Agilent CrossLab
From Insight to Outcome

Inorganic Standards

Your essential resource for Agilent ULTRA chemical standards









Agilent

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About Agilent standards

Agilent is a global leader in chromatography and spectroscopy, as well as an expert in chemical standards manufacturing. Agilent offers certified reference materials, QC standards, reagents, and buffers to complement our extensive line of instruments, columns, sample preparation products, consumables, and services. Our portfolio provides laboratories with full workflow solutions for efficient, accurate results.

Agilent has an extensive list of chemical standards, matched by expertise in designing and formulating custom standards to exacting specifications. Agilent products are available through our global distribution channels, and with our logistics capabilities we offer rapid turnaround time on all orders.

With over 40 years of technical expertise in measurement science, we provide innovative, quality products to address the entire analytical chemistry workflow for laboratories around the world.

Products

- Certified reference materials (CRM)
- Reference materials (RM)
- Calibration standards
- IQ/OQ/PQ standards
- Linearity standards
- Quality check samples
- Buffers and reagents
- Wash solution and diluents

Markets

Environmental

- Petrochemicals
- PCB/PBB
- Halocarbons
- VOC/Semi-VOC
- Pesticides
- Dioxins and furans

Food and Beverages

- Allergens
- Amino and nitroaromatics
- Pharma and vet drugs
- PAHs
- Lipids
- Food authenticity
- Phenols
- Dyes

Life Science

- Pharmaceutical
- Biopharma
- Academic and research
- University
- Governmental

Industrial and Mining

Petrochemical

- Matrix oils
- Metals in biodiesel
- Organometallic

Elemental Analysis

- Single element
- Multi-element

Custom products

Do you need a custom defined reference material or other chemical solution unique to your laboratory or testing procedure? If the product you require is not available as an Agilent product, we can prepare it for you on a custom basis. Custom reference materials are a fast, economical way to meet your specific laboratory needs.

Agilent maintains an expansive compatibility database, integrating 40 years of manufacturing and quality control data to create stable and reliable custom product formulations. Choose from any of our three quality control validation levels (see **Page 4**).

Visit **www.agilent.com/chem/standards** to request a quote.

Quality control laboratory



Agilent operates an ISO 17025 accredited quality control laboratory and is accredited to ISO Guide 34 as a reference material producer for the manufacture of certified reference materials (CRM).

Rely on the expertise of our applications development group for:

- Method development
- Pre- and postfill analysis
- Stability testing and protocols
- Homogeneity testing

Quality control validation levels

Chemical standards manufactured by Agilent are supplied with a lot-specific certificate of analysis (C of A) that reflects the associated quality control validation level. Certificates of analysis can ship with the product and are available online. All Agilent products, unless otherwise stated, are Level II - ISO Guide 34 reference materials.

		Reported Value	Reported Uncertainty	Former Name	Solutions	Neats	Lead Time (Customs)
Level I	ISO Guide 34 RM	True (calculated)	U_{char}	Gravimetric	Y	Y	5 business days
Level II	ISO Guide 34 RM	True (analytical)	U_{char}	Full validation	Y	Y	7 to 10 business days
Level III	ISO Guide 34	Certified	U_{exp}	ISO Guide 34	Y		15 to 20 business days

Level I solution: A reference material (RM) prepared gravimetrically in accordance with ISO Guide 34 and under the Agilent ISO 9001 registered quality system. The neat materials used for the product are verified by an Agilent ISO 17025 laboratory and under the Agilent ISO Guide 34 accreditation. For each analyte, the true value, with its uncertainty value calculated at 95% confidence level, is reported.

Level I neat: RM prepared in accordance with ISO Guide 34 and under the Agilent ISO 9001 registered quality system. The true value (% purity) is reported.

Level II solution: RM prepared gravimetrically in accordance with ISO Guide 34 and under the Agilent ISO 9001 registered quality system. The neat materials used for the product are verified by an Agilent ISO 17025 laboratory and under the Agilent ISO Guide 34 accreditation. The analyte concentrations are verified by an Agilent ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at 95% confidence level, is reported.

Level II neat: RM prepared in accordance with ISO Guide 34 and under the Agilent ISO 9001 registered quality system. The materials used for this product are verified by an Agilent ISO 17025 laboratory and under the Agilent ISO Guide 34 accreditation. The true value (% purity), with its uncertainty value calculated at 95% confidence level, is reported.

Level III solution: RM prepared gravimetrically in accordance with ISO Guide 34 and under the Agilent ISO 9001 registered quality system. The neat materials used for this product are verified by an Agilent ISO 17025 laboratory and under the Agilent ISO Guide 34 accreditation. The analyte concentrations are verified by an Agilent ISO 17025 accredited laboratory. For each analyte, the certified value is reported with its uncertainty value calculated as the expanded uncertainty, in accordance with ISO Guide 35.

Triple certification

Agilent is committed to product integrity by offering customers the assurance of triple certification to ISO standards.

Agilent operates under an ISO 9001 registered quality management system, where an accrediting body (TUV) attests to the quality of our methods, procedures, testing, production, and record keeping.

Our quality control laboratory is accredited to ISO 17025 (ANAB) for technical competence to perform testing of organic and inorganic materials and certified reference materials, as defined in our scope, accessible online at **www.agilent.com/chem/17025**

Agilent is further accredited to ISO Guide 34 (ANAB) for technical competence as a reference material producer of certified reference materials. This requires Agilent to identify and document the major components of uncertainty including homogeneity, short- and long-term stability, and uncertainty due to analytical characterization and manufacturing.

The most current Agilent certifications are accessible at **www.agilent.com/quality**

Tips and tools

To view our entire portfolio of over 7,000 standards, all manufactured under ISO 17025 Guide 34, visit **www.agilent.com/chem/standards**

Level 2 reference material Certificate of Analysis

Agilent

Certificate of Analysis
ISO Guide 34

C4-C24 Even Carbon Saturated FAME Mix

Product Number: 5191-4278 **Page:** 1 of 1

Lot Number: CR-5364 **Lot Issue Date:** 17-Nov-2017 **Expiration Date:** 31-Dec-2019

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
methyl butanoate	000623-42-7	RM04575	1005 ± 5 µg/mL
methyl hexanoate	000106-70-7	NT01630	1005 ± 5 µg/mL
methyl octanoate	000111-11-5	NT01094	1003 ± 5 µg/mL
methyl decanoate	000110-42-9	NT00187	1004 ± 5 µg/mL
methyl laurate	000111-82-0	NT01095	1003 ± 5 µg/mL
methyl tetradecanoate	000124-10-7	NT00188	1003 ± 5 µg/mL
methyl palmitate	000112-39-0	RM07128	1001 ± 5 µg/mL
methyl octadecanoate	000112-61-8	RM12285	1002 ± 5 µg/mL
methyl arachidate	001120-28-1	RM11588	1003 ± 5 µg/mL
methyl docosanoate	000929-77-1	NT01096	1004 ± 5 µg/mL
tetracosanoic acid methyl ester	002442-49-1	NT01097	1004 ± 5 µg/mL

Matrix: hexane

Storage: Store Refrigerated (2° - 8°C).

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

Monica Bourgeois
QMS Representative

ANAB ACCREDITED
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED
ISO17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

An example of a Certificate of Analysis for an Agilent reference material.

GHS compliance

Agilent is a certified GHS author for SDS and GHS compliant labeling. Chemical products manufactured and distributed by Agilent are compliant with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Safety Data Sheets (SDS) and labels are prepared in accordance with regulations and in the following languages:

European CLP Regulation
Regulation 1272/2008

- Chinese (standard Mandarin)
- Czech
- Danish
- Dutch
- English
- Estonian
- Finnish
- French
- German
- Italian
- Japanese
- Korean
- Polish
- Portuguese
- Romanian
- Russian
- Spanish
- Swedish

USA GHS-OSHA Regulation
Hazcom 2012

- English
- Spanish
- French

Chinese GHS Regulation
GB/T 17519-2013 and GB/T 16483-2008

- Chinese (standard Mandarin)
- English

More languages are available upon request.

As regulations are updated and expanded, Agilent will maintain up-to-date records online at **www.agilent.com**

Tips and tools

To view our entire portfolio of over 7,000 standards, all manufactured under ISO 17025 Guide 34, visit **www.agilent.com/chem/standards**

Single Element Inorganic Standards

Agilent ISO Guide 34 certified reference materials (CRM)

As technology improves and regulatory bodies keep pace with the identification of new analytes and detection limits, setting new regulatory requirements, certified reference material producers must stay ahead of the curve with better-defined standards and calibrators. In the absence of ISO Guide 34 CRM, laboratory technicians undertake the time-consuming task of assessing and documenting the uncertainties of calibration standards in use.

ISO Guide 34 accreditation requires the CRM manufacturer to identify and document the major uncertainties, including homogeneity, short-term stability, long-term stability, and analytical characterization. Agilent fulfills international requirements with ISO Guide 34 CRM at ideal concentrations of 10 and 1,000 ppm for a complete line of inorganic standards.

All products are provided with an ISO Guide 34 Certificate of Analysis, prepared according to ISO Guide 34.

Single Element CRM

Element	Volume	Part No. 1,000 µg/mL	Part No. 10 µg/mL
Aluminum (Al)	125 mL	ICP-313	ICP-413
Antimony (Sb)	125 mL	ICP-351	ICP-451
Arsenic (As)	125 mL	ICP-333	ICP-433
Barium (Ba)	125 mL	ICP-356	ICP-456
Beryllium (Be)	125 mL	ICP-304	ICP-404
Boron (B)	125 mL	ICP-305	ICP-405
Cadmium (Cd)	125 mL	ICP-348	ICP-448
Calcium (Ca)	125 mL	ICP-320	ICP-420
Chromium (Cr)	125 mL	ICP-324	ICP-424
Hexavalent chromium (Cr(VI))	125 mL	ICP-324A	ICP-424A
Copper (Cu)	125 mL	ICP-329	ICP-429
Cobalt (Co)	125 mL	ICP-327	ICP-427
Gold (Au)	125 mL	ICP-379	ICP-479
Iron (Fe)	125 mL	ICP-326	ICP-426
Lead (Pb)	125 mL	ICP-382	ICP-482
Lithium (Li)	125 mL	ICP-303	ICP-403
Manganese (Mn)	125 mL	ICP-325	ICP-425
Magnesium (Mg)	125 mL	ICP-312	ICP-412
Mercury (Hg)	125 mL	ICP-380	ICP-480
Molybdenum (Mo)	125 mL	ICP-342	ICP-442

(Continued)

Single Element CRM

Element	Volume	Part No. 1,000 µg/mL	Part No. 10 µg/mL
Nickel (Ni)	125 mL	ICP-328	ICP-428
Phosphorus (P)	125 mL	ICP-315	ICP-415
Potassium (K)	125 mL	ICP-319	ICP-419
Selenium (Se)	125 mL	ICP-334	ICP-434
Silicon (Si)	125 mL	ICP-314	ICP-414
Silver (Ag)	125 mL	ICP-347	ICP-447
Sodium (Na)	125 mL	ICP-311	ICP-411
Strontium (Sr)	125 mL	ICP-338	ICP-438
Sulfur (S)	125 mL	ICP-316	ICP-416
Thallium (Tl)	125 mL	ICP-381	ICP-481
Tin (Sn)	125 mL	ICP-350	ICP-450
Titanium (Ti)	125 mL	ICP-322	ICP-422
Vanadium (V)	125 mL	ICP-323	ICP-423
Zinc (Zn)	125 mL	ICP-330	ICP-430

