INORGANIC™ VENTURES

2012-2013

INORGANIC & CUSTOM CERTIFIED REFERENCE MATERIALS

A MESSAGE FROM

PAUL R. GAINES - CEO & Senior Technical Advisor

Welcome to our 2012-2013 Catalog!

There are a number of NEW products that we are very excited about and would like to share with you.

- NEW USP 232 - Elemental Impurities Compliance Standards (page 25)
- NEW pH Calibration Standards and sizes (page 81)
- NEW Popular Stock Multi Element Standards (page 32)
- NEW Total Organic Carbon Standard made from KHP (Page 16,78)
- NEW 1ppm Hg Standard (Page 52,78)
- NEW Single Anion Standards (Page 61)

We continue to focus our efforts on customer service and technical support. Always feel free to call with any technical or service issue and know that you will always talk to a person and not a machine. This year we have printed one of many of our technical guides that can be found online "ICP Operations Guide" to further support you technically.

In closing, I'd like to sincerely thank you for your continued support and choosing Inorganic Ventures as your CRM manufacturer

Paul R. Gaines, Ph.D.

CEO & Fellow Chemist
Serving You in Chemistry

TABLE OF CONTENTS

Inorganic Ventures located in Christiansburg, Virginia. For over 25 years, Inorganic Ventures has focused on manufacturing inorganic certified reference materials (CRMs) for analytical markets worldwide offering you unparalleled speed, quality, service and support.

Let us show you how ***we flex to your specs***.

Our international facility. Our international distribution center is located in Madrid, Spain. This fully stocked facility provides fast delivery and competitive shipping rates for our global customers.

Quality

A history of accreditation. For over ten years Inorganic Ventures has been accredited by A2LA to ISO Guide 34 & ISO 17025. These are the core standards of the analytical testing community and Inorganic Ventures continues to lead the way in obtaining and developing these quality standards. This means every CRM is engineered to be stable, compatible, NIST traceable and manufactured and tested under ISO Guide 34 & ISO 17025 guidelines.

REGISTERED ISO 9001 BY QMI-SAI GLOBAL

ACCREDITED ISO 17025 BY A2LA

ACCREDITED ISO GUIDE 34 BY A2LA

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

Registered to ISO 9001 since 1996 we have developed our quality management system to include four robust quality objectives that are an integral part of our daily operations. They are:

- **Customer Satisfaction: No justified customer complaints.**
- **Every order will ship on time**
- **Complete and accurate testing of all our products.**
- **Defect-free processing.**

Our Quality Policy:

> ***We will 'flex to the customer's specs' and strive to exceed the customer's expectations regarding our products and service.***

Customs

Fast, credible, cooperative. Our vast experience in custom blending allows us to create precise, distinctive CRM blends quickly and ship them anywhere in five business days or less.

Did you know that Inorganic Ventures has the capability of producing certified analytes on various filter paper and other solid media?

And More…

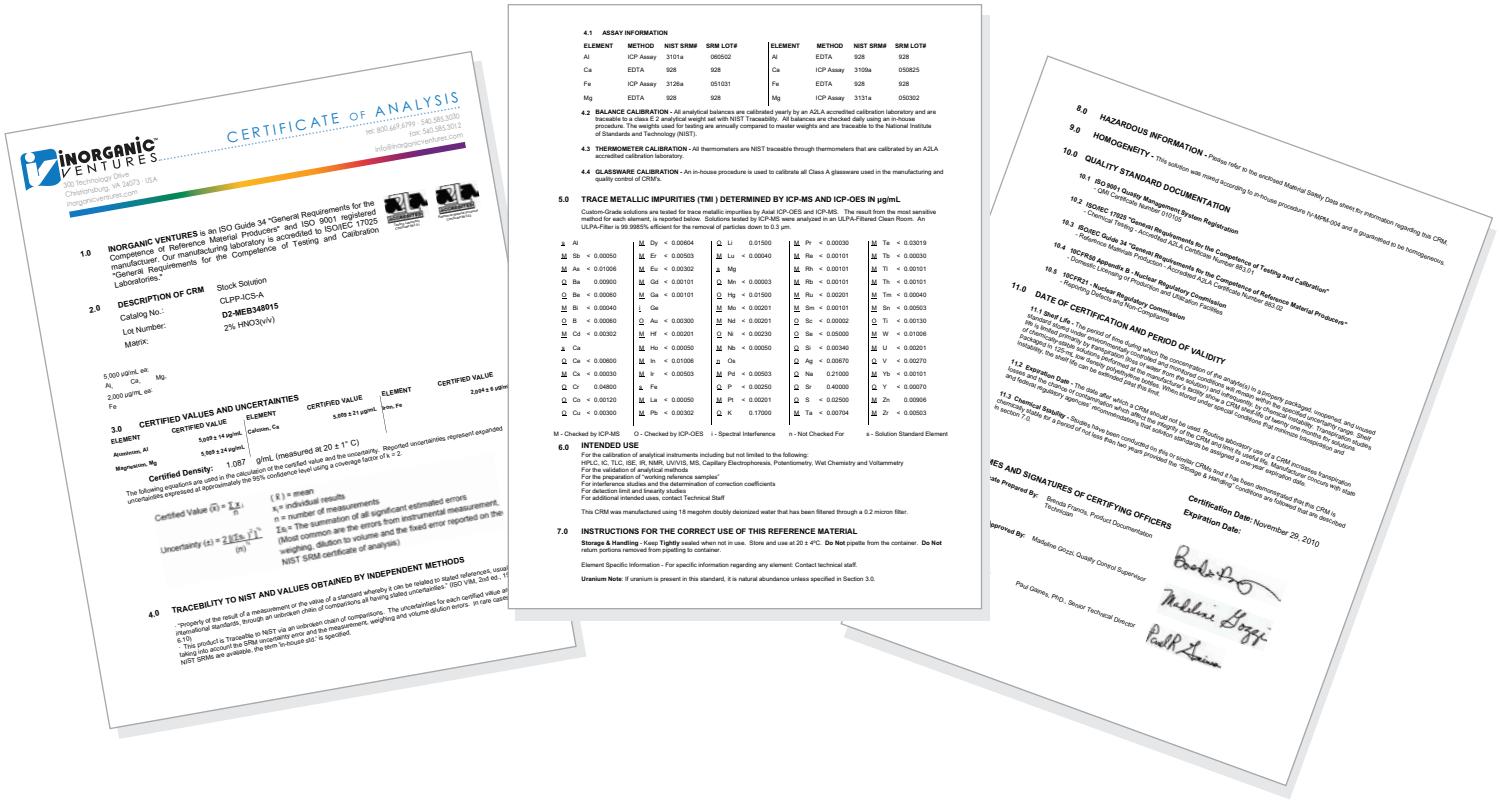
On the web. Our technical library has been expanding for over a decade. Topics include ICP operations, sample preparation, trace metals analysis, and much more. There you'll discover the best online tool for analytical chemists with our Interactive Periodic Table. It includes chemical compatibilities,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

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

CERTIFICATE OF ANALYSIS

Certificates of Analysis. Nearly every CRM we manufacture includes a highly detailed Certificate of Analysis. As an ISO Guide 34, A2LA accredited manufacturer, our certificates 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.



You'll wonder how you ever got along without such a thorough certificate.
Contact us for a sample.

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 ranging from issues such as: 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 through Friday 8:00 a.m.- 6:00 p.m. (EST)

Phone

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

Email

- info@inorganicventures.com

Online

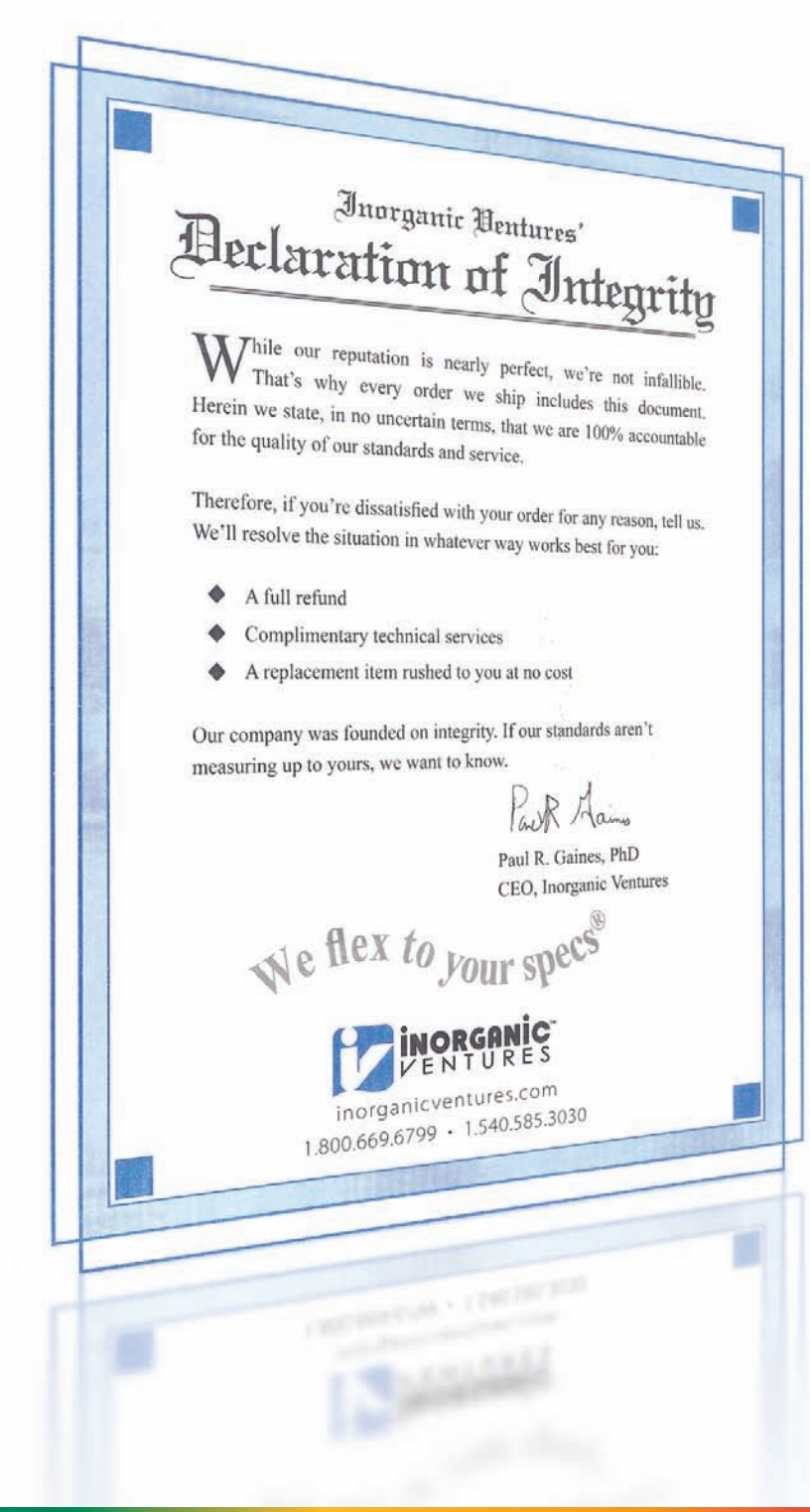
- inorganicventures.com

We can assist you with…

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

OUR GUARANTEE

Unquestionable integrity. We believe in our products. And, we value our customers. That is why every order leaving our facilities has included in it 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're not infallible. That's 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're dissatisfied with your order for any reason, tell us. We'll 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 aren't measuring up to yours, we want to know.

Paul R. Gaines, PhD
CEO, Inorganic Ventures

We flex to your specs®

INORGANIC VENTURES
inorganicventures.com
1.800.669.6799 • 1.540.585.3030

Speed. Credibility. Cooperation.

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

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

Contents

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

INORGANIC VENTURES™

We flex to your specs

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

It's not easy but with over twenty-five years of experience specializing in the manufacturing of inorganic certified reference materials (CRMs) we don't just make them your way, we make them the best way. Every CRM is engineered to be stable, compatible, and is manufactured under our ISO 17025 & Guide 34 accreditations.

Just another way ***we flex to your specs.***

INORGANIC VENTURES™
We flex to your specs

We've Grown...

...and we still make customs in five business days or less.

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 business days or less.

Credible

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

- ISO Guide 34 ensures the reliability of our reference materials.
- ISO 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 inorganicventures.com. Or, call in your request to 1.800.669.6799 and discuss your needs with a specialist. You may also fax the quotation request form to 540.585.3012.

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. However, if you're not happy with our quoted price, let us know. We may be able to better accommodate your budget.

3 **Receive** your order.

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

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

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

CUSTOMS

QUOTATION REQUEST FORM

To: Customer Service
Inorganic Ventures
300 Technology Drive
Christiansburg, VA 24073

1. Photocopy this page.
2. Fill out the form.
3. Fax to 1.540.585.3012.

Date*:_____ *Prices guaranteed for 60 days.

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.		

Specified Requirements: _____

_____

_____

_____

_____

Units:

- ❒ µg/mL
- ❒ µg/L
- ❒ µg/g
- ❒ µg/Kg
- ❒ mg/L
- ❒ ng/mL
- ❒ ng/g
- ❒ g/mL

Volume:

- ❒ 125 mL
- ❒ 250 mL
- ❒ 500 mL
- ❒ 1,000 mL
- ❒ _____L
- ❒ _____units
- ❒ _____units
- ❒ _____units
- ❒ _____units
- ❒ _____units

Matrix:

❒ _____

❒ Inorganic Ventures can specify

Requested Delivery Date: _____

❒ Next-Day RUSH Manufacturing
Solution will arrive in 48-72 business hours at no additional manufacturing charge.

You may also request quotations online:

inorganicventures.com

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

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

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

INORGANIC VENTURES™
We flex to your specs

- ✓ *Traceable to NIST SRMs and lots*
- ✓ *Produced under ISO 9001*
- ✓ *Produced under ISO 17025*
- ✓ *Produced under ISO Guide 34*
- ✓ *Assayed by validated Wet Chemical procedures*
- ✓ *Assayed by validated ICP-OES procedures*
- ✓ *Trace metallic impurities determined by ICP and 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 in which we flex to your specs.

Contents

INORGANIC VENTURES™
We flex to your specs

10 µg/mL Standards

Custom 10 µg/mL standards are available upon request.

