hps

high-purity standards

Distributed By:
Greyhound Chromatography and Allied Chemicals
6, Kelvin Park, Birkenhead, Merseyside, CH41 1LT, UK

Tel: + 44 (0) 151 649 4000 Fax: + 44 (0) 151 649 4001
email: sales@greyhoundchrom.com

Greyhound
CHROMATOGRAPHY
AND ALLIED CHEMICALS

Product Catalog

Get to Know Us...

A global manufacturer of NIST traceable standards for the calibration of analytical instruments.

High-Purity Standards (HPS) was founded in 1990 by internationally known chemist, Dr. Theodore Rains, after his retirement from the National Institute of Standards and Technology (NIST). In 2001, Connie Hayes joined her late father as VP of Finance and eventually accepted the position of CEO – a role she still holds today. We proudly serve the scientific community with high quality spectrometric standards and reference materials for the calibration of instruments, including, but not limited to, AAS, IC, ICP, ICP-MS, GC, and GC-MS. However, we are continually adding new products and examining existing products to better serve your analysis.

We are located in Charleston, SC where we manufacture our products in our 18,000 square foot facility. Our labs are designed to meet the specific needs of our customers by way of our ever-expanding quality system. Our Total Quality System was developed with the help and assessment of independent agencies. We are accredited by Perry Johnson Registrars with ISO 9001:2015 and by ANAB with ISO/IEC 17025:2005 and ISO 17034:2016. This ensures that our products are suitable for any customer regardless of their requirements. Our products appeal to anyone with a desire to calibrate their lab instrumentation before sample analysis for best results. We effectively deliver our products to customers around the world through our distributor partners.

If you are unable to find products that meet your exact needs, we are happy to assist you with a quote for custom products. We look forward to working with you and improving your analysis!

Meeting ISO Standards

We understand a comprehensive quality system is key to our customers' confidence in the products that we manufacture. That's why we developed our Total Quality System with the help and assessment from independent agencies. We are certified by Perry Johnson Registrars to: ISO 9001:2015 and accredited by ANAB to ISO/IEC 17025:2005 and ISO 17034:2016.

Table of Contents

ICP Single and Multi-Component Standards

We offer a broad range of ISO 17034:2016 certified single and multi-component ICP-OES standards. The accuracy of all standards is verified against NIST Spectrometric Standard Solutions where available (otherwise against an ISO 17034 second source Certified Reference Material). We offer single-component standards in the broadest range of matrices available. You can locate the element alphabetically by name, or search by part number. The part number is based upon concentration (100, 1,000, or 10,000 (referred to as 10M)); the last 2 digits of the associated NIST SRM 3100 series; and the matrix: HNO3 (-1), HCl (-2), HNO3 + HF (-3), H2O (-4), other options (-5 and up). Thus a 1,000 µg/mL solution of aluminum in nitric acid is 10001-1; a 10,000 µg/mL solution of tin in nitric and hydrofluoric acids is 10M61-3; and a 100 µg/mL solution of gold in hydrochloric acid is 100-21-2. The aluminum solution is traceable to the NIST SRM 3101, the tin to NIST SRM 3161, and the gold to NIST SRM 3121.

ICP Single-Component Standards				
Component	Concentration	Matrix	Volume	Part #
Aluminum	100 µg/mL	2% HNO_3	100 mL	100-1-1-100
Aluminum	100 µg/mL	2% HNO_3	250 mL	100-1-1-250
Aluminum	100 µg/mL	2% HNO_3	500 mL	100-1-1-500
Aluminum	1,000 µg/mL	2% HNO_3	50 mL	10001-1-50
Aluminum	1,000 µg/mL	2% HNO_3	100 mL	10001-1-100
Aluminum	1,000 µg/mL	2% HNO_3	250 mL	10001-1-250
Aluminum	1,000 µg/mL	2% HNO_3	500 mL	10001-1-500
Aluminum	1,000 µg/mL	2% HCl	100 mL	10001-2-100
Aluminum	1,000 µg/mL	2% HCl	250 mL	10001-2-250
Aluminum	1,000 µg/mL	2% HCl	500 mL	10001-2-500
Aluminum	10,000 µg/mL	10% HNO_3	100 mL	10M1-1-100
Aluminum	10,000 µg/mL	10% HNO_3	250 mL	10M1-1-250
Aluminum	10,000 µg/mL	10% HNO_3	500 mL	10M1-1-500
Aluminum	10,000 µg/mL	10% HCl	100 mL	10M1-2-100
Aluminum	10,000 µg/mL	10% HCl	250 mL	10M1-2-250
Aluminum	10,000 µg/mL	10% HCl	500 mL	10M1-2-500
Antimony	100 µg/mL	2% HNO_3 + Tr HF	100 mL	100-2-3-100
Antimony	100 µg/mL	2% HNO_3 + Tr HF	250 mL	100-2-3-250
Antimony	100 µg/mL	2% HNO_3 + Tr HF	500 mL	100-2-3-500
Antimony	1,000 µg/mL	20% HCl	50 mL	10002-2-50
Antimony	1,000 µg/mL	20% HCl	100 mL	10002-2-100
Antimony	1,000 µg/mL	20% HCl	250 mL	10002-2-250
Antimony	1,000 µg/mL	20% HCl	500 mL	10002-2-500
Antimony	1,000 µg/mL	5% HNO_3 + 0.1% HF	50 mL	10002-3-50
Antimony	1,000 µg/mL	5% HNO_3 + 0.1% HF	100 mL	10002-3-100
Antimony	1,000 µg/mL	5% HNO_3 + 0.1% HF	250 mL	10002-3-250
Antimony	1,000 µg/mL	5% HNO_3 + 0.1% HF	500 mL	10002-3-500
Antimony	1,000 µg/mL	5% Tartaric Acid + 2% HNO_3	100 mL	10002-8-100
Antimony	1,000 µg/mL	5% Tartaric Acid + 2% HNO_3	250 mL	10002-8-250
Antimony	1,000 µg/mL	5% Tartaric Acid + 2% HNO_3	500 mL	10002-8-500
Antimony	10,000 µg/mL	50% HCl	100 mL	10M2-2-100
Antimony	10,000 µg/mL	50% HCl	250 mL	10M2-2-250
Antimony	10,000 µg/mL	50% HCl	500 mL	10M2-2-500
Antimony	10,000 µg/mL	10% HNO_3 + 2% HF	100 mL	10M2-3-100
Antimony	10,000 µg/mL	10% HNO_3 + 2% HF	250 mL	10M2-3-250
Antimony	10,000 µg/mL	10% HNO_3 + 2% HF	500 mL	10M2-3-500
Arsenic	100 µg/mL	2% HNO_3	100 mL	100-3-1-100
Arsenic	100 µg/mL	2% HNO_3	250 mL	100-3-1-250
Arsenic	100 µg/mL	2% HNO_3	500 mL	100-3-1-500
Arsenic	1,000 µg/mL	2% HNO_3	50 mL	10003-1-50
Arsenic	1,000 µg/mL	2% HNO_3	100 mL	10003-1-100

ICP Single-Component Standards (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Arsenic	1,000 µg/mL	2% HNO_3	250 mL	10003-1-250
Arsenic	1,000 µg/mL	2% HNO_3	500 mL	10003-1-500
Arsenic	1,000 µg/mL	2% HCl	100 mL	10003-2-100
Arsenic	1,000 µg/mL	2% HCl	250 mL	10003-2-250
Arsenic	1,000 µg/mL	2% HCl	500 mL	10003-2-500
Arsenic	10,000 µg/mL	20% HNO_3	100 mL	10M3-1-100
Arsenic	10,000 µg/mL	20% HNO_3	250 mL	10M3-1-250
Arsenic	10,000 µg/mL	20% HNO_3	500 mL	10M3-1-500
Arsenic	10,000 µg/mL	10% HCl	100 mL	10M3-2-100
Arsenic	10,000 µg/mL	10% HCl	250 mL	10M3-2-250
Arsenic	10,000 µg/mL	10% HCl	500 mL	10M3-2-500
Barium	100 µg/mL	2% HNO_3	100 mL	100-4-1-100
Barium	100 µg/mL	2% HNO_3	250 mL	100-4-1-250
Barium	100 µg/mL	2% HNO_3	500 mL	100-4-1-500
Barium	1,000 µg/mL	2% HNO_3	50 mL	10004-1-50
Barium	1,000 µg/mL	2% HNO_3	100 mL	10004-1-100
Barium	1,000 µg/mL	2% HNO_3	250 mL	10004-1-250
Barium	1,000 µg/mL	2% HNO_3	500 mL	10004-1-500
Barium	1,000 µg/mL	2% HCl	100 mL	10004-2-100
Barium	1,000 µg/mL	2% HCl	250 mL	10004-2-250
Barium	1,000 µg/mL	2% HCl	500 mL	10004-2-500
Barium	10,000 µg/mL	2% HNO_3	100 mL	10M4-1-100
Barium	10,000 µg/mL	2% HNO_3	250 mL	10M4-1-250
Barium	10,000 µg/mL	2% HNO_3	500 mL	10M4-1-500
Barium	10,000 µg/mL	5% HCl	100 mL	10M4-2-100
Barium	10,000 µg/mL	5% HCl	250 mL	10M4-2-250
Barium	10,000 µg/mL	5% HCl	500 mL	10M4-2-500
Beryllium	100 µg/mL	2% HNO_3	100 mL	100-5-1-100
Beryllium	100 µg/mL	2% HNO_3	250 mL	100-5-1-250
Beryllium	100 µg/mL	2% HNO_3	500 mL	100-5-1-500
Beryllium	1,000 µg/mL	2% HNO_3	50 mL	10005-1-50
Beryllium	1,000 µg/mL	2% HNO_3	100 mL	10005-1-100
Beryllium	1,000 µg/mL	2% HNO_3	250 mL	10005-1-250
Beryllium	1,000 µg/mL	2% HNO_3	500 mL	10005-1-500
Beryllium	1,000 µg/mL	2% HCl	100 mL	10005-2-100
Beryllium	1,000 µg/mL	2% HCl	250 mL	10005-2-250
Beryllium	1,000 µg/mL	2% HCl	500 mL	10005-2-500
Beryllium	10,000 µg/mL	4% HNO_3	100 mL	10M5-1-100
Beryllium	10,000 µg/mL	4% HNO_3	250 mL	10M5-1-250
Beryllium	10,000 µg/mL	4% HNO_3	500 mL	10M5-1-500
Beryllium	10,000 µg/mL	10% HCl	100 mL	10M5-2-100
Bismuth	100 µg/mL	2% HNO_3	100 mL	100-6-1-100
Bismuth	100 µg/mL	2% HNO_3	250 mL	100-6-1-250
Bismuth	100 µg/mL	2% HNO_3	500 mL	100-6-1-500
Bismuth	1,000 µg/mL	2% HNO_3	50 mL	10006-1-50
Bismuth	1,000 µg/mL	2% HNO_3	100 mL	10006-1-100
Bismuth	1,000 µg/mL	2% HNO_3	250 mL	10006-1-250
Bismuth	1,000 µg/mL	2% HNO_3	500 mL	10006-1-500
Bismuth	1,000 µg/mL	2% HCl	50 mL	10006-2-50
Bismuth	1,000 µg/mL	2% HCl	100 mL	10006-2-100
Bismuth	1,000 µg/mL	2% HCl	250 mL	10006-2-250

ICP Single-Component Standards (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Bismuth	1,000 µg/mL	2% HCl	500 mL	10006-2-500
Bismuth	10,000 µg/mL	4% HNO_3	100 mL	10M6-1-100
Bismuth	10,000 µg/mL	4% HNO_3	250 mL	10M6-1-250
Bismuth	10,000 µg/mL	4% HNO_3	500 mL	10M6-1-500
Boron	100 µg/mL	H_2O	100 mL	100-7-4-100
Boron	100 µg/mL	H_2O	250 mL	100-7-4-250
Boron	1,000 µg/mL	H_2O	50 mL	10007-4-50
Boron	1,000 µg/mL	H_2O	100 mL	10007-4-100
Boron	1,000 µg/mL	H_2O	250 mL	10007-4-250
Boron	1,000 µg/mL	H_2O	500 mL	10007-4-500
Boron	5,000 µg/mL	H_2O	100 mL	5M7-4-100
Boron	5,000 µg/mL	H_2O	250 mL	5M7-4-250
Boron	5,000 µg/mL	H_2O	500 mL	5M7-4-500
Boron	10,000 µg/mL	2% NH_4OH	100 mL	10M7-7-100
Boron	10,000 µg/mL	2% NH_4OH	250 mL	10M7-7-250
Boron	10,000 µg/mL	2% NH_4OH	500 mL	10M7-7-500
Cadmium	100 µg/mL	2% HNO_3	100 mL	100-8-1-100
Cadmium	100 µg/mL	2% HNO_3	250 mL	100-8-1-250
Cadmium	100 µg/mL	2% HNO_3	500 mL	100-8-1-500
Cadmium	1,000 µg/mL	2% HNO_3	50 mL	10008-1-50
Cadmium	1,000 µg/mL	2% HNO_3	100 mL	10008-1-100
Cadmium	1,000 µg/mL	2% HNO_3	250 mL	10008-1-250
Cadmium	1,000 µg/mL	2% HNO_3	500 mL	10008-1-500
Cadmium	1,000 µg/mL	2% HCl	50 mL	10008-2-50
Cadmium	1,000 µg/mL	2% HCl	100 mL	10008-2-100
Cadmium	1,000 µg/mL	2% HCl	250 mL	10008-2-250
Cadmium	1,000 µg/mL	2% HCl	500 mL	10008-2-500
Cadmium	10,000 µg/mL	4% HNO_3	100 mL	10M8-1-100
Cadmium	10,000 µg/mL	4% HNO_3	250 mL	10M8-1-250
Cadmium	10,000 µg/mL	4% HNO_3	500 mL	10M8-1-500
Cadmium	10,000 µg/mL	10% HCl	100 mL	10M8-2-100
Cadmium	10,000 µg/mL	10% HCl	500 mL	10M8-2-500
Calcium	100 µg/mL	2% HNO_3	100 mL	100-9-1-100
Calcium	100 µg/mL	2% HNO_3	250 mL	100-9-1-250
Calcium	100 µg/mL	2% HNO_3	500 mL	100-9-1-500
Calcium	1,000 µg/mL	2% HNO_3	50 mL	10009-1-50
Calcium	1,000 µg/mL	2% HNO_3	100 mL	10009-1-100
Calcium	1,000 µg/mL	2% HNO_3	250 mL	10009-1-250
Calcium	1,000 µg/mL	2% HNO_3	500 mL	10009-1-500
Calcium	1,000 µg/mL	2% HCl	100 mL	10009-2-100
Calcium	1,000 µg/mL	2% HCl	250 mL	10009-2-250
Calcium	1,000 µg/mL	2% HCl	500 mL	10009-2-500
Calcium	10,000 µg/mL	4% HNO_3	100 mL	10M9-1-100
Calcium	10,000 µg/mL	4% HNO_3	250 mL	10M9-1-250
Calcium	10,000 µg/mL	4% HNO_3	500 mL	10M9-1-500
Calcium	10,000 µg/mL	5% HCl	100 mL	10M9-2-100
Calcium	10,000 µg/mL	5% HCl	250 mL	10M9-2-250
Calcium	10,000 µg/mL	5% HCl	500 mL	10M9-2-500
Carbon	1,000 µg/mL	H_2O	100 mL	100071-4-100
Carbon	1,000 µg/mL	H_2O	250 mL	100071-4-250
Carbon	1,000 µg/mL	H_2O	500 mL	100071-4-500

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Carbon	1,000 µg/mL	H_2O	100 mL	100071-9-100
Carbon	1,000 µg/mL	H_2O	250 mL	100071-9-250
Carbon	1,000 µg/mL	H_2O	500 mL	100071-9-500
Cerium	100 µg/mL	2% HNO_3	100 mL	100-10-1-100
Cerium	100 µg/mL	2% HNO_3	250 mL	100-10-1-250
Cerium	100 µg/mL	2% HNO_3	500 mL	100-10-1-500
Cerium	1,000 µg/mL	2% HNO_3	50 mL	100010-1-50
Cerium	1,000 µg/mL	2% HNO_3	100 mL	100010-1-100
Cerium	1,000 µg/mL	2% HNO_3	250 mL	100010-1-250
Cerium	1,000 µg/mL	2% HNO_3	500 mL	100010-1-500
Cerium	1,000 µg/mL	2% HCl	100 mL	100010-2-100
Cerium	1,000 µg/mL	2% HCl	250 mL	100010-2-250
Cerium	1,000 µg/mL	2% HCl	500 mL	100010-2-500
Cerium	10,000 µg/mL	4% HNO_3	100 mL	10M10-1-100
Cerium	10,000 µg/mL	4% HNO_3	250 mL	10M10-1-250
Cerium	10,000 µg/mL	4% HNO_3	500 mL	10M10-1-500
Cerium	10,000 µg/mL	10% HCl	100 mL	10M10-2-100
Cerium	10,000 µg/mL	10% HCl	250 mL	10M10-2-250
Cerium	10,000 µg/mL	10% HCl	500 mL	10M10-2-500
Cesium	100 µg/mL	2% HNO_3	100 mL	100-11-1-100
Cesium	100 µg/mL	2% HNO_3	250 mL	100-11-1-250
Cesium	1,000 µg/mL	1% HNO_3	50 mL	100011-1-50
Cesium	1,000 µg/mL	1% HNO_3	100 mL	100011-1-100
Cesium	1,000 µg/mL	1% HNO_3	250 mL	100011-1-250
Cesium	1,000 µg/mL	1% HNO_3	500 mL	100011-1-500
Cesium	1,000 µg/mL	1% HCl	100 mL	100011-2-100
Cesium	1,000 µg/mL	1% HCl	250 mL	100011-2-250
Cesium	1,000 µg/mL	1% HCl	500 mL	100011-2-500
Cesium	10,000 µg/mL	1% HNO_3	100 mL	10M11-1-100
Cesium	10,000 µg/mL	1% HNO_3	250 mL	10M11-1-250
Cesium	10,000 µg/mL	1% HNO_3	500 mL	10M11-1-500
Cesium	10,000 µg/mL	1% HCl	100 mL	10M11-2-100
Cesium	10,000 µg/mL	1% HCl	250 mL	10M11-2-250
Cesium	10,000 µg/mL	1% HCl	500 mL	10M11-2-500
Chromium	100 µg/mL	2% HNO_3	100 mL	100-12-1-100
Chromium	100 µg/mL	2% HNO_3	250 mL	100-12-1-250
Chromium	100 µg/mL	2% HNO_3	500 mL	100-12-1-500
Chromium	1,000 µg/mL	2% HNO_3	50 mL	100012-1-50
Chromium	1,000 µg/mL	2% HNO_3	100 mL	100012-1-100
Chromium	1,000 µg/mL	2% HNO_3	250 mL	100012-1-250
Chromium	1,000 µg/mL	2% HNO_3	500 mL	100012-1-500
Chromium	1,000 µg/mL	2% HCl	50 mL	100012-2-50
Chromium	1,000 µg/mL	2% HCl	100 mL	100012-2-100
Chromium	1,000 µg/mL	2% HCl	250 mL	100012-2-250
Chromium	1,000 µg/mL	2% HCl	500 mL	100012-2-500
Chromium	10,000 µg/mL	10% HNO_3	100 mL	10M12-1-100
Chromium	10,000 µg/mL	10% HNO_3	250 mL	10M12-1-250
Chromium	10,000 µg/mL	10% HNO_3	500 mL	10M12-1-500
Chromium	10,000 µg/mL	10% HCl	100 mL	10M12-2-100
Chromium	10,000 µg/mL	10% HCl	250 mL	10M12-2-250
Chromium	10,000 µg/mL	10% HCl	500 mL	10M12-2-500