Anion and Cation CRM

Element	Volume	Part No. 1,000 µg/mL
Ammonium	125 mL	ICC-451
Bromide	125 mL	ICC-401
Chloride	125 mL	ICC-402
Fluoride	125 mL	ICC-403
Free cyanide	125 mL	ICC-408
Nitrate	125 mL	ICC-404
Phosphate	125 mL	ICC-405
Sulfate	125 mL	ICC-406

Tips and tools

To view our entire portfolio of over 7,000 standards, all manufactured under ISO 17025 Guide 34, visit **www.agilent.com/chem/standards**

Single element standards for ICP-OES and ICP-MS

Agilent quality

- Manufactured in accordance with ISO Guide 34 and under our ISO 9001 registered quality system
- Analyte concentrations are verified by our ISO 17025 accredited laboratory
- Starting materials have a purity of 99.999% (ICP), wherever possible
- High-purity acids and ASTM Type I water (>18 MΩ)
- Traceable to NIST SRM, wherever possible
- Analyzed for trace metal impurities
- Confirmed against an independent second-source standard
- Packaged in an ISO Class 7 clean room



ICP-027

(see **Page 11**)

Agilent ISO Guide 34 RM for Single Element Solution Standards for ICP-OES/ICP-MS

Element	SRM NIST	Volume	Part No. 1,000 µg/mL	Part No. 10,000 µg/mL	Kit No. EnviroConcentrate*
Aluminum (Al) in dilute HNO_3	3101	125 mL	ICP-013	ICP-113	ECK-013
		1 L	ICP-013-L	ICP-113-L	
Antimony (Sb) in dilute HNO_3 /trace tartaric	3102	125 mL	ICP-051	ICP-151	ECK-051
		1 L	ICP-051-L	ICP-151-L	
Arsenic (As) in dilute HNO_3	3103	125 mL	ICP-033	ICP-133	ECK-033
		1 L	ICP-033-L	ICP-133-L	
Barium (Ba) in dilute HNO_3	3104	125 mL	ICP-056	ICP-156	ECK-056
		1 L	ICP-056-L	ICP-156-L	
Beryllium (Be) in dilute HNO_3	3105	125 mL	ICP-004	ICP-104	ECK-004
		1 L	ICP-004-L	ICP-104-L	
Bismuth (Bi) in dilute HNO_3	3106	125 mL	ICP-083	ICP-183	–
		1 L	ICP-083-L	–	
Boron (B) in H_2O/trace NH_4OH	3107	125 mL	ICP-005	ICP-105	ECK-005
		1 L	ICP-005-L	ICP-105-L	
Cadmium (Cd) in dilute HNO_3	3108	125 mL	ICP-048	ICP-148	ECK-048
		1 L	ICP-048-L	ICP-148-L	
Calcium (Ca) in dilute HNO_3	3109	125 mL	ICP-020	ICP-120	ECK-020
		1 L	ICP-020-L	ICP-120-L	
Cerium (Ce) in dilute HNO_3	3110	125 mL	ICP-058	ICP-158	–
		1 L	ICP-058-L	–	
Cesium (Cs) in dilute HNO_3	3111	125 mL	ICP-055	ICP-155	–
		1 L	ICP-055-L	–	

*Save on hazardous shipping charges

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Agilent ISO Guide 34 RM for Single Element Solution Standards for ICP-OES/ICP-MS

Element	SRM NIST	Volume	Part No. 1,000 µg/mL	Part No. 10,000 µg/mL	Kit No. EnviroConcentrate*
Chromium (Cr) in dilute HNO_3	3112	125 mL	ICP-024	ICP-124	ECK-024
			ICP-024-L	ICP-124-L	
Hexavalent chromium (Cr(VI)) in H_2O	3112	125 mL	ICP-024A	–	–
		1 L	ICP-024A-L	–	
Cobalt (Co) in dilute HNO_3	3113	125 mL	ICP-027	ICP-127	ECK-027
		1 L	ICP-027-L	ICP-127-L	
Copper (Cu) in dilute HNO_3	3114	125 mL	ICP-029	ICP-129	ECK-029
		1 L	ICP-029-L	ICP-129-L	
Dysprosium (Dy) in dilute HNO_3	3115	125 mL	ICP-066	ICP-166	–
		1 L	ICP-066-L	–	
Erbium (Er) in dilute HNO_3	3116	125 mL	ICP-068	ICP-168	–
		1 L	ICP-068-L	–	
Europium (Eu) in dilute HNO_3	3117	125 mL	ICP-063	ICP-163	–
		1 L	ICP-063-L	–	
Gadolinium (Gd) in dilute HNO_3	3118	125 mL	ICP-064	ICP-164	–
		1 L	ICP-064-L	–	
Gallium (Ga) in dilute HNO_3	3119	125 mL	ICP-031	ICP-131	–
		1 L	ICP-031-L	–	
Germanium (Ge) in H_2O /trace HF	3120	125 mL	ICP-032	ICP-132	–
		1 L	ICP-032-L	–	
Gold (Au) in dilute HCl	3121	125 mL	ICP-079	ICP-179	–
		1 L	ICP-079-L	ICP-179-L	
Hafnium (Hf) in dilute HCl	3122	125 mL	ICP-072	ICP-172	–
		1 L	ICP-072-L	–	
Holmium (Ho) in dilute HNO_3	3123	125 mL	ICP-067	ICP-167	–
		1 L	ICP-067-L	–	
Indium (In) in dilute HNO_3	3124	125 mL	ICP-049	ICP-149	–
		1 L	ICP-049-L	–	
Iridium (Ir) in dilute HCl	N/A	125 mL	ICP-077	ICP-177	–
		1 L	ICP-077-L	–	
Iron (Fe) in dilute HNO_3	3126	125 mL	ICP-026	ICP-126	ECK-026
		1 L	ICP-026-L	ICP-126-L	
Lanthanum (La) in dilute HNO_3	3127	125 mL	ICP-057	ICP-157	–
		1 L	ICP-057-L	–	

*Save on hazardous shipping charges

(Continued)

Agilent ISO Guide 34 RM for Single Element Solution Standards for ICP-OES/ICP-MS

Element	SRM NIST	Volume	Part No. 1,000 µg/mL	Part No. 10,000 µg/mL	Kit No. EnviroConcentrate*
Lead (Pb) in dilute HNO_3	3128	125 mL	ICP-082	ICP-182	ECK-082
		1 L	ICP-082-L	ICP-182-L	
Lithium (Li) in dilute HNO_3	3129	125 mL	ICP-003	ICP-103	ECK-003
		1 L	ICP-003-L	ICP-103-L	
Lutetium (Lu) in dilute HNO_3	3130	125 mL	ICP-071	ICP-171	–
		1 L	ICP-071-L	–	
Magnesium (Mg) in dilute HNO_3	3131	125 mL	ICP-012	ICP-112	ECK-012
		1 L	ICP-012-L	ICP-112-L	
Manganese (Mn) in dilute HNO_3	3132	125 mL	ICP-025	ICP-125	ECK-025
		1 L	ICP-025-L	ICP-125-L	
Mercury (Hg) in dilute HNO_3	3133	125 mL	ICP-080	ICP-180	ECK-080
		1 L	ICP-080-L	ICP-180-L	
Molybdenum (Mo) in H_2O /trace NH_4OH	3134	125 mL	ICP-042	ICP-142	ECK-042
		1 L	ICP-042-L	ICP-142-L	
Neodymium (Nd) in dilute HNO_3	3135	125 mL	ICP-060	ICP-160	–
		1 L	ICP-060-L	–	
Nickel (Ni) in dilute HNO_3	3136	125 mL	ICP-028	ICP-128	ECK-028
		1 L	ICP-028-L	ICP-128-L	
Niobium (Nb) in H_2O/trace HF	3137	125 mL	ICP-041	ICP-141	–
		1 L	ICP-041-L	–	
Palladium (Pd) in dilute HNO_3	3138	125 mL	ICP-046	ICP-146	–
		1 L	ICP-046-L	–	
Phosphorus (P) in dilute HNO_3	3139	125 mL	ICP-015	ICP-115	ECK-015
		1 L	ICP-015-L	ICP-115-L	
Platinum (Pt) in dilute HCl	3140	125 mL	ICP-078	ICP-178	–
		1 L	ICP-078-L	ICP-178-L	
Potassium (K) in dilute HNO_3	3141	125 mL	ICP-019	ICP-119	ECK-019
		1 L	ICP-019-L	ICP-119-L	
Praseodymium (Pr) in dilute HNO_3	3142	125 mL	ICP-059	ICP-159	–
		1 L	ICP-059-L	–	
Rhenium (Re) in H_2O	3143	125 mL	ICP-075	ICP-175	–
		1 L	ICP-075-L	–	
Rhodium (Rh) in dilute HCl	3144	125 mL	ICP-045	–	–
		1 L	–	–	

*Save on hazardous shipping charges

(Continued)

Agilent ISO Guide 34 RM for Single Element Solution Standards for ICP-OES/ICP-MS

Element	SRM NIST	Volume	Part No. 1,000 µg/mL	Part No. 10,000 µg/mL	Kit No. EnviroConcentrate*
Rubidium (Rb) in dilute HNO_3	3145	125 mL	ICP-037	ICP-137	–
		1 L	ICP-037-L	–	
Ruthenium (Ru) in dilute HCl	N/A	125 mL	ICP-044	ICP-144	–
		1 L	ICP-044-L	–	
Samarium (Sm) in dilute HNO_3	3147	125 mL	ICP-062	ICP-162	–
		1 L	ICP-062-L	–	
Scandium (Sc) in dilute HNO_3	3148	125 mL	ICP-021	ICP-121	–
		1 L	ICP-021-L	ICP-121-L	
Selenium (Se) in dilute HNO_3	3149	125 mL	ICP-034	ICP-134	ECK-034
		1 L	ICP-034-L	ICP-134-L	
Silicon (Si) in dilute HNO_3	3150	125 mL	ICP-014	ICP-114	ECK-014
		1 L	ICP-014-L	ICP-114-L	
Silica (SiO_2) in dilute NaOH	N/A	125 mL	ICP-014A	–	–
		1 L	ICP-014A-L	–	
Silver (Ag) in dilute HNO_3	3151	125 mL	ICP-047	ICP-147	ECK-047
		1 L	ICP-047-L	ICP-147-L	
Sodium (Na) in dilute HNO_3	3152	125 mL	ICP-011	ICP-111	ECK-011
		1 L	ICP-011-L	ICP-111-L	
Strontium (Sr) in dilute HNO_3	3153	125 mL	ICP-038	ICP-138	ECK-038
		1 L	ICP-038-L	ICP-138-L	
Sulfur (S) in H_2O	3154	125 mL	ICP-016	ICP-116	–
		1 L	ICP-016-L	ICP-116-L	
Tantalum (Ta) in H_2O/trace HF	3155	125 mL	ICP-073	ICP-173	–
		1 L	ICP-073-L	–	
Tellurium (Te) in dilute HCl	3156	125 mL	ICP-052	ICP-152	–
		1 L	ICP-052-L	–	
Terbium (Tb) in dilute HNO_3	3157	125 mL	ICP-065	ICP-165	–
		1 L	ICP-065-L	–	
Thallium (Tl) in dilute HNO_3	3158	125 mL	ICP-081	ICP-181	ECK-081
		1 L	ICP-081-L	ICP-181-L	
Thorium (Th) in dilute HNO_3	3159	125 mL	ICP-090	ICP-190	–
		1 L	ICP-090-L	–	
Thulium (Tm) in dilute HNO_3	3160	125 mL	ICP-069	ICP-169	–
		1 L	ICP-069-L	–	

*Save on hazardous shipping charges

(Continued)

Agilent ISO Guide 34 RM for Single Element Solution Standards for ICP-OES/ICP-MS

Element	SRM NIST	Volume	Part No. 1,000 µg/mL	Part No. 10,000 µg/mL	Kit No. EnviroConcentrate*
Tin (Sn) in dilute HNO_3	3161	125 mL	ICP-050	ICP-150	ECK-050
		1 L	ICP-050-L	ICP-150-L	
Titanium (Ti) in dilute NH_4OH	3162	125 mL	ICP-022	ICP-122	ECK-022
		1 L	ICP-022-L	ICP-122-L	
Tungsten (W) in H_2O / trace NH_4OH	3163	125 mL	ICP-074	ICP-174	–
		1 L	ICP-074-L	–	
Uranium (U) in dilute HNO_3	3164	125 mL	ICP-092	ICP-192	–
		1 L	ICP-092-L	–	
Vanadium (V) in dilute HNO_3/trace HF	3165	125 mL	ICP-023	ICP-123	ECK-023
		1 L	ICP-023-L	ICP-123-L	
Ytterbium (Yb) in dilute HNO_3	3166	125 mL	ICP-070	ICP-170	–
		1 L	ICP-070-L	–	
Yttrium (Y) in dilute HNO_3	3167	125 mL	ICP-039	ICP-139	–
		1 L	ICP-039-L	–	
Zinc (Zn) in dilute HNO_3	3168	125 mL	ICP-030	ICP-130	ECK-030
		1 L	ICP-030-L	ICP-130-L	
Zirconium (Zr) in dilute HNO_3	3169	125 mL	ICP-040	ICP-140	–
		1 L	ICP-040-L	–	

*Save on hazardous shipping charges

Agilent has assembled all the necessary elemental standards required for Contract Laboratory Program (CLP) work. Each element is Agilent quality and traceable to a NIST SRM.