10 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Aluminum, Al	HNO_3	Al metal	125 mL	MSAL-10PPM
Antimony, Sb	HNO_3 / Tartaric	Sb metal	125 mL	MSSB-10PPM
Arsenic, As	HNO_3	As metal	125 mL	MSAS-10PPM
Barium, Ba	HNO_3	$Ba(NO_3)_2$	125 mL	MSBA-10PPM
Beryllium, Be	HNO_3	$Be_4O(C_2H_3O_2)_6$	125 mL	MSBE-10PPM
Bismuth, Bi	HNO_3	Bi metal	125 mL	MSBI-10PPM
Boron, B	HNO_3	H_3BO_3	125 mL	MSB-10PPM
Cadmium, Cd	HNO_3	Cd metal	125 mL	MSCD-10PPM
Calcium, Ca	HNO_3	CaO, $CaCO_3$	125 mL	MSCA-10PPM
Cerium, Ce	HNO_3	CeO_2	125 mL	MSCE-10PPM
Cesium, Cs	HNO_3	$CsNO_3$	125 mL	MSCS-10PPM
Chromium^{+3}, Cr^{+3}	HNO_3	Cr metal	125 mL	MSCR3-10PPM
Chromium^{+6}, Cr^{+6}	H_2O	$(NH_4)_2Cr_2O_7$	125 mL	MSCR6-10PPM
Cobalt, Co	HNO_3	Co metal	125 mL	MSCO-10PPM
Copper, Cu	HNO_3	Cu metal	125 mL	MSCU-10PPM
Germanium, Ge	HNO_3 / HF	Ge metal	125 mL	MSGE-10PPM
Gold, Au	HCl	$AuCl_3$	125 mL	MSAU-10PPM
Hafnium, Hf	HNO_3 / HF	HfO_2	125 mL	MSHF-10PPM
Holmium, Ho	HNO_3	Ho_2O_3	125 mL	MSHO-10PPM
Indium, In	HNO_3	In metal	125 mL	MSIN-10PPM
Iron, Fe	HNO_3	Fe metal	125 mL	MSFE-10PPM
Lead, Pb	HNO_3	$Pb(NO_3)_2$	125 mL	MSPB-10PPM
Lithium, Li	HNO_3	Li_2CO_3	125 mL	MSLI-10PPM
^{6}Lithium, ^{6}Li	HNO_3	^{6}Li metal	125 mL	MS6LI-10PPM
Magnesium, Mg	HNO_3	Mg metal	125 mL	MSMG-10PPM
Manganese, Mn	HNO_3	Mn metal	125 mL	MSMN-10PPM
Mercury, Hg	HCl	Hg metal	125 mL	MSHG-10PPM
Mercury, Hg	HNO_3	Hg metal	125 mL	MSHGN-10PPM
Molybdenum, Mo	NH_4OH	$(NH_4)_2MoO_4$	125 mL	MSMO-10PPM
Nickel, Ni	HNO_3	Ni metal	125 mL	MSNI-10PPM
Osmium, Os	HCl	$(NH_4)_2OsCl_6$	125 mL	MSOS-10PPM
Phosphorus, P	H_2O	H_3PO_4	125 mL	MSP-10PPM
Platinum, Pt	HCl	$PtCl_4$	125 mL	MSPT-10PPM
Potassium, K	HNO_3	KNO_3, KCO_3	125 mL	MSK-10PPM
Rhodium, Rh	HCl	$RhCl_3$	125 mL	MSRH-10PPM
Rhodium, Rh	HNO_3	$RhNO_3$	125 mL	MSRHN-10PPM
Scandium, Sc	HNO_3	Sc_2O_3	125 mL	MSSC-10PPM
Selenium, Se	HNO_3	Se metal	125 mL	MSSE-10PPM
Silcon, Si	HNO_3 / HF	SiO_2	125 mL	MSSI-10PPM
Silver, Ag	HNO_3	Ag metal	125 mL	MSAG-10PPM
Sodium, Na	HNO_3	Na_2CO_3	125 mL	MSNA-10PPM
Strontium, Sr	HNO_3	$SrCO_3$	125 mL	MSSR-10PPM
Sulfur, S	H_2O	H_2SO_4	125 mL	MSS-10PPM
Tellurium, Te	HNO_3	Te Metal	125 mL	MSTEN-10PPM
Terbium, Tb	HNO_3	Tb_4O_7	125 mL	MSTB-10PPM
Thallium, Tl	HNO_3	$TlNO_3$	125 mL	MSTL-10PPM
Thorium, Th	HNO_3	$Th(NO_3)_4xH_2O$	125 mL	MSTH-10PPM
Tin, Sn	HNO_3 / HF	Sn metal	125 mL	MSSN-10PPM
Titanium, Ti	HNO_3 / HF	Ti metal	125 mL	MSTI-10PPM
Tungsten, W	HNO_3 / HF	W Metal	125 mL	MSW-10PPM
Uranium, U	HNO_3	$UO_2(NO_3)_2$	125 mL	MSU-10PPM
Vanadium, V	HNO_3	V_2O_5	125 mL	MSV-10PPM
Yttrium, Y	HNO_3	Y_2O_3	125 mL	MSY-10PPM
Zinc, Zn	HNO_3	Zn metal	125 mL	MSZN-10PPM

100 µg/mL Standards

Custom 100 µg/mL standards are available upon request.

100 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Aluminum, Al	HNO_3	Al metal	125 mL	MSAL-100PPM
Antimony, Sb	HNO_3 / Tartaric	Sb metal	125 mL	MSSB-100PPM
Arsenic, As	HNO_3	As metal	125 mL	MSAS-100PPM
Barium, Ba	HNO_3	$Ba(NO_3)_2$	125 mL	MSBA-100PPM
Beryllium, Be	HNO_3	$Be_4O(C_2H_3O_2)_6$	125 mL	MSBE-100PPM
Bismuth, Bi	HNO_3	Bi metal	125 mL	MSBI-100PPM
Boron, B	HNO_3	H_3BO_3	125 mL	MSB-100PPM
Cadmium, Cd	HNO_3	Cd metal	125 mL	MSCD-100PPM
Calcium, Ca	HNO_3	CaO, $CaCO_3$	125 mL	MSCA-100PPM
Cerium, Ce	HNO_3	CeO_2	125 mL	MSCE-100PPM
Cesium, Cs	HNO_3	$CsNO_3$	125 mL	MSCS-100PPM
Chromium^{+3}, Cr^{+3}	HNO_3	Cr metal	125 mL	MSCR3-100PPM
Chromium^{+6}, Cr^{+6}	H_2O	$(NH_4)_2Cr_2O_7$	125 mL	MSCR6-100PPM
Cobalt, Co	HNO_3	Co metal	125 mL	MSCO-100PPM
Copper, Cu	HNO_3	Cu metal	125 mL	MSCU-100PPM
Germanium, Ge	HNO_3 / HF	Ge metal	125 mL	MSGE-100PPM
Gold, Au	HCl	$AuCl_3$	125 mL	MSAU-100PPM
Hafnium, Hf	HNO_3 / HF	HfO_2	125 mL	MSHF-100PPM
Holmium, Ho	HNO_3	Ho_2O_3	125 mL	MSHO-100PPM
Indium, In	HNO_3	In metal	125 mL	MSIN-100PPM
Iron, Fe	HNO_3	Fe metal	125 mL	MSFE-100PPM
Lead, Pb	HNO_3	$Pb(NO_3)_2$	125 mL	MSPB-100PPM
Lithium, Li	HNO_3	Li_2CO_3	125 mL	MSLI-100PPM
^{6}Lithium, ^{6}Li	HNO_3	^{6}Li metal	125 mL	MS6LI-100PPM
Magnesium, Mg	HNO_3	Mg metal	125 mL	MSMG-100PPM
Manganese, Mn	HNO_3	Mn metal	125 mL	MSMN-100PPM
Mercury, Hg	HCl	Hg metal	125 mL	MSHG-100PPM
Mercury, Hg	HNO_3	Hg metal	125 mL	MSHGN-100PPM
Molybdenum, Mo	NH_4OH	$(NH_4)_2MoO_4$	125 mL	MSMO-100PPM
Nickel, Ni	HNO_3	Ni metal	125 mL	MSNI-100PPM
Osmium, Os	HCl	$(NH_4)_2OsCl_6$	125 mL	MSOS-100PPM
Phosphorus, P	H_2O	H_3PO_4	125 mL	MSP-100PPM
Platinum, Pt	HCl	$PtCl_4$	125 mL	MSPT-100PPM
Potassium, K	HNO_3	KNO_3, KCO3	125 mL	MSK-100PPM
Rhodium, Rh	HCl	$RhCl_3$	125 mL	MSRH-100PPM
Rhodium, Rh	HNO_3	$RhNO_3$	125 mL	MSRHN-100PPM
Scandium, Sc	HNO_3	Sc_2O_3	125 mL	MSSC-100PPM
Selenium, Se	HNO_3	Se metal	125 mL	MSSE-100PPM
Silcon, Si	HNO_3 / HF	SiO_2	125 mL	MSSI-100PPM
Silver, Ag	HNO_3	Ag metal	125 mL	MSAG-100PPM
Sodium, Na	HNO_3	Na_2CO_3	125 mL	MSNA-100PPM
Strontium, Sr	HNO_3	$SrCO_3$	125 mL	MSSR-100PPM
Sulfur, S	H_2O	H_2SO_4	125 mL	MSS-100PPM
Tellurium, Te	HNO_3	Te metal	125 mL	MSTEN-100PPM
Terbium, Tb	HNO_3	Tb_4O_7	125 mL	MSTB-100PPM
Thallium, Tl	HNO_3	$TlNO_3$	125 mL	MSTL-100PPM
Thorium, Th	HNO_3	$Th(NO_3)_4xH_2O$	125 mL	MSTH-100PPM
Tin, Sn	HNO_3 / HF	Sn metal	125 ml	MSSN-100PPM
Titanium, Ti	HNO_3 / HF	Ti metal	125 mL	MSTI-100PPM
Tungsten, W	HNO_3 / HF	W Metal	125 mL	MSW-100PPM
Uranium, U	HNO_3	$UO_2(NO_3)_2$	125 mL	MSU-100PPM
Vanadium, V	HNO_3	V_2O_5	125 mL	MSV-100PPM
Yttrium, Y	HNO_3	Y_2O_3	125 mL	MSY-100PPM
Zinc, Zn	HNO_3	Zn metal	125 mL	MSZN-100PPM

1,000 µg/mL Standards

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

1,000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Aluminum, Al	HNO_3	Al metal	125 mL 500 mL	CGAL1-1 CGAL1-5
Aluminum, Al	HCl	Al metal	125 mL 500 mL	CGALCL1-1 CGALCL1-5
Antimony, Sb	HNO_3 / Tartaric Acid	Sb metal	125 mL 500 mL	CGSB1-1 CGSB1-5
Antimony, Sb	HNO_3 / HF	Sb metal	125 mL 500 mL	CGSBF1-1 CGSBF1-5
Arsenic, As	HNO_3	As metal	125 mL 500 mL	CGAS1-1 CGAS1-5
Barium, Ba	HNO_3	$Ba(NO_3)_2$	125 mL 500 mL	CGBA1-1 CGBA1-5
Beryllium, Be	HNO_3	$Be_4O(C_2H_3O_2)_6$	125 mL 500 mL	CGBE1-1 CGBE1-5
Bismuth, Bi Can be used as an Internal Standard for ICP-MS.	HNO_3	Bi metal	125 mL 500 mL	CGBI1-1 CGBI1-5
Boron, B	NH_4OH	H_3BO_3	125 mL 500 mL	CGB1-1 CGB1-5
Bromide, Br^- To be used for analyzing Bromide by ICP-OES.	H_2O	NH_4Br	125 mL 500 mL	CGICBR1-1 CGICBR1-5
Cadmium, Cd	HNO_3	Cd metal	125 mL 500 mL	CGCD1-1 CGCD1-5
Calcium, Ca	HNO_3	CaO, $CaCO_3$	125 mL 500 mL	CGCA1-1 CGCA1-5
Carbon, C No metallic impurities	HNO_3	Tartaric acid	125 mL 500 mL	CGC1-1 CGC1-5
NEW Carbon, C To be used for TOC as per standard methods	H_2O	KHP	125 mL 500 mL	TOCKHP1-1 TOCKHP1-5
Cerium, Ce	HNO_3	CeO_2	125 mL 500 mL	CGCE1-1 CGCE1-5
Cesium, Cs	HNO_3	$CsNO_3$	125 mL 500 mL	CGCS1-1 CGCS1-5
Chloride, Cl^- To be used for analyzing Chloride by ICP-OES.	H_2O	NH_4Cl	125 mL 500 mL	CGICCL1-1 CGICCL1-5
Chromium^{+3}, Cr^{+3}	HNO_3	Cr metal	125 mL 500 mL	CGCR31-1 CGCR31-5
Chromium^{+6}, Cr^{+6}	H_2O	$(NH_4)_2Cr_2O_7$	125 mL 500 mL	CGCR61-1 CGCR61-5
Cobalt, Co	HNO_3	Co metal	125 mL 500 mL	CGCO1-1 CGCO1-5
Copper, Cu	HNO_3	Cu metal	125 mL 500 mL	CGCU1-1 CGCU1-5
Dysprosium, Dy	HNO_3	Dy_2O_3	125 mL 500 mL	CGDY1-1 CGDY1-5
Erbium, Er	HNO_3	Er_2O_3	125 mL 500 mL	CGER1-1 CGER1-5
Europium, Eu	HNO_3	Eu_2O_3	125 mL 500 mL	CGEU1-1 CGEU1-5

1,000 µg/mL Standards (continued)

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

1,000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Gadolinium, Gd	HNO_3	Gd_2O_3	125 mL 500 mL	CGGD1-1 CGGD1-5
Gallium, Ga	HNO_3	Ga metal	125 mL 500 mL	CGGA1-1 CGGA1-5
Germanium, Ge	HNO_3 / HF	Ge metal	125 mL 500 mL	CGGE1-1 CGGE1-5
Gold, Au	HCl	$AuCl_3$	125 mL 500 mL	CGAU1-1 CGAU1-5
Gold, Au	HNO_3	$AuCl_3$	125 mL 500 mL	CGAUN1-1 CGAUN1-5
Hafnium, Hf	HNO_3 / HF	HfO_2	125 mL 500 mL	CGHF1-1 CGHF1-5
Holmium, Ho Can be used as an Internal Standard for ICP-MS.	HNO_3	Ho_2O_3	125 mL 500 mL	CGHO1-1 CGHO1-5
Indium, In Can be used as an Internal Standard for ICP-MS.	HNO_3	In metal	125 mL 500 mL	CGIN1-1 CGIN1-5
Iodide, I^- Can be used for analyzing Iodide by ICP-OES.	H_2O / stabilizer	NH_4I	125 mL 500 mL	ICI1-1 ICI1-5
Iridium, Ir	HCl	$IrCl_3$	125 mL 500 mL	CGIR1-1 CGIR1-5
Iron, Fe	HNO_3	Fe metal	125 mL 500 mL	CGFE1-1 CGFE1-5
Lanthanum, La	HNO_3	La_2O_3	125 mL 500 mL	CGLA1-1 CGLA1-5
Lead, Pb	HNO_3	$Pb(NO_3)_2$	125 mL 500 mL	CGPB1-1 CGPB1-5
Lithium, Li	HNO_3	Li_2CO_3	125 mL 500 mL	CGLI1-1 CGLI1-5
^{6}Lithium, ^{6}Li Can be used as an Internal Standard for ICP-MS.	HNO_3	^{6}Li metal	125 mL 500 mL	CG6LI1-1 CG6LI1-5
Lutetium, Lu	HNO_3	Lu_2O_3	125 mL 500 mL	CGLU1-1 CGLU1-5
Magnesium, Mg	HNO_3	Mg metal	125 mL 500 mL	CGMG1-1 CGMG1-5
Manganese, Mn	HNO_3	Mn metal	125 mL 500 mL	CGMN1-1 CGMN1-5
Mercury, Hg	HNO_3	Hg metal	125 mL 500 mL	CGHG1-1 CGHG1-5
Molybdenum, Mo	NH_4OH	$(NH_4)_2MoO_4$	125 mL 500 mL	CGMO1-1 CGMO1-5
Neodymium, Nd	HNO_3	Nd_2O_3	125 mL 500 mL	CGND1-1 CGND1-5
Nickel, Ni	HNO_3	Ni metal	125 mL 500 mL	CGNI1-1 CGNI1-5
Niobium, Nb	HNO_3 / HF	Nb metal	125 mL 500 mL	CGNB1-1 CGNB1-5

1,000 µg/mL Standards (continued)