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Cobalt	100 µg/mL	2% HNO_3	100 mL	100-13-1-100
Cobalt	100 µg/mL	2% HNO_3	250 mL	100-13-1-250
Cobalt	100 µg/mL	2% HNO_3	500 mL	100-13-1-500
Cobalt	1,000 µg/mL	2% HNO_3	50 mL	100013-1-50
Cobalt	1,000 µg/mL	2% HNO_3	100 mL	100013-1-100
Cobalt	1,000 µg/mL	2% HNO_3	250 mL	100013-1-250
Cobalt	1,000 µg/mL	2% HNO_3	500 mL	100013-1-500
Cobalt	1,000 µg/mL	2% HCl	100 mL	100013-2-100
Cobalt	1,000 µg/mL	2% HCl	250 mL	100013-2-250
Cobalt	1,000 µg/mL	2% HCl	500 mL	100013-2-500
Cobalt	10,000 µg/mL	4% HNO_3	100 mL	10M13-1-100
Cobalt	10,000 µg/mL	4% HNO_3	250 mL	10M13-1-250
Cobalt	10,000 µg/mL	4% HNO_3	500 mL	10M13-1-500
Cobalt	10,000 µg/mL	10% HCl	100 mL	10M13-2-100
Cobalt	10,000 µg/mL	10% HCl	250 mL	10M13-2-250
Cobalt	10,000 µg/mL	10% HCl	500 mL	10M13-2-500
Copper	100 µg/mL	2% HNO_3	100 mL	100-14-1-100
Copper	100 µg/mL	2% HNO_3	250 mL	100-14-1-250
Copper	100 µg/mL	2% HNO_3	500 mL	100-14-1-500
Copper	1,000 µg/mL	2% HNO_3	50 mL	100014-1-50
Copper	1,000 µg/mL	2% HNO_3	100 mL	100014-1-100
Copper	1,000 µg/mL	2% HNO_3	250 mL	100014-1-250
Copper	1,000 µg/mL	2% HNO_3	500 mL	100014-1-500
Copper	1,000 µg/mL	2% HCl	100 mL	100014-2-100
Copper	1,000 µg/mL	2% HCl	250 mL	100014-2-250
Copper	1,000 µg/mL	2% HCl	500 mL	100014-2-500
Copper	10,000 µg/mL	4% HNO_3	100 mL	10M14-1-100
Copper	10,000 µg/mL	4% HNO_3	250 mL	10M14-1-250
Copper	10,000 µg/mL	4% HNO_3	500 mL	10M14-1-500
Copper	10,000 µg/mL	10% HCl	100 mL	10M14-2-100
Copper	10,000 µg/mL	10% HCl	250 mL	10M14-2-250
Copper	10,000 µg/mL	10% HCl	500 mL	10M14-2-500
Dysprosium	100 µg/mL	2% HNO_3	100 mL	100-15-1-100
Dysprosium	100 µg/mL	2% HNO_3	250 mL	100-15-1-250
Dysprosium	1,000 µg/mL	2% HNO_3	50 mL	100015-1-50
Dysprosium	1,000 µg/mL	2% HNO_3	100 mL	100015-1-100
Dysprosium	1,000 µg/mL	2% HNO_3	250 mL	100015-1-250
Dysprosium	1,000 µg/mL	2% HNO_3	500 mL	100015-1-500
Dysprosium	1,000 µg/mL	2% HCl	100 mL	100015-2-100
Dysprosium	1,000 µg/mL	2% HCl	250 mL	100015-2-250
Dysprosium	1,000 µg/mL	2% HCl	500 mL	100015-2-500
Dysprosium	10,000 µg/mL	4% HNO_3	100 mL	10M15-1-100
Dysprosium	10,000 µg/mL	4% HNO_3	250 mL	10M15-1-250
Dysprosium	10,000 µg/mL	4% HNO_3	500 mL	10M15-1-500
Dysprosium	10,000 µg/mL	4% HCl	100 mL	10M15-2-100
Dysprosium	10,000 µg/mL	4% HCl	250 mL	10M15-2-250
Dysprosium	10,000 µg/mL	4% HCl	500 mL	10M15-2-500
Erbium	100 µg/mL	2% HNO_3	100 mL	100-16-1-100
Erbium	1,000 µg/mL	2% HNO_3	50 mL	100016-1-50
Erbium	1,000 µg/mL	2% HNO_3	100 mL	100016-1-100
Erbium	1,000 µg/mL	2% HNO_3	250 mL	100016-1-250

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Erbium	1,000 µg/mL	2% HNO_3	500 mL	100016-1-500
Erbium	1,000 µg/mL	2% HCl	100 mL	100016-2-100
Erbium	1,000 µg/mL	2% HCl	250 mL	100016-2-250
Erbium	10,000 µg/mL	4% HNO_3	100 mL	10M16-1-100
Erbium	10,000 µg/mL	4% HNO_3	250 mL	10M16-1-250
Erbium	10,000 µg/mL	4% HNO_3	500 mL	10M16-1-500
Erbium	10,000 µg/mL	4% HCl	100 mL	10M16-2-100
Europium	100 µg/mL	2% HNO_3	100 mL	100-17-1-100
Europium	1,000 µg/mL	2% HNO_3	100 mL	100017-1-100
Europium	1,000 µg/mL	2% HNO_3	250 mL	100017-1-250
Europium	1,000 µg/mL	2% HNO_3	500 mL	100017-1-500
Europium	1,000 µg/mL	2% HCl	50 mL	100017-2-50
Europium	1,000 µg/mL	2% HCl	100 mL	100017-2-100
Europium	1,000 µg/mL	2% HCl	250 mL	100017-2-250
Europium	1,000 µg/mL	2% HCl	500 mL	100017-2-500
Europium	10,000 µg/mL	4% HNO_3	100 mL	10M17-1-100
Europium	10,000 µg/mL	4% HNO_3	250 mL	10M17-1-250
Europium	10,000 µg/mL	4% HNO_3	500 mL	10M17-1-500
Europium	10,000 µg/mL	4% HCl	100 mL	10M17-2-100
Gadolinium	100 µg/mL	2% HNO_3	100 mL	100-18-1-100
Gadolinium	100 µg/mL	2% HNO_3	250 mL	100-18-1-250
Gadolinium	100 µg/mL	2% HNO_3	500 mL	100-18-1-500
Gadolinium	1,000 µg/mL	2% HNO_3	50 mL	100018-1-50
Gadolinium	1,000 µg/mL	2% HNO_3	100 mL	100018-1-100
Gadolinium	1,000 µg/mL	2% HNO_3	250 mL	100018-1-250
Gadolinium	1,000 µg/mL	2% HNO_3	500 mL	100018-1-500
Gadolinium	1,000 µg/mL	2% HCl	100 mL	100018-2-100
Gadolinium	1,000 µg/mL	2% HCl	250 mL	100018-2-250
Gadolinium	1,000 µg/mL	2% HCl	500 mL	100018-2-500
Gadolinium	10,000 µg/mL	4% HNO_3	100 mL	10M18-1-100
Gadolinium	10,000 µg/mL	4% HNO_3	250 mL	10M18-1-250
Gadolinium	10,000 µg/mL	4% HNO_3	500 mL	10M18-1-500
Gadolinium	10,000 µg/mL	4% HCl	100 mL	10M18-2-100
Gadolinium	10,000 µg/mL	4% HCl	250 mL	10M18-2-250
Gadolinium	10,000 µg/mL	4% HCl	500 mL	10M18-2-500
Gallium	100 µg/mL	2% HNO_3	100 mL	100-19-1-100
Gallium	100 µg/mL	2% HNO_3	250 mL	100-19-1-250
Gallium	100 µg/mL	2% HNO_3	500 mL	100-19-1-500
Gallium	1,000 µg/mL	2% HNO_3	50 mL	100019-1-50
Gallium	1,000 µg/mL	2% HNO_3	100 mL	100019-1-100
Gallium	1,000 µg/mL	2% HNO_3	250 mL	100019-1-250
Gallium	1,000 µg/mL	2% HNO_3	500 mL	100019-1-500
Gallium	1,000 µg/mL	2% HCl	100 mL	100019-2-100
Gallium	1,000 µg/mL	2% HCl	250 mL	100019-2-250
Gallium	1,000 µg/mL	2% HCl	500 mL	100019-2-500
Gallium	10,000 µg/mL	4% HNO_3	100 mL	10M19-1-100
Gallium	10,000 µg/mL	4% HNO_3	250 mL	10M19-1-250
Gallium	10,000 µg/mL	4% HNO_3	500 mL	10M19-1-500
Gallium	10,000 µg/mL	10% HCl	100 mL	10M19-2-100
Gallium	10,000 µg/mL	10% HCl	250 mL	10M19-2-250
Gallium	10,000 µg/mL	10% HCl	500 mL	10M19-2-500

ICP Single-Component Standards (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Germanium	100 µg/mL	2% HNO_3 + Tr HF	100 mL	100-20-3-100
Germanium	100 µg/mL	2% HNO_3 + Tr HF	250 mL	100-20-3-250
Germanium	100 µg/mL	2% HNO_3 + Tr HF	500 mL	100-20-3-500
Germanium	1,000 µg/mL	1% HNO_3	50 mL	100020-1-50
Germanium	1,000 µg/mL	1% HNO_3	100 mL	100020-1-100
Germanium	1,000 µg/mL	1% HNO_3	250 mL	100020-1-250
Germanium	1,000 µg/mL	1% HNO_3	500 mL	100020-1-500
Germanium	1,000 µg/mL	2% HNO_3 + 0.5% HF	50 mL	100020-3-50
Germanium	1,000 µg/mL	2% HNO_3 + 0.5% HF	100 mL	100020-3-100
Germanium	1,000 µg/mL	2% HNO_3 + 0.5% HF	250 mL	100020-3-250
Germanium	1,000 µg/mL	2% HNO_3 + 0.5% HF	500 mL	100020-3-500
Germanium	10,000 µg/mL	1% HNO_3	100 mL	10M20-1-100
Germanium	10,000 µg/mL	1% HNO_3	250 mL	10M20-1-250
Germanium	10,000 µg/mL	1% HNO_3	500 mL	10M20-1-500
Germanium	10,000 µg/mL	10% HNO_3 + 2% HF	100 mL	10M20-3-100
Germanium	10,000 µg/mL	10% HNO_3 + 2% HF	250 mL	10M20-3-250
Germanium	10,000 µg/mL	10% HNO_3 + 2% HF	500 mL	10M20-3-500
Gold	100 µg/mL	2% HCl	100 mL	100-21-2-100
Gold	100 µg/mL	2% HCl	250 mL	100-21-2-250
Gold	100 µg/mL	2% HCl	500 mL	100-21-2-500
Gold	1,000 µg/mL	2% HCl	50 mL	100021-2-50
Gold	1,000 µg/mL	2% HCl	100 mL	100021-2-100
Gold	1,000 µg/mL	2% HCl	250 mL	100021-2-250
Gold	1,000 µg/mL	2% HCl	500 mL	100021-2-500
Gold	10,000 µg/mL	10% HCl	100 mL	10M21-2-100
Gold	10,000 µg/mL	10% HCl	250 mL	10M21-2-250
Gold	10,000 µg/mL	10% HCl	500 mL	10M21-2-500
Hafnium	100 µg/mL	2% HNO_3 + Tr HF	100 mL	100-22-3-100
Hafnium	100 µg/mL	2% HNO_3 + Tr HF	250 mL	100-22-3-250
Hafnium	100 µg/mL	2% HNO_3 + Tr HF	500 mL	100-22-3-500
Hafnium	1,000 µg/mL	2% HNO_3 + 0.5% HF	50 mL	100022-3-50
Hafnium	1,000 µg/mL	2% HNO_3 + 0.5% HF	100 mL	100022-3-100
Hafnium	1,000 µg/mL	2% HNO_3 + 0.5% HF	250 mL	100022-3-250
Hafnium	1,000 µg/mL	2% HNO_3 + 0.5% HF	500 mL	100022-3-500
Hafnium	10,000 µg/mL	4% HNO_3 + 2% HF	100 mL	10M22-3-100
Hafnium	10,000 µg/mL	4% HNO_3 + 2% HF	250 mL	10M22-3-250
Hafnium	10,000 µg/mL	4% HNO_3 + 2% HF	500 mL	10M22-3-500
Holmium	100 µg/mL	2% HNO_3	100 mL	100-23-1-100
Holmium	100 µg/mL	2% HNO_3	250 mL	100-23-1-250
Holmium	1,000 µg/mL	2% HNO_3	50 mL	100023-1-50
Holmium	1,000 µg/mL	2% HNO_3	100 mL	100023-1-100
Holmium	1,000 µg/mL	2% HNO_3	250 mL	100023-1-250
Holmium	1,000 µg/mL	2% HNO_3	500 mL	100023-1-500
Holmium	1,000 µg/mL	2% HCl	100 mL	100023-2-100
Holmium	1,000 µg/mL	2% HCl	250 mL	100023-2-250
Holmium	1,000 µg/mL	2% HCl	500 mL	100023-2-500
Holmium	10,000 µg/mL	4% HNO_3	100 mL	10M23-1-100
Holmium	10,000 µg/mL	4% HNO_3	250 mL	10M23-1-250
Holmium	10,000 µg/mL	4% HNO_3	500 mL	10M23-1-500
Holmium	10,000 µg/mL	4% HCl	100 mL	10M23-2-100
Holmium	10,000 µg/mL	4% HCl	250 mL	10M23-2-250

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Indium	100 µg/mL	2% HNO_3	100 mL	100-24-1-100
Indium	100 µg/mL	2% HNO_3	250 mL	100-24-1-250
Indium	100 µg/mL	2% HNO_3	500 mL	100-24-1-500
Indium	1,000 µg/mL	2% HNO_3	50 mL	100024-1-50
Indium	1,000 µg/mL	2% HNO_3	100 mL	100024-1-100
Indium	1,000 µg/mL	2% HNO_3	250 mL	100024-1-250
Indium	1,000 µg/mL	2% HNO_3	500 mL	100024-1-500
Indium	1,000 µg/mL	2% HCl	100 mL	100024-2-100
Indium	1,000 µg/mL	2% HCl	250 mL	100024-2-250
Indium	1,000 µg/mL	2% HCl	500 mL	100024-2-500
Indium	10,000 µg/mL	4% HNO_3	100 mL	10M24-1-100
Indium	10,000 µg/mL	4% HNO_3	250 mL	10M24-1-250
Indium	10,000 µg/mL	4% HNO_3	500 mL	10M24-1-500
Indium	10,000 µg/mL	10% HCl	100 mL	10M24-2-100
Indium	10,000 µg/mL	10% HCl	250 mL	10M24-2-250
Indium	10,000 µg/mL	10% HCl	500 mL	10M24-2-500
Iridium	100 µg/mL	2% HCl	100 mL	100-25-2-100
Iridium	100 µg/mL	2% HCl	250 mL	100-25-2-250
Iridium	100 µg/mL	2% HCl	500 mL	100-25-2-500
Iridium	1,000 µg/mL	2% HCl	50 mL	100025-2-50
Iridium	1,000 µg/mL	2% HCl	100 mL	100025-2-100
Iridium	1,000 µg/mL	2% HCl	250 mL	100025-2-250
Iridium	1,000 µg/mL	2% HCl	500 mL	100025-2-500
Iron	100 µg/mL	2% HNO_3	100 mL	100-26-1-100
Iron	100 µg/mL	2% HNO_3	250 mL	100-26-1-250
Iron	100 µg/mL	2% HNO_3	500 mL	100-26-1-500
Iron	1,000 µg/mL	2% HNO_3	50 mL	100026-1-50
Iron	1,000 µg/mL	2% HNO_3	100 mL	100026-1-100
Iron	1,000 µg/mL	2% HNO_3	250 mL	100026-1-250
Iron	1,000 µg/mL	2% HNO_3	500 mL	100026-1-500
Iron	1,000 µg/mL	2% HCl	100 mL	100026-2-100
Iron	1,000 µg/mL	2% HCl	250 mL	100026-2-250
Iron	1,000 µg/mL	2% HCl	500 mL	100026-2-500
Iron	10,000 µg/mL	10% HNO_3	100 mL	10M26-1-100
Iron	10,000 µg/mL	10% HNO_3	250 mL	10M26-1-250
Iron	10,000 µg/mL	10% HNO_3	500 mL	10M26-1-500
Iron	10,000 µg/mL	10% HCl	100 mL	10M26-2-100
Iron	10,000 µg/mL	10% HCl	250 mL	10M26-2-250
Iron	10,000 µg/mL	10% HCl	500 mL	10M26-2-500
Lanthanum	100 µg/mL	2% HNO_3	100 mL	100-27-1-100
Lanthanum	100 µg/mL	2% HNO_3	250 mL	100-27-1-250
Lanthanum	100 µg/mL	2% HNO_3	500 mL	100-27-1-500
Lanthanum	1,000 µg/mL	2% HNO_3	50 mL	100027-1-50
Lanthanum	1,000 µg/mL	2% HNO_3	100 mL	100027-1-100
Lanthanum	1,000 µg/mL	2% HNO_3	250 mL	100027-1-250
Lanthanum	1,000 µg/mL	2% HNO_3	500 mL	100027-1-500
Lanthanum	1,000 µg/mL	2% HCl	50 mL	100027-2-50
Lanthanum	1,000 µg/mL	2% HCl	100 mL	100027-2-100
Lanthanum	1,000 µg/mL	2% HCl	250 mL	100027-2-250
Lanthanum	1,000 µg/mL	2% HCl	500 mL	100027-2-500
Lanthanum	10,000 µg/mL	4% HNO_3	100 mL	10M27-1-100

ICP Single-Component Standards (cont'd)