Single Element Kit for the CLP

Description	Elements				Part No.
Kit, 23 bottles, at 1,000 µg/mL	Aluminum (Al) Antimony (Sb) Arsenic (As) Barium (Ba) Beryllium (Be) Cadmium (Cd)	Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb)	Magnesium (Mg) Manganese (Mn) Mercury (Hg) Nickel (Ni) Potassium (K) Selenium (Se)	Silver (Ag) Sodium (Na) Thallium (Tl) Vanadium (V) Zinc (Zn)	ICPK-3



ICP-029

(see **Page 11**)

Single element standards for AA and MP-AES

Agilent quality

- Manufactured in accordance with ISO Guide 34 and under our ISO 9001 registered quality system
- Analyte concentrations verified by our ISO 17025 accredited laboratory
- Starting materials have a purity of 99.999% (ICP), wherever possible
- High-purity acids and ASTM Type I water (>18 MΩ)
- Traceable to NIST SRM, wherever possible
- Analyzed for trace metal impurities
- Confirmed against an independent second-source standard
- Packaged in an ISO Class 7 clean room

Agilent NIST Traceable Single Element Solution Standards for AA and MP-AES

Element	Volume	Part No. 1,000 µg/mL
Aluminum (Al), in dilute HNO_3	125 mL	IAA-213
Antimony (Sb), in dilute HNO_3/trace tartaric	125 mL	IAA-251
Arsenic (As), in dilute HNO_3	125 mL	IAA-233
Barium (Ba), in dilute HNO_3	125 mL	IAA-256
Beryllium (Be), in dilute HNO_3	125 mL	IAA-204
Bismuth (Bi), in dilute HNO_3	125 mL	IAA-283
Boron (B), in H_2O/trace NH_4OH	125 mL	IAA-205
Cadmium (Cd), in dilute HNO_3	125 mL	IAA-248
Calcium (Ca), in dilute HNO_3	125 mL	IAA-220
Cerium (Ce), in dilute HNO_3	125 mL	IAA-258
Cesium (Cs), in dilute HNO_3	125 mL	IAA-255
Chromium (Cr), in dilute HNO_3	125 mL	IAA-224
Cobalt (Co), in dilute HNO_3	125 mL	IAA-227
Copper (Cu), in dilute HNO_3	125 mL	IAA-229
Dysprosium (Dy), in dilute HNO_3	125 mL	IAA-266
Erbium (Er), in dilute HNO_3	125 mL	IAA-268
Europium (Eu), in dilute HNO_3	125 mL	IAA-263
Gadolinium (Gd), in dilute HNO_3	125 mL	IAA-264
Gallium (Ga), in dilute HNO_3	125 mL	IAA-231
Germanium (Ge), in H_2O/trace HF	125 mL	IAA-232
Gold (Au), in dilute HCl	125 mL	IAA-279
Hafnium (Hf), in dilute HCl	125 mL	IAA-272

(Continued)

Agilent NIST Traceable Single Element Solution Standards for AA and MP-AES

Element	Volume	Part No. 1,000 µg/mL
Holmium (Ho), in dilute HNO_3	125 mL	IAA-267
Indium (In), in dilute HNO_3	125 mL	IAA-249
Iridium (Ir), in dilute HCl	125 mL	IAA-277
Iron (Fe), in dilute HNO_3	125 mL	IAA-226
Lanthanum (La), in dilute HNO_3	125 mL	IAA-257
Lead (Pb), in dilute HNO_3	125 mL	IAA-282
Lithium (Li), in dilute HNO_3	125 mL	IAA-203
Lutetium (Lu), in dilute HNO_3	125 mL	IAA-271
Magnesium (Mg), in dilute HNO_3	125 mL	IAA-212
Manganese (Mn), in dilute HNO_3	125 mL	IAA-225
Mercury (Hg), in dilute HNO_3	125 mL	IAA-280
Molybdenum (Mo), in H_2O/trace NH_4OH	125 mL	IAA-242
Neodymium (Nd), in dilute HNO_3	125 mL	IAA-260
Nickel (Ni), in dilute HNO_3	125 mL	IAA-228
Niobium (Nb), in H_2O/trace HF	125 mL	IAA-241
Palladium (Pd), in dilute HNO_3	125 mL	IAA-246
Phosphorus (P), in dilute HNO_3	125 mL	IAA-215
Platinum (Pt), in dilute HCl	125 mL	IAA-278
Potassium (K), in dilute HNO_3	125 mL	IAA-219
Praseodymium (Pr), in dilute HNO_3	125 mL	IAA-259
Rhenium (Re), in H_2O	125 mL	IAA-275
Rhodium (Rh), in dilute HCl	125 mL	IAA-245

(Continued)

Agilent NIST Traceable Single Element Solution Standards for AA and MP-AES

Element	Volume	Part No. 1,000 µg/mL
Rubidium (Rb), in dilute HNO_3	125 mL	IAA-237
Ruthenium (Ru), in dilute HCl	125 mL	IAA-244
Samarium (Sm), in dilute HNO_3	125 mL	IAA-262
Scandium (Sc), in dilute HNO_3	125 mL	IAA-221
Selenium (Se), in dilute HNO_3	125 mL	IAA-234
Silicon (Si), in dilute HNO_3	125 mL	IAA-214
Silver (Ag), in dilute HNO_3	125 mL	IAA-247
Sodium (Na), in dilute HNO_3	125 mL	IAA-211
Strontium (Sr), in dilute HNO_3	125 mL	IAA-238
Sulfur (S), in H_2O	125 mL	IAA-216
Tantalum (Ta), in H_2O / trace HF	125 mL	IAA-273
Tellurium (Te), in dilute HCl	125 mL	IAA-252
Terbium (Tb), in dilute HNO_3	125 mL	IAA-265

(Continued)

Agilent NIST Traceable Single Element Solution Standards for AA and MP-AES

Element	Volume	Part No. 1,000 µg/mL
Thallium (Tl), in dilute HNO_3	125 mL	IAA-281
Thorium (Th), in dilute HNO_3	125 mL	IAA-290
Thulium (Tm), in dilute HNO_3	125 mL	IAA-269
Tin (Sn), in dilute HNO_3	125 mL	IAA-250
Titanium (Ti), in dilute HNO_3	125 mL	IAA-222
Tungsten (W), in H_2O/trace NH_4OH	125 mL	IAA-274
Uranium (U), in dilute HNO_3	125 mL	IAA-292
Vanadium (V), in dilute HNO_3/trace HF	125 mL	IAA-223
Ytterbium (Yb), in dilute HNO_3	125 mL	IAA-270
Yttrium (Y), in dilute HNO_3	125 mL	IAA-239
Zinc (Zn), in dilute HNO_3	125 mL	IAA-230
Zirconium (Zr), in dilute HNO_3	125 mL	IAA-240

EnviroConcentrates: A unique product for all atomic spectroscopy techniques

Agilent quality AA standards, without the hazardous material fees

High concentration (10,000 µg/mL) Agilent standards are ideally suited for:

- Elimination of hazardous material fees. If you require a standard to be shipped overnight, EnviroConcentrates can be easily shipped without incurring hazardous material fees.
- Calibration curve construction. At 10,000 µg/mL, EnviroConcentrates can be easily diluted to produce any additional concentrations required.
- Custom blends. EnviroConcentrates offer convenient and economical stock solutions for preparing in-house custom blends.

EnviroConcentrates for all atomic spectroscopy techniques

- No hazardous material fees
- 10 mL of analyte solution at 10,000 µg/mL
- Starting materials 99.999% pure, wherever possible
- NIST SRM traceable, wherever possible
- Yields 1 x 100 mL of standard at 1,000 µg/mL

EnviroConcentrates for AA

Element	Volume	Part No.
Aluminum (Al), in dilute HNO_3	10 mL	IAA-013
Antimony (Sb), in dilute HNO_3/trace tartaric	10 mL	IAA-051
Arsenic (As), in dilute HNO_3	10 mL	IAA-033
Barium (Ba), in dilute HNO_3	10 mL	IAA-056
Beryllium (Be), in dilute HNO_3	10 mL	IAA-004
Bismuth (Bi), in dilute HNO_3	10 mL	IAA-083
Boron (B), in H_2O/trace NH_4OH	10 mL	IAA-005
Cadmium (Cd), in dilute HNO_3	10 mL	IAA-048
Calcium (Ca), in dilute HNO_3	10 mL	IAA-020
Cerium (Ce), in dilute HNO_3	10 mL	IAA-058
Cesium (Cs), in dilute HNO_3	10 mL	IAA-055
Chromium (Cr), in dilute HNO_3	10 mL	IAA-024
Cobalt (Co), in dilute HNO_3	10 mL	IAA-027
Copper (Cu), in dilute HNO_3	10 mL	IAA-029
Dysprosium (Dy), in dilute HNO_3	10 mL	IAA-066
Erbium (Er), in dilute HNO_3	10 mL	IAA-068
Europium (Eu), in dilute HNO_3	10 mL	IAA-063
Gadolinium (Gd), in dilute HNO_3	10 mL	IAA-064
Gallium (Ga), in dilute HNO_3	10 mL	IAA-031
Germanium (Ge), in H_2O/trace HF	10 mL	IAA-032
Holmium (Ho), in dilute HNO_3	10 mL	IAA-067
Indium (In), in dilute HNO_3	10 mL	IAA-049
Iron (Fe), in dilute HNO_3	10 mL	IAA-026
Lanthanum (La), in dilute HNO_3	10 mL	IAA-057
Lead (Pb), in dilute HNO_3	10 mL	IAA-082
Lithium (Li), in dilute HNO_3	10 mL	IAA-003
Magnesium (Mg), in dilute HNO_3	10 mL	IAA-012
Manganese (Mn), in dilute HNO_3	10 mL	IAA-025
Mercury (Hg), in dilute HNO_3	10 mL	IAA-080

