
CON1200-25-500ML	Volume: 500 mL
CON1200-25-1L	Volume: 1 L

1,400 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON1400-25-125ML	Volume: 125 mL
CON1400-25-500ML	Volume: 500 mL
CON1400-25-1L	Volume: 1 L

1,413 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON1413-25-125ML	Volume: 125 mL
CON1413-25-500ML	Volume: 500 mL
CON1413-25-1L	Volume: 1 L

1,430 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON1430-25-125ML	Volume: 125 mL
CON1430-25-500ML	Volume: 500 mL
CON1430-25-1L	Volume: 1 L

10,000 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON10000-25-125ML	Volume: 125 mL
CON10000-25-500ML	Volume: 500 mL
CON10000-25-1L	Volume: 1 L

100,000 µmhos/cm Conductivity at 25˚C	
Matrix: H_2O	
CON100000-25-125ML	Volume: 125 mL
CON100000-25-500ML	Volume: 500 mL
CON100000-25-1L	Volume: 1 L

WET CHEMICAL STANDARDS

pH Standards

Custom pH standards are available upon request.

pH 1.68	
Potassium tetroxalate	
PH-1.68-250ML	Volume: 250 mL
PH-1.68-500ML	Volume: 500 mL
PH-1.68-1L	Volume: 1 L
PH-1.68-4L	Volume: 4 L
PH-1.68-10L	Volume: 10 L

pH 2	
Potassium chloride and hydrochloric acid	
PH-2-250ML	Volume: 250 mL
PH-2-500ML	Volume: 500 mL
PH-2-1L	Volume: 1 L
PH-2-4L	Volume: 4 L
PH-2-10L	Volume: 10 L

pH 3	
Potassium acid phthalate and hydrochloric acid	
PH-3-250ML	Volume: 250 mL
PH-3-500ML	Volume: 500 mL
PH-3-1L	Volume: 1 L
PH-3-4L	Volume: 4 L
PH-3-10L	Volume: 10 L

pH 4	
Potassium acid phthalate	
PH-4-250ML	Volume: 250 mL
PH-4-500ML	Volume: 500 mL
PH-4-1L	Volume: 1 L
PH-4-4L	Volume: 4 L
PH-4-10L	Volume: 10 L

pH 4 RED	
Potassium acid phthalate	
PHRED-4-250ML	Volume: 250 mL
PHRED-4-500ML	Volume: 500 mL
PHRED-4-1L	Volume: 1 L
PHRED-4-4L	Volume: 4 L
PHRED-4-10L	Volume: 10 L

pH 5	
Potassium acid phthalate and sodium hydroxide	
PH-5-250ML	Volume: 250 mL
PH-5-500ML	Volume: 500 mL
PH-5-1L	Volume: 1 L
PH-5-4L	Volume: 4 L
PH-5-10L	Volume: 10 L

pH 6	
Monobasic potassium phosphate and sodium hydroxide	
PH-6-250ML	Volume: 250 mL
PH-6-500ML	Volume: 500 mL
PH-6-1L	Volume: 1 L
PH-6-4L	Volume: 4 L
PH-6-10L	Volume: 10 L

pH 6.86	
Potassium phosphate and dibasic sodium phosphate	
PH-6.86-250ML	Volume: 250 mL
PH-6.86-500ML	Volume: 500 mL
PH-6.86-1L	Volume: 1 L
PH-6.86-4L	Volume: 4 L
PH-6.86-10L	Volume: 10 L

pH 7	
Monobasic potassium phosphate and sodium hydroxide	
PH-7-250ML	Volume: 250 mL
PH-7-500ML	Volume: 500 mL
PH-7-1L	Volume: 1 L
PH-7-4L	Volume: 4 L
PH-7-10L	Volume: 10 L

pH 7 YELLOW	
Monobasic potassium phosphate and sodium hydroxide	
PHYELLOW-7-250ML	Volume: 250 mL
PHYELLOW-7-500ML	Volume: 500 mL
PHYELLOW-7-1L	Volume: 1 L
PHYELLOW-7-4L	Volume: 4 L
PHYELLOW-7-10L	Volume: 10 L

pH Standards

pH 8	
Monobasic potassium phosphate and sodium hydroxide	
PH-8-250ML	Volume: 250 mL
PH-8-500ML	Volume: 500 mL
PH-8-1L	Volume: 1 L
PH-8-4L	Volume: 4 L
PH-8-10L	Volume: 10 L