Component	Concentration	Matrix	Volume	Part #
Lanthanum	10,000 µg/mL	4% HNO_3	250 mL	10M27-1-250
Lanthanum	10,000 µg/mL	4% HNO_3	500 mL	10M27-1-500
Lanthanum	10,000 µg/mL	2% HCl	100 mL	10M27-2-100
Lanthanum	10,000 µg/mL	2% HCl	250 mL	10M27-2-250
Lanthanum	10,000 µg/mL	2% HCl	500 mL	10M27-2-500
Lead	100 µg/mL	2% HNO_3	100 mL	100-28-1-100
Lead	100 µg/mL	2% HNO_3	250 mL	100-28-1-250
Lead	100 µg/mL	2% HNO_3	500 mL	100-28-1-500
Lead	1,000 µg/mL	2% HNO_3	50 mL	100028-1-50
Lead	1,000 µg/mL	2% HNO_3	100 mL	100028-1-100
Lead	1,000 µg/mL	2% HNO_3	250 mL	100028-1-250
Lead	1,000 µg/mL	2% HNO_3	500 mL	100028-1-500
Lead	1,000 µg/mL	2% HCl	100 mL	100028-2-100
Lead	1,000 µg/mL	2% HCl	250 mL	100028-2-250
Lead	1,000 µg/mL	2% HCl	500 mL	100028-2-500
Lead	10,000 µg/mL	4% HNO_3	100 mL	10M28-1-100
Lead	10,000 µg/mL	4% HNO_3	250 mL	10M28-1-250
Lead	10,000 µg/mL	4% HNO_3	500 mL	10M28-1-500
Lithium	100 µg/mL	2% HNO_3	100 mL	100-29-1-100
Lithium	100 µg/mL	2% HNO_3	250 mL	100-29-1-250
Lithium	100 µg/mL	2% HNO_3	500 mL	100-29-1-500
Lithium	1,000 µg/mL	1% HNO_3	50 mL	100029-1-50
Lithium	1,000 µg/mL	1% HNO_3	100 mL	100029-1-100
Lithium	1,000 µg/mL	1% HNO_3	250 mL	100029-1-250
Lithium	1,000 µg/mL	1% HNO_3	500 mL	100029-1-500
Lithium	1,000 µg/mL	1% HCl	100 mL	100029-2-100
Lithium	1,000 µg/mL	1% HCl	250 mL	100029-2-250
Lithium	1,000 µg/mL	1% HCl	500 mL	100029-2-500
Lithium	10,000 µg/mL	1% HNO_3	100 mL	10M29-1-100
Lithium	10,000 µg/mL	1% HNO_3	250 mL	10M29-1-250
Lithium	10,000 µg/mL	1% HNO_3	500 mL	10M29-1-500
Lithium	10,000 µg/mL	1% HCl	100 mL	10M29-2-100
Lithium	10,000 µg/mL	1% HCl	250 mL	10M29-2-250
Lithium	10,000 µg/mL	1% HCl	500 mL	10M29-2-500
Lithium 6 Isotope	1,000 µg/mL	1% HNO_3	50 mL	100029-6I-50
Lithium 6 Isotope	1,000 µg/mL	1% HNO_3	100 mL	100029-6I-100
Lithium 6 Isotope	1,000 µg/mL	1% HNO_3	250 mL	100029-6I-250
Lithium 6 Isotope	1,000 µg/mL	1% HNO_3	500 mL	100029-6I-500
Lutetium	100 µg/mL	2% HNO_3	100 mL	100-30-1-100
Lutetium	100 µg/mL	2% HNO_3	250 mL	100-30-1-250
Lutetium	100 µg/mL	2% HNO_3	500 mL	100-30-1-500
Lutetium	1,000 µg/mL	2% HNO_3	50 mL	100030-1-50
Lutetium	1,000 µg/mL	2% HNO_3	100 mL	100030-1-100
Lutetium	1,000 µg/mL	2% HNO_3	250 mL	100030-1-250
Lutetium	1,000 µg/mL	2% HNO_3	500 mL	100030-1-500
Lutetium	1,000 µg/mL	2% HCl	100 mL	100030-2-100
Lutetium	1,000 µg/mL	2% HCl	250 mL	100030-2-250
Lutetium	1,000 µg/mL	2% HCl	500 mL	100030-2-500
Lutetium	10,000 µg/mL	4% HNO_3	100 mL	10M30-1-100
Lutetium	10,000 µg/mL	4% HNO_3	250 mL	10M30-1-250
Lutetium	10,000 µg/mL	4% HNO_3	500 mL	10M30-1-500

ICP Single-Component Standards (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Lutetium	10,000 µg/mL	4% HCl	100 mL	10M30-2-100
Lutetium	10,000 µg/mL	4% HCl	250 mL	10M30-2-250
Lutetium	10,000 µg/mL	4% HCl	500 mL	10M30-2-500
Magnesium	100 µg/mL	2% HNO_3	100 mL	100-31-1-100
Magnesium	100 µg/mL	2% HNO_3	250 mL	100-31-1-250
Magnesium	100 µg/mL	2% HNO_3	500 mL	100-31-1-500
Magnesium	1,000 µg/mL	2% HNO_3	50 mL	100031-1-50
Magnesium	1,000 µg/mL	2% HNO_3	100 mL	100031-1-100
Magnesium	1,000 µg/mL	2% HNO_3	250 mL	100031-1-250
Magnesium	1,000 µg/mL	2% HNO_3	500 mL	100031-1-500
Magnesium	1,000 µg/mL	2% HCl	100 mL	100031-2-100
Magnesium	1,000 µg/mL	2% HCl	250 mL	100031-2-250
Magnesium	1,000 µg/mL	2% HCl	500 mL	100031-2-500
Magnesium	10,000 µg/mL	4% HNO_3	100 mL	10M31-1-100
Magnesium	10,000 µg/mL	4% HNO_3	250 mL	10M31-1-250
Magnesium	10,000 µg/mL	4% HNO_3	500 mL	10M31-1-500
Magnesium	10,000 µg/mL	10% HCl	100 mL	10M31-2-100
Magnesium	10,000 µg/mL	10% HCl	250 mL	10M31-2-250
Magnesium	10,000 µg/mL	10% HCl	500 mL	10M31-2-500
Manganese	100 µg/mL	2% HNO_3	100 mL	100-32-1-100
Manganese	100 µg/mL	2% HNO_3	250 mL	100-32-1-250
Manganese	100 µg/mL	2% HNO_3	500 mL	100-32-1-500
Manganese	1,000 µg/mL	2% HNO_3	50 mL	100032-1-50
Manganese	1,000 µg/mL	2% HNO_3	100 mL	100032-1-100
Manganese	1,000 µg/mL	2% HNO_3	250 mL	100032-1-250
Manganese	1,000 µg/mL	2% HNO_3	500 mL	100032-1-500
Manganese	1,000 µg/mL	2% HCl	100 mL	100032-2-100
Manganese	1,000 µg/mL	2% HCl	250 mL	100032-2-250
Manganese	1,000 µg/mL	2% HCl	500 mL	100032-2-500
Manganese	10,000 µg/mL	4% HNO_3	100 mL	10M32-1-100
Manganese	10,000 µg/mL	4% HNO_3	250 mL	10M32-1-250
Manganese	10,000 µg/mL	4% HNO_3	500 mL	10M32-1-500
Manganese	10,000 µg/mL	10% HCl	100 mL	10M32-2-100
Manganese	10,000 µg/mL	10% HCl	250 mL	10M32-2-250
Manganese	10,000 µg/mL	10% HCl	500 mL	10M32-2-500
Mercury	100 µg/mL	5% HNO_3	100 mL	100-33-1-100
Mercury	100 µg/mL	5% HNO_3	250 mL	100-33-1-250
Mercury	100 µg/mL	5% HNO_3	500 mL	100-33-1-500
Mercury	1,000 µg/mL	2% HNO_3	50 mL	100033-1-50
Mercury	1,000 µg/mL	2% HNO_3	100 mL	100033-1-100
Mercury	1,000 µg/mL	2% HNO_3	250 mL	100033-1-250
Mercury	1,000 µg/mL	2% HNO_3	500 mL	100033-1-500
Mercury	1,000 µg/mL	2% HCl	100 mL	100033-2-100
Mercury	1,000 µg/mL	2% HCl	250 mL	100033-2-250
Mercury	1,000 µg/mL	2% HCl	500 mL	100033-2-500
Mercury	1,000 µg/mL	4% HCl + 3% HNO_3	50 mL	100077-12-50
Mercury	1,000 µg/mL	4% HCl + 3% HNO_3	100 mL	100077-12-100
Mercury	1,000 µg/mL	4% HCl + 3% HNO_3	250 mL	100077-12-250
Mercury	1,000 µg/mL	4% HCl + 3% HNO_3	500 mL	100077-12-500
Mercury	10,000 µg/mL	10% HNO_3	100 mL	10M33-1-100
Mercury	10,000 µg/mL	10% HNO_3	250 mL	10M33-1-250

ICP Single-Component Standards (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Mercury	10,000 µg/mL	10% HNO_3	500 mL	10M33-1-500
Molybdenum	100 µg/mL	2% HNO_3 + Tr HF	100 mL	100-34-3-100
Molybdenum	100 µg/mL	2% HNO_3 + Tr HF	250 mL	100-34-3-250
Molybdenum	100 µg/mL	2% HNO_3 + Tr HF	500 mL	100-34-3-500
Molybdenum	1,000 µg/mL	2% HCl	50 mL	100034-2-50
Molybdenum	1,000 µg/mL	2% HCl	100 mL	100034-2-100
Molybdenum	1,000 µg/mL	2% HCl	250 mL	100034-2-250
Molybdenum	1,000 µg/mL	2% HCl	500 mL	100034-2-500
Molybdenum	1,000 µg/mL	2% HNO_3 + 0.1% HF	50 mL	100034-3-50
Molybdenum	1,000 µg/mL	2% HNO_3 + 0.1% HF	100 mL	100034-3-100
Molybdenum	1,000 µg/mL	2% HNO_3 + 0.1% HF	250 mL	100034-3-250
Molybdenum	1,000 µg/mL	2% HNO_3 + 0.1% HF	500 mL	100034-3-500
Molybdenum	1,000 µg/mL	H_2O	50 mL	100034-4-50
Molybdenum	1,000 µg/mL	H_2O	100 mL	100034-4-100
Molybdenum	1,000 µg/mL	H_2O	250 mL	100034-4-250
Molybdenum	1,000 µg/mL	H_2O	500 mL	100034-4-500
Molybdenum	10,000 µg/mL	10% HCl	100 mL	10M34-2-100
Molybdenum	10,000 µg/mL	10% HCl	250 mL	10M34-2-250
Molybdenum	10,000 µg/mL	10% HCl	500 mL	10M34-2-500
Molybdenum	10,000 µg/mL	4% HNO_3 + 2% HF	100 mL	10M34-3-100
Molybdenum	10,000 µg/mL	4% HNO_3 + 2% HF	250 mL	10M34-3-250
Molybdenum	10,000 µg/mL	4% HNO_3 + 2% HF	500 mL	10M34-3-500
Neodymium	100 µg/mL	2% HNO_3	100 mL	100-35-1-100
Neodymium	100 µg/mL	2% HNO_3	250 mL	100-35-1-250
Neodymium	1,000 µg/mL	2% HNO_3	50 mL	100035-1-50
Neodymium	1,000 µg/mL	2% HNO_3	100 mL	100035-1-100
Neodymium	1,000 µg/mL	2% HNO_3	250 mL	100035-1-250
Neodymium	1,000 µg/mL	2% HNO_3	500 mL	100035-1-500
Neodymium	1,000 µg/mL	2% HCl	100 mL	100035-2-100
Neodymium	1,000 µg/mL	2% HCl	250 mL	100035-2-250
Neodymium	1,000 µg/mL	2% HCl	500 mL	100035-2-500
Neodymium	10,000 µg/mL	4% HNO_3	100 mL	10M35-1-100
Neodymium	10,000 µg/mL	4% HNO_3	250 mL	10M35-1-250
Neodymium	10,000 µg/mL	4% HNO_3	500 mL	10M35-1-500
Neodymium	10,000 µg/mL	4% HCl	100 mL	10M35-2-100
Neodymium	10,000 µg/mL	4% HCl	250 mL	10M35-2-250
Neodymium	10,000 µg/mL	4% HCl	500 mL	10M35-2-500
Nickel	100 µg/mL	2% HNO_3	100 mL	100-36-1-100
Nickel	100 µg/mL	2% HNO_3	250 mL	100-36-1-250
Nickel	100 µg/mL	2% HNO_3	500 mL	100-36-1-500
Nickel	1,000 µg/mL	2% HNO_3	50 mL	100036-1-50
Nickel	1,000 µg/mL	2% HNO_3	100 mL	100036-1-100
Nickel	1,000 µg/mL	2% HNO_3	250 mL	100036-1-250
Nickel	1,000 µg/mL	2% HNO_3	500 mL	100036-1-500
Nickel	1,000 µg/mL	2% HCl	50 mL	100036-2-50
Nickel	1,000 µg/mL	2% HCl	100 mL	100036-2-100
Nickel	1,000 µg/mL	2% HCl	250 mL	100036-2-250
Nickel	1,000 µg/mL	2% HCl	500 mL	100036-2-500
Nickel	10,000 µg/mL	4% HNO_3	100 mL	10M36-1-100
Nickel	10,000 µg/mL	4% HNO_3	250 mL	10M36-1-250
Nickel	10,000 µg/mL	4% HNO_3	500 mL	10M36-1-500

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Nickel	10,000 µg/mL	10% HCl	100 mL	10M36-2-100
Nickel	10,000 µg/mL	10% HCl	250 mL	10M36-2-250
Nickel	10,000 µg/mL	10% HCl	500 mL	10M36-2-500
Niobium	100 µg/mL	2% HNO_3 + Tr HF	100 mL	100-37-3-100
Niobium	100 µg/mL	2% HNO_3 + Tr HF	250 mL	100-37-3-250
Niobium	1,000 µg/mL	2% HNO_3 + 0.5% HF	50 mL	100037-3-50
Niobium	1,000 µg/mL	2% HNO_3 + 0.5% HF	100 mL	100037-3-100
Niobium	1,000 µg/mL	2% HNO_3 + 0.5% HF	250 mL	100037-3-250
Niobium	1,000 µg/mL	2% HNO_3 + 0.5% HF	500 mL	100037-3-500
Niobium	10,000 µg/mL	4% HNO_3 + 1% HF	100 mL	10M37-3-100
Niobium	10,000 µg/mL	4% HNO_3 + 1% HF	250 mL	10M37-3-250
Niobium	10,000 µg/mL	4% HNO_3 + 1% HF	500 mL	10M37-3-500
Osmium	100 µg/mL	2% HCl	100 mL	100-70-2-100
Osmium	100 µg/mL	2% HCl	500 mL	100-70-2-500
Osmium	1,000 µg/mL	20% HCl	50 mL	100070-2-50
Osmium	1,000 µg/mL	20% HCl	100 mL	100070-2-100
Osmium	1,000 µg/mL	20% HCl	250 mL	100070-2-250
Osmium	1,000 µg/mL	20% HCl	500 mL	100070-2-500
Palladium	100 µg/mL	2% HNO_3 + Tr HCl	100 mL	100-38-1-100
Palladium	100 µg/mL	2% HNO_3 + Tr HCl	250 mL	100-38-1-250
Palladium	100 µg/mL	2% HNO_3 + Tr HCl	500 mL	100-38-1-500
Palladium	100 µg/mL	2% HCl	100 mL	100-38-2-100
Palladium	100 µg/mL	2% HCl	250 mL	100-38-2-250
Palladium	100 µg/mL	2% HCl	500 mL	100-38-2-500
Palladium	1,000 µg/mL	10% HNO_3 + Tr HCl	50 mL	100038-1-50
Palladium	1,000 µg/mL	10% HNO_3 + Tr HCl	100 mL	100038-1-100
Palladium	1,000 µg/mL	10% HNO_3 + Tr HCl	250 mL	100038-1-250
Palladium	1,000 µg/mL	10% HNO_3 + Tr HCl	500 mL	100038-1-500
Palladium	1,000 µg/mL	5% HCl	50 mL	100038-2-50
Palladium	1,000 µg/mL	5% HCl	100 mL	100038-2-100
Palladium	1,000 µg/mL	5% HCl	250 mL	100038-2-250
Palladium	1,000 µg/mL	5% HCl	500 mL	100038-2-500
Palladium	10,000 µg/mL	10% HNO_3 + Tr HCl	100 mL	10M38-1-100
Palladium	10,000 µg/mL	10% HNO_3 + Tr HCl	250 mL	10M38-1-250
Palladium	10,000 µg/mL	10% HNO_3 + Tr HCl	500 mL	10M38-1-500
Palladium	10,000 µg/mL	10% HCl	100 mL	10M38-2-100
Palladium	10,000 µg/mL	10% HCl	250 mL	10M38-2-250
Palladium	10,000 µg/mL	10% HCl	500 mL	10M38-2-500
Phosphorus	100 µg/mL	2% HNO_3	100 mL	100-39-1-100
Phosphorus	100 µg/mL	2% HNO_3	250 mL	100-39-1-250
Phosphorus	100 µg/mL	2% HNO_3	500 mL	100-39-1-500
Phosphorus	1,000 µg/mL	0.05% HNO_3 from $NH_4H_2PO_4$	50 mL	100039-1-50
Phosphorus	1,000 µg/mL	0.05% HNO_3 from $NH_4H_2PO_4$	100 mL	100039-1-100
Phosphorus	1,000 µg/mL	0.05% HNO_3 from $NH_4H_2PO_4$	250 mL	100039-1-250
Phosphorus	1,000 µg/mL	0.05% HNO_3 from $NH_4H_2PO_4$	500 mL	100039-1-500
Phosphorus	1,000 µg/mL	0.05% HNO_3 from KH_2PO_4	100 mL	100039-1K-100
Phosphorus	1,000 µg/mL	0.05% HNO_3 from KH_2PO_4	250 mL	100039-1K-250
Phosphorus	1,000 µg/mL	0.05% HNO_3 from KH_2PO_4	500 mL	100039-1K-500
Phosphorus	10,000 µg/mL	0.05% HNO_3 from KH_2PO_4	100 mL	10M39-1K-100
Phosphorus	10,000 µg/mL	0.05% HNO_3 from KH_2PO_4	250 mL	10M39-1K-250
Phosphorus	10,000 µg/mL	0.05% HNO_3 from KH_2PO_4	500 mL	10M39-1K-500