EnviroConcentrates for AA

Element	Volume	Part No.
Molybdenum (Mo), in H_2O/trace NH_4OH	10 mL	IAA-042
Neodymium (Nd), in dilute HNO_3	10 mL	IAA-060
Nickel (Ni), in dilute HNO_3	10 mL	IAA-028
Niobium (Nb), in H_2O/trace HF	10 mL	IAA-041
Phosphorus (P), in dilute HNO_3	10 mL	IAA-015
Potassium (K), in dilute HNO_3	10 mL	IAA-019
Praseodymium (Pr), in dilute HNO_3	10 mL	IAA-059
Samarium (Sm), in dilute HNO_3	10 mL	IAA-062
Selenium (Se), in dilute HNO_3	10 mL	IAA-034
Silicon (Si), in H_2O	10 mL	IAA-014
Silver (Ag), in dilute HNO_3	10 mL	IAA-047
Sodium (Na), in dilute HNO_3	10 mL	IAA-011
Strontium (Sr), in dilute HNO_3	10 mL	IAA-038
Sulfur (S), in H_2O	10 mL	IAA-016
Tantalum (Ta), in H_2O/trace HF	10 mL	IAA-073
Tellurium (Te), in dilute HCl	10 mL	IAA-052
Terbium (Tb), in dilute HNO_3	10 mL	IAA-065
Thallium (Tl), in dilute HNO_3	10 mL	IAA-081
Thorium (Th), in dilute HNO_3	10 mL	IAA-090
Tin (Sn), in H_2O	10 mL	IAA-050
Titanium (Ti), in H_2O/trace HF	10 mL	IAA-022
Tungsten (W), in H_2O/trace NH_4OH	10 mL	IAA-074
Uranium (U), in dilute HNO_3	10 mL	IAA-092
Vanadium (V), in dilute HNO_3/trace HF	10 mL	IAA-023
Ytterbium (Yb), in dilute HNO_3	10 mL	IAA-070
Yttrium (Y), in dilute HNO_3	10 mL	IAA-039
Zinc (Zn), in dilute HNO_3	10 mL	IAA-030
Zirconium (Zr), in dilute HNO_3	10 mL	IAA-040

Multi-Element Inorganic Standards

Agilent prepares hundreds of inorganic solutions that meet or exceed all testing requirements for use in EPA methods, the Contract Laboratory Program, and ion chromatography methods.

Agilent quality

- Manufactured in accordance with ISO Guide 34 and under our ISO 9001 registered quality system
- Analyte concentrations are verified by our ISO 17025 accredited laboratory
- Starting materials have a purity of 99.999% (ICP) and 99.99% (AA), wherever possible
- High-purity acids and ASTM Type I water (>18 MΩ)
- Traceable to NIST SRM, wherever possible
- Analyzed for trace metal impurities
- Confirmed against an independent second-source standard

Inorganic quality control standards

- NIST traceable
- Agilent certificate of analysis
- Starting materials are 99.999% pure, wherever possible

Quality Control Standards

Description	Analytes and Concentration				Total Vol.	Part No.
Quality control standard 1 7 analytes, in 5% HNO_3	Aluminum (Al) Barium (Ba) Boron (B) Potassium (K)	100 µg/mL 100 µg/mL 100 µg/mL 1,000 µg/mL	Silicon (Si) Silver (Ag) Sodium (Na)	50 µg/mL 100 µg/mL 100 µg/mL	125 mL 500 mL	IQC-007 IQC-007-5
Quality control standard 2 19 analytes, in 5% HNO_3	Antimony (Sb) Arsenic (As) Beryllium (Be) Cadmium (Cd) Calcium (Ca)	Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb)	Magnesium (Mg) Manganese (Mn) Molybdenum (Mo) Nickel (Ni) Selenium (Se)	Thallium (Tl) Titanium (Ti) Vanadium (V) Zinc (Zn)	125 mL 500 mL	IQC-019 IQC-019-5
Quality control standard 3 26 analytes, in 5% HNO_3	Aluminum (Al) Antimony (Sb) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb)	100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	Magnesium (Mg) Manganese (Mn) Molybdenum (Mo) Nickel (Ni) Potassium (K) Selenium (Se) Silicon (Si) Silver (Ag) Sodium (Na) Thallium (Tl) Titanium (Ti) Vanadium (V) Zinc (Zn)	100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 1,000 µg/mL 100 µg/mL 50 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	125 mL 500 mL	IQC-026 IQC-026-5

Quality Control Standards Kit

Description	Standards and Volume				Part No.
Kit, 2 bottles	IQC-007	125 mL	IQC-019	125 mL	IQCK

Agilent ICP-OES/ICP-MS multi-element reference standards

ICP-OES Calibration Standards

Description	Analytes and Concentration				Total Vol.	Part No.
ICP-OES calibration standard (I) 19 analytes, in 5% HNO_3	Aluminum (Al) Barium (Ba) Beryllium (Be) Bismuth (Bi) Boron (B) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Gallium (Ga)	100 µg/mL 5 µg/mL 1 µg/mL 200 µg/mL 15 µg/mL 20 µg/mL 25 µg/mL 20 µg/mL 20 µg/mL 150 µg/mL	Indium (In) Iron (Fe) Lead (Pb) Manganese (Mn) Nickel (Ni) Silver (Ag) Strontium (Sr) Thallium (Tl) Zinc (Zn)	200 µg/mL 15 µg/mL 200 µg/mL 5 µg/mL 50 µg/mL 50 µg/mL 1 µg/mL 400 µg/mL 20 µg/mL	125 mL	ICM-102
ICP-OES calibration standard (IV) 23 analytes, in 5% HNO_3	Aluminum (Al) Barium (Ba) Bismuth (Bi) Boron (B) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Gallium (Ga) Indium (In) Iron (Fe)	1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL	Lead (Pb) Lithium (Li) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Silver (Ag) Sodium (Na) Strontium (Sr) Thallium (Tl) Zinc (Zn)	1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL 1,000 µg/mL	125 mL	ICM-103
ICP-OES calibration standard (VIII) 24 analytes, in 5% HNO_3, with trace HCl	Aluminum (Al) Barium (Ba) Beryllium (Be) Bismuth (Bi) Boron (B) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Gallium (Ga) Iron (Fe)	100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	Lead (Pb) Lithium (Li) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Selenium (Se) Sodium (Na) Strontium (Sr) Tellurium (Te) Thallium (Tl) Zinc (Zn)	100 µg/mL 100 µg/mL 1,000 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	125 mL	ICM-101
ICP-OES calibration standard – toxic elements (IX) 9 analytes, in 5% HNO_3	Arsenic (As) Beryllium (Be) Cadmium (Cd) Chromium (VI) (Cr^{6+}) Lead (Pb)	100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	Mercury (Hg) Nickel (Ni) Selenium (Se) Thallium (Tl)	100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	125 mL	ICM-105

(Continued)

ICP-OES Calibration Standards

Description	Analytes and Concentration				Total Vol.	Part No.
ICP-OES calibration standard – surface water (X) 23 analytes, in 5% HNO_3, with trace HF	Arsenic (As) Barium (Ba) Beryllium (Be) Bismuth (Bi) Boron (B) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb)	50 ng/mL 50 ng/mL 20 ng/mL 10 ng/mL 100 ng/mL 20 ng/mL 35,000 ng/mL 20 ng/mL 25 ng/mL 20 ng/mL 100 ng/mL 25 ng/mL	Magnesium (Mg) Manganese (Mn) Molybdenum (Mo) Nickel (Ni) Potassium (K) Selenium (Se) Sodium (Na) Strontium (Sr) Thallium (Tl) Vanadium (V) Zinc (Zn)	15,000 ng/mL 30 ng/mL 100 ng/mL 50 ng/mL 3,000 ng/mL 10 ng/mL 8,000 ng/mL 100 ng/mL 10 ng/mL 50 ng/mL 50 ng/mL	125 mL	ICM-106
ICP-OES calibration standard – sewage sludge (XI) 7 analytes, in 5% HNO_3	Cadmium (Cd) Chromium (Cr) Copper (Cu) Mercury (Hg)	10 µg/mL 900 µg/mL 800 µg/mL 8 µg/mL	Nickel (Ni) Lead (Pb) Zinc (Zn)	200 µg/mL 900 µg/mL 2,500 µg/mL	125 mL	ICM-109
ICP-OES calibration standard – trace metals (XIII) 15 analytes, in 5% HNO_3, with trace HF	Aluminum (Al) Arsenic (As) Beryllium (Be) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe)	500 µg/mL 100 µg/mL 100 µg/mL 25 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	Lead (Pb) Manganese (Mn) Mercury (Hg) Nickel (Ni) Selenium (Se) Vanadium (V) Zinc (Zn)	100 µg/mL 100 µg/mL 5 µg/mL 100 µg/mL 25 µg/mL 250 µg/mL 100 µg/mL	125 mL	ICM-104
ICP-OES calibration standard – quality control (XVI) 21 analytes, in 5% HNO_3, with trace HF, tartaric acid	Antimony (Sb) Arsenic (As) Beryllium (Be) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Lithium (Li)	100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	Magnesium (Mg) Manganese (Mn) Molybdenum (Mo) Nickel (Ni) Selenium (Se) Strontium (Sr) Thallium (Tl) Titanium (Ti) Vanadium (V) Zinc (Zn)	100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	125 mL	ICM-108
ICP-OES calibration standard – earth alkali elements (III) 4 analytes, in 5% HNO_3	Barium (Ba) Calcium (Ca)	1,000 µg/mL 1,000 µg/mL	Magnesium (Mg) Strontium (Sr)	1,000 µg/mL 1,000 µg/mL	125 mL	ICM-100
ICP-OES calibration standard – HCl soluble elements (XVII) 7 analytes, in 15% HCl, with trace HNO_3, HF, tartaric acid	Antimony (Sb) Hafnium (Hf) Iridium (Ir) Tantalum (Ta)	100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	Tin (Sn) Titanium (Ti) Zirconium (Zr)	100 µg/mL 100 µg/mL 100 µg/mL	125 mL	ICM-107

Tips and tools

To view our entire portfolio of over 7,000 standards, all manufactured under ISO 17025 Guide 34, visit **www.agilent.com/chem/standards**