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

1,000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Osmium, Os	HCl	$(NH_4)_2OsCl_6$	125 mL 500 mL	CGOS1-1 CGOS1-5
Palladium, Pd	HNO_3	$Pd(NO_3)_2$	125 mL 500 mL	CGPDN1-1 CGPDN1-5
Palladium, Pd	HCl	$Pd(NO_3)_2$	125 mL 500 mL	CGPD1-1 CGPD1-5
Phosphorus, P	H_2O	H_3PO_4	125 mL 500 mL	CGP1-1 CGP1-5
Platinum, Pt	HNO_3	$PtCl_4$	125 mL 500 mL	CGPTN1-1 CGPTN1-5
Platinum, Pt	HCl	$PtCl_4$	125 mL 500 mL	CGPT1-1 CGPT1-5
Potassium, K	HNO_3	KNO_3, KCO_3	125 mL 500 mL	CGK1-1 CGK1-5
Praseodymium, Pr	HNO_3	Pr_6O_{11}	125 mL 500 mL	CGPR1-1 CGPR1-5
Rhenium, Re	HNO_3	Re metal	125 mL 500 mL	CGRE1-1 CGRE1-5
Rhodium, Rh Can be used as an Internal Standard for ICP-MS.	HCl	$RhCl_3$	125 mL 500 mL	CGRH1-1 CGRH1-5
Rhodium, Rh Can be used as an Internal Standard for ICP-MS.	HNO_3	$RhNO_3$	125 mL 500 mL	CGRHN1-1 CGRHN1-5
Rubidium, Rb	HNO_3	$RbNO_3$	125 mL 500 mL	CGRB1-1 CGRB1-5
Ruthenium, Ru	HCl	NH_4RuCl_6	125 mL 500 mL	CGRU1-1 CGRU1-5
Samarium, Sm	HNO_3	Sm_2O_3	125 mL 500 mL	CGSM1-1 CGSM1-5
Scandium, Sc Can be used as an Internal Standard for ICP-MS.	HNO_3	Sc_2O_3	125 mL 500 mL	CGSC1-1 CGSC1-5
Selenium^{+4}, Se^{+4}	HNO_3	Se metal	125 mL 500 mL	CGSE41-1 CGSE41-5
Silica, SiO_2	HNO_3 / HF	SiO_2	125 mL 500 mL	CGSIO1-1 CGSIO1-5
Silica, SiO_2	NaOH	SiO_2	125 mL 500 mL	CGSIONA1-1 CGSIONA1-5
Silicon, Si	HNO_3 / HF	SiO_2	125 mL 500 mL	CGSI1-1 CGSI1-5
Silicon, Si	NaOH	SiO_2	125 mL 500 mL	CGSINA1-1 CGSINA1-5
Silver, Ag	HNO_3	Ag metal	125 mL 500 mL	CGAG1-1 CGAG1-5
Sodium, Na	HNO_3	Na_2CO_3	125 mL 500 mL	CGNA1-1 CGNA1-5
Strontium, Sr	HNO_3	$SrCO_3$	125 mL 500 mL	CGSR1-1 CGSR1-5
Sulfur, S Prevents incompatability issues when mixing with Ba and Pb.	H_2O	Methanesulfonic acid	125 mL 500 mL	CGMSA1-1 CGMSA1-5

1,000 µg/mL Standards (continued)

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

1,000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Sulfur, S	H_2O	H_2SO_4	125 mL 500 mL	CGS1-1 CGS1-5
Tantalum, Ta	HNO_3 / HF	Ta metal	125 mL 500 mL	CGTA1-1 CGTA1-5
Tellurium, Te	HCl	Te metal	125 mL 500 mL	CGTE1-1 CGTE1-5
Tellurium, Te	HNO_3	Te metal	125 mL 500 mL	CGTEN1-1 CGTEN1-5
Terbium, Tb Can be used as an Internal Standard for ICP-MS.	HNO_3	Tb_4O_7	125 mL 500 mL	CGTB1-1 CGTB1-5
Thallium, Tl	HNO_3	$TlNO_3$	125 mL 500 mL	CGTL1-1 CGTL1-5
Thorium, Th	HNO_3	$Th(NO_3)_4xH_2O$	125 mL 500 mL	CGTH1-1 CGTH1-5
Thulium, Tm	HNO_3	Tm_2O_3	125 mL 500 mL	CGTM1-1 CGTM1-5
Tin, Sn	HCl	Sn metal	125 mL 500 mL	CGSNCL1-1 CGSNCL1-5
Tin, Sn	HNO_3 / HF	Sn metal	125 mL 500 mL	CGSN1-1 CGSN1-5
Titanium, Ti	HNO_3 / HF	Ti metal	125 mL 500 mL	CGTI1-1 CGTI1-5
Tungsten, W	HNO_3 / HF	W metal	125 mL 500 mL	CGW1-1 CGW1-5
Uranium, U	HNO_3	$UO_2(NO_3)_2$	125 mL 500 mL	CGU1-1 CGU1-5
Vanadium, V	HNO_3	V_2O_5	125 mL 500 mL	CGV1-1 CGV1-5
Ytterbium, Yb	HNO_3	Yb_2O_3	125 mL 500 mL	CGYB1-1 CGYB1-5
Yttrium, Y Can be used as an Internal Standard for ICP-MS.	HNO_3	Y_2O_3	125 mL 500 mL	CGY1-1 CGY1-5
Zinc, Zn	HNO_3	Zn metal	125 mL 500 mL	CGZN1-1 CGZN1-5
Zirconium, Zr	HNO_3 / HF	ZrO_2	125 mL 500 mL	CGZR1-1 CGZR1-5

10,000 µg/mL Standards

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

10,000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Aluminum, Al	HNO_3	Al metal	125 mL 500 mL	CGAL10-1 CGAL10-5
Antimony, Sb	HNO_3 / Tartaric Acid	Sb metal	125 mL 500 mL	CGSB10-1 CGSB10-5
Arsenic, As	HNO_3	As metal	125 mL 500 mL	CGAS10-1 CGAS10-5
Barium, Ba	HNO_3	$Ba(NO_3)_2$	125 mL 500 mL	CGBA10-1 CGBA10-5
Beryllium, Be	HNO_3	$Be_4O(C_2H_3O_2)_6$	125 mL 500 mL	CGBE10-1 CGBE10-5
Bismuth, Bi	HNO_3	Bi metal	125 mL 500 mL	CGBI10-1 CGBI10-5
Boron, B	NH_4OH	H_3BO_3	125 mL 500 mL	CGB10-1 CGB10-5
Cadmium, Cd	HNO_3	Cd metal	125 mL 500 mL	CGCD10-1 CGCD10-5
Calcium, Ca	HNO_3	CaO, $CaCO_3$	125 mL 500 mL	CGCA10-1 CGCA10-5
Carbon, C	HNO_3	Tartaric acid	125 mL 500 mL	CGC10-1 CGC10-5
Cerium, Ce	HNO_3	CeO_2	125 mL 500 mL	CGCE10-1 CGCE10-5
Cesium, Cs	HNO_3	$CsNO_3$	125 mL 500 mL	CGCS10-1 CGCS10-5
Chromium^{+3}, Cr^{+3}	HNO_3	Cr metal	125 mL 500 mL	CGCR310-1 CGCR310-5
Cobalt, Co Can be used as an Internal Standard for ICP-OES	HNO_3	Co metal	125 mL 500 mL	CGCO10-1 CGCO10-5
Copper, Cu	HNO_3	Cu metal	125 mL 500 mL	CGCU10-1 CGCU10-5
Dysprosium, Dy	HNO_3	Dy_2O_3	125 mL 500 mL	CGDY10-1 CGDY10-5
Erbium, Er	HNO_3	Er_2O_3	125 mL 500 mL	CGER10-1 CGER10-5
Europium, Eu	HNO_3	Eu_2O_3	125 mL 500 mL	CGEU10-1 CGEU10-5
Gadolinium, Gd	HNO_3	Gd_2O_3	125 mL 500 mL	CGGD10-1 CGGD10-5
Gallium, Ga	HNO_3	Ga metal	125 mL 500 mL	CGGA10-1 CGGA10-5
Germanium, Ge	HNO_3 / HF	Ge metal	125 mL 500 mL	CGGE10-1 CGGE10-5
Gold, Au	HCl	$AuCl_3$	125 mL 500 mL	CGAU10-1 CGAU10-5
Hafnium, Hf	HNO_3 / HF	HfO_2	125 mL 500 mL	CGHF10-1 CGHF10-5
Holmium, Ho	HNO_3	Ho_2O_3	125 mL 500 mL	CGHO10-1 CGHO10-5

10,000 µg/mL Standards (continued)

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

10,000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Indium, In Can be used as an Internal Standard for ICP-OES.	HNO_3	In metal	125 mL 500 mL	CGIN10-1 CGIN10-5
Iridium, Ir	HCl	$IrCl_3$	125 mL 500 mL	CGIR10-1 CGIR10-5
Iron, Fe	HNO_3	Fe metal	125 mL 500 mL	CGFE10-1 CGFE10-5
Lanthanum, La	HNO_3	La_2O_3	125 mL 500 mL	CGLA10-1 CGLA10-5
Lead, Pb	HNO_3	$Pb(NO_3)_2$	125 mL 500 mL	CGPB10-1 CGPB10-5
Lithium, Li	HNO_3	Li_2CO_3	125 mL 500 mL	CGLI10-1 CGLI10-5
Lutetium, Lu	HNO_3	Lu_2O_3	125 mL 500 mL	CGLU10-1 CGLU10-5
Magnesium, Mg	HNO_3	Mg metal	125 mL 500 mL	CGMG10-1 CGMG10-5
Manganese, Mn	HNO_3	Mn metal	125 mL 500 mL	CGMN10-1 CGMN10-5
Mercury, Hg	HNO_3	Hg metal	125 mL 500 mL	CGHG10-1 CGHG10-5
Molybdenum, Mo	NH_4OH	$(NH_4)_2MoO_4$	125 mL 500 mL	CGMO10-1 CGMO10-5
Neodymium, Nd	HNO_3	Nd_2O_3	125 mL 500 mL	CGND10-1 CGND10-5
Nickel, Ni	HNO_3	Ni metal	125 mL 500 mL	CGNI10-1 CGNI10-5
Niobium, Nb	HNO_3 / HF	Nb metal	125 mL 500 mL	CGNB10-1 CGNB10-5
Palladium, Pd	HCl	$Pd(NO_3)_2$	125 mL 500 mL	CGPD10-1 CGPD10-5
Phosphorus, P	H_2O	H_3PO_4	125 mL 500 mL	CGP10-1 CGP10-5
Platinum, Pt	HCl	$PtCl_4$	125 mL 500 mL	CGPT10-1 CGPT10-5
Potassium, K	HNO_3	KNO_3, KCO_3	125 mL 500 mL	CGK10-1 CGK10-5
Praseodymium, Pr	HNO_3	Pr_6O_{11}	125 mL 500 mL	CGPR10-1 CGPR10-5
Rhenium, Re	HNO_3	Re metal	125 mL 500 mL	CGRE10-1 CGRE10-5
Rhodium, Rh	HCl	$RhCl_3$	125 mL 500 mL	CGRH10-1 CGRH10-5
Rubidium, Rb	HNO_3	$RbNO_3$	125 mL 500 mL	CGRB10-1 CGRB10-5
Ruthenium, Ru	HCl	NH_4RuCl_6	125 mL 500 mL	CGRU10-1 CGRU10-5

10,000 µg/mL Standards (continued)

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

10,000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Samarium, Sm	HNO_3	Sm_2O_3	125 mL 500 mL	CGSM10-1 CGSM10-5
Scandium, Sc Can be used as an Internal Standard for ICP-OES.	HNO_3	Sc_2O_3	125 mL 500 mL	CGSC10-1 CGSC10-5
Selenium, Se	HNO_3	Se metal	125 mL 500 mL	CGSE10-1 CGSE10-5
Silicon, Si	HNO_3 / HF	SiO_2	125 mL 500 mL	CGSI10-1 CGSI10-5
Silver, Ag	HNO_3	Ag metal	125 mL 500 mL	CGAG10-1 CGAG10-5
Sodium, Na	HNO_3	Na_2CO_3	125 mL 500 mL	CGNA10-1 CGNA10-5
Strontium, Sr	HNO_3	$SrCO_3$	125 mL 500 mL	CGSR10-1 CGSR10-5
Sulfur, S Prevents incompatability issues when mixing with Ba and Pb.	H_2O	Methanesulfonic acid	125 mL 500 mL	CGMSA10-1 CGMSA10-5
Sulfur, S	H_2O	H_2SO_4	125 mL 500 mL	CGS10-1 CGS10-5
Tantalum, Ta	HNO_3 / HF	Ta metal	125 mL 500 mL	CGTA10-1 CGTA10-5
Tellurium, Te	HCl	Te metal	125 mL 500 mL	CGTE10-1 CGTE10-5
Terbium, Tb	HNO_3	Tb_4O_7	125 mL 500 mL	CGTB10-1 CGTB10-5
Thallium, Tl	HNO_3	$TlNO_3$	125 mL 500 mL	CGTL10-1 CGTL10-5
Thorium, Th	HNO_3	$Th(NO_3)_4xH_2O$	125 mL 500 mL	CGTH10-1 CGTH10-5
Thulium, Tm	HNO_3	Tm_2O_3	125 mL 500 mL	CGTM10-1 CGTM10-5
Tin, Sn	HNO_3 / HF	Sn metal	125 mL 500 mL	CGSN10-1 CGSN10-5
Titanium, Ti	HNO_3 / HF	Ti metal	125 mL 500 mL	CGTI10-1 CGTI10-5
Tungsten, W	HNO_3 / HF	W metal	125 mL 500 mL	CGW10-1 CGW10-5
Uranium, U	HNO_3	$UO_2(NO_3)_2$	125 mL 500 mL	CGU10-1 CGU10-5
Vanadium, V	HNO_3	V_2O_5	125 mL 500 mL	CGV10-1 CGV10-5
Ytterbium, Yb	HNO_3	Yb_2O_3	125 mL 500 mL	CGYB10-1 CGYB10-5
Yttrium, Y Can be used as an Internal Standard for ICP-OES.	HNO_3	Y_2O_3	125 mL 500 mL	CGY10-1 CGY10-5
Zinc, Zn	HNO_3	Zn metal	125 mL 500 mL	CGZN10-1 CGZN10-5
Zirconium, Zr	HF	ZrO_2	125 mL 500 mL	CGZR10-1 CGZR10-5

ISOTOPIC STANDARDS

Custom isotopic standards are available upon request.

Analyte	ug/mL	Matrix	Starting Material	Volume	Catalog #
^{135}Barium, ^{135}Ba	10	HNO_3	$^{135}BaCO_3$	100 mL	MS135BA-10PPM
^{10}Boron, ^{10}B	10	NH_4OH	^{10}B oxide	100 mL	MS10B-10PPM
^{11}Boron, ^{11}B	10	NH_4OH	^{11}B oxide	100 mL	MS11B-10PPM
^{106}Cadmium, ^{106}Cd	10	HNO_3	^{106}Cd metal	100 mL	MS106CD-10PPM
^{50}Chromium, ^{50}Cr	10	HNO_3	^{50}Cr metal	100 mL	MS50CR-10PPM
^{65}Copper, ^{65}Cu	10	HNO_3	^{65}Cu metal	100 mL	MS65CU-10PPM
^{54}Iron, ^{54}Fe	10	HNO_3	^{54}Fe metal	100 mL	MS54FE-10PPM
^{57}Iron, ^{57}Fe	10	HNO_3	^{57}Fe metal	100 mL	MS57FE-10PPM
^{204}Lead, ^{204}Pb	10	HNO_3	$^{204}PbCO_3$	100 mL	MS204PB-10PPM
^{206}Lead, ^{206}Pb	10	HNO_3	$^{206}PbCO_3$	100 mL	MS206PB-10PPM
^{207}Lead, ^{207}Pb	10	HNO_3	$^{207}PbCO_3$	100 mL	MS207PB-10PPM
^{6}Lithium, ^{6}Li	10	HNO_3	^{6}Li metal	125 mL	MS6LI-10PPM
^{6}Lithium, ^{6}Li	100	HNO_3	^{6}Li metal	125 mL	MS6LI-100PPM
^{6}Lithium, ^{6}Li Can be used as an Internal Standard for ICP-MS.	1,000	HNO_3	^{6}Li metal	125 mL 500 mL	CG6LI1-1 CG6LI1-5
^{25}Magnesium, ^{25}Mg	10	HNO_3	^{25}MgO	100 mL	MS25MG-10PPM
^{61}Nickel, ^{61}Ni	10	HNO_3	^{61}Ni metal	100 mL	MS61NI-10PPM
^{78}Selenium, ^{78}Se	10	HNO_3	^{78}Se metal	100 mL	MS78SE-10PPM
^{82}Selenium, ^{82}Se	10	HNO_3	^{82}Se metal	100 mL	MS82SE-10PPM
^{109}Silver, ^{109}Ag	10	HNO_3	^{109}Ag metal	100 mL	MS109AG-10PPM
^{86}Strontium, ^{86}Sr	10	HNO_3	$^{86}SrCO_3$	100 mL	MS86SR-10PPM
^{203}Thallium, ^{203}Tl	10	HNO_3	^{203}Tl oxide	100 mL	MS203TL-10PPM
^{205}Thallium, ^{205}Tl	10	HNO_3	^{205}Tl oxide	100 mL	MS205TL-10PPM
^{122}Tin, ^{122}Sn	10	HNO_3 / HF	^{122}Sn metal	100 mL	MS122SN-10PPM
^{67}Zinc, ^{67}Zn	10	HNO_3	^{67}Zn metal	100 mL	MS67ZN-10PPM

SPECIATION STANDARDS

Custom speciation standards are available upon request.