ICP Single-Component Standards (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Phosphorus	10,000 µg/mL	0.05% HNO_3 from $NH_4H_2PO_4$	100 mL	10M39-1-100
Phosphorus	10,000 µg/mL	0.05% HNO_3 from $NH_4H_2PO_4$	250 mL	10M39-1-250
Phosphorus	10,000 µg/mL	0.05% HNO_3 from $NH_4H_2PO_4$	500 mL	10M39-1-500
Platinum	100 µg/mL	2% HCl	100 mL	100-40-2-100
Platinum	100 µg/mL	2% HCl	250 mL	100-40-2-250
Platinum	100 µg/mL	2% HCl	500 mL	100-40-2-500
Platinum	1,000 µg/mL	5% HCl	50 mL	100040-2-50
Platinum	1,000 µg/mL	5% HCl	100 mL	100040-2-100
Platinum	1,000 µg/mL	5% HCl	250 mL	100040-2-250
Platinum	1,000 µg/mL	5% HCl	500 mL	100040-2-500
Platinum	10,000 µg/mL	10% HCl	100 mL	10M40-2-100
Platinum	10,000 µg/mL	10% HCl	250 mL	10M40-2-250
Platinum	10,000 µg/mL	10% HCl	500 mL	10M40-2-500
Potassium	100 µg/mL	2% HNO_3	100 mL	100-41-1-100
Potassium	100 µg/mL	2% HNO_3	250 mL	100-41-1-250
Potassium	100 µg/mL	2% HNO_3	500 mL	100-41-1-500
Potassium	1,000 µg/mL	1% HNO_3	50 mL	100041-1-50
Potassium	1,000 µg/mL	1% HNO_3	100 mL	100041-1-100
Potassium	1,000 µg/mL	1% HNO_3	250 mL	100041-1-250
Potassium	1,000 µg/mL	1% HNO_3	500 mL	100041-1-500
Potassium	1,000 µg/mL	1% HCl	50 mL	100041-2-50
Potassium	1,000 µg/mL	1% HCl	100 mL	100041-2-100
Potassium	1,000 µg/mL	1% HCl	250 mL	100041-2-250
Potassium	1,000 µg/mL	1% HCl	500 mL	100041-2-500
Potassium	10,000 µg/mL	1% HNO_3	100 mL	10M41-1-100
Potassium	10,000 µg/mL	1% HNO_3	250 mL	10M41-1-250
Potassium	10,000 µg/mL	1% HNO_3	500 mL	10M41-1-500
Potassium	10,000 µg/mL	1% HCl	100 mL	10M41-2-100
Potassium	10,000 µg/mL	1% HCl	250 mL	10M41-2-250
Potassium	10,000 µg/mL	1% HCl	500 mL	10M41-2-500
Praseodymium	100 µg/mL	2% HNO_3	100 mL	100-42-1-100
Praseodymium	1,000 µg/mL	2% HNO_3	50 mL	100042-1-50
Praseodymium	1,000 µg/mL	2% HNO_3	100 mL	100042-1-100
Praseodymium	1,000 µg/mL	2% HNO_3	250 mL	100042-1-250
Praseodymium	1,000 µg/mL	2% HNO_3	500 mL	100042-1-500
Praseodymium	1,000 µg/mL	2% HCl	100 mL	100042-2-100
Praseodymium	1,000 µg/mL	2% HCl	250 mL	100042-2-250
Praseodymium	1,000 µg/mL	2% HCl	500 mL	100042-2-500
Praseodymium	10,000 µg/mL	4% HNO_3	100 mL	10M42-1-100
Praseodymium	10,000 µg/mL	4% HNO_3	250 mL	10M42-1-250
Praseodymium	10,000 µg/mL	4% HNO_3	500 mL	10M42-1-500
Praseodymium	10,000 µg/mL	4% HCl	100 mL	10M42-2-100
Praseodymium	10,000 µg/mL	4% HCl	250 mL	10M42-2-250
Praseodymium	10,000 µg/mL	4% HCl	500 mL	10M42-2-500
Rhenium	100 µg/mL	2% HNO_3	100 mL	100-43-1-100
Rhenium	100 µg/mL	2% HNO_3	250 mL	100-43-1-250
Rhenium	100 µg/mL	2% HNO_3	500 mL	100-43-1-500
Rhenium	1,000 µg/mL	2% HNO_3	50 mL	100043-1-50
Rhenium	1,000 µg/mL	2% HNO_3	100 mL	100043-1-100
Rhenium	1,000 µg/mL	2% HNO_3	250 mL	100043-1-250
Rhenium	1,000 µg/mL	2% HNO_3	500 mL	100043-1-500

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Rhenium	1,000 µg/mL	2% HCl	100 mL	100043-2-100
Rhenium	1,000 µg/mL	2% HCl	250 mL	100043-2-250
Rhenium	1,000 µg/mL	2% HCl	500 mL	100043-2-500
Rhenium	10,000 µg/mL	4% HNO_3	100 mL	10M43-1-100
Rhenium	10,000 µg/mL	4% HNO_3	250 mL	10M43-1-250
Rhenium	10,000 µg/mL	4% HNO_3	500 mL	10M43-1-500
Rhodium	100 µg/mL	2% HCl	100 mL	100-44-2-100
Rhodium	100 µg/mL	2% HCl	250 mL	100-44-2-250
Rhodium	100 µg/mL	2% HCl	500 mL	100-44-2-500
Rhodium	1,000 µg/mL	10% HCl	50 mL	100044-2-50
Rhodium	1,000 µg/mL	10% HCl	100 mL	100044-2-100
Rhodium	1,000 µg/mL	10% HCl	250 mL	100044-2-250
Rhodium	1,000 µg/mL	10% HCl	500 mL	100044-2-500
Rhodium	10,000 µg/mL	10% HCl	100 mL	10M44-2-100
Rhodium	10,000 µg/mL	10% HCl	250 mL	10M44-2-250
Rhodium	10,000 µg/mL	10% HCl	500 mL	10M44-2-500
Rubidium	100 µg/mL	2% HNO_3	100 mL	100-45-1-100
Rubidium	100 µg/mL	2% HNO_3	500 mL	100-45-1-500
Rubidium	1,000 µg/mL	1% HNO_3	100 mL	100045-1-100
Rubidium	1,000 µg/mL	1% HNO_3	250 mL	100045-1-250
Rubidium	1,000 µg/mL	1% HNO_3	500 mL	100045-1-500
Rubidium	1,000 µg/mL	1% HCl	100 mL	100045-2-100
Rubidium	1,000 µg/mL	1% HCl	250 mL	100045-2-250
Rubidium	1,000 µg/mL	1% HCl	500 mL	100045-2-500
Rubidium	10,000 µg/mL	1% HNO_3	100 mL	10M45-1-100
Rubidium	10,000 µg/mL	1% HNO_3	250 mL	10M45-1-250
Rubidium	10,000 µg/mL	1% HNO_3	500 mL	10M45-1-500
Rubidium	10,000 µg/mL	1% HCl	100 mL	10M45-2-100
Rubidium	10,000 µg/mL	1% HCl	250 mL	10M45-2-250
Rubidium	10,000 µg/mL	1% HCl	500 mL	10M45-2-500
Ruthenium	100 µg/mL	2% HCl	100 mL	100-46-2-100
Ruthenium	100 µg/mL	2% HCl	250 mL	100-46-2-250
Ruthenium	1,000 µg/mL	2% HCl	50 mL	100046-2-50
Ruthenium	1,000 µg/mL	2% HCl	100 mL	100046-2-100
Ruthenium	1,000 µg/mL	2% HCl	250 mL	100046-2-250
Ruthenium	1,000 µg/mL	2% HCl	500 mL	100046-2-500
Ruthenium	10,000 µg/mL	5% HCl	100 mL	10M46-2-100
Ruthenium	10,000 µg/mL	5% HCl	250 mL	10M46-2-250
Ruthenium	10,000 µg/mL	5% HCl	500 mL	10M46-2-500
Samarium	100 µg/mL	2% HNO_3	100 mL	100-47-1-100
Samarium	1,000 µg/mL	2% HNO_3	50 mL	100047-1-50
Samarium	1,000 µg/mL	2% HNO_3	100 mL	100047-1-100
Samarium	1,000 µg/mL	2% HNO_3	250 mL	100047-1-250
Samarium	1,000 µg/mL	2% HNO_3	500 mL	100047-1-500
Samarium	1,000 µg/mL	2% HCl	100 mL	100047-2-100
Samarium	1,000 µg/mL	2% HCl	250 mL	100047-2-250
Samarium	10,000 µg/mL	4% HNO_3	100 mL	10M47-1-100
Samarium	10,000 µg/mL	4% HNO_3	250 mL	10M47-1-250
Samarium	10,000 µg/mL	4% HNO_3	500 mL	10M47-1-500
Samarium	10,000 µg/mL	4% HCl	100 mL	10M47-2-100
Samarium	10,000 µg/mL	4% HCl	250 mL	10M47-2-250

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Scandium	100 µg/mL	2% HNO_3	100 mL	100-48-1-100
Scandium	100 µg/mL	2% HNO_3	250 mL	100-48-1-250
Scandium	100 µg/mL	2% HNO_3	500 mL	100-48-1-500
Scandium	1,000 µg/mL	2% HNO_3	50 mL	100048-1-50
Scandium	1,000 µg/mL	2% HNO_3	100 mL	100048-1-100
Scandium	1,000 µg/mL	2% HNO_3	250 mL	100048-1-250
Scandium	1,000 µg/mL	2% HNO_3	500 mL	100048-1-500
Scandium	1,000 µg/mL	2% HCl	50 mL	100048-2-50
Scandium	1,000 µg/mL	2% HCl	100 mL	100048-2-100
Scandium	1,000 µg/mL	2% HCl	250 mL	100048-2-250
Scandium	1,000 µg/mL	2% HCl	500 mL	100048-2-500
Scandium	10,000 µg/mL	4% HNO_3	100 mL	10M48-1-100
Scandium	10,000 µg/mL	4% HNO_3	250 mL	10M48-1-250
Scandium	10,000 µg/mL	4% HNO_3	500 mL	10M48-1-500
Scandium	10,000 µg/mL	10% HCl	100 mL	10M48-2-100
Scandium	10,000 µg/mL	10% HCl	250 mL	10M48-2-250
Scandium	10,000 µg/mL	10% HCl	500 mL	10M48-2-500
Selenium	100 µg/mL	2% HNO_3	100 mL	100-49-1-100
Selenium	100 µg/mL	2% HNO_3	250 mL	100-49-1-250
Selenium	100 µg/mL	2% HNO_3	500 mL	100-49-1-500
Selenium	1,000 µg/mL	2% HNO_3	50 mL	100049-1-50
Selenium	1,000 µg/mL	2% HNO_3	100 mL	100049-1-100
Selenium	1,000 µg/mL	2% HNO_3	250 mL	100049-1-250
Selenium	1,000 µg/mL	2% HNO_3	500 mL	100049-1-500
Selenium	1,000 µg/mL	2% HCl	50 mL	100049-2-50
Selenium	1,000 µg/mL	2% HCl	100 mL	100049-2-100
Selenium	1,000 µg/mL	2% HCl	250 mL	100049-2-250
Selenium	1,000 µg/mL	2% HCl	500 mL	100049-2-500
Selenium	10,000 µg/mL	10% HNO_3	100 mL	10M49-1-100
Selenium	10,000 µg/mL	10% HNO_3	250 mL	10M49-1-250
Selenium	10,000 µg/mL	10% HNO_3	500 mL	10M49-1-500
Selenium	10,000 µg/mL	10% HCl	100 mL	10M49-2-100
Selenium	10,000 µg/mL	10% HCl	250 mL	10M49-2-250
Selenium	10,000 µg/mL	10% HCl	500 mL	10M49-2-500
Silica	1,000 µg/mL	1% HNO_3 + Tr HF	100 mL	1000SIO2-3-100
Silica	1,000 µg/mL	1% HNO_3 + Tr HF	250 mL	1000SIO2-3-250
Silica	1,000 µg/mL	1% HNO_3 + Tr HF	500 mL	1000SIO2-3-500
Silica	1,000 µg/mL	H_2O	100 mL	1000SIO2-4F-100
Silica	1,000 µg/mL	H_2O	250 mL	1000SIO2-4F-250
Silica	1,000 µg/mL	H_2O	500 mL	1000SIO2-4F-500
Silicon	100 µg/mL	H_2O	100 mL	100-50-4-100
Silicon	100 µg/mL	H_2O	250 mL	100-50-4-250
Silicon	100 µg/mL	H_2O	500 mL	100-50-4-500
Silicon	100 µg/mL	H_2O	100 mL	100-50-4F-100
Silicon	100 µg/mL	H_2O	250 mL	100-50-4F-250
Silicon	100 µg/mL	H_2O	500 mL	100-50-4F-500
Silicon	1,000 µg/mL	1% HNO_3 + Tr HF	50 mL	100050-3-50
Silicon	1,000 µg/mL	1% HNO_3 + Tr HF	100 mL	100050-3-100
Silicon	1,000 µg/mL	1% HNO_3 + Tr HF	250 mL	100050-3-250
Silicon	1,000 µg/mL	1% HNO_3 + Tr HF	500 mL	100050-3-500
Silicon	1,000 µg/mL	H_2O	50 mL	100050-4-50

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Silicon	1,000 µg/mL	H_2O	100 mL	100050-4-100
Silicon	1,000 µg/mL	H_2O	250 mL	100050-4-250
Silicon	1,000 µg/mL	H_2O	500 mL	100050-4-500
Silicon	1,000 µg/mL	H_2O	50 mL	100050-4F-50
Silicon	1,000 µg/mL	H_2O	100 mL	100050-4F-100
Silicon	1,000 µg/mL	H_2O	250 mL	100050-4F-250
Silicon	1,000 µg/mL	H_2O	500 mL	100050-4F-500
Silicon	10,000 µg/mL	H_2O	100 mL	10M50-4-100
Silicon	10,000 µg/mL	H_2O	250 mL	10M50-4-250
Silicon	10,000 µg/mL	H_2O	500 mL	10M50-4-500
Silicon	10,000 µg/mL	H_2O	100 mL	10M50-4F-100
Silicon	10,000 µg/mL	H_2O	250 mL	10M50-4F-250
Silicon	10,000 µg/mL	H_2O	500 mL	10M50-4F-500
Silver	100 µg/mL	2% HNO_3	100 mL	100-51-1-100
Silver	100 µg/mL	2% HNO_3	250 mL	100-51-1-250
Silver	100 µg/mL	2% HNO_3	500 mL	100-51-1-500
Silver	1,000 µg/mL	2% HNO_3	50 mL	100051-1-50
Silver	1,000 µg/mL	2% HNO_3	100 mL	100051-1-100
Silver	1,000 µg/mL	2% HNO_3	250 mL	100051-1-250
Silver	1,000 µg/mL	2% HNO_3	500 mL	100051-1-500
Silver	10,000 µg/mL	4% HNO_3	100 mL	10M51-1-100
Silver	10,000 µg/mL	4% HNO_3	250 mL	10M51-1-250
Silver	10,000 µg/mL	4% HNO_3	500 mL	10M51-1-500
Sodium	100 µg/mL	2% HNO_3	100 mL	100-52-1-100
Sodium	100 µg/mL	2% HNO_3	250 mL	100-52-1-250
Sodium	100 µg/mL	2% HNO_3	500 mL	100-52-1-500
Sodium	1,000 µg/mL	1% HNO_3	50 mL	100052-1-50
Sodium	1,000 µg/mL	1% HNO_3	100 mL	100052-1-100
Sodium	1,000 µg/mL	1% HNO_3	250 mL	100052-1-250
Sodium	1,000 µg/mL	1% HNO_3	500 mL	100052-1-500
Sodium	1,000 µg/mL	1% HCl	100 mL	100052-2-100
Sodium	1,000 µg/mL	1% HCl	250 mL	100052-2-250
Sodium	1,000 µg/mL	1% HCl	500 mL	100052-2-500
Sodium	10,000 µg/mL	1% HNO_3	100 mL	10M52-1-100
Sodium	10,000 µg/mL	1% HNO_3	250 mL	10M52-1-250
Sodium	10,000 µg/mL	1% HNO_3	500 mL	10M52-1-500
Strontium	100 µg/mL	2% HNO_3	100 mL	100-53-1-100
Strontium	100 µg/mL	2% HNO_3	250 mL	100-53-1-250
Strontium	100 µg/mL	2% HNO_3	500 mL	100-53-1-500
Strontium	1,000 µg/mL	1% HNO_3	50 mL	100053-1-50
Strontium	1,000 µg/mL	1% HNO_3	100 mL	100053-1-100
Strontium	1,000 µg/mL	1% HNO_3	250 mL	100053-1-250
Strontium	1,000 µg/mL	1% HNO_3	500 mL	100053-1-500
Strontium	1,000 µg/mL	2% HCl	100 mL	100053-2-100
Strontium	1,000 µg/mL	2% HCl	250 mL	100053-2-250
Strontium	1,000 µg/mL	2% HCl	500 mL	100053-2-500
Strontium	10,000 µg/mL	1% HNO_3	100 mL	10M53-1-100
Strontium	10,000 µg/mL	1% HNO_3	250 mL	10M53-1-250
Strontium	10,000 µg/mL	1% HNO_3	500 mL	10M53-1-500
Strontium	10,000 µg/mL	10% HCl	100 mL	10M53-2-100
Strontium	10,000 µg/mL	10% HCl	250 mL	10M53-2-250

ICP Single-Component Standards (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Strontium	10,000 µg/mL	10% HCl	500 mL	10M53-2-500
Sulfur	100 µg/mL	H_2O	100 mL	100-54-5-100
Sulfur	100 µg/mL	H_2O	250 mL	100-54-5-250
Sulfur	100 µg/mL	H_2O	500 mL	100-54-5-500
Sulfur	1,000 µg/mL	H_2O	50 mL	100054-5-50
Sulfur	1,000 µg/mL	H_2O	100 mL	100054-5-100
Sulfur	1,000 µg/mL	H_2O	250 mL	100054-5-250
Sulfur	1,000 µg/mL	H_2O	500 mL	100054-5-500
Sulfur	10,000 µg/mL	H_2O	100 mL	10M54-5-100
Sulfur	10,000 µg/mL	H_2O	250 mL	10M54-5-250
Sulfur	10,000 µg/mL	H_2O	500 mL	10M54-5-500
Sodium	10,000 µg/mL	1% HCl	100 mL	10M52-2-100
Sodium	10,000 µg/mL	1% HCl	250 mL	10M52-2-250
Sodium	10,000 µg/mL	1% HCl	500 mL	10M52-2-500
Tantalum	100 µg/mL	2% HNO_3 + Tr HF	100 mL	100-55-3-100
Tantalum	100 µg/mL	2% HNO_3 + Tr HF	250 mL	100-55-3-250
Tantalum	1,000 µg/mL	2% HNO_3 + 0.5% HF	50 mL	100055-3-50
Tantalum	1,000 µg/mL	2% HNO_3 + 0.5% HF	100 mL	100055-3-100
Tantalum	1,000 µg/mL	2% HNO_3 + 0.5% HF	250 mL	100055-3-250
Tantalum	1,000 µg/mL	2% HNO_3 + 0.5% HF	500 mL	100055-3-500
Tantalum	10,000 µg/mL	5% HNO_3 + 2% HF	100 mL	10M55-3-100
Tantalum	10,000 µg/mL	5% HNO_3 + 2% HF	250 mL	10M55-3-250
Tantalum	10,000 µg/mL	5% HNO_3 + 2% HF	500 mL	10M55-3-500
Tellurium	100 µg/mL	2% HNO_3 + Tr HF	100 mL	100-56-3-100
Tellurium	100 µg/mL	2% HNO_3 + Tr HF	250 mL	100-56-3-250
Tellurium	100 µg/mL	2% HNO_3 + Tr HF	500 mL	100-56-3-500
Tellurium	1,000 µg/mL	20% HCl	100 mL	100056-2-100
Tellurium	1,000 µg/mL	20% HCl	250 mL	100056-2-250
Tellurium	1,000 µg/mL	20% HCl	500 mL	100056-2-500
Tellurium	1,000 µg/mL	2% HNO_3 + 0.5% HF	50 mL	100056-3-50
Tellurium	1,000 µg/mL	2% HNO_3 + 0.5% HF	100 mL	100056-3-100
Tellurium	1,000 µg/mL	2% HNO_3 + 0.5% HF	250 mL	100056-3-250
Tellurium	1,000 µg/mL	2% HNO_3 + 0.5% HF	500 mL	100056-3-500
Tellurium	10,000 µg/mL	40% HCl	100 mL	10M56-2-100
Tellurium	10,000 µg/mL	40% HCl	250 mL	10M56-2-250
Tellurium	10,000 µg/mL	40% HCl	500 mL	10M56-2-500
Tellurium	10,000 µg/mL	5% HNO_3 + 2% HF	100 mL	10M56-3-100
Tellurium	10,000 µg/mL	5% HNO_3 + 2% HF	250 mL	10M56-3-250
Tellurium	10,000 µg/mL	5% HNO_3 + 2% HF	500 mL	10M56-3-500
Terbium	100 µg/mL	2% HNO_3	100 mL	100-57-1-100
Terbium	100 µg/mL	2% HNO_3	250 mL	100-57-1-250
Terbium	1,000 µg/mL	2% HNO_3	50 mL	100057-1-50
Terbium	1,000 µg/mL	2% HNO_3	100 mL	100057-1-100
Terbium	1,000 µg/mL	2% HNO_3	250 mL	100057-1-250
Terbium	1,000 µg/mL	2% HNO_3	500 mL	100057-1-500
Terbium	1,000 µg/mL	2% HCl	100 mL	100057-2-100
Terbium	1,000 µg/mL	2% HCl	250 mL	100057-2-250
Terbium	1,000 µg/mL	2% HCl	500 mL	100057-2-500
Terbium	10,000 µg/mL	4% HNO_3	100 mL	10M57-1-100
Terbium	10,000 µg/mL	4% HNO_3	250 mL	10M57-1-250
Terbium	10,000 µg/mL	4% HNO_3	500 mL	10M57-1-500