ICP-OES, GFAA, and ion chromatography standards

ICP-OES, GFAA, and Ion Chromatography Standards

Description	Analytes and Concentration				Total Vol.	Part No.
ICP-OES wavelength calibration standard (V) 26 analytes, in 5% HNO_3, with trace HF	Aluminum (Al) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Copper (Cu) Iron (Fe) Lead (Pb) Lithium (Li) Magnesium (Mg)	20 µg/mL 20 µg/mL 2 µg/mL 1 µg/mL 2 µg/mL 2 µg/mL 10 µg/mL 2 µg/mL 2 µg/mL 2 µg/mL 20 µg/mL 2 µg/mL 1 µg/mL	Manganese (Mn) Mercury (Hg) Nickel (Ni) Phosphorus (P) Potassium (K) Scandium (Sc) Selenium (Se) Sodium (Na) Strontium (Sr) Tellurium (Te) Titanium (Ti) Yttrium (Y) Zinc (Zn)	1 µg/mL 5 µg/mL 5 µg/mL 10 µg/mL 100 µg/mL 1 µg/mL 20 µg/mL 20 µg/mL 1 µg/mL 20 µg/mL 2 µg/mL 1 µg/mL 2 µg/mL	500 mL	ICM-110-5
ICP-OES tuning standard (XXIV) 15 analytes, in 1% HNO_3	Aluminum (Al) Arsenic (As) Barium (Ba) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Lead (Pb)	50 µg/mL 50 µg/mL 50 µg/mL 50 µg/mL 50 µg/mL 50 µg/mL 50 µg/mL 50 µg/mL	Manganese (Mn) Molybdenum (Mo) Nickel (Ni) Potassium (K) Selenium (Se) Strontium (Sr) Zinc (Zn)	50 µg/mL 50 µg/mL 50 µg/mL 500 µg/mL 50 µg/mL 50 µg/mL 50 µg/mL	500 mL	ICM-120
ICP-OES wavelength calibration standard (XIV) 11 analytes, in 2% HCl, with trace HNO_3	Arsenic (As) Lanthanum (La) Lithium (Li) Manganese (Mn) Molybdenum (Mo) Nickel (Ni)	20 µg/mL 20 µg/mL 20 µg/mL 20 µg/mL 20 µg/mL 20 µg/mL	Phosphorus (P) Potassium (K) Scandium (Sc) Sodium (Na) Sulfur (S)	100 µg/mL 100 µg/mL 20 µg/mL 20 µg/mL 100 µg/mL	500 mL	ICM-111-5
IC cations mixture (VII) 9 analytes, in 0.2% HNO_3	Ammonium (NH_4^+) Barium (Ba^{2+}) Calcium (Ca^{2+}) Lithium (Li^+) Magnesium (Mg^{2+})	100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	Manganese (Mn) Potassium (K^+) Sodium (Na^+) Strontium (Sr^{2+})	100 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL	125 mL	ICC-330
Graphite furnace AA calibration standard (XVIII) 16 analytes, in 5% HNO_3, with trace tartaric acid	Aluminum (Al) Antimony (Sb) Arsenic (As) Barium (Ba) Beryllium (Be) Cadmium (Cd) Chromium (Cr) Cobalt (Co)	100 µg/mL 100 µg/mL 100 µg/mL 50 µg/mL 5 µg/mL 5 µg/mL 20 µg/mL 50 µg/mL	Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Nickel (Ni) Selenium (Se) Silver (Ag) Thallium (Tl)	50 µg/mL 20 µg/mL 100 µg/mL 20 µg/mL 50 µg/mL 100 µg/mL 10 µg/mL 100 µg/mL	125 mL	ICM-150

ICP-MS standards

ICP-MS Standards

Description	Analytes and Concentration				Total Vol.	Part No.
ICP-MS calibration standard (XXI) 29 analytes, in 5% HNO_3	Aluminum (Al) Arsenic (As) Barium (Ba) Beryllium (Be) Bismuth (Bi) Cadmium (Cd) Calcium (Ca) Cesium (Cs) Chromium (Cr) Cobalt (Co) Copper (Cu) Gallium (Ga) Indium (In) Iron (Fe) Lead (Pb)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	Lithium (Li) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Rubidium (Rb) Selenium (Se) Silver (Ag) Sodium (Na) Strontium (Sr) Thallium (Tl) Uranium (U) Vanadium (V) Zinc (Zn)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	125 mL	IMS-102
ICP-MS calibration standard (VI) 30 analytes, in 5% HNO_3, with trace HF	Aluminum (Al) Arsenic (As) Barium (Ba) Beryllium (Be) Bismuth (Bi) Boron (B) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Gallium (Ga) Iron (Fe) Lead (Pb) Lithium (Li)	10 µg/mL 100 µg/mL 10 µg/mL 100 µg/mL 10 µg/mL 100 µg/mL 10 µg/mL 1,000 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 100 µg/mL 10 µg/mL 10 µg/mL	Magnesium (Mg) Manganese (Mn) Molybdenum (Mo) Nickel (Ni) Potassium (K) Rubidium (Rb) Selenium (Se) Silver (Ag) Sodium (Na) Strontium (Sr) Tellurium (Te) Thallium (Tl) Uranium (U) Vanadium (V) Zinc (Zn)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 100 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 100 µg/mL	125 mL	ICM-120
ICP-MS mass calibration standard (XXIII) 15 analytes, in 5% HNO_3, with trace HCl	Barium (Ba) Boron (B) Cobalt (Co) Gallium (Ga) Indium (In) Iron (Fe) Lithium (Li) Lutetium (Lu)	1 ng/mL 1 ng/mL 1 ng/mL 1 ng/mL 1 ng/mL 1 ng/mL 1 ng/mL 1 ng/mL	Potassium (K) Rhodium (Rh) Scandium (Sc) Sodium (Na) Thallium (Tl) Uranium (U) Tttrium (Y)	1 ng/mL 1 ng/mL 1 ng/mL 1 ng/mL 1 ng/mL 1 ng/mL 1 ng/mL	500 mL	IMS-130-5
ICP-MS plasma setup solution (XX) 11 analytes, in 1% HNO_3, with trace HF	Barium (Ba) Cerium (Ce) Cadmium (Cd) Copper (Cu) Germanium (Ge) Magnesium (Mg)	10 ng/mL 10 ng/mL 10 ng/mL 10 ng/mL 10 ng/mL 10 ng/mL	Lead (Pb) Rhodium (Rh) Scandium (Sc) Terbium (Tb) Thallium (Tl)	10 ng/mL 10 ng/mL 10 ng/mL 10 ng/mL 10 ng/mL	1 L	IMS-133-L
Mercury ICP-MS standard (XXI) 1 analyte, in 5% HNO_3	Mercury (Hg)	10 µg/mL			125 mL	IMS-121
ICP-MS optimization standard (XXII) 5 analytes, in 2% HNO_3, with trace HCl	Cadmium (Cd) Copper (Cu) Lead (Pb)	200 ng/mL 200 ng/mL 200 ng/mL	Magnesium (Mg) Rhodium (Rh)	200 ng/mL 200 ng/mL	125 mL	IMS-131
ICP-MS detection limit standard (XIX) 5 analytes, in 1% HNO_3	Beryllium (Be) Cobalt (Co) Indium (In)	10 ng/mL 10 ng/mL 10 ng/mL	Thallium (Tl) Uranium (U)	10 ng/mL 10 ng/mL	125 mL	IMS-132

EPA Method 200.7 Revisions 4.4 and 3.3: Metals and trace elements by ICP-AES

Mixed Calibration Standards

Description	Analytes and Concentration				Total Vol.	Part No.
Mixed calibration standard (CAL I) 10 analytes, in 2% HNO_3	Antimony (Sb) Arsenic (As) Barium (Ba) Boron (B) Cadmium (Cd)	5 µg/mL 10 µg/mL 1 µg/mL 1 µg/mL 2 µg/mL	Calcium (Ca) Copper (Cu) Manganese (Mn) Selenium (Se) Silver (Ag)	10 µg/mL 2 µg/mL 2 µg/mL 5 µg/mL 0.5 µg/mL	125 mL	ICM-231
Mixed calibration standard (CAL II) 5 analytes, in 2% HNO_3	Lithium (Li) Molybdenum (Mo) Potassium (K)	50 µg/mL 100 µg/mL 200 µg/mL	Sodium (Na) Strontium (Sr)	100 µg/mL 10 µg/mL	125 mL	ICM-232
Mixed calibration standard (CAL III) 3 analytes, in 2% HNO_3	Cobalt (Co) Phosphorus (P)	20 µg/mL 100 µg/mL	Vanadium (V)	20 µg/mL	125 mL	ICM-233
Mixed calibration standard (CAL IV) 5 analytes, in 2% HNO_3	Aluminum (Al) Chromium (Cr) Silicon (Si)	100 µg/mL 50 µg/mL 100 µg/mL	Tin (Sn) Zinc (Zn)	40 µg/mL 50 µg/mL	125 mL	ICM-234
Mercury standard (CAL IVa) 1 analyte, in 2% HNO_3	Mercury (Hg)	20 µg/mL			125 mL	ICM-642
Mixed calibration standard (CAL V) 6 analytes, in 2% HNO_3	Beryllium (Be) Iron (Fe) Lead (Pb)	10 µg/mL 100 µg/mL 100 µg/mL	Magnesium (Mg) Nickel (Ni) Thallium (Tl)	100 µg/mL 20 µg/mL 50 µg/mL	125 mL	ICM-235

EPA Method 200.7 Calibration Kit

Description	Standards and Volume				Part No.
Kit, 6 bottles	ICM-231 ICM-232 ICM-233	125 mL 125 mL 125 mL	ICM-234 ICM-235 ICM-642	125 mL 125 mL 125 mL	ICK-230A

Spectral interference check standards

Spectral Interference Check Standards

Description	Analytes and Concentration				Total Vol.	Part No.
Spectral interference check (SIC I) 1 analyte, in 2% HNO_3	Molybdenum (Mo)	50 µg/mL			125 mL	ICM-241
Spectral interference check (SIC II) 5 analytes, in 2% HNO_3	Chromium (Cr) Cobalt (Co) Copper (Cu)	50 µg/mL 50 µg/mL 50 µg/mL	Manganese (Mn) Vanadium (V)	50 µg/mL 50 µg/mL	125 mL	ICM-242
Spectral interference check (SIC III) 3 analytes, in 2% HNO_3	Aluminum (Al) Iron (Fe)	200 µg/mL 300 µg/mL	Nickel (Ni)	50 µg/mL	125 mL	ICM-243

Standards

Quality Control Standards

Description	Analytes and Concentration				Total Vol.	Part No.
Laboratory performance check solution (LPC) A 27 analytes, in 2% HNO_3	Aluminum (Al) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cerium (Ce) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Lithium (Li)	200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL	Magnesium (Mg) Manganese (Mn) Mercury (Hg) Nickel (Ni) Phosphorus (P) Potassium (K) Selenium (Se) Silver (Ag) Sodium (Na) Strontium (Sr) Thallium (Tl) Vanadium (V) Zinc (Zn)	200 µg/mL 200 µg/mL 200 µg/mL 1,000 µg/mL 1,000 µg/mL 200 µg/mL 25 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL	125 mL	ICM-240A
Laboratory performance check solution (LPC) B 5 analytes, in 2% HNO_3	Antimony (Sb) Molybdenum (Mo) Silicon (Si)	200 µg/mL 200 µg/mL 1,000 µg/mL	Tin (Sn) Titanium (Ti)	200 µg/mL 200 µg/mL	125 mL	ICM-240B
Laboratory performance check solution (LPC) C 25 analytes, in 2% HNO_3	Aluminum (Al) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Lithium (Li)	200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL	Magnesium (Mg) Manganese (Mn) Nickel (Ni) Phosphorus (P) Potassium (K) Selenium (Se) Silver (Ag) Sodium (Na) Strontium (Sr) Thallium (Tl) Vanadium (V) Zinc (Zn)	200 µg/mL 200 µg/mL 200 µg/mL 1,000 µg/mL 1,000 µg/mL 200 µg/mL 25 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL	125 mL	ICM-240C
Plasma solution 4 analytes, in 2% HNO_3	Arsenic (As) Lead (Pb)	10 µg/mL 10 µg/mL	Selenium (Se) Thallium (Tl)	10 µg/mL 10 µg/mL	125 mL	ICM-237
Tuning solution 2 analytes, in 2% HNO_3	Copper (Cu)	10 µg/mL	Lead (Pb)	10 µg/mL	125 mL	ICM-238

Quality Control Standards Kit

Description	Analytes and Concentration				Part No.
Solution 1 26 analytes, in 2% HNO_3	Aluminum (Al) Antimony (Sb) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Lithium (Li)	25 µg/mL 25 µg/mL 25 µg/mL 25 µg/mL 5 µg/mL 25 µg/mL 10 µg/mL 25 µg/mL 10 µg/mL 25 µg/mL 25 µg/mL 25 µg/mL 25 µg/mL	Manganese (Mn) Molybdenum (Mo) Nickel (Ni) Phosphorus (P) Selenium (Se) Silicon (Si) Silver (Ag) Strontium (Sr) Thallium (Tl) Tin (Sn) Vanadium (V) Zinc (Zn)	25 µg/mL 10 µg/mL 25 µg/mL 50 µg/mL 25 µg/mL 25 µg/mL 2.5 µg/mL 25 µg/mL 25 µg/mL 10 µg/mL 10 µg/mL 25 µg/mL	
Solution 2 1 analyte, in 2% HNO_3	Mercury (Hg)	5 µg/mL			
Kit 2x125 mL					ICM-245-KIT