Analyte	ug/mL	Matrix	Starting Material	Volume	Catalog #
Arsenic^{+3}, As^{+3}	1,000	HCl / NaOH / $NaHCO_3$	As_2O_3	125 mL 500 mL	CGAS31-1 CGAS31-5
Arsenic^{+5}, As^{+5}	1,000	H_2O	As_2O_5	125 mL 500 mL	CGAS51-1 CGAS51-5
Chromium^{+3}, Cr^{+3}	10	HNO_3	Cr metal	125 mL	MSCR3-10PPM
Chromium^{+3}, Cr^{+3}	100	HNO_3	Cr metal	125 mL	MSCR3-100PPM
Chromium^{+3}, Cr^{+3}	1,000	HNO_3	Cr metal	125 mL 500 mL	CGCR31-1 CGCR31-5
Chromium^{+3}, Cr^{+3}	10,000	HNO_3	Cr metal	125 mL 500 mL	CGCR310-1 CGCR310-5
Chromium^{+6}, Cr^{+6}	1,000	H_2O	$(NH_4)_2Cr_2O_7$	125 mL 500 mL	CGCR61-1 CGCR61-5
Selenium^{+4}, Se^{+4}	1,000	HNO_3	Se metal	125 mL 500 mL	CGSE41-1 CGSE41-5
Selenium^{+6}, Se^{+6}	1,000	HNO_3	Selenic acid	125 mL 500 mL	CGSE61-1 CGSE61-5

CYANIDE STANDARDS

1,000 µg/mL Standards

Custom cyanide standards are available upon request.

Analyte	ug/mL	Matrix	Starting Material	Volume	Catalog #
Copper, Cu	1,000	NaCN	Cu metal	125 mL 500 mL	AACUCN-1 AACUCN-5
Gold, Au	1,000	NaCN	$AuCl_3$	125 mL 500 mL	AAAUCN-1 AAAUCN-5
Silver, Ag	1,000	NaCN	Ag metal	125 mL 500 mL	AAAGCN-1 AAAGCN-5
Zinc, Zn	1,000	NaCN	Zn metal	125 mL 500 mL	AAZNCN-1 AAZNCN-5

USP 232 – Elemental Impurities Compliance Standards

USP 232- Elemental Impurities Standard 1

IV-STOCK-37 NEW

Volume 125 mL
Matrix HNO_3

Analyte	µg/mL	Analyte	µg/mL
As	15	Mo	250
Cd	5	Mn	2,500
Cr+3	250	Ni	250
Cu	2,500	Pb	10
Hg	15	V	250

USP 232- Elemental Impurities Standard 2

IV-STOCK-38 NEW

Volume 125 mL
Matrix HCl

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

Calibration Standards

These elements are grouped for ease of use. Intended for ICP-MS, they can be used individually or combined in any combination upon dilution into 1% HNO_3. Custom calibration standards are available upon request.

65-Element Group

Rare Earth ICP-MS Standard

CMS-1
Volume 125 mL
Matrix HNO_3

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

Precious Metals ICP-MS Standard

CMS-2
Volume 125 mL
Matrix HCl

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

Fluoride Soluble ICP-MS Standard

CMS-3
Volume 125 mL
Matrix HNO_3 / HF

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

Hot-Plasma ICP-MS Complete Standard

CMS-4
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL	Analyte	µg/mL
As	10	In	10
B	10	Pb	10
Ba	10	Sb	10
Be	10	Se	10
Bi	10	Tl	10
Cd	10	V	10
Ga	10		

Cool-Plasma ICP-MS Complete Standard

CMS-5
Volume 125 mL
Matrix HNO_3

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		

Calibration Standards (continued)

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

69-Element Group

Rare Earth ICP-MS Standard

CCS-1
Volume 125 mL
Matrix HNO_3

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
Volume 125 mL
Matrix HCl

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
Volume 125 mL
Matrix HNO_3

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
Volume 125 mL
Matrix HNO_3 / HF

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
Volume 125 mL
Matrix HNO_3

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
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL
Te	100

Calibration Standards (continued)

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

71-Element Group

ICP-MS Complete Standard

IV-ICPMS-71A
Volume 125 mL
Matrix HNO_3

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

Lithium ICP-MS Standard

MSLI-10PPM
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL
Li	10

ICP-MS Refractory Elements Standard

IV-ICPMS-71B
Volume 125 mL
Matrix HNO_3 / HF

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

ICP-MS Precious Metals Standard

IV-ICPMS-71C
Volume 125 mL
Matrix HCl

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

ICP-MS Mercury

MSHG-10PPM
Volume 125 mL
Matrix HCl

Analyte	µg/mL
Hg	10

ICP-MS Internal Standard

IV-ICPMS-71D
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL	Analyte	µg/mL
Bi	10	Sc	10
In	10	Tb	10
^{6}Li	10	Y	10

Calibration Standards (continued)

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

VAR Calibration Standard 1

VAR-CAL-1
Volume 125 mL
Matrix HNO_3 / HF

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

VAR Calibration Standard 2

VAR-CAL-2
Volume 125 mL
Matrix HNO_3

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

PE Calibration Standard 3

PE-CAL-3
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL	Analyte	µg/mL
Ca	1,000	**Tl**	1,000
Fe	1,000	**Y**	1,000
Li	1,000		

GENESIS Calibration Standard 4

GENESIS-ICAL
Volume 125 mL
Matrix HNO_3 / HCl

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

VAR Calibration Standard 7

VAR-CAL-7
Volume 125 mL
Matrix HNO_3 / HF

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^{+3}	5	**Sr**	5
Cu	5	**Zn**	5
K	50		

Calibration Standards (continued)

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

ICP Calibration Standard 1

IV-STOCK-1
Volume 125 mL
Matrix HNO_3

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

ICP Calibration Standard 2

IV-STOCK-2
Volume 125 mL
Matrix HNO_3

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

ICP Calibration Standard 3

IV-STOCK-3
Volume 125 mL
Matrix HNO_3

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

ICP Calibration Standard 4

IV-STOCK-4
Volume 125 mL
Matrix HNO_3

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^{+3}	1,000	Sr	1,000
Cu	1,000	Tl	1,000
Fe	1,000	Zn	1,000
Ga	1,000		

ICP Calibration Standard 8

IV-STOCK-8
Volume 125 mL
Matrix HNO_3

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^{+3}	100	Sr	100
Cu	100	Te	100
Fe	100	Tl	100
Ga	100	Zn	100

Calibration Standards (continued)

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

ICP Calibration Standard - Toxic Elements

IV-STOCK-9
Volume 125 mL
Matrix HNO_3

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

ICP Calibration Standard - Surface Water

IV-STOCK-10
Volume 125 mL
Matrix HNO_3

PPB

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^{+3}	20	Tl	10
Cu	20	V	50
Fe	100	Zn	50
K	3,000		

ICP Calibration Standard - Sewage Sludge

IV-STOCK-11
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL	Analyte	µg/mL
Cd	10	Ni	200
Cr^{+3}	900	Pb	900
Cu	800	Zn	2,500

ICP Calibration Standard - Trace Metals

IV-STOCK-13
Volume 125 mL
Matrix HNO_3

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^{+3}	100	V	250
Cu	100	Zn	100

ICP Calibration Standard - Alkaline Earth Element

IV-STOCK-16
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL	Analyte	µg/mL
Ba	1,000	Mg	1,000
Ca	1,000	Sr	1,000

ICP Calibration Standard 6

IV-STOCK-6
Volume 125 mL
Matrix HNO_3

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^{+3}	10	Te	10
Cu	10	Tl	10
Fe	100	U	10
Ga	10	V	10
K	10	Zn	100

Calibration Standards (continued)

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

ICP Calibration Standard 15

IV-STOCK-15
Volume 125 mL
Matrix HNO_3

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

ICP Calibration Standard - HCl Soluble Elements

IV-STOCK-17
Volume 125 mL
Matrix HNO_3 / HCl / HF

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

ICP Calibration Standard 21

IV-STOCK-21
Volume 125 mL
Matrix HNO_3

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^{+3}	10	Sr	10
Cs	10	Tl	10
Cu	10	U	10
Fe	10	V	10
Ga	10	Zn	10
In	10		

ICP Calibration Standard 22

IV-STOCK-22
Volume 125 mL
Matrix HNO_3

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

ICP Calibration Standard 23

IV-STOCK-23
Volume 500 mL
Matrix HNO_3

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

ICP Calibration Standard 26

IV-STOCK-26
Volume 125 mL
Matrix HNO_3

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

Calibration Standards (continued)

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

ICP Calibration Standard 27

IV-STOCK-27
Volume 125 mL
Matrix HNO_3

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^{+3}	10	Sr	10
Cs	10	Tl	10
Cu	10	U	10
Fe	10	V	10
Ga	10	Zn	10
K	10		

ICP Calibration Standard 28

IV-STOCK-28
Volume 125 mL
Matrix HCl / HNO_3

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

ICP Calibration Standard 29

IV-STOCK-29
Volume 125 mL
Matrix HNO_3 / HF

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 30

IV-STOCK-30
Volume 125 mL
Matrix HNO_3

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 31

IV-STOCK-31
Volume 125 mL
Matrix HNO_3

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

ICP Calibration Standard 34

IV-STOCK-34 NEW
Volume 500 mL
Matrix HNO_3

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

ICP Calibration Standard 35

IV-STOCK-35 NEW
Volume 125 mL
Matrix HNO_3

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

ICP Calibration Standard 36

IV-STOCK-36 NEW
Volume 500 mL
Matrix HCl

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

Calibration Standards (continued)

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

ICP Calibration Standard 33

IV-STOCK-33
Volume 125 mL
Matrix HNO_3

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

ICP Detection Limit Standard

IV-STOCK-19
Volume 125 mL
Matrix HNO_3

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

ICP Plasma Setup Solution

IV-STOCK-20
Volume 1 Liter
Matrix HNO_3

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

PE Check Standard 1

PE-CHK-1
Volume 125 mL
Matrix HNO_3 / HF

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

VAR Internal Standard Solution

VAR-IS-1
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL	Analyte	µg/mL
Bi	100	Sc	100
In	100	Tb	100
^6Li	100	Y	100

Trace Metals in Water

IV-STOCK-1643
Volume 125 mL
Matrix HNO_3

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^{+3}	20	Sr	323
Cu	23	Te	1
Fe	98	Tl	7
K	2,000	V	38
Li	17	Zn	79

Wavelength Calibration Standards

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

Wavelength Calibration Standard 1

IV-STOCK-5
Volume 500 mL
Matrix HCl

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^{+3}	2	Se	20
Cu	2	Sr	1
Fe	2	Te	20
Hg	5	Ti	2
K	100	Y	1
Li	2	Zn	2

Wavelength Calibration Standard 2

IV-STOCK-14
Volume 500 mL
Matrix HCl / HNO_3

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

Tuning Solution Standards

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

PE Tuning Solution

PE-TS-1
Volume 125 mL
Matrix HNO_3

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

CIROS Tuning Solution

CIROS-OES-TS
Volume 125 mL
Matrix HCl / HNO_3

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

AGI Tuning Solution

AGI-TS-1
Volume 125 mL
Matrix HNO_3

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

THM Tuning Solution

THM-TS-1
Volume 125 mL
Matrix HNO_3 / HCl

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

Tuning Solution Standards (continued)

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

VAR Tuning Solution

VAR-TS-MS
Volume 125 mL
Matrix HNO_3

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

Stock Tuning Solution 12

IV-STOCK-12
Volume 125 mL
Matrix HNO_3

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

Stock Tuning Solution 24

IV-STOCK-24
Volume 500 mL
Matrix HNO_3

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^{+3}	50	**Sr**	50
Cu	50	**Zn**	50
K	500		

HIGH-PURITY IONIZATION BUFFERS

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

1% Cesium Ionization Buffer

CSN-ISB-5
Volume 500 mL
Matrix HNO_3

Analyte	µg/mL
Cs	10,000

High Purity buffer; ideal for Axial View ICP-OES

2% Lithium Ionization Buffer

LINB2-5
Volume 500 mL
Matrix HNO_3

Analyte	µg/mL
Li	20,000

5% Cesium Ionization Buffer

CSN-ISB5-5
Volume 500 mL
Matrix HNO_3

Analyte	µg/mL
Cs	50,000

1% Potassium Ionization Buffer

KN-ISB-5
Volume 500 mL
Matrix HCl

Analyte	µg/mL
K	10,000

EPA STANDARDS

ILMO3.0

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

Calibration Standards

Calibration Standard 1

CLPP-CAL-1
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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 2

CGSB1-1
Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100

Analyte	µg/mL
Sb	1,000

Calibration Standard 3

CLPP-CAL-3
Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
As	1,000	Se	1,000
Cd	500	Tl	1,000
Pb	1,000		

ILMO3.0 (continued)

CICV Standards

CICV - Continuing and Initial Calibration Verification.

CICV Standard 1†

QCP-CICV-1
Volume 125 mL
Matrix HNO_3
Dilution 1:100 or 1:500

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 2†

QCP-CICV-2
Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100 or 1:500

Analyte	µg/mL
Sb	500

CICV Standard 3†

QCP-CICV-3
Volume 125 mL
Matrix HNO_3
Dilution 1:100 or 1:500

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

†Manufactured from in-house Second Source concentrates.

CRDL Standards

CRDL - Contract Required Detection Limit.

CRDL Standard 1

CRI-CRA-1
Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	200	**Mn**	300
Be	100	**Ni**	800
Co	1,000	**V**	1,000
Cr	200	**Zn**	400
Cu	500		

CRDL Standard 2

CRI-CRA-2
Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100

Analyte	µg/mL
Sb	600

CRDL Standard 3

CRI-CRA-3
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Interference Check Standards

Interference Check Standard A

CLPP-ICS-A
Volume 500 mL
Matrix HNO_3
Dilution 1:10

Analyte	µg/mL	Analyte	µg/mL
Al	5,000	**Fe**	2,000
Ca	5,000	**Mg**	5,000

Interference Check Standard B

CLPP-ICS-B
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

ILMO3.0 (continued)

Soil & Water Spike Standards

Spike Standard 1*

CLPP-SPK-1
Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

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 2*

CLPP-SPK-2
Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:1,000

Analyte	µg/mL
Sb	500

Spike Standard 3*

CLPP-SPK-3
Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

Analyte	µg/mL	Analyte	µg/mL
As	2,000	**Se**	2,000
Cd	50	**Tl**	2,000
Pb	500		

*Instructions included.

ILMO4.0

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

Calibration Standards

Calibration Standard 1

CLPP-CAL-1
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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 2

CGSB1-1
Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100

Analyte	µg/mL
Sb	1,000

Calibration Standard 3

CLPP-CAL-3
Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
As	1,000	**Se**	1,000
Cd	500	**Tl**	1,000
Pb	1,000		

ILMO4.0 (continued)

CICV Standards

CICV - Continuing and Initial Calibration Verification.