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Terbium	10,000 µg/mL	4% HCl	100 mL	10M57-2-100
Thallium	100 µg/mL	2% HNO_3	100 mL	100-58-1-100
Thallium	100 µg/mL	2% HNO_3	250 mL	100-58-1-250
Thallium	100 µg/mL	2% HNO_3	500 mL	100-58-1-500
Thallium	1,000 µg/mL	2% HNO_3	50 mL	100058-1-50
Thallium	1,000 µg/mL	2% HNO_3	100 mL	100058-1-100
Thallium	1,000 µg/mL	2% HNO_3	250 mL	100058-1-250
Thallium	1,000 µg/mL	2% HNO_3	500 mL	100058-1-500
Thallium	10,000 µg/mL	4% HNO_3	100 mL	10M58-1-100
Thallium	10,000 µg/mL	4% HNO_3	250 mL	10M58-1-250
Thallium	10,000 µg/mL	4% HNO_3	500 mL	10M58-1-500
Thorium	100 µg/mL	2% HNO_3	100 mL	100-59-1-100
Thorium	100 µg/mL	2% HNO_3	250 mL	100-59-1-250
Thorium	100 µg/mL	2% HNO_3	500 mL	100-59-1-500
Thorium	1,000 µg/mL	2% HCl	100 mL	100059-2-100
Thorium	1,000 µg/mL	2% HCl	250 mL	100059-2-250
Thorium	1,000 µg/mL	2% HCl	500 mL	100059-2-500
Thorium	10,000 µg/mL	4% HNO_3	100 mL	10M59-1-100
Thorium	10,000 µg/mL	4% HNO_3	250 mL	10M59-1-250
Thorium	10,000 µg/mL	4% HNO_3	500 mL	10M59-1-500
Thulium	100 µg/mL	2% HNO_3	100 mL	100-60-1-100
Thulium	1,000 µg/mL	2% HNO_3	100 mL	100060-1-100
Thulium	1,000 µg/mL	2% HNO_3	250 mL	100060-1-250
Thulium	1,000 µg/mL	2% HNO_3	500 mL	100060-1-500
Thulium	1,000 µg/mL	2% HCl	100 mL	100060-2-100
Thulium	1,000 µg/mL	2% HCl	250 mL	100060-2-250
Thulium	1,000 µg/mL	2% HCl	500 mL	100060-2-500
Thulium	10,000 µg/mL	4% HNO_3	100 mL	10M60-1-100
Thulium	10,000 µg/mL	4% HNO_3	250 mL	10M60-1-250
Thulium	10,000 µg/mL	4% HNO_3	500 mL	10M60-1-500
Thulium	10,000 µg/mL	4% HCl	100 mL	10M60-2-100
Thulium	10,000 µg/mL	4% HCl	500 mL	10M60-2-500
Tin	100 µg/mL	2% HNO_3 + Tr HF	100 mL	100-61-3-100
Tin	100 µg/mL	2% HNO_3 + Tr HF	250 mL	100-61-3-250
Tin	100 µg/mL	2% HNO_3 + Tr HF	500 mL	100-61-3-500
Tin	100 µg/mL	H_2O	100 mL	100-61-4-100
Tin	100 µg/mL	H_2O	250 mL	100-61-4-250
Tin	1,000 µg/mL	20% HCl	50 mL	100061-2-50
Tin	1,000 µg/mL	20% HCl	100 mL	100061-2-100
Tin	1,000 µg/mL	20% HCl	250 mL	100061-2-250
Tin	1,000 µg/mL	20% HCl	500 mL	100061-2-500
Tin	1,000 µg/mL	2% HNO_3 + 0.5% HF	50 mL	100061-3-50
Tin	1,000 µg/mL	2% HNO_3 + 0.5% HF	100 mL	100061-3-100
Tin	1,000 µg/mL	2% HNO_3 + 0.5% HF	250 mL	100061-3-250
Tin	1,000 µg/mL	2% HNO_3 + 0.5% HF	500 mL	100061-3-500
Tin	1,000 µg/mL	H_2O	100 mL	100061-4-100
Tin	1,000 µg/mL	H_2O	250 mL	100061-4-250
Tin	1,000 µg/mL	H_2O	500 mL	100061-4-500
Tin	10,000 µg/mL	60% HCl	100 mL	10M61-2-100
Tin	10,000 µg/mL	60% HCl	250 mL	10M61-2-250
Tin	10,000 µg/mL	60% HCl	500 mL	10M61-2-500

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Tin	10,000 µg/mL	5% HNO_3 + 2% HF	100 mL	10M61-3-100
Tin	10,000 µg/mL	5% HNO_3 + 2% HF	250 mL	10M61-3-250
Tin	10,000 µg/mL	5% HNO_3 + 2% HF	500 mL	10M61-3-500
Tin	10,000 µg/mL	H_2O	100 mL	10M61-4-100
Tin	10,000 µg/mL	H_2O	250 mL	10M61-4-250
Titanium	100 µg/mL	2% HNO_3 + Tr HF	100 mL	100-62-3-100
Titanium	100 µg/mL	2% HNO_3 + Tr HF	250 mL	100-62-3-250
Titanium	100 µg/mL	2% HNO_3 + Tr HF	500 mL	100-62-3-500
Titanium	100 µg/mL	H_2O	100 mL	100-62-4-100
Titanium	1,000 µg/mL	20% HCl	50 mL	100062-2-50
Titanium	1,000 µg/mL	20% HCl	100 mL	100062-2-100
Titanium	1,000 µg/mL	20% HCl	250 mL	100062-2-250
Titanium	1,000 µg/mL	20% HCl	500 mL	100062-2-500
Titanium	1,000 µg/mL	2% HNO_3 + 0.1% HF	50 mL	100062-3-50
Titanium	1,000 µg/mL	2% HNO_3 + 0.1% HF	100 mL	100062-3-100
Titanium	1,000 µg/mL	2% HNO_3 + 0.1% HF	250 mL	100062-3-250
Titanium	1,000 µg/mL	2% HNO_3 + 0.1% HF	500 mL	100062-3-500
Titanium	1,000 µg/mL	H_2O	50 mL	100062-4-50
Titanium	1,000 µg/mL	H_2O	100 mL	100062-4-100
Titanium	1,000 µg/mL	H_2O	250 mL	100062-4-250
Titanium	1,000 µg/mL	H_2O	500 mL	100062-4-500
Titanium	10,000 µg/mL	40% HCl	100 mL	10M62-2-100
Titanium	10,000 µg/mL	40% HCl	250 mL	10M62-2-250
Titanium	10,000 µg/mL	40% HCl	500 mL	10M62-2-500
Titanium	10,000 µg/mL	5% HNO_3 + 2% HF	100 mL	10M62-3-100
Titanium	10,000 µg/mL	5% HNO_3 + 2% HF	250 mL	10M62-3-250
Titanium	10,000 µg/mL	5% HNO_3 + 2% HF	500 mL	10M62-3-500
Titanium	10,000 µg/mL	H_2O	100 mL	10M62-4-100
Titanium	10,000 µg/mL	H_2O	250 mL	10M62-4-250
Titanium	10,000 µg/mL	H_2O	500 mL	10M62-4-500
Tungsten	100 µg/mL	2% HNO_3 + Tr HF	100 mL	100-63-3-100
Tungsten	100 µg/mL	2% HNO_3 + Tr HF	250 mL	100-63-3-250
Tungsten	100 µg/mL	2% HNO_3 + Tr HF	500 mL	100-63-3-500
Tungsten	1,000 µg/mL	2% HNO_3 + 1% HF	50 mL	100063-3-50
Tungsten	1,000 µg/mL	2% HNO_3 + 1% HF	100 mL	100063-3-100
Tungsten	1,000 µg/mL	2% HNO_3 + 1% HF	250 mL	100063-3-250
Tungsten	1,000 µg/mL	2% HNO_3 + 1% HF	500 mL	100063-3-500
Tungsten	1,000 µg/mL	0.1% NH_4OH	100 mL	100063-4-100
Tungsten	1,000 µg/mL	0.1% NH_4OH	250 mL	100063-4-250
Tungsten	10,000 µg/mL	5% HNO_3 + 2% HF	100 mL	10M63-3-100
Tungsten	10,000 µg/mL	5% HNO_3 + 2% HF	250 mL	10M63-3-250
Tungsten	10,000 µg/mL	5% HNO_3 + 2% HF	500 mL	10M63-3-500
Tungsten	10,000 µg/mL	H_2O	100 mL	10M63-4-100
Tungsten	10,000 µg/mL	H_2O	500 mL	10M63-4-500
Thorium	1,000 µg/mL	2% HNO_3	50 mL	100059-1-50
Thorium	1,000 µg/mL	2% HNO_3	100 mL	100059-1-100
Thorium	1,000 µg/mL	2% HNO_3	250 mL	100059-1-250
Thorium	1,000 µg/mL	2% HNO_3	500 mL	100059-1-500
Uranium	100 µg/mL	2% HNO_3	100 mL	100-64-1-100
Uranium	100 µg/mL	2% HNO_3	250 mL	100-64-1-250
Uranium	100 µg/mL	2% HNO_3	500 mL	100-64-1-500

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Uranium	1,000 µg/mL	2% HNO_3	50 mL	100064-1-50
Uranium	1,000 µg/mL	2% HNO_3	100 mL	100064-1-100
Uranium	1,000 µg/mL	2% HNO_3	250 mL	100064-1-250
Uranium	1,000 µg/mL	2% HNO_3	500 mL	100064-1-500
Uranium	1,000 µg/mL	2% HNO_3	50 mL	100064-1D-50
Uranium	1,000 µg/mL	2% HNO_3	100 mL	100064-1D-100
Uranium	1,000 µg/mL	2% HNO_3	250 mL	100064-1D-250
Uranium	1,000 µg/mL	2% HNO_3	500 mL	100064-1D-500
Uranium	10,000 µg/mL	4% HNO_3	100 mL	10M64-1-100
Uranium	10,000 µg/mL	4% HNO_3	250 mL	10M64-1-250
Uranium	10,000 µg/mL	4% HNO_3	500 mL	10M64-1-500
Uranium	10,000 µg/mL	4% HNO_3	100 mL	10M64-1D-100
Uranium	10,000 µg/mL	4% HNO_3	250 mL	10M64-1D-250
Uranium	10,000 µg/mL	4% HNO_3	500 mL	10M64-1D-500
Vanadium	100 µg/mL	2% HNO_3	100 mL	100-65-1-100
Vanadium	100 µg/mL	2% HNO_3	250 mL	100-65-1-250
Vanadium	100 µg/mL	2% HNO_3	500 mL	100-65-1-500
Vanadium	1,000 µg/mL	2% HNO_3	50 mL	100065-1-50
Vanadium	1,000 µg/mL	2% HNO_3	100 mL	100065-1-100
Vanadium	1,000 µg/mL	2% HNO_3	250 mL	100065-1-250
Vanadium	1,000 µg/mL	2% HNO_3	500 mL	100065-1-500
Vanadium	1,000 µg/mL	2% HCl	100 mL	100065-2-100
Vanadium	1,000 µg/mL	2% HCl	250 mL	100065-2-250
Vanadium	1,000 µg/mL	2% HCl	500 mL	100065-2-500
Vanadium	5,000 µg/mL	5% HNO_3	100 mL	5M65-1-100
Vanadium	5,000 µg/mL	5% HNO_3	250 mL	5M65-1-250
Vanadium	5,000 µg/mL	5% HNO_3	500 mL	5M65-1-500
Vanadium	10,000 µg/mL	10% HCl	100 mL	10M65-2-100
Vanadium	10,000 µg/mL	10% HCl	250 mL	10M65-2-250
Vanadium	10,000 µg/mL	10% HCl	500 mL	10M65-2-500
Vanadium	10,000 µg/mL	10% HNO_3 + Tr HF	100 mL	10M65-3-100
Vanadium	10,000 µg/mL	10% HNO_3 + Tr HF	250 mL	10M65-3-250
Vanadium	10,000 µg/mL	10% HNO_3 + Tr HF	500 mL	10M65-3-500
Ytterbium	100 µg/mL	2% HNO_3	100 mL	100-66-1-100
Ytterbium	100 µg/mL	2% HNO_3	250 mL	100-66-1-250
Ytterbium	100 µg/mL	2% HNO_3	500 mL	100-66-1-500
Ytterbium	1,000 µg/mL	2% HNO_3	50 mL	100066-1-50
Ytterbium	1,000 µg/mL	2% HNO_3	100 mL	100066-1-100
Ytterbium	1,000 µg/mL	2% HNO_3	250 mL	100066-1-250
Ytterbium	1,000 µg/mL	2% HNO_3	500 mL	100066-1-500
Ytterbium	1,000 µg/mL	2% HCl	100 mL	100066-2-100
Ytterbium	1,000 µg/mL	2% HCl	250 mL	100066-2-250
Ytterbium	1,000 µg/mL	2% HCl	500 mL	100066-2-500
Ytterbium	10,000 µg/mL	4% HNO_3	100 mL	10M66-1-100
Ytterbium	10,000 µg/mL	4% HNO_3	250 mL	10M66-1-250
Ytterbium	10,000 µg/mL	4% HNO_3	500 mL	10M66-1-500
Ytterbium	10,000 µg/mL	4% HCl	100 mL	10M66-2-100
Ytterbium	10,000 µg/mL	4% HCl	500 mL	10M66-2-500
Yttrium	100 µg/mL	2% HNO_3	100 mL	100-67-1-100
Yttrium	100 µg/mL	2% HNO_3	250 mL	100-67-1-250
Yttrium	100 µg/mL	2% HNO_3	500 mL	100-67-1-500

ICP Single-Component Standards (cont'd)				
Component	Concentration	Matrix	Volume	Part #
Yttrium	1,000 µg/mL	2% HNO_3	50 mL	100067-1-50
Yttrium	1,000 µg/mL	2% HNO_3	100 mL	100067-1-100
Yttrium	1,000 µg/mL	2% HNO_3	250 mL	100067-1-250
Yttrium	1,000 µg/mL	2% HNO_3	500 mL	100067-1-500
Yttrium	1,000 µg/mL	2% HCl	100 mL	100067-2-100
Yttrium	1,000 µg/mL	2% HCl	250 mL	100067-2-250
Yttrium	1,000 µg/mL	2% HCl	500 mL	100067-2-500
Yttrium	10,000 µg/mL	4% HNO_3	100 mL	10M67-1-100
Yttrium	10,000 µg/mL	4% HNO_3	250 mL	10M67-1-250
Yttrium	10,000 µg/mL	4% HNO_3	500 mL	10M67-1-500
Yttrium	10,000 µg/mL	4% HCl	100 mL	10M67-2-100
Yttrium	10,000 µg/mL	4% HCl	250 mL	10M67-2-250
Yttrium	10,000 µg/mL	4% HCl	500 mL	10M67-2-500
Zinc	100 µg/mL	2% HNO_3	100 mL	100-68-1-100
Zinc	100 µg/mL	2% HNO_3	250 mL	100-68-1-250
Zinc	100 µg/mL	2% HNO_3	500 mL	100-68-1-500
Zinc	1,000 µg/mL	2% HNO_3	50 mL	100068-1-50
Zinc	1,000 µg/mL	2% HNO_3	100 mL	100068-1-100
Zinc	1,000 µg/mL	2% HNO_3	250 mL	100068-1-250
Zinc	1,000 µg/mL	2% HNO_3	500 mL	100068-1-500
Zinc	1,000 µg/mL	2% HCl	100 mL	100068-2-100
Zinc	1,000 µg/mL	2% HCl	250 mL	100068-2-250
Zinc	1,000 µg/mL	2% HCl	500 mL	100068-2-500
Zinc	10,000 µg/mL	4% HNO_3	100 mL	10M68-1-100
Zinc	10,000 µg/mL	4% HNO_3	250 mL	10M68-1-250
Zinc	10,000 µg/mL	4% HNO_3	500 mL	10M68-1-500
Zinc	10,000 µg/mL	10% HCl	100 mL	10M68-2-100
Zinc	10,000 µg/mL	10% HCl	250 mL	10M68-2-250
Zinc	10,000 µg/mL	10% HCl	500 mL	10M68-2-500
Zirconium	100 µg/mL	2% HNO_3 + Tr HF	100 mL	100-69-3-100
Zirconium	100 µg/mL	2% HNO_3 + Tr HF	250 mL	100-69-3-250
Zirconium	100 µg/mL	2% HNO_3 + Tr HF	500 mL	100-69-3-500
Zirconium	1,000 µg/mL	0.5% HNO_3	50 mL	100069-1-50
Zirconium	1,000 µg/mL	0.5% HNO_3	100 mL	100069-1-100
Zirconium	1,000 µg/mL	0.5% HNO_3	250 mL	100069-1-250
Zirconium	1,000 µg/mL	0.5% HNO_3	500 mL	100069-1-500
Zirconium	1,000 µg/mL	2% HCl	100 mL	100069-2-100
Zirconium	1,000 µg/mL	2% HCl	250 mL	100069-2-250
Zirconium	1,000 µg/mL	2% HCl	500 mL	100069-2-500
Zirconium	1,000 µg/mL	2% HNO_3 + 0.5% HF	50 mL	100069-3-50
Zirconium	1,000 µg/mL	2% HNO_3 + 0.5% HF	100 mL	100069-3-100
Zirconium	1,000 µg/mL	2% HNO_3 + 0.5% HF	250 mL	100069-3-250
Zirconium	1,000 µg/mL	2% HNO_3 + 0.5% HF	500 mL	100069-3-500
Zirconium	10,000 µg/mL	2% HCl	100 mL	10M69-2-100
Zirconium	10,000 µg/mL	2% HCl	250 mL	10M69-2-250
Zirconium	10,000 µg/mL	2% HCl	500 mL	10M69-2-500
Zirconium	10,000 µg/mL	4% HNO_3 + 2% HF	100 mL	10M69-3-100
Zirconium	10,000 µg/mL	4% HNO_3 + 2% HF	250 mL	10M69-3-250
Zirconium	10,000 µg/mL	4% HNO_3 + 2% HF	500 mL	10M69-3-500