Additional calibration standards for EPA Method 200.7

EPA Method 200.7 Calibration Standards

Description	Analytes and Concentration				Total Vol.	Part No.
EPA 200.7 calibration standard 1 5 analytes, in 5% HNO_3	Arsenic (As) Cadmium (Cd) Lead (Pb)	1,000 µg/mL 500 µg/mL 1,000 µg/mL	Selenium (Se) Thallium (Tl)	500 µg/mL 1,000 µg/mL	125 mL	ICM-202
EPA 200.7 calibration standard 2 7 analytes, in 2% HNO_3	Barium (Ba) Beryllium (Be) Cobalt (Co) Copper (Cu)	100 µg/mL 100 µg/mL 200 µg/mL 100 µg/mL	Iron (Fe) Manganese (Mn) Vanadium (V)	1,000 µg/mL 100 µg/mL 100 µg/mL	125 mL	ICM-203
EPA 200.7 calibration standard 3 3 analytes, in H_2O	Boron (B) Molybdenum (Mo)	100 µg/mL 1,000 µg/mL	Silicon (Si)	1,000 µg/mL	125 mL	ICM-204
EPA 200.7 calibration standard 4 9 analytes, in 5% HNO_3	Aluminum (Al) Calcium (Ca) Chromium (Cr) Magnesium (Mg) Nickel (Ni)	1,000 µg/mL 1,000 µg/mL 500 µg/mL 1,000 µg/mL 500 µg/mL	Potassium (K) Silver (Ag) Sodium (Na) Zinc (Zn)	1,000 µg/mL 500 µg/mL 1,000 µg/mL 500 µg/mL	125 mL	ICM-205
Antimony standard in 2% HNO_3/trace tartaric acid	Antimony (Sb)	1,000 µg/mL			125 mL	ICP-051

EPA Method 200.7 Calibration Standards Kit

Description	Standards and Volume				Part No.
Kit, 5 bottles	ICM-202 ICM-203 ICM-204	125 mL 125 mL 125 mL	ICM-205 ICP-051	125 mL 125 mL	ICK-200A



IMS-102

(see **Pages 22, 29,** and **30**)

Tips and tools

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Interference check standards for EPA Method 200.7

EPA Method 200.7 Interference Check Standards

Description	Analytes and Concentration				Total Vol.	Part No.
Interference check standard 1 4 analytes, in H_2O	Boron (B) Molybdenum (Mo)	500 µg/mL 300 µg/mL	Silicon (Si) Titanium (Ti)	230 µg/mL 1,000 µg/mL	50 mL	ICM-221
Interference check standard 3 16 analytes, in 5% HNO_3	Arsenic (As) Barium (Ba) Beryllium (Be) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Lead (Pb)	1,000 µg/mL 300 µg/mL 100 µg/mL 300 µg/mL 300 µg/mL 300 µg/mL 300 µg/mL 1,000 µg/mL	Manganese (Mn) Nickel (Ni) Potassium (K) Selenium (Se) Silver (Ag) Thallium (Tl) Vanadium (V) Zinc (Zn)	200 µg/mL 300 µg/mL 20,000 µg/mL 500 µg/mL 300 µg/mL 1,000 µg/mL 300 µg/mL 300 µg/mL	50 mL	ICM-223
Antimony standard (ICS 2) in 2% HNO_3/trace tartaric acid	Antimony (Sb)	1,000 µg/mL			125 mL	ICP-051
Interference check standard 4 5 analytes, in 2% HNO_3	Aluminum (Al) Calcium (Ca) Iron (Fe)	3,000 µg/mL 15,000 µg/mL 12,500 µg/mL	Magnesium (Mg) Sodium (Na)	7,500 µg/mL 2,500 µg/mL	125 mL	ICM-224

EPA Method 200.7 Interference Check Standards Kit

Description	Standards and Volume				Part No.
Kit, 4 bottles	ICM-221 ICM-223	50 mL 50 mL	ICP-051 ICM-224	125 mL 125 mL	ICK-220A

Spiking standards for EPA Method 200.7

EPA Method 200.7 Spiking Addition Standards

Description	Analytes and Concentration				Total Vol.	Part No.
Spiking addition standard 12 analytes, in 5% HNO_3	Aluminum (Al) Barium (Ba) Beryllium (Be) Chromium (Cr) Cobalt (Co) Copper (Cu)	2,000 µg/mL 2,000 µg/mL 50 µg/mL 200 µg/mL 500 µg/mL 250 µg/mL	Iron (Fe) Manganese (Mn) Nickel (Ni) Silver (Ag) Vanadium (V) Zinc (Zn)	1,000 µg/mL 500 µg/mL 500 µg/mL 50 µg/mL 500 µg/mL 500 µg/mL	50 mL	ICM-213
Spiking addition standard 4 analytes, in 5% HNO_3	Calcium (Ca) Magnesium (Mg)	1,000 µg/mL 2,000 µg/mL	Potassium (K) Sodium (Na)	10,000 µg/mL 3,000 µg/mL	50 mL	ICM-212
Spiking addition standard 3 analytes, in 5% HNO_3, with trace HF	Boron (B) Molybdenum (Mo)	500 µg/mL 500 µg/mL	Silicon (Si)	2,000 µg/mL	50 mL	ICM-211
Antimony standard in 2% HNO_3/trace tartaric acid	Antimony (Sb)	1,000 µg/mL			125 mL	ICP-051
Spiking addition standard 5 analytes, in 5% HNO_3	Arsenic (As) Cadmium (Cd) Lead (Pb)	800 µg/mL 100 µg/mL 1,000 µg/mL	Selenium (Se) Thallium (Tl)	1,000 µg/mL 1,000 µg/mL	50 mL	ICM-215

EPA Method 200.7 Spiking Addition Kit

Description	Standards and Volume				Part No.
Kit, 5 bottles	ICM-211 ICM-212 ICM-213	50 mL 50 mL 50 mL	ICM-215 ICP-051	50 mL 125 mL	ICK-210A

EPA Method 200.8 standard solutions

Trace elements by ICP-MS

- NIST traceable
- Agilent certificate of analysis
- Starting materials are 99.999% pure, wherever possible

Standard Solutions

Description	Analytes and Concentration				Total Vol.	Part No.
Standard solution A 18 analytes, in 2% HNO_3/trace tartaric acid	Aluminum (Al) Antimony (Sb) Arsenic (As) Beryllium (Be) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Lead (Pb)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	Manganese (Mn) Molybdenum (Mo) Nickel (Ni) Selenium (Se) Thallium (Tl) Thorium (Th) Uranium (U) Vanadium (V) Zinc (Zn)	10 µg/mL 10 µg/mL 10 µg/mL 50 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	125 mL	ICM-801
					500 mL	ICM-801-5
Standard solution B 2 analytes, in 2% HNO_3	Barium (Ba)	10 µg/mL	Silver (Ag)	10 µg/mL	125 mL	ICM-802
					500 mL	ICM-802-5
Mercury standard 1 analyte, in 5% HNO_3	Mercury (Hg)	10 µg/mL			125 mL	IMS-105
					500 mL	IMS-105-5
Tuning standard 5 analytes, in 2% HNO_3	Beryllium (Be) Magnesium (Mg) Cobalt (Co)	100 µg/mL 100 µg/mL 100 µg/mL	Indium (In) Lead (Pb)	100 µg/mL 100 µg/mL	125 mL	ICM-820
					500 mL	ICM-820-5
Gold stock standard for Hg analysis 1 analyte, in dilute HNO_3	Gold (Au)	1,000 µg/mL			125 mL	ICP-079
Internal standard mix 5 analytes, in 2% HNO_3	Bismuth (Bi) Indium (In) Scandium (Sc)	100 µg/mL 100 µg/mL 100 µg/mL	Terbium (Tb) Yttrium (Y)	100 µg/mL 100 µg/mL	125 mL	ICM-810
					500 mL	ICM-810-5

Individual ICP-MS Internal Standard Solutions for Method 200.8 at 100 µg/mL in 2% HNO_3

Standard	Volume	Part No.
Bismuth (Bi)	125 mL	IMS-111
	500 mL	IMS-111-5
Indium (In)	125 mL	IMS-112
	500 mL	IMS-112-5
Scandium (Sc)	125 mL	IMS-113
	500 mL	IMS-113-5
Terbium (Tb)	125 mL	IMS-114
	500 mL	IMS-114-5
Yttrium (Y)	125 mL	IMS-115
	500 mL	IMS-115-5

Additional standards for ICP-MS

- NIST traceable
- Agilent certificate of analysis
- Starting materials are 99.999% pure, wherever possible

ICP-MS Calibration

Description	Analytes and Concentration				Total Vol.	Part No.
ICP-MS calibration standard 17 analytes, in 5% HNO_3	Cerium (Ce) Dysprosium (Dy) Erbium (Er) Europium (Eu) Gadolinium (Gd) Holmium (Ho) Lanthanum (La) Lutetium (Lu) Neodymium (Nd)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	Praseodymium (Pr) Samarium (Sm) Scandium (Sc) Terbium (Tb) Thorium (Th) Thulium (Tm) Ytterbium (Yb) Yttrium (Y)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	125 mL	IMS-101
ICP-MS calibration standard 29 analytes, in 5% HNO_3	Aluminum (Al) Arsenic (As) Barium (Ba) Beryllium (Be) Bismuth (Bi) Cadmium (Cd) Calcium (Ca) Cesium (Cs) Chromium (Cr) Cobalt (Co) Copper (Cu) Gallium (Ga) Indium (In) Iron (Fe) Lead (Pb)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	Lithium (Li) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Rubidium (Rb) Selenium (Se) Silver (Ag) Sodium (Na) Strontium (Sr) Thallium (Tl) Uranium (U) Vanadium (V) Zinc (Zn)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	125 mL	IMS-102
ICP-MS calibration standard 12 analytes, in H_2O	Boron (B) Germanium (Ge) Molybdenum (Mo) Niobium (Nb) Phosphorus (P) Rhenium (Re)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	Silicon (Si) Sulfur (S) Tantalum (Ta) Titanium (Ti) Tungsten (W) Zirconium (Zr)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	125 mL	IMS-104
ICP-MS calibration standard 10 analytes, in 10% HCl	Antimony (Sb) Gold (Au) Hafnium (Hf) Iridium (Ir) Palladium (Pd)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	Platinum (Pt) Rhodium (Rh) Ruthenium (Ru) Tellurium (Te) Tin (Sn)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	125 mL	IMS-103
Mercury ICP-MS standard 1 analyte, in 5% HNO_3	Mercury (Hg)	10 µg/mL			125 mL 500 mL	IMS-105 IMS-105-5
ICP-MS tuning solution 5 analytes, in 2% HNO_3	Beryllium (Be) Cobalt (Co) Indium (In)	10 µg/mL 10 µg/mL 10 µg/mL	Lead (Pb) Magnesium (Mg)	10 µg/mL 10 µg/mL	125 mL 500 mL	IMS-110 IMS-110-5
ICP-MS verification standard 9 analytes, in 2% HNO_3	Beryllium (Be) Bismuth (Bi) Cerium (Ce) Cobalt (Co) Indium (In)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	Lead (Pb) Magnesium (Mg) Nickel (Ni) Uranium (U)	10 µg/mL 10 µg/mL 10 µg/mL 10 µg/mL	125 mL	IMS-100