CICV Standard 1†

QCP-CICV-1

Volume 125 mL
Matrix HNO_3
Dilution 1:100 or 1:500

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 2†

QCP-CICV-2

Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100 or 1:500

Analyte	µg/mL
Sb	500

CICV Standard 3†

QCP-CICV-3

Volume 125 mL
Matrix HNO_3
Dilution 1:100 or 1:500

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

†Manufactured from in-house Second Source concentrates.

CRDL Standards

CRDL - Contract Required Detection Limit.

CRDL Standard 1

CRI-CRA-1

Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	200	**Mn**	300
Be	100	**Ni**	800
Co	1,000	**V**	1,000
Cr	200	**Zn**	400
Cu	500		

CRDL Standard 2

CRI-CRA-2

Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100

Analyte	µg/mL
Sb	600

CRDL Standard 3

CRI-CRA-3

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Interference Check Standards

Interference Check Standard A

CLPP-ICS-A

Volume 500 mL
Matrix HNO_3
Dilution 1:10

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

Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

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

ILMO4.0 (continued)

Soil & Water Spike Standards

Spike Standard 1*

CLPP-SPK-1
Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

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 4*

CLPP-SPK-4
Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

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

*Instructions included.

ILMO5.2 & ILMO5.3

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

Calibration Standards

Calibration Standard 1

CLPP-CAL-1
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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 2

CGSB1-1
Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100

Analyte	µg/mL
Sb	1,000

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

Calibration Standard 3

CLPP-CAL-3
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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.

Calibration Standard 4

CLP-MS-CAL
Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100 to 1:1,000

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

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

ILMO5.2 & ILMO5.3 (continued)

CICV Standards

CICV - Continuing and Initial Calibration Verification.

CICV Standard 1†

QCP-CICV-1
Volume 125 mL
Matrix HNO_3
Dilution 1:100 or 1:500

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 2†

QCP-CICV-2
Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100 or 1:500

Analyte	µg/mL
Sb	500

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

CICV Standard 3†

QCP-CICV-3
Volume 125 mL
Matrix HNO_3
Dilution 1:100 or 1:500

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

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

†Manufactured from in-house Second Source concentrates.

CICV Standard 4†

CLP-MS-CICV
Volume 125 mL
Matrix HNO_3
Dilution 1:100 to 1:1,000

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

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

CICV Standard 5†

QCP-ICV-1REV
Volume 125 mL
Matrix HNO_3
Dilution 1:100 to 1:1,000

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

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

ILMO5.2 & ILMO5.3 (continued)

CRDL & CRQL Standards

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

CRDL Standard

CLP-AES-CRDL

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

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

CRQL Standard 1

CLP-AES-CRQL

Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100 (water samples); 1:500 (soil samples)

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

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

CRQL Standard 2

CLP-AES-CRQL-2

Volume 125 mL
Matrix HNO_3
Dilution 1:100 (water samples); 1:500 (soil samples)

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

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

CRQL Standard 3

CLP-MS-CRQL

Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

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

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

CRQL Standard 4

CLP-MS-CRQL-2

Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

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

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

CRQL Standard 5

CLP-MS-CRQL-3

Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

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

ILMO5.2 & ILMO5.3 (continued)

Interference Check Standards

Interference Check Standard A

CLPP-ICS-A
Volume 500 mL
Matrix HNO_3
Dilution 1:10

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 B

CLP-MS-ICS-B
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

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

Interference Check Standard B4

CLPP-ICS-B4
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

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

Soil & Water Spike Standards

Spike Standard

CLP-MS-SPK
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

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

Spike Standard 1

CLPP-SPK-1
Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

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. Instructions included. Designed for ILMO5.2 and ILMO5.3.

Spike Standard 5

CLPP-SPK-5
Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

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

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

ILMO5.2 & ILMO5.3 (continued)

Internal Standards & Tuning Solutions

Internal Standard

6020ISS

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

2008TS

Volume 125 mL
Matrix HNO_3
Dilution 1:100 to 1:1,000

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.

Tuning Solution

6020TS

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

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

Blank & Rinse Solutions

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

1% (v/v) Nitric Acid Calibration Blank

CLP-MS-BLANK

Volume 125 mL
Matrix HNO_3
Dilution Ready to Use

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

2% (v/v) Nitric Acid Rinse

CLP-MS-RINSE

Volume 125 mL
Matrix HNO_3
Dilution Ready to Use

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

Method 200.7

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

200.7 Calibration

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

Calibration Standard 1A

WW-CAL-1A
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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 1B

CLPP-SPK-2
Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100

Analyte	µg/mL	λ(nm)
Sb	500	206.833

Calibration Standard 2

WW-CAL-2
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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 3

WW-CAL-3
Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL	λ(nm)
Ce	200	413.765
Co	200	228.616
P	1,000	214.914
V	200	292.402

Calibration Standard 4A

WW-CAL-4A
Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL	λ(nm)
Al	1,000	308.215
Cr	500	205.552
Hg	200	194.227
Zn	500	213.856

Calibration Standard 4B

WW-CAL-4B
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

Analyte	µg/mL	λ(nm)
SiO_2	1,000	251.611
Sn	400	189.980

Calibration Standard 5

WW-CAL-5
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

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 (continued)

200.7 Interference Checks

Interference Check Standard 1

2007ICS-1

Volume	125 mL
Matrix	HNO_3 / HF
Dilution	1:100

Analyte	µg/mL	Analyte	µg/mL
B	500	**Si**	230
Mo	300	**Ti**	1,000

Interference Check Standard 2

CGSB1-1

Volume	125 mL
Matrix	HNO_3 / Tartaric Acid
Dilution	1:100

Analyte	µg/mL
Sb	1,000

Interference Check Standard 3

2007ICS-3

Volume	125 mL
Matrix	HNO_3
Dilution	1:100

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 4

2007ICS-4

Volume	125 mL
Matrix	HNO_3
Dilution	1:50

Analyte	µg/mL	Analyte	µg/mL
Al	3,000	**Mg**	7,500
Ca	15,000	**Na**	2,500
Fe	12,500		

200.7 Quality Controls

Quality Control Standard 1†

QCP-QCS-1

Volume	125 mL
Matrix	HNO_3
Dilution	1:100

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

Quality Control Standard 2†

QCP-QCS-2

Volume	125 mL
Matrix	HNO_3 / HF
Dilution	1:100

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

†Manufactured from in-house Second Source concentrates.

Method 200.7 (continued)

200.7 Quality Controls (continued)

Quality Control Standard 7†

IV-7
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	K	1,000
Al	100	Na	100
B	100	Si	50
Ba	100		

Quality Control Standard 19†

IV-19
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

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

Quality Control Standard 21†

IV-21
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

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

Quality Control Standard 26†

IV-26
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	Mg	100
Al	100	Mn	100
As	100	Mo	100
B	100	Na	100
Ba	100	Ni	100
Be	100	Pb	100
Ca	100	Sb	100
Cd	100	Se	100
Co	100	Si	50
Cr	100	Ti	100
Cu	100	Tl	100
Fe	100	V	100
K	1,000	Zn	100

Quality Control Standard 28†

IV-28
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	Mg	100
Al	100	Mn	100
As	100	Mo	100
B	100	Na	100
Ba	100	Ni	100
Be	100	Pb	100
Ca	100	Sb	100
Cd	100	Se	100
Co	100	Si	50
Cr	100	Sr	100
Cu	100	Ti	100
Fe	100	Tl	100
K	1,000	V	100
Li	100	Zn	100

†Manufactured from in-house Second Source concentrates.

Method 200.7 (continued)

Rev. 3.3 & 4.4 Calibrations

Standards may be used for either revision.

Calibration Standard 1A

WW-CAL-1A
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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 1B

CLPP-SPK-2
Volume 125 mL
Matrix HNO_3 / Tartaric Acid
Dilution 1:100

Analyte	µg/mL	λ(nm)
Sb	500	206.833

Calibration Standard 2

WW-CAL-2
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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 3

WW-CAL-3
Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL	λ(nm)
Ce	200	413.765
Co	200	228.616
P	1,000	214.914
V	200	292.402

Calibration Standard 4A

WW-CAL-4A
Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL	λ(nm)
Al	1,000	308.215
Cr	500	205.552
Hg	200	194.227
Zn	500	213.856

Calibration Standard 4B

WW-CAL-4B
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

Analyte	µg/mL	λ(nm)
SiO_2	1,000	251.611
Sn	400	189.980

Calibration Standard 5

WW-CAL-5
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

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 (continued)

Rev. 3.3 & 4.4 Instrument Performance Checks

Instrument Performance Check 1

WW-IPC-1

Volume	125 mL
Matrix	HNO_3
Dilution	1:100

Analyte	µg/mL	λ(nm)
Ag	25	328.068
Al	200	308.215
As	200	193.759
B	200	249.678
Ba	200	493.409
Be	200	313.042
Ca	200	315.887
Cd	200	226.502
Ce	200	413.765
Co	200	228.616
Cr	200	205.552
Cu	200	324.754
Fe	200	259.940
Hg	200	194.227
K	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 2

WW-IPC-2

Volume	125 mL
Matrix	HNO_3 / HF
Dilution	1:100

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 3

WW-IPC-3

Volume	125 mL
Matrix	HNO_3
Dilution	1:100

Analyte	µg/mL	λ(nm)
Ag	25	328.068
Al	200	308.215
As	200	193.759
B	200	249.678
Ba	200	493.409
Be	200	313.042
Ca	200	315.887
Cd	200	226.502
Co	200	228.616
Cr	200	205.552
Cu	200	324.754
Fe	200	259.940
K	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 (continued)

Rev. 3.3 & 4.4 Laboratory Fortified Stocks

Laboratory Fortified Stock Solution 1

WW-LFS-1

Volume	125 mL
Matrix	HNO_3
Dilution	1:100

Analyte	µg/mL	λ(nm)
Ag	7.5	328.068
Al	200	308.215
As	80	193.759
B	30	249.678
Ba	20	493.409
Be	20	313.042
Ca	100	315.887
Cd	20	226.502
Ce	200	413.765
Co	20	228.616
Cr	40	205.552
Cu	30	324.754
Fe	300	259.940
Hg	70	194.227
K	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 2

WW-LFS-2

Volume	125 mL
Matrix	HNO_3 / HF
Dilution	1:100

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

Rev. 3.3 & 4.4 Quality Controls

Quality Control Standard 1†

QCP-QCS-1

Volume	125 mL
Matrix	HNO_3
Dilution	1:100

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

Quality Control Standard 2†

QCP-QCS-2

Volume	125 mL
Matrix	HNO_3 / HF
Dilution	1:100

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

†Manufactured from in-house Second Source concentrates.

Method 200.7 (continued)

Rev. 3.3 & 4.4 Quality Controls (continued)

Quality Control Standard 7†

IV-7
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	K	1,000
Al	100	Na	100
B	100	Si	50
Ba	100		

Quality Control Standard 19†

IV-19
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

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

Quality Control Standard 21†

IV-21
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

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

Quality Control Standard 26†

IV-26
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	Mg	100
Al	100	Mn	100
As	100	Mo	100
B	100	Na	100
Ba	100	Ni	100
Be	100	Pb	100
Ca	100	Sb	100
Cd	100	Se	100
Co	100	Si	50
Cr	100	Ti	100
Cu	100	Tl	100
Fe	100	V	100
K	1,000	Zn	100

Quality Control Standard 28†

IV-28
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Ag	100	Mg	100
Al	100	Mn	100
As	100	Mo	100
B	100	Na	100
Ba	100	Ni	100
Be	100	Pb	100
Ca	100	Sb	100
Cd	100	Se	100
Co	100	Si	50
Cr	100	Sr	100
Cu	100	Ti	100
Fe	100	Tl	100
K	1,000	V	100
Li	100	Zn	100

†Manufactured from in-house Second Source concentrates.

Method 200.8

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

Rev. 4.4 & 5.4 Calibration

See individual products for recommended revisions.

Calibration Standard 1

2008CAL-1
Volume 125 mL
Matrix HNO_3 / HF
Dilution 1:100

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

Designed for Rev. 4.4 and Rev. 5.4.

Calibration Standard 2

2008CAL-2
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Designed for Rev. 4.4.

Calibration Standard 2A

WW-MSCAL-2
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Designed for Rev. 5.4.

Calibration Standard 3

WW-MSCAL-1
Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

Analyte	µg/mL
Hg	5

Designed for Rev. 5.4.

Mercury Standard

MSHG-1PPM NEW
Volume 125 mL
Matrix HCl

Analyte	µg/mL
Hg	1

Method 200.8 (continued)

Rev. 4.4 & 5.4 Internal Standards

Internal Standard

2008ISS
Volume 125 mL
Matrix HNO_3
Dilution 1:100 to 1:1,000

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

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

Mercury Preservation Solution

CGAUN1-1
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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 3†

QCP-QCS-3
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Designed for Rev. 4.4 and Rev. 5.4.

Quality Control Standard 4†

QCP-QCS-4
Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL
Hg	5

Designed for Rev. 4.4 and Rev. 5.4.

†Manufactured from in-house Second Source concentrates

Rev. 4.4 & 5.4 Tuning

Tuning Solution

2008TS
Volume 125 mL
Matrix HNO_3
Dilution 1:100 to 1:1,000

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

Designed for Rev. 4.4 and Rev. 5.4.

Method 6020

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

CLP-M Version 8

Calibration Standard

6020CAL-1
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Interference Check Standard A

6020ICS-8A
Volume 500 mL
Matrix HNO_3
Dilution 1:10

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

Interference Check Standard B

6020ICS-8B
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Internal Standard

6020ISS
Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Bi	**10**	**Rh**	**10**
Ho	**10**	**Sc**	**10**
In	**10**	**Tb**	**10**
^6Li	**10**	**Y**	**10**

Memory Check Standard 1

6020MCC-1
Volume 125 mL
Matrix HNO_3
Dilution 1:2

Analyte	µg/mL	Analyte	µg/mL
Ag	20	**Mg**	1,000
Al	1,000	**Mn**	20
As	20	**Mo**	20
Ba	20	**Na**	1,000
Be	20	**Ni**	20
C	2,000	**Pb**	20
Ca	1,000	**Sb**	20
Cd	20	**Se**	20
Co	20	**Ti**	20
Cr	20	**Tl**	20
Cu	20	**V**	20
Fe	1,000	**Zn**	20
K	1,000		

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

Memory Check Standard 2

6020MCC-2
Volume 125 mL
Matrix HNO_3
Dilution 1:2

Analyte	µg/mL	Analyte	µg/mL
Cl^-	7,200	**S**	1,000
P	1,000		

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

Method 6020 (continued)

CLP-M Version 8 (continued)

Spike Standard - Soil

6020SPK-S

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Spike Standard - Water

6020SPK-W

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Tuning Solution

6020TS

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

CLP-M Version 9

Calibration Standard

6020CAL-1

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Interference Check Standard A

6020ICS-9A

Volume 500 mL
Matrix HNO_3
Dilution 1:10

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 B

6020ICS-9B

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Method 6020 (continued)

CLP-M Version 9 (continued)

Internal Standard

6020ISS
Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Bi	**10**	**Rh**	**10**
Ho	**10**	**Sc**	**10**
In	**10**	**Tb**	**10**
^{6}Li	**10**	**Y**	**10**

Memory Check Standard 1

6020MCC-1
Volume 125 mL
Matrix HNO_3
Dilution 1:2

Analyte	µg/mL	Analyte	µg/mL
Ag	20	**Mg**	1,000
Al	1,000	**Mn**	20
As	20	**Mo**	20
Ba	20	**Na**	1,000
Be	20	**Ni**	20
C	2,000	**Pb**	20
Ca	1,000	**Sb**	20
Cd	20	**Se**	20
Co	20	**Ti**	20
Cr	20	**Tl**	20
Cu	20	**V**	20
Fe	1,000	**Zn**	20
K	1,000		

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

Memory Check Standard 2

6020MCC-2
Volume 125 mL
Matrix HNO_3
Dilution 1:2

Analyte	µg/mL	Analyte	µg/mL
Cl^-	7,200	**S**	1,000
P	1,000		

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

Spike Standard - Soil

6020SPK-S
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Spike Standard - Water

6020SPK-W
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Tuning Solution

6020TS
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Method 6020 (continued)

Rev. 0

Calibration Standard

6020CAL-1
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

CICV Standard 5†

QCP-ICV-1REV
Volume 125 mL
Matrix HNO_3
Dilution 1:100 to 1:1,000

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		

† Manufactured from in-house Second Source concentrates.