ICP Multi-Component Standards - Starter Kits

NOTE: Each kit contains individual 100 mL or 250 mL bottles of the listed elements at 1,000 ug/mL

Components	Concentration	Matrix	Volume	Part #
Aluminum, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Indium, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silicon*, Silver, Sodium, Strontium, Thallium, Vanadium, Zinc	1,000 µg/mL	2% HNO_3	100 mL 250 mL	ICP-KIT-A-100 ICP-KIT-A-250
Antimony, Hafnium, Molybdenum, Niobium, Tantalum, Tellurium, Tin, Titanium, Tungsten, Zirconium	1,000 µg/mL	2-5% HNO_3 + Tr HF	100 mL 250 mL	ICP-KIT-B-100 ICP-KIT-B-250
Boron, Phosphorus, Sulfur	1,000 µg/mL	H_2O	100 mL 250 mL	ICP-KIT-C-100 ICP-KIT-C-250
Gold, Palladium**, Platinum	1,000 µg/mL	2-5% HCl	100 mL 250 mL	ICP-KIT-D-100 ICP-KIT-D-250
Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Uranium, Ytterbium, Yttrium	1,000 µg/mL	2% HNO_3	100 mL 250 mL	ICP-KIT-E-100 ICP-KIT-E-250
Complete Kit: Contains all 60 single-element solutions in kits ICP-KIT-A through ICP-KIT-E	1,000 µg/mL	Multiple	100 mL 250 mL	ICP-KIT-A-E-100 ICP-KIT-A-E-250

* Silicon from $(NH_4)_2$
** Available as Nitrate. (must specify)

ICP Multi-Component Standards - Analytical Mixtures

Components		Concentration	Matrix	Volume	Part #
Mercury		5 µg/mL	2% HNO_3	100 mL 250 mL 500 mL	ICP-AM-3-100 ICP-AM-3-250 ICP-AM-3-500
Beryllium		10 µg/mL			
Arsenic, Iron, Nickel, Selenium		50 µg/mL			
Aluminum, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Vanadium, Zinc		100 µg/mL			
Antimony, Calcium, Magnesium, Selenium, Sodium, Sulfur, Tellurium, Tin		100 µg/mL	20% HCl	100 mL 250 mL 500 mL	ICP-AM-4-100 ICP-AM-4-250 ICP-AM-4-500
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Nickel, Zinc		100 µg/mL	5% HCl	100 mL 250 mL 500 mL	ICP-AM-5-100 ICP-AM-5-250 ICP-AM-5-500
Solution A*	Aluminum, Antimony, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Silicon, Sodium, Strontium, Thallium, Vanadium, Zinc	100 µg/mL	4% HNO_3 + Tr HF	2 solution set at 100 mL each 2 solution set at 250 mL each	ICP-AM-6-100 ICP-AM-6-250
Solution B*	Silver		4% HNO_3	2 solution set at 500 mL each	ICP-AM-6-500

* Solution A and B can also be sold separately.

ICP Multi-Component Standards - Analytical Mixtures (cont'd)

Components		Concentration	Matrix	Volume	Part #
Solution A*	Aluminum, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Molybdenum, Nickel, Selenium, Thallium, Uranium, Vanadium, Zinc	100 µg/mL	4% HNO_3 + Tr HF	2 solution set at 100 mL each	ICP-AM-12-100
				2 solution set at 250 mL each	ICP-AM-12-250
Solution B*	Thorium		4% HNO_3	2 solution set at 500 mL each	ICP-AM-12-500
Calcium, Magnesium, Potassium, Sodium		1,000 µg/mL	2% HNO_3	100 mL	ICP-AM-15-1M-100
				250 mL	ICP-AM-15-1M-250
				500 mL	ICP-AM-15-1M-500
Calcium, Magnesium, Potassium, Sodium		10,000 µg/mL	5% HNO_3	100 mL	ICP-AM-15-100
				250 mL	ICP-AM-15-250
				500 mL	ICP-AM-15-500
Calcium, Iron, Magnesium, Potassium, Sodium		1,000 µg/mL	5% HNO_3	100 mL	ICP-AM-16-100
				250 mL	ICP-AM-16-250
				500 mL	ICP-AM-16-500
Aluminum, Calcium, Iron, Magnesium, Phosphorus, Potassium, Sodium		1,000 µg/mL	5% HNO_3	100 mL	ICP-AM-17-100
				250 mL	ICP-AM-17-250
				500 mL	ICP-AM-17-500
Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Ytterbium, Yttrium		100 µg/mL	2% HNO_3	100 mL	ICP-AM-MISA5-100
				250 mL	ICP-AM-MISA5-250
				500 mL	ICP-AM-MISA5-500
Aluminum, Barium, Boron, Cadmium, Calcium, Cesium, Chromium, Cobalt, Copper, Gallium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Phosphorus, Potassium, Rubidium, Silver, Sodium, Strontium, Thallium, Uranium, Vanadium, Zinc		100 µg/mL	2% HNO_3	100 mL	ICP-AM-MISA6-100
				250 mL	ICP-AM-MISA6-250
				500 mL	ICP-AM-MISA6-500

* Solution A and B can also be sold separately.

ICP Multi-Component Standards - Calibration Standards

Components	Concentration	Matrix	Volume	Part #
Beryllium	50 µg/mL	2% HNO_3	100 mL	ICP-MCS-1-100
Boron, Cadmium, Manganese, Zinc	100 µg/mL		250 mL	ICP-MCS-1-250
Selenium	200 µg/mL		500 mL	ICP-MCS-1-500
Arsenic, Lead	500 µg/mL			
Barium, Calcium, Cobalt, Iron, Magnesium, Nickel, Silicon, Vanadium	100 µg/mL	2% HNO_3	100 mL	ICP-MCS-2-100
			250 mL	ICP-MCS-2-250
			500 mL	ICP-MCS-2-500
Chromium	20 µg/mL	5% HCl	100 mL	ICP-MCS-3-100
Molybdenum	100 µg/mL		250 mL	ICP-MCS-3-250
Aluminum, Antimony, Sodium	200 µg/mL		500 mL	ICP-MCS-3-500
Potassium	400 µg/mL			

* Solution A and B can also be sold separately.

ICP Multi-Component Standards - Calibration Standards (cont'd)

Components	Concentration	Matrix	Volume	Part #
Strontium	10 µg/mL	2% HNO_3	100 mL	ICP-MCS-8-100
Chromium, Nickel	20 µg/mL			
Lithium	100 µg/mL		250 mL	ICP-MCS-8-250
Aluminum, Sodium	200 µg/mL			
Potassium	400 µg/mL		500 mL	ICP-MCS-8-500
Calcium	1,000 µg/mL			
Beryllium	50 µg/mL	4% HNO_3	100 mL	ICP-MCS-10-100
Copper	250 µg/mL			
Cobalt, Vanadium	500 µg/mL		250 mL	ICP-MCS-10-250
Iron	1,000 µg/mL			
Aluminum, Barium	2,000 µg/mL		500 mL	ICP-MCS-10-500
Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Uranium, Ytterbium, Yttrium	100 µg/mL	5% HNO_3	100 mL	ICP-MCS-11-100
			250 mL	ICP-MCS-11-250
			500 mL	ICP-MCS-11-500
Gold, Iridium, Palladium, Platinum, Rhodium, Ruthenium	100 µg/mL	10% HCl	100 mL	ICP-MCS-12-100
			250 mL	ICP-MCS-12-250

ICP Multi-Component Standards - Working Calibration Standards

Components	Concentration	Matrix	Volume	Part #
Beryllium, Silver	1 µg/mL	2% HNO_3 + Tr HF	100 mL	ICP-WS-1-100
Aluminum, Antimony, Arsenic, Iron, Lead, Molybdenum, Selenium, Thallium, Tin, Titanium, Zinc	10 µg/mL		250 mL	ICP-WS-1-250
			500 mL	ICP-WS-1-500
Barium, Bismuth, Boron, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Strontium, Vanadium	10 µg/mL	2% HNO_3	100 mL	ICP-WS-2-100
			250 mL	ICP-WS-2-250
Calcium, Magnesium, Potassium, Sodium	50 µg/mL		500 mL	ICP-WS-2-500
Gold, Iridium, Osmium, Palladium, Rhodium, Ruthenium	10 µg/mL	5% HCl	100 mL	ICP-WS-3-100
			250 mL	ICP-WS-3-250
Platinum, Tellurium	50 µg/mL		500 mL	ICP-WS-3-500
Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Uranium, Ytterbium, Yttrium	10 µg/mL	2% HNO_3	100 mL	ICP-WS-4-100
			250 mL	ICP-WS-4-250
			500 mL	ICP-WS-4-500

ICP Multi-Component Standards - EPA Method Standards

Components		Concentration	Matrix	Volume	Part #
Antimony		1,000 µg/mL	5% Tartaric Acid + 2% HNO_3	100 mL 250 mL	CLP-CAL-2-100 CLP-CAL-2-250
Barium, Beryllium, Chromium, Cobalt, Copper, Manganese, Vanadium		50 µg/mL	2% HNO_3	100 mL 250 mL 500 mL	ANALCS-100 ANALCS-250 ANALCS-500
Cadmium, Lead, Nickel, Silver, Zinc		100 µg/mL			
Lead, Selenium		5 µg/mL	2% HNO_3 + Tr HF	100 mL 250 mL 500 mL	ANALCS-R-100 ANALCS-R-250 ANALCS-R-500
Arsenic, Thallium		10 µg/mL			
Silver		20 µg/mL			
Barium, Beryllium, Chromium, Cobalt, Copper, Manganese, Vanadium		50 µg/mL			
Antimony		60 µg/mL			
Cadmium, Nickel, Zinc		100 µg/mL			
Solution A*	Beryllium	50 µg/mL	4% HNO_3	2 solution set at 100 mL each 2 solution set at 250 mL each	CLP-CAL-1-100 CLP-CAL-1-250
	Chromium	200 µg/mL			
	Copper	250 µg/mL			
	Cobalt, Manganese, Nickel, Vanadium, Zinc	500 µg/mL			
	Iron	1,000 µg/mL			
	Aluminum, Barium	2,000 µg/mL			
	Calcium, Potassium, Magnesium, Sodium	5,000 µg/mL			
Solution B*	Silver	250 µg/mL			
Beryllium		25 µg/mL	4% HNO_3	100 mL 250 mL 500 mL	CLP-CV-1-100 CLP-CV-1-250 CLP-CV-1-500
Chromium		100 µg/mL			
Copper, Silver		125 µg/mL			
Cobalt, Manganese, Nickel, Vanadium, Zinc		250 µg/mL			
Iron		500 µg/mL			
Aluminum, Barium		1,000 µg/mL			
Calcium, Magnesium, Potassium, Sodium		2,500 µg/mL			
Iron		2,000 µg/mL	5% HNO_3	100 mL 250 mL 500 mL	CLP-INF-1-100 CLP-INF-1-250 CLP-INF-1-500
Aluminum, Calcium, Magnesium		5,000 µg/mL			
Beryllium, Cadmium, Silver		5 µg/mL	2% HNO_3 + Tr HF	100 mL 250 mL 500 mL	CLP-SS-100 CLP-SS-250 CLP-SS-500
Chromium		20 µg/mL			
Copper		25 µg/mL			
Antimony, Cobalt, Lead, Manganese, Nickel, Vanadium, Zinc		50 µg/mL			
Iron		100 µg/mL			
Aluminum, Arsenic, Barium, Selenium, Thallium		200 µg/mL			

* Solution A and B can also be sold separately.

ICP Multi-Component Standards - EPA Method Standards (cont'd)

Components		Concentration	Matrix	Volume	Part #
Lead		6 µg/mL	2% HNO_3 + Tr HF	100 mL	CRDL-100
Beryllium, Cadmium, Selenium		10 µg/mL			
Arsenic, Chromium, Silver, Thallium		20 µg/mL			
Manganese		30 µg/mL			
Zinc		40 µg/mL			
Copper		50 µg/mL		250 mL	CRDL-250
Nickel		80 µg/mL			
Cobalt, Vanadium		100 µg/mL			
Antimony		120 µg/mL			
Soltuion A*	Chromium, Nickel, Zinc	500 µg/mL	2% HNO_3	2 solution set at 100 mL each	ICP-200.7-1-100
	Aluminum, Calcium, Magnesium, Potassium, Sodium	1,000 µg/mL		2 solution set at 250 mL each	ICP-200.7-1-250
Solution B*	Silver	500 µg/mL		2 solution set at 500 mL each	ICP-200.7-1-500
Silver		2.5 µg/mL	2% HNO_3 + Tr HF	100 mL	ICP-200.7-5-100
Beryllium, Mercury		5 µg/mL			
Cadmium, Cobalt, Molybdenum, Tin, Vanadium		10 µg/mL		250 mL	ICP-200.7-5-250
Aluminum, Antimony, Arsenic, Barium, Boron, Chromium, Copper, Iron, Lead, Lithium, Manganese, Nickel, Selenium, Silicon, Strontium, Thallium, Zinc		25 µg/mL		500 mL	ICP-200.7-5-500
Phosphorus		50 µg/mL			
Solution A*	Silver	5 µg/mL	2% HNO_3 + Tr HF	2 solution set at 100 mL each	ICP-200.7-6-100
	Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Selenium, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc	20 µg/mL		2 solution set at 250 mL each	ICP-200.7-6-250
	Phosphorus, Potassium, Silicon	100 µg/mL		2 Solution set at 500 mL each	ICP-200.7-6-500
Solution B*	Mercury	20 µg/mL	5% HNO_3		
Silver		25 µg/mL	5% HNO_3	100 mL	ICP-200.7-10-100
Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Nickel, Selenium, Thallium, Vanadium, Zinc		200 µg/mL		250 mL	ICP-200.7-10-250
Phosphorus, Potassium		1,000 µg/mL		500 mL	ICP-200.7-10-500

* Solution A and B can also be sold separately.

ICP Multi-Component Standards - EPA Method Standards (cont'd)

Components	Concentration	Matrix	Volume	Part #
Silver	1.5 µg/mL	2% HNO_3 + Tr HF	100 mL	ICP-SS-100
Thallium	10 µg/mL			
Barium, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Tin, Vanadium	20 µg/mL			
Arsenic, Lead	25 µg/mL		250 mL	ICP-SS-250
Antimony, Selenium	50 µg/mL			
Aluminum, Iron, Strontium, Zinc	100 µg/mL		500 mL	ICP-SS-500
Potassium	150 µg/mL			
Magnesium, Silicon	500 µg/mL			
Calcium, Sodium	2,000 µg/mL			
Beryllium, Cadmium, Silver	5 µg/mL	2% HNO_3 + Tr HF	100 mL	ICP-SSWS-100
Chromium	20 µg/mL			
Copper	25 µg/mL		250 mL	ICP-SSWS-250
Antimony, Cobalt, Lead, Manganese, Nickel, Vanadium, Zinc	50 µg/mL			
Iron	100 µg/mL		500 mL	ICP-SSWS-500
Aluminum, Arsenic, Barium, Selenium, Thallium	200 µg/mL			
Selenium	1 µg/mL	2% HNO_3 + Tr HF	100 mL	ICP-SSWS-M-100
Lead	2 µg/mL			
Arsenic	4 µg/mL			
Beryllium, Cadmium, Silver, Thallium	5 µg/mL			
Chromium	20 µg/mL			
Copper	25 µg/mL		500 mL	ICP-SSWS-M-500
Antimony, Cobalt, Manganese, Nickel, Vanadium, Zinc	50 µg/mL			
Iron	100 µg/mL			
Aluminum, Barium	200 µg/mL			

ICP Multi-Component Standards - Check Verification Standards

Components		Concentration	Matrix	Volume	Part #
Solution A*	Barium, Beryllium, Cadmium, Chromium, Cobalt, Manganese, Vanadium, Zinc	50 µg/mL	4% HNO_3 + Tr HF	2 solution set at 100 mL each	ICV-1-100
	Aluminum, Arsenic, Bismuth, Boron, Calcium, Copper, Iron, Lead, Lithium, Magnesium, Molybdenum, Nickel, Strontium, Thallium	100 µg/mL			
	Phosphorus, Potassium, Selenium	200 µg/mL		2 solution set at 250 mL each	ICV-1-250
Solution B*	Silicon	100 µg/mL	H_2O	2 solution set at 500 mL each	ICV-1-500
	Sodium	160 µg/mL			
	Sulfur	200 µg/mL			
Antimony, Tin, Titanium		100 µg/mL	15% HCl	100 mL	ICV-2-100
				250 mL	ICV-2-250
				500 mL	ICV-2-500
Beryllium, Cadmium, Lead, Selenium		5 µg/mL	4% HNO_3 + Tr HF	100 mL	ICV-4-100
Arsenic, Chromium, Silver, Thallium		10 µg/mL			
Manganese		15 µg/mL			
Zinc		20 µg/mL			
Copper		25 µg/mL			
Nickel		40 µg/mL		250 mL	ICV-4-250
Cobalt, Vanadium		50 µg/mL			
Antimony		60 µg/mL		500 mL	ICV-4-500
Iron		100 µg/mL			
Aluminum, Barium		200 µg/mL			
Calcium, Magnesium, Potassium, Sodium		5,000 µg/mL			
Solution A*	Chromium	50 µg/mL	4% HNO_3 + Tr HF	100 mL	CCV-1-100
	Barium, Beryllium, Cadmium, Cobalt, Manganese, Vanadium, Zinc	100 µg/mL			
	Aluminum, Arsenic, Bismuth, Boron, Calcium, Copper, Iron, Lead, Lithium, Magnesium, Molybdenum, Nickel, Selenium, Strontium, Thallium	200 µg/mL		250 mL	CCV-1-250
	Phosphorus, Potassium	500 µg/mL		500 mL	CCV-1-500
Solution B*	Silicon, Sodium**, Sulfur	500 µg/mL	H_2O		
Gold, Palladium, Platinum		100 µg/mL	2% HCl	100 mL	CCV-3-100
				250 mL	CCV-3-250
				500 mL	CCV-3-500

* Solution A and B can also be sold separately.