pH 9	
Boric acid, potassium chloride and sodium hydroxide	
PH-9-250ML	Volume: 250 mL
PH-9-500ML	Volume: 500 mL
PH-9-1L	Volume: 1 L
PH-9-4L	Volume: 4 L
PH-9-10L	Volume: 10 L

pH 9.18	
Sodium borate decahydrate	
PH-9.18-250ML	Volume: 250 mL
PH-9.18-500ML	Volume: 500 mL
PH-9.18-1L	Volume: 1 L
PH-9.18-4L	Volume: 4 L
PH-9.18-10L	Volume: 10 L

pH 10	
Sodium bicarbonate and sodium carbonate	
PH-10-250ML	Volume: 250 mL
PH-10-500ML	Volume: 500 mL
PH-10-1L	Volume: 1 L
PH-10-4L	Volume: 4 L
PH-10-10L	Volume: 10 L

pH 10 BLUE	
Sodium bicarbonate and sodium carbonate	
PHBLUE-10-250ML	Volume: 250 mL
PHBLUE-10-500ML	Volume: 500 mL
PHBLUE-10-1L	Volume: 1 L
PHBLUE-10-4L	Volume: 4 L
PHBLUE-10-10L	Volume: 10 L

pH 11	
Dibasic sodium phosphate and sodium hydroxide	
PH-11-250ML	Volume: 250 mL
PH-11-500ML	Volume: 500 mL
PH-11-1L	Volume: 1 L
PH-11-4L	Volume: 4 L
PH-11-10L	Volume: 10 L

pH 12	
Potassium chloride and sodium hydroxide	
PH-12-250ML	Volume: 250 mL
PH-12-500ML	Volume: 500 mL
PH-12-1L	Volume: 1 L
PH-12-4L	Volume: 4 L
PH-12-10L	Volume: 10 L

pH 12.47	
Sodium hydroxide and potassium chloride	
PH-12.47-250ML	Volume: 250 mL
PH-12.47-500ML	Volume: 500 mL
PH-12.47-1L	Volume: 1 L
PH-12.47-4L	Volume: 4 L
PH-12.47-10L	Volume: 10 L

Cyanide Standards

Custom cyanide standards are available upon request.

1,000 ug/mL Total Cyanide	
CN-1000-25-20ML	Volume: 20 mL Matrix: H_2O
Analyte	**µg/mL**
CN^-	1,000

Dissolution Reagents

Dissolution Reagents are 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 titled *Elemental Analysis of Zeolites* on our website for more information.

Acid Dissolution Reagent	
UA-1-500ML	Volume: 500 mL
Recommended for the dissolution of aluminosilicates, such as zeolites.	

Acid Dissolution Reagent†	
UA-2-500ML	Volume: 500 mL
Designed to dissolve coal fly ash and aluminosilicates.	

Acid Dissolution Reagent*	
UA-3-500ML	Volume: 500 mL
Similar to UA-2, except UA-3 can handle higher levels of iron.	

Acid Dissolution Reagent	
UA-4-500ML	Volume: 500 mL
Designed for the dissolution of aluminosilicates, such as zeolites, containing moderate to high levels of fluoride-insoluble elements.	

Acid Dissolution Reagent	
UA-5-500ML	Volume: 500 mL
Designed to handle samples high in calcium, such as limestone.	

Acid Dissolution Reagent	
UA-6-500ML	Volume: 500 mL
Designed for samples high in magnesium, such as dolomite.	

Acid Dissolution Reagent	
UA-7-500ML	Volume: 500 mL
Designed for the determination of trace elements in samples containing predominately silica, such as silica gel.	

†Boron cannot be determined.
*Boron and Phosphorus cannot be determined.

Don't see exactly what you are looking for?

Give us a call. Custom reference materials are our specialty.

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	
UNS-1-500ML **UNS-1-2.5L**	Volume: 500 mL Volume: 2.5 L
Designed for use with UA-1.	

Stabilizing Reagent	
UNS-2-SET	Volume: 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	
UNS-2A-2.5L	Volume: 2.5 L
Stabilizing Agent	

Stabilizing Reagent	
UNS-2B-2.5L	Volume: 2.5 L
Stabilizing Agent	

Stabilizing Reagent	
UNS-3-2.5L	Volume: 2.5 L
Designed for use with UA-7.	

Stabilizing Reagent	
UNS-4-2.5L	Volume: 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	
UNS-100-500ML **UNS-100-2.5L**	Volume: 500 mL Volume: 2.5 L
For use with all acids and applications. Improved capacity. Contact us for more information.	