Interference Check Standard A

6020ICS-0A
Volume 500 mL
Matrix HNO_3
Dilution 1:10

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 B

6020ICS-0B
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Internal Standard

6020ISS
Volume 125 mL
Matrix HNO_3
Dilution 1:100

Analyte	µg/mL	Analyte	µg/mL
Bi	10	**Rh**	10
Ho	10	**Sc**	10
In	10	**Tb**	10
^6Li	10	**Y**	10

Method 6020 (continued)

Rev. 0 (continued)

Memory Check Standard 1

6020MCC-1

Volume 125 mL
Matrix HNO_3
Dilution 1:2

Analyte	µg/mL	Analyte	µg/mL
Ag	20	**Mg**	1,000
Al	1,000	**Mn**	20
As	20	**Mo**	20
Ba	20	**Na**	1,000
Be	20	**Ni**	20
C	2,000	**Pb**	20
Ca	1,000	**Sb**	20
Cd	20	**Se**	20
Co	20	**Ti**	20
Cr	20	**Tl**	20
Cu	20	**V**	20
Fe	1,000	**Zn**	20
K	1,000		

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

Memory Check Standard 2

6020MCC-2

Volume 125 mL
Matrix H_2O
Dilution 1:2

Analyte	µg/mL	Analyte	µg/mL
Cl^-	7,200	**S**	1,000
P	1,000		

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

Spike Standard - Soil

6020SPK-S

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Spike Standard - Water

6020SPK-W

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Tuning Solution

6020TS

Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

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

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

Contents

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

INORGANIC VENTURES™
We flex to your specs

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	ICOAC1-1 ICOAC1-5
Adipate, $C_6H_8O_4^-$	H_2O	Adipic acid	125 mL 500 mL	ICADP1-1 ICADP1-5
Benzoate, $C_6H_5CO_2^-$	H_2O	Benzoic acid	125 mL 500 mL	ICBEN1-1 ICBEN1-5
Bromate, BrO_3^-	H_2O	$KBrO_3$	125 mL 500 mL	ICBRO31-1 ICBRO31-5
Bromide, Br^-	H_2O	KBr	125 mL 500 mL	ICBR1-1 ICBR1-5
Butyrate, $C_4H_7O_2^-$	H_2O	Butyric Acid	125 mL 500 mL	ICBTR1-1 ICBTR1-5
Carbonate, CO_3^{-2}	H_2O	Na_2CO_3	125 mL 500 mL	ICCO31-1 ICCO31-5
Chlorate, ClO_3^-	H_2O	$KClO_3$	125 mL 500 mL	ICCLO31-1 ICCLO31-5
Chloride, Cl^-	H_2O	KCl	125 mL 500 mL	ICCL1-1 ICCL1-5
Chlorite, ClO_2^-	H_2O	$NaClO_2$	125 mL 500 mL	ICCLO21-1 ICCLO21-5
Chromate, CrO_4^{-2}	H_2O	$NH_4Cr_2O_7$	125 mL 500 mL	ICCRO41-1 ICCRO41-5
Citrate, $C_6H_5O_7^{-3}$	H_2O	Citric Acid	125 mL 500 mL	ICCIT1-1 ICCIT1-5
Cyanide, NaCN	H_2O	Sodium Cyanide	20 mL	CN-1000-25
Fluoride, F^-	H_2O	NaF	125 mL 500 mL	ICF1-1 ICF1-5
Formate, HCO_2^-	H_2O	Sodium Formate	125 mL 500 mL	ICHCO1-1 ICHCO1-5
Glutarate, $C_5H_6O_4^{-2}$	H_2O	Glutaric Acid	125 mL 500 mL	ICGTR1-1 ICGTR1-5
Glycolate, $C_2H_3O_3^-$	H_2O	Glycolic acid	125 mL 500 mL	ICGLY1-1 ICGLY1-5
Iodide, I^-	H_2O / stabilizer	NH_4I	125 mL 500 mL	ICI1-1 ICI1-5
Lactate, $C_3H_5O_3^-$	H_2O	Lactic acid	125 mL 500 mL	ICLCT1-1 ICLCT1-5
Malate, $C_4H_4O_5^{-2}$	H_2O	Malic acid	125 mL 500 mL	ICMLA1-1 ICMLA1-5
Maleate, $C_4H_2O_4^{-2}$	H_2O	Maleic acid	125 mL 500 mL	ICMLE1-1 ICMLE1-5
Malonate, $C_3H_2O_4^{-2}$	H_2O	Malonic Acid	125 mL 500 mL	ICMLO1-1 ICMLO1-5
Methanesulfonate, $CH_3SO_3^-$	H_2O	Methanesulfonic acid	125 mL 500 mL	ICMSA1-1 ICMSA1-5
Nitrate, NO_3^-	H_2O	$NaNO_3$	125 mL 500 mL	ICNO31-1 ICNO31-5

1,000 µg/mL Anions (continued)

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	ICNNO31-1 ICNNO31-5
Nitrilotriacetate, $NC_6H_6O_6^{-3}$	H_2O	Nitrilotriacetic acid	125 mL 500 mL	ICNTA1-1 ICNTA1-5
Nitrite, NO_2^-	H_2O	$NaNO_2$	125 mL 500 mL	ICNO21-1 ICNO21-5
Nitrite as Nitrogen	H_2O	$NaNO_2$	125 mL 500 mL	ICNNO21-1 ICNNO21-5
Oxalate, $C_2O_4^{-2}$	H_2O	Sodium oxalate	125 mL 500 mL	ICOXA1-1 ICOXA1-5
Perchlorate, ClO_4^-	H_2O	$KClO_4$	125 mL 500 mL	ICCLO41-1 ICCLO41-5
Phosphate, PO_4^{-3}	H_2O	$NH_4H_2PO_4$	125 mL 500 mL	ICPO41-1 ICPO41-5
Phosphate as Phosphorus	H_2O	$NH_4H_2PO_4$	125 mL 500 mL	ICPPO41-1 ICPPO41-5
Phthalate, $C_6H_4(CO_2)_2^{-2}$	H_2O	Potassium hydrogen phthalate	125 mL 500 mL	ICKHP1-1 ICKHP1-5
Propionate, $C_2H_5CO_2^-$	H_2O	Sodium propionate	125 mL 500 mL	ICOPR1-1 ICOPR1-5
Succinate, $C_4H_4O_4^{-2}$	H_2O	Succinic acid	125 mL 500 mL	ICSCC1-1 ICSCC1-5
Sulfate, SO_4^{-2}	H_2O	K_2SO_4	125 mL 500 mL	ICSO41-1 ICSO41-5
Tartrate, $C_4H_4O_6^{-2}$	H_2O	Tartaric acid	125 mL 500 mL	ICTRTR1-1 ICTRTR1-5
Thiocyanate, SCN^-	H_2O	KSCN	125 mL 500 mL	ICSCN1-1 ICSCN1-5
Thiosulfate, $S_2O_3^{-2}$	H_2O	Sodium thiosulfate	125 mL 500 mL	ICS2O31-1 ICS2O31-5

10,000 µg/mL Anions

Custom anion standards are available upon request.

10,000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
NEW Chloride, Cl^-	H_2O	KCl	125 mL 500 mL	ICCL10-1 ICCL10-5
NEW Sulfate, SO_4^{-2}	H_2O	K_2SO_4	125 mL 500 mL	ICSO410-1 ICSO410-5

1,000 µg/mL Cation

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	ICMPA1-1 ICMPA1-5
Ammonium, NH_4^+	H_2O	NH_4Cl	125 mL 500 mL	ICNH41-1 ICNH41-5
Ammonium as Nitrogen	H_2O	NH_4Cl	125 mL 500 mL	ICNNH41-1 ICNNH41-5
Barium, Ba^{+2}	HNO_3	$Ba(NO_3)_2$	125 mL 500 mL	ICBA1-1 ICBA1-5
Calcium, Ca^{+2}	HNO_3	CaO	125 mL 500 mL	ICCA1-1 ICCA1-5
Cesium, Cs^+	HNO_3	$CsNO_3$	125 mL 500 mL	ICCS1-1 ICCS1-5
Diethanolamine, $(HOCH_2CH_2)_2NH$	H_2O	Diethanolamine	125 mL 500 mL	ICDEA1-1 ICDEA1-5
Dimethylamine, $NH(CH_3)_2$	HCl	Dimethylamine	125 mL 500 mL	ICDMA1-1 ICDMA1-5
Lithium, Li^+	HNO_3	Li_2CO_3	125 mL 500 mL	ICLI1-1 ICLI1-5
Magnesium, Mg^{+2}	HNO_3	Mg metal	125 mL 500 mL	ICMG1-1 ICMG1-5
Monoethanolamine, $HOCH_2CH_2NH2$	H_2O	Monoethanolamine	125 mL 500 mL	ICMEA1-1 ICMEA1-5
Monomethylamine, NH_2CH_3	HCl	Monomethylamine	125 mL 500 mL	ICMMA1-1 ICMMA1-5
Potassium, K^+	HNO_3	KNO_3	125 mL 500 mL	ICK1-1 ICK1-5
Rubidium, Rb^+	HNO_3	$RbNO_3$	125 mL 500 mL	ICRB1-1 ICRB1-5
Sodium, Na^+	HNO_3	Na_2CO_3	125 mL 500 mL	ICNA1-1 ICNA1-5
Strontium, Sr^{+2}	HNO_3	$SrCO_3$	125 mL 500 mL	ICSR1-1 ICSR1-5
Tetramethylammonium, $N^+(CH_3)_4$	H_2O	Tetramethylammonium hydroxide	125 mL 500 mL	ICTMAH1-1 ICTMAH1-5
Triethanolamine, $(HOCH_2CH_2)_3N$	H_2O	Triethanolamine	125 mL 500 mL	ICTEA1-1 ICTEA1-5
Triethylamine, $(CH_3CH_2)_3N$	HCl	Triethylamine	125 mL 500 mL	ICTA1-1 ICTA1-5
Trimethylamine, $(CH_3)_3N$	HCl	Trimethylamine	125 mL 500 mL	ICTMA1-1 ICTMA1-5

Custom multi-ion standards are available upon request.

Anion Calibration Standard

IC-FAS-1A
Volume 125 mL
Matrix H_2O

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		

Used for daily calibration.

Cation Calibration Standard 1

IC-SCS1-1
Volume 125 mL
Matrix HNO_3

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 2

IV-STOCK-7
Volume 125 mL
Matrix HNO_3

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.

ELUENT CONCENTRATES

Custom eluent concentrates are available upon request.

0.18 M Sodium Carbonate / 0.17 M Sodium Bicarbonate

ELUENT1817-1 100 mL
ELUENT1817-5 500 mL
Matrix H_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

ELUENT3510-1 100 mL
ELUENT3510-5 500 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-1 100 mL
BICARB-5 500 mL
Matrix H_2O
Dilution 1:100

For preparation of various CO_3^{-2} / HCO_3^- eluents.

0.5 M Sodium Carbonate

CARB-1 100 mL
CARB-5 500 mL
Matrix H_2O
Dilution 1:100

For preparation of various CO_3^{-2} / HCO_3^- eluents.

1.8 M Methanesulfonic Acid

MSAELUENT-1 100 mL
MSAELUENT-5 500 mL
Matrix H_2O
Dilution 1:100

For preparation of 18 mM CH_3SO_3H eluent for analyzing cations.

Method 300.0 & 300.1

Custom EPA standards are available upon request.

300.0 Rev. 2.1 Part A / 300.1 Part A

0.18 M Sodium Carbonate / 0.17 M Sodium Bicarbonate

ELUENT1817-1 100 mL
ELUENT1817-5 500 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
Volume 125 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	SO_4^{-2}	150
Phosphate as Phosphorus	50		

Dichloroacetate Standard

ICDCA-S-1 125 mL
ICDCA-S-5 500 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
Volume 125 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	SO_4^{-2}	1,500
Phosphate as Phosphorus	500		

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

QC Standard / Instrument Performance Check†

QCP-QCS-5
Volume 125 mL
Matrix H_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	SO_4^{-2}	75
Phosphate as Phosphorus	25		

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

†Manufactured from in-house Second Source concentrates.

Method 300.0 & 300.1 (continued)

Custom EPA standards are available upon request.

300.1 Part B

Bromate

ICBRO31-1
Volume 125 mL
Matrix H_2O

Analyte	µg/mL
BrO_3^-	1,000

Bromide

ICBR1-1
Volume 125 mL
Matrix H_2O

Analyte	µg/mL
Br^-	1,000

Chlorate

ICCLO31-1
Volume 125 mL
Matrix H_2O

Analyte	µg/mL
ClO_3^-	1,000

Chlorite

ICCLO21-1
Volume 125 mL
Matrix H_2O

Analyte	µg/mL
ClO_2^-	1,000

NOTE: Contains less than 10ppm ClO_3^-.

Dichloroacetate Standard

ICDCA-S-1 125 mL
ICDCA-S-5 500 mL
Matrix H_2O

Analyte	µg/mL
$Cl_2HC_2O_2^-$	500

For use as a surrogate analyte.

Method 314.0

Custom EPA standards are available upon request.

1400 µmhos/cm Conductivity at 25 ˚C

CON1400-25
Volume 125 mL
Matrix H_2O

Perchlorate

ICCLO41-1
Volume 125 mL
Matrix H_2O

Analyte	µg/mL
ClO_4^-	1,000

Mixed Anion Stock Solution

314-ANION-STOCK
Volume 125 mL
Matrix H_2O

Analyte	µg/mL	Analyte	µg/mL
Cl^-	25,000	SO_4^{-2}	25,000
CO_3^{-2}	25,000		

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

CUSTOMER
TESTIMONIALS

Flexible...

I want to say that IV is great to work with. Your customer service representatives are above standard and always have a clear, pleasant voice. I also like how IV notifies me of standards that are about to expire and gives me the heads-up to reorder.

Thank you so much for your time.

Don Simons
Rogers, AR

Supportive...

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

Jeff Graham
Hattiesburg, MS

Accurate...

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

Kevin Campbell
Rock Hill, SC

Exceptional...