** Concentration varies slightly.

ICP Multi-Component Standards - Interference Check Standards

Components		Concentration	Matrix	Volume	Part #
Solution A*	Mercury	50 µg/mL	4% HNO_3	2 solution set at 100 mL each	INFCS-1-100
	Beryllium	100 µg/mL			
	Manganese	200 µg/mL			
	Barium, Cadmium, Chromium, Cobalt, Copper, Nickel, Vanadium, Zinc	300 µg/mL		2 solution set at 250 mL each	INFCS-1-250
	Selenium	500 µg/mL			
	Arsenic, Lead, Thallium	1,000 µg/mL		2 solution set at 500 mL each	INFCS-1-500
	Potassium	20,000 µg/mL			
Solution B*	Silver	300 µg/mL			
Antimony		1,000 µg/mL	20% HCl	100 mL	INFCS-2-100
				250 mL	INFCS-2-250
				500 mL	INFCS-2-500
Aluminum, Calcium, Iron, Magnesium		5,000 µg/mL	5% HNO_3	100 mL	INFCS-4-100
				250 mL	INFCS-4-250
				500 mL	INFCS-4-500
Potassium, Sodium		5,000 µg/mL	2% HCl	100 mL	INFCS-5-100
				500 mL	INFCS-5-500
Sodium		1,000 µg/mL	4% HNO_3	100 mL	INFCS-6-100
Aluminum		1,200 µg/mL		250 mL	INFCS-6-250
Magnesium		3,000 µg/mL		500 mL	INFCS-6-500
Iron		5,000 µg/mL			
Calcium		6,000 µg/mL			
Aluminum, Calcium, Iron, Magnesium, Potassium, Sodium		1,000 µg/mL	5% HNO_3	100 mL	INFCS-7-100
				250 mL	INFCS-7-250
				500 mL	INFCS-7-500

ICP Multi-Component Standards - Quality Control Standards

Components		Concentration	Matrix	Volume	Part #
Solution A*	Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Iron, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Uranium, Vanadium, Zinc	100 µg/mL	4% HNO_3 + Tr HF	2 solution set at 100 mL each	QCS-1-100
	Yttrium	500 µg/mL		2 solution set at 250 mL each	QCS-1-250
				2 solution set at 500 mL each	QCS-1-500
Solution B*	Sulfur	100 µg/mL	H_2O		

* Solution A and B can also be sold separately.

ICP Multi-Component Standards - Quality Control Standards (cont'd)

Components	Concentration	Matrix	Volume	Part #
Silicon	50 µg/mL	2% HNO_3	100 mL	QCS-7-100
Aluminum, Barium, Boron, Silver, Sodium	100 µg/mL		250 mL	QCS-7-250
Potassium	1,000 µg/mL		500 mL	QCS-7-500
Silver	50 µg/mL	2% HNO_3	100 mL	QCS-7-M-100
Aluminum, Barium, Boron, Silicon, Sodium	100 µg/mL		250 mL	QCS-7-M-250
Potassium	1,000 µg/mL		500 mL	QCS-7-M-500
Antimony, Arsenic, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Selenium, Thallium, Titanium, Vanadium, Zinc	100 µg/mL	4% HNO_3 + Tr HF	100 mL	QCS-19-100
			250 mL	QCS-19-250
			500 mL	QCS-19-500
Antimony, Arsenic, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Selenium, Strontium, Thallium, Titanium, Vanadium, Zinc	100 µg/mL	4% HNO_3 + Tr HF	100 mL	QCS-21-100
			250 mL	QCS-21-250
			500 mL	QCS-21-500
Silicon	50 µg/mL	4% HNO_3 + Tr HF	100 mL	QCS-26-100
Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc	100 µg/mL		250 mL	QCS-26-250
			500 mL	QCS-26-500
Potassium	1,000 µg/mL			
Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc	100 µg/mL	5% HNO_3 + Tr HF	100 mL	QCS-26-R-100
			250 mL	QCS-26-R-250
			500 mL	QCS-26-R-500
Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Thallium, Titanium, Vanadium, Zinc	100 µg/mL	4% HNO_3 + Tr HF	100 mL	QCS-27-100
			250 mL	QCS-27-250
			500 mL	QCS-27-500

ICP Multi-Component Standards - Wavelength Calibration Solutions

Components	Concentration	Matrix	Volume	Part #
Arsenic, Lanthanum, Lithium, Manganese, Molybdenum, Nickel, Scandium, Sodium	20 µg/mL	2% HCl	100 mL	WAVECAL-100
			250 mL	WAVECAL-250
Phosphorus, Potassium, Sulfur	100 µg/mL		500 mL	WAVECAL-500
Aluminum, Arsenic, Barium, Cadmium, Cobalt, Chromium, Copper, Manganese, Molybdenum, Nickel, Lead, Selenium, Strontium, Zinc	50 µg/mL	5% HNO_3	100 mL	WAVECAL-2-100
			250 mL	WAVECAL-2-250
Potassium	500 µg/mL		500 mL	WAVECAL-2-500
Barium, Calcium	1 µg/mL	2% HNO_3	100 mL	WAVECAL-PE-100
Lanthanum, Lithium, Manganese, Sodium, Strontium	10 µg/mL		250 mL	WAVECAL-PE-250
Potassium	50 µg/mL		500 mL	WAVECAL-PE-500

ICP-MS Single and Multi-Component Standards

We offer a broad range of ISO 17034:2016 certified single and multi-component ICP-MS standards. The accuracy of all standards is verified against NIST Spectrometric Standard Solutions where available (otherwise against an ISO 17034 second source Certified Reference Material). We offer single-component standards in the broadest range of matrices available. You can locate the element alphabetically by name, or search by part number. The part is set up as 10-XX-Y where XX is the last 2 digits of the associated NIST SRM 3100 series and Y indicates the matrix: HNO3 (-1), HCl (-2), HNO3 + HF (-3), H2O (-4), other options (-5 and up). Example: 10 µg/mL solution of aluminum in nitric acid is 10-1-1. This product is traceable to the NIST SRM 3101.

ICP-MS Single-Component Standards				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Aluminum	10 µg/mL	2% HNO_3	100 mL	10-1-1-100
Aluminum	10 µg/mL	2% HNO_3	250 mL	10-1-1-250
Aluminum	10 µg/mL	2% HNO_3	500 mL	10-1-1-500
Antimony	10 µg/mL	2% HNO_3 + Tr HF	100 mL	10-2-3-100
Antimony	10 µg/mL	2% HNO_3 + Tr HF	250 mL	10-2-3-250
Antimony	10 µg/mL	2% HNO_3 + Tr HF	500 mL	10-2-3-500
Arsenic	10 µg/mL	2% HNO_3	100 mL	10-3-1-100
Arsenic	10 µg/mL	2% HNO_3	250 mL	10-3-1-250
Arsenic	10 µg/mL	2% HNO_3	500 mL	10-3-1-500
Barium	10 µg/mL	2% HNO_3	100 mL	10-4-1-100
Barium	10 µg/mL	2% HNO_3	250 mL	10-4-1-250
Barium	10 µg/mL	2% HNO_3	500 mL	10-4-1-500
Beryllium	10 µg/mL	2% HNO_3	100 mL	10-5-1-100
Beryllium	10 µg/mL	2% HNO_3	250 mL	10-5-1-250
Beryllium	10 µg/mL	2% HNO_3	500 mL	10-5-1-500
Bismuth	10 µg/mL	2% HNO_3	100 mL	10-6-1-100
Bismuth	10 µg/mL	2% HNO_3	250 mL	10-6-1-250
Bismuth	10 µg/mL	2% HNO_3	500 mL	10-6-1-500
Boron	10 µg/mL	H_2O	100 mL	10-7-4-100
Boron	10 µg/mL	H_2O	250 mL	10-7-4-250
Boron	10 µg/mL	H_2O	500 mL	10-7-4-500
Cadmium	10 µg/mL	2% HNO_3	100 mL	10-8-1-100
Cadmium	10 µg/mL	2% HNO_3	250 mL	10-8-1-250
Cadmium	10 µg/mL	2% HNO_3	500 mL	10-8-1-500
Calcium	10 µg/mL	2% HNO_3	100 mL	10-9-1-100
Calcium	10 µg/mL	2% HNO_3	250 mL	10-9-1-250
Calcium	10 µg/mL	2% HNO_3	500 mL	10-9-1-500
Cerium	10 µg/mL	2% HNO_3	100 mL	10-10-1-100
Cerium	10 µg/mL	2% HNO_3	250 mL	10-10-1-250
Cerium	10 µg/mL	2% HNO_3	500 mL	10-10-1-500
Cesium	10 µg/mL	2% HNO_3	100 mL	10-11-1-100
Cesium	10 µg/mL	2% HNO_3	250 mL	10-11-1-250
Chloride	10 µg/mL	H_2O	100 mL	ICP-CL-10-100
Chloride	10 µg/mL	H_2O	250 mL	ICP-CL-10-250
Chloride	10 µg/mL	H_2O	500 mL	ICP-CL-10-500
Chromium	10 µg/mL	2% HNO_3	100 mL	10-12-1-100
Chromium	10 µg/mL	2% HNO_3	250 mL	10-12-1-250
Cobalt	10 µg/mL	2% HNO_3	100 mL	10-13-1-100
Cobalt	10 µg/mL	2% HNO_3	250 mL	10-13-1-250
Cobalt	10 µg/mL	2% HNO_3	500 mL	10-13-1-500
Copper	10 µg/mL	2% HNO_3	100 mL	10-14-1-100
Copper	10 µg/mL	2% HNO_3	250 mL	10-14-1-250
Copper	10 µg/mL	2% HNO_3	500 mL	10-14-1-500

ICP-MS Single-Component Standards (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Dysprosium	10 µg/mL	2% HNO_3	100 mL	10-15-1-100
Dysprosium	10 µg/mL	2% HNO_3	250 mL	10-15-1-250
Erbium	10 µg/mL	2% HNO_3	100 mL	10-16-1-100
Erbium	10 µg/mL	2% HNO_3	250 mL	10-16-1-250
Europium	10 µg/mL	2% HNO_3	100 mL	10-17-1-100
Gadolinium	10 µg/mL	2% HNO_3	100 mL	10-18-1-100
Gadolinium	10 µg/mL	2% HNO_3	250 mL	10-18-1-250
Gadolinium	10 µg/mL	2% HNO_3	500 mL	10-18-1-500
Gallium	10 µg/mL	2% HNO_3	100 mL	10-19-1-100
Gallium	10 µg/mL	2% HNO_3	250 mL	10-19-1-250
Germanium	10 µg/mL	2% HNO_3 + Tr HF	100 mL	10-20-3-100
Germanium	10 µg/mL	2% HNO_3 + Tr HF	250 mL	10-20-3-250
Germanium	10 µg/mL	2% HNO_3 + Tr HF	500 mL	10-20-3-500
Gold	10 µg/mL	2% HCl	100 mL	10-21-2-100
Gold	10 µg/mL	2% HCl	250 mL	10-21-2-250
Gold	10 µg/mL	2% HCl	500 mL	10-21-2-500
Hafnium	10 µg/mL	2% HNO_3 + Tr HF	100 mL	10-22-3-100
Hafnium	10 µg/mL	2% HNO_3 + Tr HF	250 mL	10-22-3-250
Holmium	10 µg/mL	2% HNO_3	100 mL	10-23-1-100
Holmium	10 µg/mL	2% HNO_3	250 mL	10-23-1-250
Indium	10 µg/mL	2% HNO_3	100 mL	10-24-1-100
Indium	10 µg/mL	2% HNO_3	250 mL	10-24-1-250
Indium	10 µg/mL	2% HNO_3	500 mL	10-24-1-500
Iodide	10 µg/mL	H_2O	100 mL	ICP-II-10-100
Iodide	10 µg/mL	H_2O	250 mL	ICP-II-10-250
Iodide	10 µg/mL	H_2O	500 mL	ICP-II-10-500
Iridium	10 µg/mL	2% HCl	100 mL	10-25-2-100
Iridium	10 µg/mL	2% HCl	250 mL	10-25-2-250
Iridium	10 µg/mL	2% HCl	500 mL	10-25-2-500
Iron	10 µg/mL	2% HNO_3	100 mL	10-26-1-100
Iron	10 µg/mL	2% HNO_3	250 mL	10-26-1-250
Iron	10 µg/mL	2% HNO_3	500 mL	10-26-1-500
Lanthanum	10 µg/mL	2% HNO_3	100 mL	10-27-1-100
Lanthanum	10 µg/mL	2% HNO_3	500 mL	10-27-1-500
Lead	10 µg/mL	2% HNO_3	100 mL	10-28-1-100
Lead	10 µg/mL	2% HNO_3	250 mL	10-28-1-250
Lead	10 µg/mL	2% HNO_3	500 mL	10-28-1-500
Lithium	10 µg/mL	2% HNO_3	100 mL	10-29-1-100
Lithium	10 µg/mL	2% HNO_3	250 mL	10-29-1-250
Lithium	10 µg/mL	2% HNO_3	500 mL	10-29-1-500
Lithium 6 Isotope	10 µg/mL	2% HNO_3	100 mL	10-29-6I-100
Lithium 6 Isotope	10 µg/mL	2% HNO_3	500 mL	10-29-6I-500
Lithium 6 Isotope	100 µg/mL	2% HNO_3	100 mL	100-29-6I-100
Lutetium	10 µg/mL	2% HNO_3	100 mL	10-30-1-100
Lutetium	10 µg/mL	2% HNO_3	250 mL	10-30-1-250
Magnesium	10 µg/mL	2% HNO_3	100 mL	10-31-1-100
Magnesium	10 µg/mL	2% HNO_3	250 mL	10-31-1-250
Magnesium	10 µg/mL	2% HNO_3	500 mL	10-31-1-500
Manganese	10 µg/mL	2% HNO_3	100 mL	10-32-1-100
Manganese	10 µg/mL	2% HNO_3	250 mL	10-32-1-250
Manganese	10 µg/mL	2% HNO_3	500 mL	10-32-1-500

ICP-MS Single-Component Standards (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Mercury	10 µg/mL	5% HNO_3	100 mL	10-33-1-100
Mercury	10 µg/mL	5% HNO_3	250 mL	10-33-1-250
Mercury	10 µg/mL	5% HNO_3	500 mL	10-33-1-500
Molybdenum	10 µg/mL	2% HNO_3 + Tr HF	100 mL	10-34-3-100
Molybdenum	10 µg/mL	2% HNO_3 + Tr HF	250 mL	10-34-3-250
Neodymium	10 µg/mL	2% HNO_3	100 mL	10-35-1-100
Neodymium	10 µg/mL	2% HNO_3	250 mL	10-35-1-250
Neodymium	10 µg/mL	2% HNO_3	500 mL	10-35-1-500
Nickel	10 µg/mL	2% HNO_3	100 mL	10-36-1-100
Nickel	10 µg/mL	2% HNO_3	250 mL	10-36-1-250
Nickel	10 µg/mL	2% HNO_3	500 mL	10-36-1-500
Niobium	10 µg/mL	2% HNO_3 + Tr HF	100 mL	10-37-3-100
Niobium	10 µg/mL	2% HNO_3 + Tr HF	250 mL	10-37-3-250
Osmium	10 µg/mL	2% HCl	100 mL	10-70-2-100
Osmium	10 µg/mL	2% HCl	250 mL	10-70-2-250
Osmium	10 µg/mL	2% HCl	500 mL	10-70-2-500
Palladium	10 µg/mL	2% HNO_3 + Tr HCl	100 mL	10-38-1-100
Palladium	10 µg/mL	2% HNO_3 + Tr HCl	250 mL	10-38-1-250
Palladium	10 µg/mL	2% HNO_3 + Tr HCl	500 mL	10-38-1-500
Palladium	10 µg/mL	2% HCl	100 mL	10-38-2-100
Palladium	10 µg/mL	2% HCl	250 mL	10-38-2-250
Palladium	10 µg/mL	2% HCl	500 mL	10-38-2-500
Phosphorus	10 µg/mL	2% HNO_3	100 mL	10-39-1-100
Phosphorus	10 µg/mL	2% HNO_3	250 mL	10-39-1-250
Phosphorus	10 µg/mL	2% HNO_3	500 mL	10-39-1-500
Platinum	10 µg/mL	2% HCl	100 mL	10-40-2-100
Platinum	10 µg/mL	2% HCl	250 mL	10-40-2-250
Platinum	10 µg/mL	2% HCl	500 mL	10-40-2-500
Potassium	10 µg/mL	2% HNO_3	100 mL	10-41-1-100
Potassium	10 µg/mL	2% HNO_3	250 mL	10-41-1-250
Potassium	10 µg/mL	2% HNO_3	500 mL	10-41-1-500
Praseodymium	10 µg/mL	2% HNO_3	100 mL	10-42-1-100
Praseodymium	10 µg/mL	2% HNO_3	250 mL	10-42-1-250
Praseodymium	10 µg/mL	2% HNO_3	500 mL	10-42-1-500
Rhenium	10 µg/mL	2% HNO_3	100 mL	10-43-1-100
Rhenium	10 µg/mL	2% HNO_3	250 mL	10-43-1-250
Rhenium	10 µg/mL	2% HNO_3	500 mL	10-43-1-500
Rhodium	10 µg/mL	2% HCl	100 mL	10-44-2-100
Rhodium	10 µg/mL	2% HCl	250 mL	10-44-2-250
Rhodium	10 µg/mL	2% HCl	500 mL	10-44-2-500
Rubidium	10 µg/mL	2% HNO_3	100 mL	10-45-1-100
Rubidium	10 µg/mL	2% HNO_3	250 mL	10-45-1-250
Ruthenium	10 µg/mL	2% HCl	100 mL	10-46-2-100
Ruthenium	10 µg/mL	2% HCl	250 mL	10-46-2-250
Ruthenium	10 µg/mL	2% HCl	500 mL	10-46-2-500
Samarium	10 µg/mL	2% HNO_3	100 mL	10-47-1-100
Samarium	10 µg/mL	2% HNO_3	250 mL	10-47-1-250
Samarium	10 µg/mL	2% HNO_3	500 mL	10-47-1-500
Scandium	10 µg/mL	2% HNO_3	100 mL	10-48-1-100
Scandium	10 µg/mL	2% HNO_3	250 mL	10-48-1-250
Scandium	10 µg/mL	2% HNO_3	500 mL	10-48-1-500