Stabilizing Reagent	
UNS-300-2.5L	Volume: 2.5 L
For use with all acids and applications. Improved capacity. Contact us for more information.	

Fusion Fluxes

Lithium Carbonate	
FF-LI2CO3-500G **FF-LI2CO3-2.5KG**	Volume: 500 g Volume: 2.5 Kg
See section 13 of the Reliable Measurements Guide found on our website for a sample preparation method designed to work perfectly with this product.	

Certified Titrants

These Certified Titrants for Standardized Acid and Base are ISO 17034 and ISO 17025 as well as traceable to NIST. Basic stock sizes and customs are available.

0.05M EDTA	
0.05M-EDTA-500ML	Matrix: H_2O Volume: 500 mL
0.05M EDTA, 500mL	

N 0.5M EDTA	
0.5M-EDTA-500ML	Matrix: H_2O Volume: 500 mL
0.5M EDTA, 500mL	

0.1M Hydrochloric Acid	
0.1M-HCL-500ML	Matrix: H_2O Volume: 500 mL
0.1M Hydrochloric Acid, 500mL	

1.0M Hydrochloric Acid	
1.0M-HCL-500ML	Matrix: H_2O Volume: 500 mL
1.0M Hydrochloric Acid, 500mL	

0.1M Nitric Acid	
0.1M-HNO3-500ML	Matrix: H_2O Volume: 500 mL
0.1M Nitric Acid, 500mL	

1.0M Nitric Acid	
1.0M-HNO3-500ML	Matrix: H_2O Volume: 500 mL
1.0M Nitric Acid, 500mL	

0.1M Perchloric Acid	
0.1M-HCLO4-500ML	Matrix: H_2O/0.1M $HClO_4$ in Glacial Acetic Acid Volume: 500 mL
0.1M Perchloric Acid, 500mL	

N 0.1N Silver Nitrate	
0.1N-AGNO3-500ML	Matrix: H_2O Volume: 500 mL
0.1N Silver Nitrate, 500mL	

0.1M Sodium Hydroxide	
0.1M-NAOH-500ML	Matrix: H_2O Volume: 500 mL
0.1M Sodium Hydroxide, 500mL	

N 0.1N Sodium Thiosulfate	
0.1N-NA2S2O3-500ML	Matrix: H_2O Volume: 500 mL
0.1N Sodium Thiosulfate 500 mL. Prepared and standardized according to USP specifications.	

Reagents

Blank & Rinse Solutions

Blank & Rinse solutions are prepared using double-distilled reagents and 18 megohm (MΩ) deionized water. They come packaged in ultra-clean LDPE bottles and are ready to use. Custom solutions are available upon request.

2% (v/v) Nitric Acid Rinse	
CLP-MS-RINSE **Ultra Pure**	Matrix: HNO_3 Dilution: Ready to Use
CLP-MS-RINSE-125ML **CLP-MS-RINSE-500ML**	Volume: 125 mL Volume: 500 mL

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

5% (v/v) Nitric Acid Blank	
IV-ACID-BLANK **Ultra Pure**	Matrix: HNO_3
IV-ACID-BLANK-500ML **IV-ACID-BLANK-1L**	Volume: 500 mL Volume: 1 L

Deionized Blank	
IV-DI-BLANK	Matrix: H_2O
IV-DI-BLANK-500ML **IV-DI-BLANK-1L**	Volume: 500 mL Volume: 1 L

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For more than 35 years ESSLAB has supplied a comprehensive range of high quality Chromatography and Spectroscopy consumables & instrumentation, plus Liquid Handling solutions supporting a wide range of Inorganic and Organic ISO 17034 Certified Reference Materials (CRMs) in a fast, efficient and reliable manner. Additional benefits of working with us include:

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- Access to our experienced in-house Application Specialist team.
- Our technical & logistics expertise has proved to be highly valuable to many customers in market sectors including: Pharmaceutical, Clinical. Chemical, Petrochemical, Food & Beverage, Environmental, Forensics, Toxicology, and Higher Education.
- Orders are shipped complete & on-time, with all the correct documentation for delivery when promised.
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As stated in our Declaration of Integrity (see pg. 7), if you're dissatisfied with your order for any reason, we'll resolve the situation in whatever way works best for you:

- A full refund;
- Complimentary technical services; or
- A replacement item rushed to you at no cost.*

* Refunds, replacements and exchanges are considered at management's discretion.

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