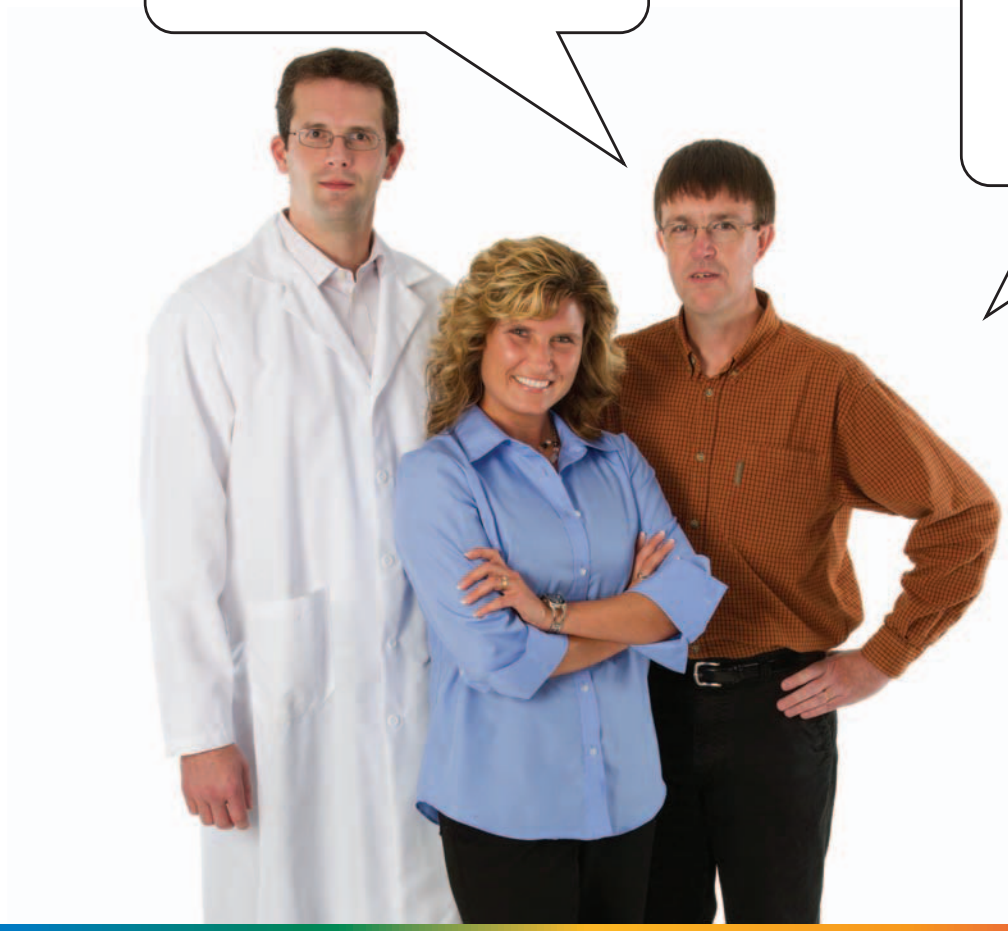
The quality of Inorganic Ventures' service is exceptional. There's always a live person when you call and I always get a response to every inquiry. With their level of quality in products and service, they've become the NORDSTROM of the "standards" industry.

Sally Gemora
Hayward, CA

Reliable...

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

Jianguo Chen
Sunnyvale, CA



ATOMIC ABSORPTION

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

Contents

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

INORGANIC VENTURES™
We flex to your specs

1,000 µg/mL Standards

1,000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Aluminum, Al	HNO_3	Al metal	125 mL 500 mL	AAAL1-1 AAAL1-5
Antimony, Sb	HNO_3/ Tartaric Acid	Sb metal	125 mL 500 mL	AASB1-1 AASB1-5
Arsenic, As	HNO_3	As metal	125 mL 500 mL	AAAS1-1 AAAS1-5
Barium, Ba	HNO_3	$Ba(NO_3)_2$	125 mL 500 mL	AABA1-1 AABA1-5
Beryllium, Be	HNO_3	$Be_4O(C_2H_3O_2)_6$	125 mL 500 mL	AABE1-1 AABE1-5
Bismuth, Bi	HNO_3	Bi metal	125 mL 500 mL	AABI1-1 AABI1-5
Boron, B	H_2O	H_3BO_3	125 mL 500 mL	AAB1-1 AAB1-5
Cadmium, Cd	HNO_3	Cd metal	125 mL 500 mL	AACD1-1 AACD1-5
Calcium, Ca	HNO_3	CaO	125 mL 500 mL	AACA1-1 AACA1-5
Cerium, Ce	HNO_3	CeO_2	125 mL 500 mL	AACE1-1 AACE1-5
Cesium, Cs	HNO_3	$CsNO_3$	125 mL 500 mL	AACS1-1 AACS1-5
Chromium, Cr	HNO_3	Cr metal	125 mL 500 mL	AACR1-1 AACR1-5
Cobalt, Co	HNO_3	Co metal	125 mL 500 mL	AACO1-1 AACO1-5
Copper, Cu	HNO_3	Cu metal	125 mL 500 mL	AACU1-1 AACU1-5
Dysprosium, Dy	HNO_3	Dy_2O_3	125 mL 500 mL	AADY1-1 AADY1-5
Erbium, Er	HNO_3	Er_2O_3	125 mL 500 mL	AAER1-1 AAER1-5
Europium, Eu	HNO_3	Eu_2O_3	125 mL 500 mL	AAEU1-1 AAEU1-5
Gadolinium, Gd	HNO_3	Gd_2O_3	125 mL 500 mL	AAGD1-1 AAGD1-5
Gallium, Ga	HNO_3	Ga metal	125 mL 500 mL	AAGA1-1 AAGA1-5
Germanium, Ge	HNO_3/HF	Ge metal	125 mL 500 mL	AAGE1-1 AAGE1-5
Gold, Au	HCl	$AuCl_3$	125 mL 500 mL	AAAU1-1 AAAU1-5
Hafnium, Hf	HNO_3/HF	HfO_2	125 mL 500 mL	AAHF1-1 AAHF1-5
Holmium, Ho	HNO_3	Ho_2O_3	125 mL 500 mL	AAHO1-1 AAHO1-5
Indium, In	HNO_3	In metal	125 mL 500 mL	AAIN1-1 AAIN1-5

1,000 µg/mL Standards (continued)

1,000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Iridium, Ir	HCl	$IrCl_3$	125 mL 500 mL	AAIR1-1 AAIR1-5
Iron, Fe	HNO_3	Fe metal	125 mL 500 mL	AAFE1-1 AAFE1-5
Lanthanum, La	HNO_3	La_2O_3	125 mL 500 mL	AALA1-1 AALA1-5
Lead, Pb	HNO_3	$Pb(NO_3)_2$	125 mL 500 mL	AAPB1-1 AAPB1-5
Lithium, Li	HNO_3	Li_2CO_3	125 mL 500 mL	AALI1-1 AALI1-5
Lutetium, Lu	HNO_3	Lu_2O_3	125 mL 500 mL	AALU1-1 AALU1-5
Magnesium, Mg	HNO_3	Mg metal	125 mL 500 mL	AAMG1-1 AAMG1-5
Manganese, Mn	HNO_3	Mn metal	125 mL 500 mL	AAMN1-1 AAMN1-5
Mercury, Hg	HNO_3	Hg metal	125 mL 500 mL	AAHG1-1 AAHG1-5
Molybdenum, Mo	NH_4OH	$(NH_4)_2MoO_4$	125 mL 500 mL	AAMO1-1 AAMO1-5
Neodymium, Nd	HNO_3	Nd_2O_3	125 mL 500 mL	AAND1-1 AAND1-5
Nickel, Ni	HNO_3	Ni metal	125 mL 500 mL	AANI1-1 AANI1-5
Niobium, Nb	HNO_3/HF	Nb metal	125 mL 500 mL	AANB1-1 AANB1-5
Palladium, Pd	HCl	$Pd(NO_3)_2$	125 mL 500 mL	AAPD1-1 AAPD1-5
Phosphorus, P	H_2O	H_3PO_4	125 mL 500 mL	AAP1-1 AAP1-5
Platinum, Pt	HCl	$PtCl_4$	125 mL 500 mL	AAPT1-1 AAPT1-5
Potassium, K	HNO_3	KNO_3	125 mL 500 mL	AAK1-1 AAK1-5
Praseodymium, Pr	HNO_3	Pr_6O_{11}	125 mL 500 mL	AAPR1-1 AAPR1-5
Rhenium, Re	HNO_3	Re metal	125 mL 500 mL	AARE1-1 AARE1-5
Rhodium, Rh	HCl	$RhCl_3$	125 mL 500 mL	AARH1-1 AARH1-5
Rubidium, Rb	HNO_3	$RbNO_3$	125 mL 500 mL	AARB1-1 AARB1-5
Ruthenium, Ru	HCl	NH_4RuCl_6	125 mL 500 mL	AARU1-1 AARU1-5
Samarium, Sm	HNO_3	Sm_2O_3	125 mL 500 mL	AASM1-1 AASM1-5
Scandium, Sc	HNO_3	Sc_2O_3	125 mL 500 mL	AASC1-1 AASC1-5

1,000 µg/mL Standards (continued)

1,000 µg/mL

Analyte	Matrix	Starting Material	Volume	Catalog #
Selenium, Se	HNO_3	Se metal	125 mL 500 mL	AASE1-1 AASE1-5
Silicon, Si	HNO_3/HF	SiO_2	125 mL 500 mL	AASI1-1 AASI1-5
Silver, Ag	HNO_3	Ag metal	125 mL 500 mL	AAAG1-1 AAAG1-5
Sodium, Na	HNO_3	Na_2CO_3	125 mL 500 mL	AANA1-1 AANA1-5
Strontium, Sr	HNO_3	$SrCO_3$	125 mL 500 mL	AASR1-1 AASR1-5
Sulfur, S	H_2O	H_2SO_4	125 mL 500 mL	AAS1-1 AAS1-5
Tantalum, Ta	HNO_3 /HF	Ta metal	125 mL 500 mL	AATA1-1 AATA1-5
Tellurium, Te	HCl	Te metal	125 mL 500 mL	AATE1-1 AATE1-5
Terbium, Tb	HNO_3	Tb_4O_7	125 mL 500 mL	AATB1-1 AATB1-5
Thallium, Tl	HNO_3	$TlNO_3$	125 mL 500 mL	AATL1-1 AATL1-5
Thorium, Th	HNO_3	$Th(NO_3)_4xH_2O$	125 mL 500 mL	AATH1-1 AATH1-5
Thulium, Tm	HNO_3	Tm_2O_3	125 mL 500 mL	AATM1-1 AATM1-5
Tin, Sn	HNO_3/HF	Sn metal	125 mL 500 mL	AASN1-1 AASN1-5
Titanium, Ti	HNO_3 /HF	Ti metal	125 mL 500 mL	AATI1-1 AATI1-5
Tungsten, W	HNO_3 /HF	W metal	125 mL 500 mL	AAW1-1 AAW1-5
Uranium, U	HNO_3	$UO_2(NO_3)_2$	125 mL 500 mL	AAU1-1 AAU1-5
Vanadium, V	HNO_3	V_2O_5	125 mL 500 mL	AAV1-1 AAV1-5
Ytterbium, Yb	HNO_3	Yb_2O_3	125 mL 500 mL	AAYB1-1 AAYB1-5
Yttrium, Y	HNO_3	Y_2O_3	125 mL 500 mL	AAY1-1 AAY1-5
Zinc, Zn	HNO_3	Zn metal	125 mL 500 mL	AAZN1-1 AAZN1-5
Zirconium, Zr	HF	ZrO_2	125 mL 500 mL	AAZR1-1 AAZR1-5

MODIFIERS, BUFFERS & RELEASING AGENTS

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

0.3% Palladium / 0.2% Magnesium Modifier

MM-PDMG-32
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL	Analyte	µg/mL
$Mg(NO_3)_2$	2,000	**Pd**	3,000

0.5% Palladium Modifier

MM-PD-5
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL
Pd	5,000

1% Lanthanum Releasing Agent

LACB1-5
Volume 500 mL
Matrix HCl

Analyte	µg/mL
La	10,000

1% Magnesium Nitrate Modifier

MM-MG-10
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL
$Mg(NO_3)_2$	10,000

1% Palladium Modifier

MM-PD-10
Volume 125 mL
Matrix HNO_3

Analyte	µg/mL
Pd	10,000

2% Lithium Ionization Buffer

LINB2-5
Volume 500 mL
Matrix HNO_3

Analyte	µg/mL
Li	20,000

4% Phosphate Modifier

MM-P-40
Volume 125 mL
Matrix H_2O

Analyte	µg/mL
$NH_4H_2PO_4$	40,000

MULTI-ELEMENT STANDARDS

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

GFAA Calibration Standard

IV-STOCK-18
Volume 125 mL
Matrix HNO_3

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
Volume 500 mL
Matrix HNO_3

Analyte	µg/mL	Analyte	µg/mL
Cr	3	**Ni**	10

Toxicity Characteristic Leachate Procedure (TCLP)

Custom EPA standards are available upon request.

TCLP Hg Standard

TCLP-AA-HG
Volume 125 mL
Matrix HNO_3
Dilution As required

Analyte	µg/mL
Hg	20

TCLP Standard

TCLP-1REV
Volume 125 mL
Matrix HNO_3
Dilution 1:5

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

CLP Graphite Furnace Standards

Custom EPA standards are available upon request.

Analytical Spiking Standard

CLPF-ASPK-1
Volume 125 mL
Matrix HNO_3
Dilution 1:10

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

CCV / ICV Standard 4†

QCP-CICV-4
Volume 125 mL
Matrix HNO_3
Dilution 1:50

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

Calibration Standard

CLPF-CAL-1
Volume 125 mL
Matrix HNO_3
Dilution 1:100

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

Predigestion Spiking Standard

CLPF-PSPK-1
Volume 125 mL
Matrix HNO_3
Dilution 1:1,000

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

†Manufactured from in-house Second Source concentrates.

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.

Contents

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

INORGANIC VENTURES™
We flex to your specs

POTABLE WATER STANDARDS

Custom potable water standards are available upon request.

Bromate

ICBRO31-1

Volume	125 mL
Matrix	H_2O

Analyte	µg/mL
BrO_3^-	1,000

Bromide

ICBR1-1

Volume	125 mL
Matrix	H_2O

Analyte	µg/mL
Br^-	1,000

Cation Standard

QCP-CAT

Volume	20 mL
Matrix	HNO_3
Dilution	1:100

Analyte	Range
Ca^{+2}	5-200 mg/L
K^+	1-100 mg/L
Mg^{+2}	1-200 mg/L
Na^+	6-250 mg/L

Chlorate

ICCLO31-1

Volume	125 mL
Matrix	H_2O

Analyte	µg/mL
ClO_3^-	1,000

Chlorite

ICCLO21-1

Volume	125 mL
Matrix	H_2O

Analyte	µg/mL
ClO_2^-	1,000

NOTE: Contains less than 10ppm ClO_3^-.

Cyanide Standard

QCP-CN

Volume	20 mL
Matrix	H_2O
Dilution	1:200

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

Demand Standard

QCP-DMD

Volume	20 mL
Matrix	H_2O
Dilution	1:200

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

Hg Standard

QCP-HG

Volume	20 mL
Matrix	HNO_3
Dilution	1:200

Analyte	Range
Hg	0.5-30 µg/L

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

Water Hardness Standard

QCP-WH

Volume	500 mL
Matrix	HNO_3
Dilution	Ready to Use

Analyte	Range
Ca	3.5-150 mg/L
Mg	0.9-50 mg/L
Hardness as $CaCO_3$	45-575 mg/L

POTABLE WATER STANDARDS

Custom potable water standards are available upon request.

Metals Standard

QCP-MTL

Volume	20 mL
Matrix	HNO_3
Dilution	1:200

Analyte	Range
Ag	4-500 µg/L
Al	40-2,000 µg/L
As	4-500 µg/L
Ba	40-2,000 µg/L
Be	4-500 µg/L
Ca	30-75 mg/L
Cd	4-500 µg/L
Cr	40-2,000 µg/L
Cu	40-2,000 µg/L
Fe	40-2,000 µg/L
Mn	40-2,000 µg/L
Ni	40-2,000 µg/L
Pb	2-250 µg/L
Sb	4-500 µg/L
Se	4-500 µg/L
Tl	4-500 µg/L
Zn	100-1,000 µg/L

Minerals Standard

QCP-MIN

Volume	500 mL
Matrix	H_2O
Dilution	Ready to Use

Analyte	Range
Cl^-	10-250 mg/L
F^-	0.2-10 mg/L
K^+	2.6-150 mg/L
Nitrate as Nitrogen	0.5-10 mg/L
Conductivity	50-1,050 µmhos
Alkalinity	10-150 mg/L
Na^+	7-300 mg/L
SO_4^{-2}	5-150 mg/L

Nitrite Standard

QCP-NT

Volume	20 mL
Matrix	H_2O
Dilution	1:100

Analyte	Range
Nitrite as Nitrogen	0.1-2 mg/L

pH Standard

QCP-PH

Volume	20 mL
Matrix	H_2O
Dilution	Ready to Use

Analyte	Range
pH	5-10 units

Simple Nutrients Standard

QCP-NUT-1

Volume	20 mL
Matrix	H_2O
Dilution	1:200

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

Simulated Rainwater Standard

QCP-RAIN

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

Volume	10 mL
Matrix	H_2O
Dilution	1:200

Analyte	Range
Total Residual Chlorine	0.15-5 mg/L

Turbidity Standard

QCP-TURB

Volume	20 mL
Matrix	H_2O
Dilution	1:100

Analyte	Range
Turbidity	0.3-40 NTU

WASTEWATER STANDARDS

Custom wastewater standards are available upon request.