ICP-MS Calibration Kit

Description	Standards and Volume				Part No.
Kit, 5 bottles	IMS-101 IMS-102 IMS-103	125 mL 125 mL 125 mL	IMS-104 IMS-105	125 mL 125 mL	IMK-109

EPA Method 6010C calibration standards

Inorganics by ICP-AES

- NIST traceable
- Agilent certificate of analysis
- Starting materials are 99.999% pure, wherever possible

EPA Method 6010C Calibration Standards

Description	Analytes and Concentration				Total Vol.	Part No.
Mixed standard solution I 6 analytes, in 2% HNO_3	Beryllium (Be) Cadmium (Cd) Lead (Pb)	50 µg/mL 150 µg/mL 500 µg/mL	Manganese (Mn) Selenium (Se) Zinc (Zn)	100 µg/mL 200 µg/mL 150 µg/mL	125 mL	ICM-601
					500 mL	ICM-601-5
Mixed standard solution II 5 analytes, in 2% HNO_3	Barium (Ba) Cobalt (Co) Copper (Cu)	100 µg/mL 100 µg/mL 100 µg/mL	Iron (Fe) Vanadium (V)	10,000 µg/mL 100 µg/mL	125 mL	ICM-602
					500 mL	ICM-602-5
Mixed standard solution III 2 analytes, in 2% HNO_3	Arsenic (As)	500 µg/mL	Molybdenum (Mo)	100 µg/mL	125 mL	ICM-603
					500 mL	ICM-603-5
Mixed standard solution IV 8 analytes, in 2% HNO_3	Aluminum (Al) Calcium (Ca) Chromium (Cr) Lithium (Li)	200 µg/mL 1,000 µg/mL 20 µg/mL 1,000 µg/mL	Nickel (Ni) Potassium (K) Sodium (Na) Strontium (Sr)	20 µg/mL 400 µg/mL 200 µg/mL 10 µg/mL	125 mL	ICM-604
					500 mL	ICM-604-5
Mixed standard solution V 4 analytes, in 2% HNO_3	Antimony (Sb) Magnesium (Mg)	200 µg/mL 1,000 µg/mL	Silver (Ag) Thallium (Tl)	50 µg/mL 200 µg/mL	125 mL	ICM-605
					500 mL	ICM-605-5
Mixed standard solution VI in 2% HNO_3	Phosphorus (P)	1,000 µg/mL			125 mL	ICP-015
Mixed standard solution IIa 5 analytes, in 2% HNO_3	Barium (Ba) Cobalt (Co) Copper (Cu)	100 µg/mL 100 µg/mL 100 µg/mL	Iron (Fe) Vanadium (V)	1,000 µg/mL 100 µg/mL	125 mL	ICM-607

EPA Method 6010C Calibration Standards

Description	Standards and Volume				Part No.
Kit, 6 bottles	ICM-601 ICM-602 ICM-603	125 mL 125 mL 125 mL	ICM-604 ICM-605 ICP-015	125 mL 125 mL 125 mL	ICK-600A

Interference check standards for Method 6010C

EPA Method 6010C Interference Check Standards

Description	Analytes and Concentration				Total Vol.	Part No.
Interference check standard 5 analytes, in 2% HNO_3	Lithium (Li) Molybdenum (Mo) Phosphorus (P)	300 µg/mL 300 µg/mL 1,000 µg/mL	Strontium (Sr) Titanium (Ti)	200 µg/mL 1,000 µg/mL	125 mL	ICM-611
					500 mL	ICM-611-5
Interference check standard 16 analytes, in 5% HNO_3	Arsenic (As) Barium (Ba) Beryllium (Be) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Lead (Pb)	1,000 µg/mL 300 µg/mL 100 µg/mL 300 µg/mL 300 µg/mL 300 µg/mL 300 µg/mL 1,000 µg/mL	Manganese (Mn) Nickel (Ni) Potassium (K) Selenium (Se) Silver (Ag) Thallium (Tl) Vanadium (V) Zinc (Zn)	200 µg/mL 300 µg/mL 20,000 µg/mL 500 µg/mL 300 µg/mL 1,000 µg/mL 300 µg/mL 300 µg/mL	50 mL	ICM-223
Interference check standard 5 analytes, in 2% HNO_3	Aluminum (Al) Calcium (Ca) Iron (Fe)	3,000 µg/mL 15,000 µg/mL 12,500 µg/mL	Magnesium (Mg) Sodium (Na)	7,500 µg/mL 2,500 µg/mL	125 mL	ICM-224
Interference check standard 1 analyte, in 2% HNO_3/trace tartaric acid	Antimony (Sb)	1,000 µg/mL			125 mL	ICP-051

EPA Method 6010C Interference Check Kit

Description	Standards and Volume				Part No.
Kit, 4 bottles	ICM-223 ICM-611	50 mL 125 mL	ICM-224 ICP-051	125 mL 125 mL	ICK-610A

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Contract laboratory program (CLP)

Inorganics analysis

- NIST traceable
- Agilent certificate of analysis
- Starting materials are 99.999% pure, wherever possible

CLP ICP Calibration Standards

Description	Analytes and Concentration				Total Vol.	Part No.
CLP ICP calibration standard 16 analytes, in 5% HNO_3	Aluminum (Al) Barium (Ba) Beryllium (Be) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe)	2,000 µg/mL 2,000 µg/mL 50 µg/mL 5,000 µg/mL 200 µg/mL 500 µg/mL 250 µg/mL 1,000 µg/mL	Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Silver (Ag) Sodium (Na) Vanadium (V) Zinc (Zn)	5,000 µg/mL 500 µg/mL 500 µg/mL 5,000 µg/mL 250 µg/mL 5,000 µg/mL 500 µg/mL 500 µg/mL	125 mL	ICM-411
CLP ICP calibration standard 1 analyte, in 2% HNO_3/trace tartaric acid	Antimony (Sb)	1,000 µg/mL			125 mL	ICP-051
CLP ICP calibration standard 5 analytes, in 5% HNO_3	Arsenic (As) Cadmium (Cd) Lead (Pb)	1,000 µg/mL 500 µg/mL 1,000 µg/mL	Selenium (Se) Thallium (Tl)	1,000 µg/mL 1,000 µg/mL	125 mL	ICM-413

CLP ICP Calibration Kit Standards

Description	Standards and Volume				Part No.
Kit, 3 bottles	ICM-411 ICM-413	125 mL 125 mL	ICP-051	125 mL	ICK-410A

Tips and tools

Find more EPA Method standards online at **www.agilent.com/chem/standards**

Spiking standards for the CLP

CLP ICP Spike Standards

Description	Analytes and Concentration				Total Vol.	Part No.
CLP ICP spike standard 12 analytes, in 5% HNO_3	Aluminum (Al) Barium (Ba) Beryllium (Be) Chromium (Cr) Cobalt (Co) Copper (Cu)	2,000 µg/mL 2,000 µg/mL 50 µg/mL 200 µg/mL 500 µg/mL 250 µg/mL	Iron (Fe) Manganese (Mn) Nickel (Ni) Silver (Ag) Vanadium (V) Zinc (Zn)	1,000 µg/mL 500 µg/mL 500 µg/mL 50 µg/mL 500 µg/mL 500 µg/mL	125 mL	ICM-451
CLP ICP spike standard 1 analyte, in dilute HNO_3	Antimony (Sb)	500 µg/mL			125 mL	ICM-452
CLP ICP spike standard 5 analytes, in 5% HNO_3	Arsenic (As) Cadmium (Cd) Lead (Pb)	2,000 µg/mL 50 µg/mL 500 µg/mL	Selenium (Se) Thallium (Tl)	2,000 µg/mL 2,000 µg/mL	125 mL	ICM-453

CLP ICP Spike Kit

Description	Standards and Volume				Part No.
Kit, 3 bottles	ICM-451 ICM-452	125 mL 125 mL	ICM-453	125 mL	ICK-450

Calibration verification standards for the CLP

CLP ICP Verification Standards

Description	Analytes and Concentration				Total Vol.	Part No.
CLP ICP verification standard * 16 analytes, in 5% HNO_3	Aluminum (Al) Barium (Ba) Beryllium (Be) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe)	1,000 µg/mL 1,000 µg/mL 25 µg/mL 2,500 µg/mL 100 µg/mL 250 µg/mL 125 µg/mL 500 µg/mL	Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Silver (Ag) Sodium (Na) Vanadium (V) Zinc (Zn)	2,500 µg/mL 250 µg/mL 250 µg/mL 2,500 µg/mL 125 µg/mL 2,500 µg/mL 250 µg/mL 250 µg/mL	125 mL	ICM-431
CLP ICP verification standard * 1 analyte, in dilute HNO_3	Antimony (Sb)	500 µg/mL			125 mL	ICM-432
CLP ICP verification standard * 5 analytes, in 5% HNO_3	Arsenic (As) Cadmium (Cd) Lead (Pb)	500 µg/mL 250 µg/mL 500 µg/mL	Selenium (Se) Thallium (Tl)	500 µg/mL 500 µg/mL	125 mL	ICM-433

*Meets CLP QA second-source requirements

CLP ICP Verification Standards Kit*

Description	Standards and Volume				Part No.
Kit, 3 bottles	ICM-431 ICM-432	125 mL 125 mL	ICM-433	125 mL	ICK-430

*Meets CLP QA second-source requirements

Interference check standards for the CLP

CLP ICP Interference Check Standards

Description	Analytes and Concentration				Total Vol.	Part No.
CLP ICP interference check standard 12 analytes, in 5% HNO_3	Barium (Ba) Beryllium (Be) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu)	50 µg/mL 50 µg/mL 100 µg/mL 50 µg/mL 50 µg/mL 50 µg/mL	Lead (Pb) Manganese (Mn) Nickel (Ni) Silver (Ag) Vanadium (V) Zinc (Zn)	100 µg/mL 50 µg/mL 100 µg/mL 100 µg/mL 50 µg/mL 100 µg/mL	50 mL	ICM-442
CLP ICP interference check standard 4 analytes, in 5% HNO_3	Aluminum (Al) Calcium (Ca)	5,000 µg/mL 5,000 µg/mL	Iron (Fe) Magnesium (Mg)	2,000 µg/mL 5,000 µg/mL	500 mL	ICM-441
CLP ILM-4.0 interference check analytes standard 16 analytes, in 2% HNO_3	Antimony (Sb) Arsenic (As) Barium (Ba) Beryllium (Be) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu)	60 µg/mL 10 µg/mL 50 µg/mL 50 µg/mL 100 µg/mL 50 µg/mL 50 µg/mL 50 µg/mL	Lead (Pb) Manganese (Mn) Nickel (Ni) Selenium (Se) Silver (Ag) Thallium (TI) Vanadium (V) Zinc (Zn)	5 µg/mL 50 µg/mL 100 µg/mL 5 µg/mL 20 µg/mL 10 µg/mL 50 µg/mL 100 µg/mL	125 mL	ICM-443

CLP ICP Interference Check Kit

Description	Standards and Volume				Part No.
Kit, 2 bottles	ICM-441	500 mL	ICM-442	50 mL	ICK-440

ICP-OES/AA detection limit standards

CLP ICP-OES/AA Detection Limits Standards

Description	Analytes and Concentration				Total Vol.	Part No.
CLP ICP-OES/AA detection limits standard 9 analytes, in 5% HNO_3	Beryllium (Be) Chromium (Cr) Cobalt (Co) Copper (Cu) Manganese (Mn)	100 µg/mL 200 µg/mL 1,000 µg/mL 500 µg/mL 300 µg/mL	Nickel (Ni) Silver (Ag) Vanadium (V) Zinc (Zn)	800 µg/mL 200 µg/mL 1,000 µg/mL 400 µg/mL	125 mL	ICM-421
CLP ICP-OES/AA detection limits standard 5 analytes, in 5% HNO_3	Arsenic (As) Cadmium (Cd) Lead (Pb)	100 µg/mL 50 µg/mL 30 µg/mL	Selenium (Se) Thallium (TI)	50 µg/mL 100 µg/mL	125 mL	ICM-423
CLP ICP-OES/AA detection limits standard 1 analyte, in dilute HNO_3	Antimony (Sb)	600 µg/mL			125 mL	ICM-422

CLP ICP-OES/AA Detection Limits Standards Kit

Description	Standards and Volume				Part No.
Kit, 3 bottles	ICM-421 ICM-422	125 mL 125 mL	ICM-423	125 mL	ICK-420

Complete standards kits

Complete CLP Standards Kit

Description	Standards and Volume				Part No.
Kit, 19 bottles	ICM-411	125 mL	ICM-421	125 mL	ICPK-4A
	ICM-422	125 mL	ICM-432	125 mL	
	ICM-443	125 mL	ICM-453	125 mL	
	ICM-303	125 mL	ICM-441	500 mL	
	ICP-051	125 mL	ICM-442	50 mL	
	ICM-423	125 mL	ICM-461	50 mL	
	ICM-451	125 mL	ICM-462	50 mL	
	ICM-413	125 mL	ICM-463	50 mL	
	ICM-431	125 mL	ICM-464	50 mL	
	ICM-452	125 mL			

Complete CLP ICP Standards Kit

Description	Standards and Volume				Part No.
Kit, 14 bottles	ICM-411	125 mL	ICM-432	125 mL	ICPK-5A
	ICP-051	125 mL	ICM-433	125 mL	
	ICM-413	125 mL	ICM-451	125 mL	
	ICM-421	125 mL	ICM-452	125 mL	
	ICM-422	125 mL	ICM-453	125 mL	
	ICM-423	125 mL	ICM-441	500 mL	
	ICM-431	125 mL	ICM-442	50 mL	

Graphite furnace standards

CLP GFAA Standards

Description	Analytes and Concentration				Total Vol.	Part No.
CLP GFAA standard 6 analytes, in 5% HNO_3	Antimony (Sb) Arsenic (As) Cadmium (Cd)	100 µg/mL 50 µg/mL 10 µg/mL	Lead (Pb) Selenium (Se) Thallium (Tl)	50 µg/mL 100 µg/mL 50 µg/mL	50 mL	ICM-461
CLP GFAA standard (calibration verification) 6 analytes, in 5% HNO_3	Antimony (Sb) Arsenic (As) Cadmium (Cd)	50 µg/mL 25 µg/mL 5 µg/mL	Lead (Pb) Selenium (Se) Thallium (Tl)	25 µg/mL 50 µg/mL 25 µg/mL	50 mL	ICM-462
CLP GFAA standard (P spike) 6 analytes, in 5% HNO_3	Antimony (Sb) Arsenic (As) Cadmium (Cd)	100 µg/mL 40 µg/mL 5 µg/mL	Lead (Pb) Selenium (Se) Thallium (Tl)	20 µg/mL 10 µg/mL 50 µg/mL	50 mL	ICM-463
CLP GFAA standard 6 analytes, in 5% HNO_3	Antimony (Sb) Arsenic (As) Cadmium (Cd)	120 µg/mL 20 µg/mL 10 µg/mL	Lead (Pb) Selenium (Se) Thallium (Tl)	20 µg/mL 10 µg/mL 20 µg/mL	50 mL	ICM-464
CLP GFAA standard 1 analyte, in 2% HNO_3	Mercury (Hg)	100 µg/mL			125 mL	ICM-303

CLP GFAA Interference Check Kit

Description	Standards and Volume				Part No.
Kit, 5 bottles	ICM-461	50 mL	ICM-464	50 mL	ICK-460A
	ICM-462	50 mL	ICM-303	125 mL	
	ICM-463	50 mL			

Matrix Modifiers for Graphite Furnace AA

Starting Material	Concentration and Matrix	Volume	Part No.
Palladium from palladium nitrate	2,000 µg/mL, in HNO_3	125 mL	IMM-001
Palladium from palladium nitrate	5,000 µg/mL, in HNO_3	50 mL	IMM-002
Magnesium nitrate	10,000 µg/mL, in HNO_3	125 mL	IMM-003
Phosphate from ammonium phosphate	40,000 µg/mL, in HNO_3	50 mL	IMM-004
Ammonium nitrate	10,000 µg/mL, in HNO_3	50 mL	IMM-005
Nickel from nickel nitrate	4,000 µg/mL, in HNO_3	50 mL	IMM-007

SDWA and TCLP

Inorganics analysis

- NIST traceable
- Agilent certificate of analysis
- Starting materials are 99.999% pure, wherever possible

Safe Drinking Water Act (SDWA) Standards

Description	Analytes and Concentration				Total Vol.	Part No.
Primary safe drinking water act standard 1 6 analytes, in 10% HNO_3	Arsenic (As) Cadmium (Cd) Chromium (Cr)	500 µg/mL 100 µg/mL 500 µg/mL	Lead (Pb) Selenium (Se) Silver (Ag)	500 µg/mL 100 µg/mL 500 µg/mL	125 mL	ICM-301
Primary safe drinking water act standard 2 1 analyte, in 2% HNO_3	Barium (Ba)	10,000 µg/mL			125 mL	ICP-156
Primary safe drinking water act standard 3 1 analyte, in 5% HNO_3	Mercury (Hg)	100 µg/mL			125 mL	ICM-303
Secondary safe drinking water act standard 4 analytes, in 2% HNO_3	Copper (Cu) Iron (Fe)	100 µg/mL 30 µg/mL	Manganese (Mn) Zinc (Zn)	5 µg/mL 500 µg/mL	125 mL	ICM-304

Primary Safe Drinking Water Act Kit

Description	Standards and Volume				Part No.
Kit, 3 bottles	ICM-301 ICM-303	125 mL 125 mL	ICP-156	125 mL	ICK-300A

Tips and tools

To view our entire portfolio of over 7,000 standards, all manufactured under ISO 17025 Guide 34, visit **www.agilent.com/chem/standards**

Toxicity Characteristic Leaching Procedure (TCLP) Standards

Description	Analytes and Concentration				Total Vol.	Part No.
TCLP analytes mixture 7 analytes, in 5% HNO_3	Arsenic (As) Barium (Ba) Cadmium (Cd) Chromium (Cr)	25 µg/mL 500 µg/mL 5 µg/mL 25 µg/mL	Lead (Pb) Selenium (Se) Silver (Ag)	25 µg/mL 5 µg/mL 25 µg/mL	125 mL	ICM-641
					500 mL	ICM-641-5
TCLP mercury standard 1 analyte, in 2% HNO_3	Mercury (Hg)	20 µg/mL			125 mL	ICM-642
					500 mL	ICM-642-5

Anion standards for ion chromatography

Anion Standards for Ion Chromatography

Ion	Volume	Part No. 1,000 µg/mL
Acetate	125 mL	ICC-014
Benzoate	125 mL	ICC-015
Bromate	125 mL	ICC-010
Bromide	125 mL	ICC-001
Chlorate	125 mL	ICC-011
Chloride	125 mL	ICC-002
Chlorite	125 mL	ICC-012
Chromate	125 mL	ICC-016
Citrate	125 mL	ICC-017
Fluoride	125 mL	ICC-003
Formate	125 mL	ICC-018
Glycolate	125 mL	ICC-019
Iodide	125 mL	ICC-020
Lactate	125 mL	ICC-021
Malate	125 mL	ICC-022
Maleate	125 mL	ICC-023
Methanesulfonate	125 mL	ICC-024

Anion Standards for Ion Chromatography

Ion	Volume	Part No. 1,000 µg/mL
Nitrate	125 mL	ICC-004
Nitrate (as N)	125 mL	ICC-004A
Nitrilotriacetate	125 mL	ICC-025
Nitrite	125 mL	ICC-007
Nitrite (as N)	125 mL	ICC-007A
Oxalate	125 mL	ICC-026
Perchlorate	125 mL	ICC-013
Phosphate	125 mL	ICC-005
Orthophosphate (as P)	125 mL	ICC-005A
Phthalate	125 mL	ICC-027
Propionate	125 mL	ICC-028
Succinate	125 mL	ICC-029
Sulfate	125 mL	ICC-006
Tartrate	125 mL	ICC-030
Thiocyanate	125 mL	ICC-031
Thiosulfate	125 mL	ICC-032

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Anion mixtures for ion chromatography

IC Anions Mixtures

Description	Analytes and Concentration				Total Vol.	Part No.
IC anions mixture 1 5 analytes, in H_2O	Chloride (Cl^-) Fluoride (F^-) Nitrate (NO_3^-)	30 µg/mL 20 µg/mL 100 µg/mL	Phosphate (PO_4^{3-}) Sulfate (SO_4^{2-})	150 µg/mL 150 µg/mL	125 mL	ICC-200
IC anions mixture 2 6 analytes, in H_2O	Bromide (Br^-) Chloride (Cl^-) Fluoride (F^-)	400 µg/mL 200 µg/mL 100 µg/mL	Nitrate (NO_3^-) Phosphate (PO_4^{3-}) Sulfate (SO_4^{2-})	400 µg/mL 600 µg/mL 400 µg/mL	125 mL	ICC-210

IC Anions Mixtures Kit

Description	Standards and Volume				Part No.
Kit, 5 ampoules, 1 x 10 mL of each individual standard, in H_2O	Nitrate Nitrate Nitrate	5 µg/mL 25 µg/mL 100 µg/mL	Nitrate Nitrate	10 µg/mL 50 µg/mL	ICC-759

Cation standards for chromatography

Chromatography Cation Standards

Ion	Volume	Part No. 1,000 µg/mL
Ammonium (NH_4^+), in H_2O	125 mL	ICC-101
Barium (Ba^{2+}), in 0.2% HNO_3	125 mL	ICC-102
Calcium (Ca^{2+}), in 0.2% HNO_3	125 mL	ICC-103
Lithium (Li^+), in 0.2% HNO_3	125 mL	ICC-104
Magnesium (Mg^{2+}), in 0.2% HNO_3	125 mL	ICC-105
Potassium (K^+), in 0.2% HNO_3	125 mL	ICC-106
Sodium (Na^+), in 0.1% HNO_3	125 mL	ICC-107
Strontium (Sr^{2+}), in 0.2% HNO_3	125 mL	ICC-108

Cation mixtures for ion chromatography

IC Cations Mixtures

Description	Analytes and Concentration				Total Vol.	Part No.
IC cations mixture 1 6 analytes, in 0.2% HNO_3	Ammonium (NH_4^+) Calcium (Ca^{2+}) Lithium (Li^+)	400 µg/mL 1,000 µg/mL 50 µg/mL	Magnesium (Mg^{2+}) Potassium (K^+) Sodium (Na^+)	200 µg/mL 200 µg/mL 200 µg/mL	125 mL	ICC-300
IC cations mixture 2 4 analytes, in 0.2% HNO_3	Ammonium (NH_4^+) Lithium (Li^+)	100 µg/mL 10 µg/mL	Potassium (K^+) Sodium (Na^+)	50 µg/mL 1,000 µg/mL	125 mL	ICC-310
IC cations mixture 3 4 analytes, in 0.2% HNO_3	Barium (Ba^{2+}) Calcium (Ca^{2+})	1,600 µg/mL 400 µg/mL	Magnesium (Mg^{2+}) Strontium (Sr^{2+})	200 µg/mL 600 µg/mL	125 mL	ICC-320

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