Cation Standard

QCP-CAT

Volume	20 mL
Matrix	HNO_3
Dilution	1:100

Analyte	Range
Ca^{+2}	5-200 mg/L
K^{+}	1-100 mg/L
Mg^{+2}	1-200 mg/L
Na^{+}	6-250 mg/L

Chromium^{+6} Standard

QCP-CR6

Volume	20 mL
Matrix	H_2O
Dilution	1:100

Analyte	Range
Cr^{+6}	10-1,000 µg/L

Complex Nutrients Standard

QCP-NUT-2

Volume	20 mL
Matrix	H_2O
Dilution	1:200

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

Cyanide Standard

QCP-CN

Volume	20 mL
Matrix	H_2O
Dilution	1:200

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

Demand Standard

QCP-DMD

Volume	20 mL
Matrix	H_2O
Dilution	1:200

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

Hardness Standard

QCP-WH

Volume	500 mL
Matrix	HNO_3
Dilution	Ready to Use

Analyte	Range
Ca	3.5-150 mg/L
Mg	0.9-50 mg/L
Hardness as $CaCO_3$	45-575 mg/L

Custom wastewater standards are available upon request.

Hg Standard

QCP-HG

Volume	20 mL
Matrix	HNO_3
Dilution	1:200

Analyte	Range
Hg	0.5-30 µg/L

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

Minerals Standard

QCP-MIN

Volume	500 mL
Matrix	H_2O
Dilution	Ready to Use

Analyte	Range
Cl^-	10-250 mg/L
F^-	0.2-10 mg/L
K^+	2.6-150 mg/L
Nitrate as Nitrogen	0.5-10 mg/L
Conductivity	50-1,500 µmhos
Alkalinity	10-150 mg/L
Na^+	7-300 mg/L
SO_4^{-2}	5-150 mg/L

Oil & Grease Standard 1

QCP-OG-A

Volume	20 mL
Matrix	Acetone
Dilution	1:100

Analyte	Range
Oil & Grease	8-150 mg/L

Applicable to gravimetric methods only.

Oil & Grease Standard 2

QCP-OG-W

Volume	250 mL
Matrix	H_2O
Dilution	Ready to Use

Analyte	Range
Oil & Grease	8-150 mg/L

pH Standard

QCP-PH

Volume	20 mL
Matrix	H_2O
Dilution	Ready to Use

Analyte	Range
pH	5-10 units

Phenolics Standard

QCP-PHEN

Volume	20 mL
Matrix	H_2O
Dilution	1:200

Analyte	Range
Total Phenolics	0.02-5 mg/L

Simple Nutrients Standard

QCP-NUT-1

Volume	20 mL
Matrix	H_2O
Dilution	1:200

Analyte	Range
Phosphate as Phosphorus	0.05-10 mg/L
Nitrate Plus Nitrite as Nitrogen	0.25-40 mg/L
Nitrate as Nitrogen	0.25-40 mg/L
Ammonium as Nitrogen	0.25-20 mg/L

WASTEWATER STANDARDS

Custom wastewater standards are available upon request.

Solids Standard

QCP-SLD

Volume	450 mL
Matrix	H_2O
Dilution	Ready to Use

Analyte	Range
Total Solids (total residue)	70-5,200 mg/L
Suspended Solids (nonfilterable residue)	20-200 mg/L
Dissolved Solids (filterable residue)	50-5,000 mg/L

Total Residual Chlorine Standard

QCP-TRC

Volume	10 mL
Matrix	H_2O
Dilution	1:200

Analyte	Range
Total Residual Chlorine	0.15-5 mg/L

1,000 µg/mL Total Cyanide

CN-1000-25

Volume	20 mL
Matrix	H_2O

Analyte	µg/mL
CN^-	1,000

Mercury Standard

MSHG-1PPM NEW

Volume	125 mL
Matrix	HCl

Analyte	µg/mL
Hg	1

Trace Metals Standard

QCP-TMS

Volume	20 mL
Matrix	HNO_3
Dilution	1:100

Analyte	Range
Ag	20-600 µg/L
Al	100-4,000 µg/L
As	20-900 µg/L
B	50-1,000 µg/L
Ba	100-2,500 µg/L
Be	8-900 µg/L
Cd	8-750 µg/L
Co	28-1,000 µg/L
Cr	17-1,000 µg/L
Cu	18-1,000 µg/L
Fe	30-4,000 µg/L
Mn	70-4,000 µg/L
Mo	24-1,000 µg/L
Ni	80-3,000 µg/L
Pb	70-3,000 µg/L
Sb	20-900 µg/L
Se	20-2,000 µg/L
Sr	3.5-1,000 µg/L
Tl	20-900 µg/L
V	100-10,000 µg/L
Zn	30-2,000 µg/L

Turbidity Standard

QCP-TURB

Volume	20 mL
Matrix	H_2O
Dilution	1:100

Analyte	Range
Turbidity	0.3-40 NTU

1,000 µg/mL Standards

Custom wastewater standards are available upon request.

1,000 µg/mL

	Analyte	Matrix	Starting Material	Volume	Catalog #
NEW	**Carbon, C**	H_2O	KHP	125 mL 500 mL	TOCKHP1-1 TOCKHP1-5

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, www.inorganicventures.com.

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

Contents

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

*Not applicable for sample preparation products.

INORGANIC VENTURES™

We flex to your specs

Conductivity Standards

Custom conductivity standards are available upon request.

2 µmhos/cm Conductivity at 25 °C

CON2-25
Volume 125 mL
Matrix H_2O

10 µmhos/cm Conductivity at 25 °C

CON10-25
Volume 125 mL
Matrix H_2O

100 µmhos/cm Conductivity at 25 °C

CON100-25
Volume 125 mL
Matrix H_2O

147 µmhos/cm Conductivity at 25 °C

CON147-25
Volume 125 mL
Matrix H_2O

500 µmhos/cm Conductivity at 25 °C

CON500-25
Volume 125 mL
Matrix H_2O

1,000 µmhos/cm Conductivity at 25 °C

CON1000-25
Volume 125 mL
Matrix H_2O

1200 µmhos/cm Conductivity at 25 °C

CON1200-25
Volume 125 mL
Matrix H_2O

1400 µmhos/cm Conductivity at 25 °C

CON1400-25
Volume 125 mL
Matrix H_2O

1413 µmhos/cm Conductivity at 25 °C

CON1413-25
Volume 125 mL NEW
Matrix H_2O

1430 µmhos/cm Conductivity at 25 °C

CON1430-25
Volume 125 mL
Matrix H_2O

10,000 µmhos/cm Conductivity at 25 °C

CON10000-25
Volume 125 mL
Matrix H_2O

100,000 µmhos/cm Conductivity at 25 °C

CON100000-25
Volume 125 mL
Matrix H_2O

Cyanide Standards

Custom cyanide standards are available upon request.

1,000 µg/mL Total Cyanide

CN-1000-25
Volume 20 mL
Matrix H_2O

Analyte	µg/mL
CN^-	1,000

pH Standards

Custom pH standards are available upon request.

pH	Starting Material	Volume	Catalog #	
pH 1.68	Potassium Tetroxalate	250 mL 500 mL 1 L 4 L 10 L	PH-1.68 PH-1.68-5 PH-1.68-1L PH-1.68-4L PH-1.68-10L	NEW
pH 2	Potassium chloride and hydrochloric acid	250 mL 500 mL 1 L 4 L 10 L	PH-2 PH-2-5 PH-2-1L PH-2-4L PH-2-10L	
pH 3	Potassium acid phthalate and hydrochloric acid	250 mL 500 mL 1 L 4 L 10 L	PH-3 PH-3-5 PH-3-1L PH-3-4L PH-3-10L	
pH 4	Potassium acid phthalate	250 mL 500 mL 1 L 4 L 10 L	PH-4 PH-4-5 PH-4-1L PH-4-4L PH-4-10L	
pH 5	Potassium acid phthalate and sodium hydroxide	250 mL 500 mL 1 L 4 L 10 L	PH-5 PH-5-5 PH-5-1L PH-5-4L PH-5-10L	
pH 6	Monobasic potassium phosphate and sodium hydroxide	250 mL 500 mL 1 L 4 L 10 L	PH-6 PH-6-5 PH-6-1L PH-6-4L PH-6-10L	
pH 7	Monobasic potassium phosphate and sodium hydroxide	250 mL 500 mL 1 L 4 L 10 L	PH-7 PH-7-5 PH-7-1L PH-7-4L PH-7-10L	
pH 8	Monobasic potassium phosphate and sodium hydroxide	250 mL 500 mL 1 L 4 L 10 L	PH-8 PH-8-5 PH-8-1L PH-8-4L PH-8-10L	
pH 9	Boric acid, potassium chloride and sodium hydroxide	250 mL 500 mL 1 L 4 L 10 L	PH-9 PH-9-5 PH-9-1L PH-9-4L PH-9-10L	
pH 10	Sodium bicarbonate and sodium carbonate	250 mL 500 mL 1 L 4 L 10 L	PH-10 PH-10-5 PH-10-1L PH-10-4L PH-10-10L	
pH 11	Dibasic sodium phosphate and sodium hydroxide	250 mL 500 mL 1 L 4 L 10 L	PH-11 PH-11-5 PH-11-1L PH-11-4L PH-11-10L	
pH 12	Potassium chloride and sodium hydroxide	250 mL 500 mL 1 L 4 L 10 L	PH-12 PH-12-5 PH-12-1L PH-12-4L PH-12-10L	

Dissolution Reagents

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

Acid Dissolution Reagent 1

UA-1 - 500 mL

Recommended for the dissolution of aluminosilicates, such as zeolites.

Acid Dissolution Reagent 2†

UA-2 - 500 mL

Designed to dissolve coal fly ash and aluminosilicates.

Acid Dissolution Reagent 3*

UA-3 - 500 mL

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

Acid Dissolution Reagent 4

UA-4 - 500 mL

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

Acid Dissolution Reagent 5

UA-5 - 500 mL

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

Acid Dissolution Reagent 6

UA-6 - 500 mL

Designed for samples high in magnesium, such as dolomite.

Acid Dissolution Reagent 7

UA-7 - 500 mL

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

†Boron cannot be determined.

*Boron and Phosphorus cannot be determined.

Blank Solutions

Custom blank solutions are available upon request.

5% (v/v) Nitric Acid Blank

IV-ACID-BLANK

Volume	500 mL
Matrix	HNO_3

Deionized Water Blank

IV-DI-BLANK

Volume	500 mL
Matrix	H_2O

Neutralizers & Stabilizers

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

Stabilizing Reagent 1

UNS-1 2.5 L

Designed for use with UA-1.

Stabilizing Reagent 2

UNS-2 2.5 L

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

Stabilizing Reagent 3

UNS-3 2.5 L

Designed for use with UA-7.

Stabilizing Reagent 4

UNS-4 2.5 L

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

Stabilizing Reagent 100

UNS-100 2.5 L

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

Stabilizing Reagent 300

UNS-300 2.5 L

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

Fusion Fluxes

Custom fusion fluxes are available upon request.

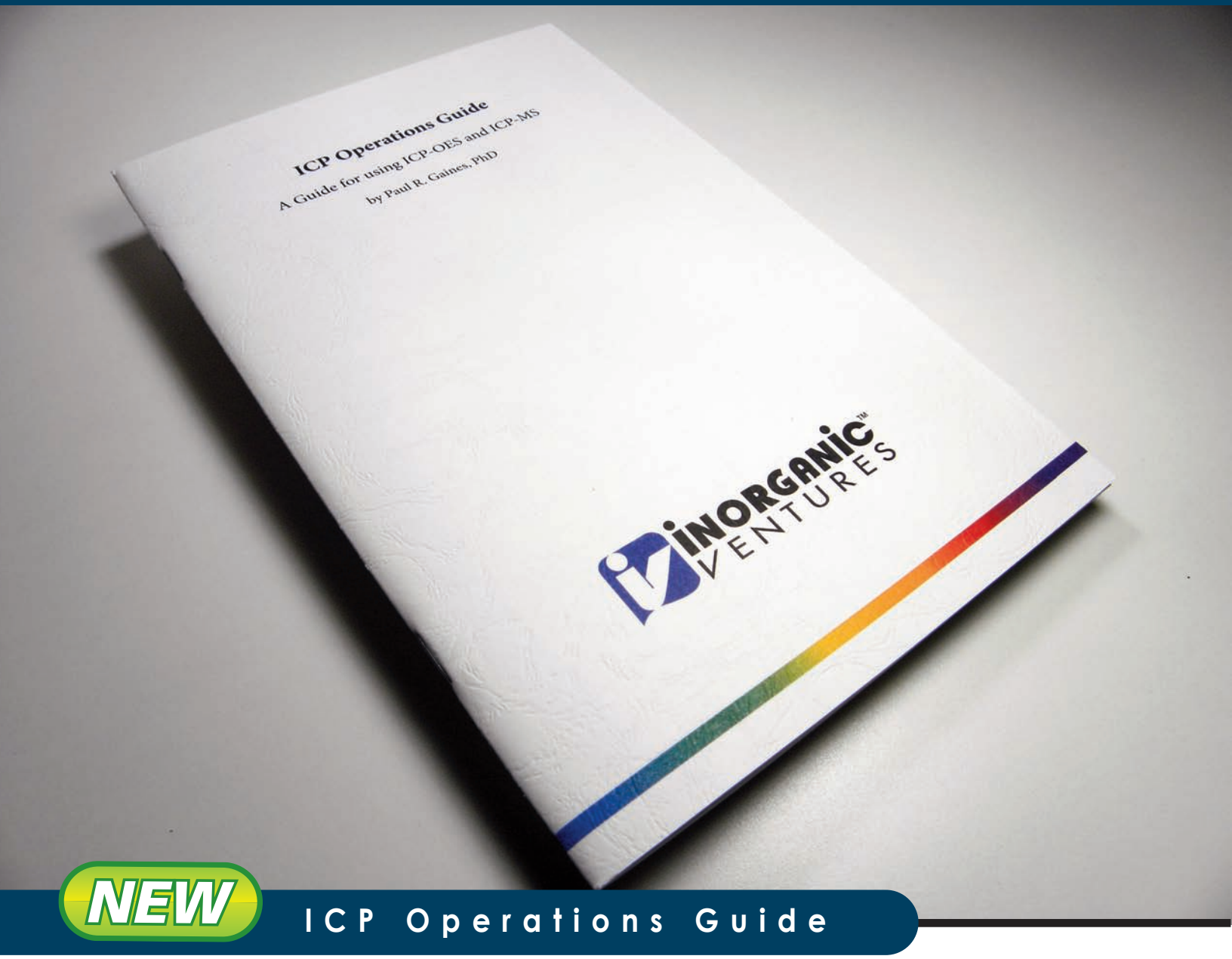
Lithium Carbonate

FF-LICO3 500 g

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

NEW

ICP Operations Guide



NEW ICP Operations Guide

A Guide for Using ICP-OES and ICP-MS

Inorganic Ventures is proud to introduce our popular online ICP Operations Guide in print! This 37 page booklet contains topics that are fundamental in nature and are intended as an aid for the analyst who is completely new or somewhat new to the technique of ICP.

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Phone: 1.800.669.6799 (US & Canada)
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As stated in our Declaration of Integrity (see page 6), 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;
- A replacement item rushed to you at no cost.†

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

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INORGANIC VENTURES

300 Technology Drive
Christiansburg, VA 24073 · USA
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com
inorganicventures.com

INORGANIC VENTURES EUROPE

Calle de Villafranca, 17
Madrid, Spain 28028
tel: +34 91356.3552
fax: +34 91356.3554
global@inorganicventures.com
inorganicventures.com

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