ICP-MS Single-Component Standards (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Selenium	10 µg/mL	2% HNO_3	100 mL	10-49-1-100
Selenium	10 µg/mL	2% HNO_3	250 mL	10-49-1-250
Selenium	10 µg/mL	2% HNO_3	500 mL	10-49-1-500
Silicon	10 µg/mL	H_2O	100 mL	10-50-4-100
Silicon	10 µg/mL	H_2O	250 mL	10-50-4-250
Silicon	10 µg/mL	H_2O	500 mL	10-50-4-500
Silicon	10 µg/mL	H_2O	100 mL	10-50-4F-100
Silicon	10 µg/mL	H_2O	250 mL	10-50-4F-250
Silicon	10 µg/mL	H_2O	500 mL	10-50-4F-500
Silver	10 µg/mL	2% HNO_3	100 mL	10-51-1-100
Silver	10 µg/mL	2% HNO_3	250 mL	10-51-1-250
Silver	10 µg/mL	2% HNO_3	500 mL	10-51-1-500
Sodium	10 µg/mL	2% HNO_3	100 mL	10-52-1-100
Sodium	10 µg/mL	2% HNO_3	250 mL	10-52-1-250
Sodium	10 µg/mL	2% HNO_3	500 mL	10-52-1-500
Strontium	10 µg/mL	2% HNO_3	100 mL	10-53-1-100
Strontium	10 µg/mL	2% HNO_3	250 mL	10-53-1-250
Strontium	10 µg/mL	2% HNO_3	500 mL	10-53-1-500
Sulfur	10 µg/mL	H_2O	100 mL	10-54-5-100
Sulfur	10 µg/mL	H_2O	250 mL	10-54-5-250
Sulfur	10 µg/mL	H_2O	500 mL	10-54-5-500
Tantalum	10 µg/mL	2% HNO_3 + Tr HF	100 mL	10-55-3-100
Tantalum	10 µg/mL	2% HNO_3 + Tr HF	250 mL	10-55-3-250
Tellurium	10 µg/mL	2% HNO_3 + Tr HF	100 mL	10-56-3-100
Tellurium	10 µg/mL	2% HNO_3 + Tr HF	250 mL	10-56-3-250
Tellurium	10 µg/mL	2% HNO_3 + Tr HF	500 mL	10-56-3-500
Terbium	10 µg/mL	2% HNO_3	100 mL	10-57-1-100
Terbium	10 µg/mL	2% HNO_3	250 mL	10-57-1-250
Thallium	10 µg/mL	2% HNO_3	100 mL	10-58-1-100
Thallium	10 µg/mL	2% HNO_3	250 mL	10-58-1-250
Thallium	10 µg/mL	2% HNO_3	500 mL	10-58-1-500
Thorium	10 µg/mL	2% HNO_3	100 mL	10-59-1-100
Thorium	10 µg/mL	2% HNO_3	250 mL	10-59-1-250
Thorium	10 µg/mL	2% HNO_3	500 mL	10-59-1-500
Thulium	10 µg/mL	2% HNO_3	100 mL	10-60-1-100
Thulium	10 µg/mL	2% HNO_3	250 mL	10-60-1-250
Thulium	10 µg/mL	2% HNO_3	500 mL	10-60-1-500
Tin	10 µg/mL	2% HNO_3 + Tr HF	100 mL	10-61-3-100
Tin	10 µg/mL	2% HNO_3 + Tr HF	250 mL	10-61-3-250
Tin	10 µg/mL	2% HNO_3 + Tr HF	500 mL	10-61-3-500
Tin	10 µg/mL	H_2O	100 mL	10-61-4-100
Titanium	10 µg/mL	2% HNO_3 + Tr HF	100 mL	10-62-3-100
Titanium	10 µg/mL	2% HNO_3 + Tr HF	250 mL	10-62-3-250
Titanium	10 µg/mL	2% HNO_3 + Tr HF	500 mL	10-62-3-500
Titanium	10 µg/mL	H_2O	100 mL	10-62-4-100
Titanium	10 µg/mL	H_2O	500 mL	10-62-4-500
Tungsten	10 µg/mL	2% HNO_3 + Tr HF	100 mL	10-63-3-100
Tungsten	10 µg/mL	2% HNO_3 + Tr HF	250 mL	10-63-3-250
Tungsten	10 µg/mL	0.1% NH_4OH	100 mL	10-63-4-100
Uranium	10 µg/mL	2% HNO_3	100 mL	238U10-64-1
Uranium	10 µg/mL	2% HNO_3	100 mL	10-64-1-100

ICP-MS Single-Component Standards (cont'd)

Component	Concentration	Matrix	Volume	Part #
Uranium	10 µg/mL	2% HNO_3	250 mL	10-64-1-250
Uranium	10 µg/mL	2% HNO_3	500 mL	10-64-1-500
Vanadium	10 µg/mL	2% HNO_3	100 mL	10-65-1-100
Vanadium	10 µg/mL	2% HNO_3	250 mL	10-65-1-250
Vanadium	10 µg/mL	2% HNO_3	500 mL	10-65-1-500
Ytterbium	10 µg/mL	2% HNO_3	100 mL	10-66-1-100
Ytterbium	10 µg/mL	2% HNO_3	250 mL	10-66-1-250
Ytterbium	10 µg/mL	2% HNO_3	500 mL	10-66-1-500
Yttrium	10 µg/mL	2% HNO_3	100 mL	10-67-1-100
Yttrium	10 µg/mL	2% HNO_3	250 mL	10-67-1-250
Yttrium	10 µg/mL	2% HNO_3	500 mL	10-67-1-500
Zinc	10 µg/mL	2% HNO_3	100 mL	10-68-1-100
Zinc	10 µg/mL	2% HNO_3	250 mL	10-68-1-250
Zinc	10 µg/mL	2% HNO_3	500 mL	10-68-1-500
Zirconium	10 µg/mL	2% HNO_3 + Tr HF	100 mL	10-69-3-100
Zirconium	10 µg/mL	2% HNO_3 + Tr HF	250 mL	10-69-3-250
Zirconium	10 µg/mL	2% HNO_3 + Tr HF	500 mL	10-69-3-500

ICP-MS Multi-Component Standards - Starter Kits

NOTE: Each kit contains individual 100 mL bottles of the listed elements at 10 ug/mL

Components	Concentration	Matrix	Volume	Part #
Aluminum, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cesium, Chromium, Cobalt, Copper, Gallium, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Mercury*, Nickel, Phosphorus, Potassium, Rhenium, Rubidium, Selenium, Silicon**, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium, Zinc	10 µg/mL	2% HNO_3	100 mL	ICP-MS-KIT-A-100
Antimony, Hafnium, Molybdenum, Niobium, Tantalum, Tellurium, Tin, Titanium, Tungsten, Zirconium	10 µg/mL	2-5% HNO_3 + Tr HF	100 mL	ICP-MS-KIT-B-100
Gold, Iridium, Osmium, Palladium, Platinum, Rhodium, Ruthenium	10 µg/mL	2% HCl	100 mL	ICP-MS-KIT-C-100
Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Scandium, Terbium, Thulium, Ytterbium, Yttrium	10 µg/mL	2% HNO_3	100 mL	ICP-MS-KIT-D-100
Bromide, Chloride, Fluoride, Iodide	10 µg/mL	H_2O	100 mL	ICP-MS-KIT-E-100
Complete Kit: Contains all 74 single-element solutions in kits ICP-MS-KIT-A through ICP-MS-KIT-E	10 µg/mL	Multiple	100 mL	ICP-MS-KIT-A-E-100

* Matrix is 5% HNO_3.

** Silicon from $(HN_4)_2SiF_6$ in H_2O.

ICP-MS Multi-Component Standards - Calibration Standards

Components		Concentration	Matrix	Volume	Part #
Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Europium, Holmium, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Scandium, Selenium, Silver, Sodium, Strontium, Thallium, Thorium, Uranium, Vanadium, Ytterbium, Zinc		10 µg/mL	2% HNO_3 + Tr HF	100 mL 250 mL 500 mL	ICP-MSCS-100 ICP-MSCS-250 ICP-MSCS-500
Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Europium, Holmium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Selenium, Silver, Sodium, Strontium, Thallium, Thorium, Uranium, Vanadium, Ytterbium, Zinc		10 µg/mL	2% HNO_3 + Tr HF	100 mL 250 mL 500 mL	ICP-MSCS-M-100 ICP-MSCS-M-250 ICP-MSCS-M-500
Solution A*	Aluminum, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Cesium, Chromium, Cobalt, Copper, Gallium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Rubidium, Selenium, Silver, Sodium, Strontium, Thallium, Uranium, Vanadium, Zinc	10 µg/mL	5% HNO_3	2 solution set at 100 mL each 2 solution set at 250 mL each 2 solution set at 500 mL each	ICP-MSCS-PE3-100 ICP-MSCS-PE3-250 ICP-MSCS-PE3-500
Solution B*	Mercury				

ICP-MS Multi-Component Standards - Verification Standards

Components	Concentration	Matrix	Volume	Part #
Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Ytterbium, Yttrium	10 µg/mL	2% HNO_3	100 mL 250 mL 500 mL	ICP-MS-B-100 ICP-MS-B-250 ICP-MS-B-500
Antimony, Gold, Hafnium, Iridium, Palladium, Platinum, Rhodium, Ruthenium, Tellurium, Tin	10 µg/mL	10% HCl	100 mL 250 mL 500 mL	ICP-MS-C-100 ICP-MS-C-250 ICP-MS-C-500
Boron, Germanium, Molybdenum, Niobium, Phosphorus, Rhenium, Silicon, Sulfur, Tantalum, Titanium, Tungsten, Zirconium	10 µg/mL	2% HNO_3 + Tr HF	100 mL 250 mL 500 mL	ICP-MS-D-100 ICP-MS-D-250 ICP-MS-D-500
Boron, Molybdenum, Niobium, Phosphorus, Rhenium, Silicon, Sulfur, Tantalum, Titanium, Tungsten, Zirconium	10 µg/mL	2% HNO_3 + Tr HF	100 mL 250 mL 500 mL	ICP-MS-D-M-100 ICP-MS-D-M-250 ICP-MS-D-M-500
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Cesium, Chromium, Cobalt, Copper, Gallium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Rubidium, Selenium, Silver, Sodium, Strontium, Thallium, Uranium, Vanadium, Zinc	10 µg/mL	2% HNO_3	100 mL 250 mL 500 mL	ICP-MS-E-100 ICP-MS-E-250 ICP-MS-E-500

* Solution A and B can also be sold separately.

ICP-MS Multi-Component Standards - 68-Element Standards

Components		Concentration	Matrix	Volume	Part #
Solution A*	Aluminum, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Cesium, Chromium, Cobalt, Copper, Dysprosium, Erbium, Europium, Gadolinium, Gallium, Holmium, Indium, Iron, Lanthanum, Lead, Lithium, Lutetium, Magnesium, Manganese, Neodymium, Nickel, Phosphorus, Potassium, Praseodymium, Rhenium, Rubidium, Samarium, Scandium, Selenium, Sodium, Strontium, Terbium, Thallium, Thorium, Thulium, Uranium, Vanadium, Ytterbium, Yttrium, Zinc	10 µg/mL	2% HNO_3	3 solution set 100 mL each	ICP-MS-68A-100
				3 solution set 250 mL each	ICP-MS-68A-250
Solution B*	Antimony, Germanium, Hafnium, Molybdenum, Niobium, Silicon, Silver, Tantalum, Tellurium, Tin, Titanium, Tungsten, Zirconium		2% HNO_3 + Tr HF	3 solution set 500 mL each	ICP-MS-68A-500
Solution C*	Gold, Iridium, Osmium, Palladium, Platinum, Rhodium, Ruthenium		2% HCl		
Solution A*	Aluminum, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Cesium, Chromium, Cobalt, Copper, Dysprosium, Erbium, Europium, Gadolinium, Gallium, Holmium, Indium, Iron, Lanthanum, Lead, Lithium, Lutetium, Magnesium, Manganese, Neodymium, Nickel, Phosphorus, Potassium, Praseodymium, Rhenium, Rubidium, Samarium, Scandium, Selenium, Sodium, Strontium, Terbium, Thallium, Thorium, Thulium, Uranium, Vanadium, Ytterbium, Yttrium, Zinc	100 µg/mL	4% HNO_3	3 solution set 100 mL each	ICP-MS-68B-100
				3 solution set 250 mL each	ICP-MS-68B-250
Solution B*	Antimony, Germanium, Hafnium, Molybdenum, Niobium, Silicon, Silver, Tantalum, Tellurium, Tin, Titanium, Tungsten, Zirconium		2% HNO_3 + Tr HF	3 solution set 500 mL each	ICP-MS-68B-500
Solution C*	Gold, Iridium, Osmium, Palladium, Platinum, Rhodium, Ruthenium		15% HCl		
Solution A*	Molybdenum, Titanium	10 µg/mL	2% HNO_3 + Tr HF	2 solution set at 100 mL each	ICP-MS-ICS-100
	Aluminum, Calcium, Iron, Magnesium, Phosphorus, Potassium, Sodium, Sulfur	500 µg/mL			
	Carbon	1,000 µg/mL			
	Chloride	3,600 µg/mL			
Solution AB*	Cadmium	0.05 µg/mL		2 solution set at 250 mL each	ICP-MS-ICS-250
	Arsenic, Chromium, Copper, Manganese, Selenium, Silver, Zinc	0.1 µg/mL			
	Cobalt, Nickel, Vanadium	0.2 µg/mL			
	Molybdenum, Titanium	10 µg/mL		2 solution set at 500 mL each	ICP-MS-ICS-500
	Aluminum, Calcium, Iron, Magnesium, Phosphorus, Potassium, Sodium, Sulfur	500 µg/mL			
	Carbon	1,000 µg/mL			
	Chloride	3,600 µg/mL			

* Solution A, B, AB and C can also be sold separately.

ICP-MS Multi-Component Standards - Interference Check Standards

Components		Concentration	Matrix	Volume	Part #
Solution A*	Molybdenum, Titanium	20 µg/mL	5% HNO_3 + Tr HF	2 solution set at 100 mL each	ICP-MS-ICS-2-100
	Aluminum, Magnesium, Phosphorus, Potassium, Sulfur	1,000 µg/mL			
	Carbon	2,000 µg/mL			
	Iron, Sodium	2,500 µg/mL		2 solution set at 250 mL each	ICP-MS-ICS-2-250
	Calcium	3,000 µg/mL			
	Chloride	20,000 µg/mL			
Solution B*	Silver	5 µg/mL	2% HNO_3 (contains trace components only)	2 solution set at 500 mL each	ICP-MS-ICS-2-500
	Arsenic, Cadmium, Selenium, Zinc	10 µg/mL			
	Chromium, Cobalt, Copper, Manganese, Nickel, Vanadium	20 µg/mL			
Solution A*	Molybdenum, Titanium	20 µg/mL	2% HNO_3 + Tr HF	2 solution set at 100 mL each	ICP-MS-ICS-3-100
	Aluminum, Magnesium, Phosphorus, Potassium, Sulfur	1,000 µg/mL			
	Carbon	2,000 µg/mL			
	Iron, Sodium	2,500 µg/mL			
	Calcium	3,000 µg/mL			
	Chloride	18,000 µg/mL		2 solution set at 250 mL each	ICP-MS-ICS-3-250
Solution AB*	Arsenic, Cadmium, Selenium, Zinc	10 µg/mL	2% HNO_3		
	Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium	20 µg/mL			

ICP-MS Multi-Component Standards - EPA Method Standards

Components		Concentration	Matrix	Volume	Part #
Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Molybdenum, Nickel, Selenium, Silver, Thallium, Thorium, Uranium, Vanadium, Zinc		10 µg/mL	2% HNO_3 + Tr HF	100 mL	ICP-200.8-1-100
				250 mL	ICP-200.8-1-250
				500 mL	ICP-200.8-1-500
Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Molybdenum, Nickel, Silver, Thallium, Thorium, Uranium, Vanadium, Zinc		10 µg/mL	2% HNO_3 + Tr HF	100 mL	ICP-200.8-2-100
				250 mL	ICP-200.8-2-250
Selenium		50 µg/mL		500 mL	ICP-200.8-2-500
Solution A*	Aluminum, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Silver, Thallium, Thorium, Uranium, Vanadium, Zinc	20 µg/mL	2% HNO_3	2 solution set at 100 mL each	ICP-200.8-3-100
	Selenium	100 µg/mL		2 solution set at 250 mL each	ICP-200.8-3-250
Solution B*	Antimony, Molybdenum	20 µg/mL	2% HNO_3 + Tr HF	2 solution set at 500 mL each	ICP-200.8-3-500

* Solution A, B and AB can also be sold separately.

ICP-MS Multi-Component Standards - EPA Method Standards (cont'd)

Components	Concentration	Matrix	Volume	Part #
Beryllium, Cadmium, Lead, Selenium	0.005 µg/mL	4% HNO_3 + Tr HF	100 mL	ICP-MS-6020-100
Arsenic, Chromium, Silver, Thallium	0.01 µg/mL			
Manganese	0.015 µg/mL			
Zinc	0.02 µg/mL			
Copper	0.025 µg/mL		250 mL	ICP-MS-6020-250
Nickel	0.04 µg/mL			
Cobalt, Vanadium	0.05 µg/mL			
Antimony	0.06 µg/mL		500 mL	ICP-MS-6020-500
Iron	0.1 µg/mL			
Aluminum, Barium	0.2 µg/mL			
Calcium, Magnesium, Potassium, Sodium	5 µg/mL			

ICP-MS Multi-Component Standards - Memory Check Solutions

Components		Concentration	Matrix	Volume	Part #
Solution A*	Antimony, Beryllium, Chromium, Manganese, Nickel, Titanium, Vanadium, Zinc	20 µg/mL	2% HNO_3 + Tr HF	2 solution set at 100 mL each	ICP-MS-MCS-100
	Aluminum, Magnesium, Sodium, Sulfur	1,000 µg/mL			
	Carbon	2,000 µg/mL			
	Chlorine	7,200 µg/mL			
Solution B*	Arsenic, Barium, Cadmium, Cobalt, Copper, Lead, Molybdenum, Selenium, Silver, Thallium	20 µg/mL		2 solution set at 250 mL each	ICP-MS-MCS-250
	Calcium, Iron, Phosphorus, Potassium	1,000 µg/mL			

ICP-MS Multi-Component Standards - Internal Standards

Components	Concentration	Matrix	Volume	Part #
Bismuth, Holmium, Indium, ^{6}Lithium, Lutetium, Rhodium, Scandium, Terbium, Yttrium	10 µg/mL	2% HNO_3 + Tr HCl	100 mL	ICP-MS-IS-1-100
			250 mL	ICP-MS-IS-1-250
			500 ml	ICP-MS-IS-1-500
Bismuth, Indium, Scandium, Terbium, Yttrium	100 µg/mL	2% HNO_3	100 mL	ICP-MS-IS-2-100
			250 mL	ICP-MS-IS-2-250
			500 mL	ICP-MS-IS-2-500
Bismuth, Germanium, Indium, ^{6}Lithium, Scandium, Terbium, Yttrium	10 µg/mL	2% HNO_3	100 mL	ICP-MS-IS-3-100
			250 mL	ICP-MS-IS-3-250
			500 mL	ICP-MS-IS-3-500

* Solution A and B can also be sold separately.

ICP-MS Multi-Component Standards - Tuning Solutions

Components		Concentration	Matrix	Volume	Part #
Cobalt, Indium, Lithium, Thallium		10 µg/mL	2% HNO_3	100 mL 250 mL 500 mL	ICP-MS-TS-1-100 ICP-MS-TS-1-250 ICP-MS-TS-1-500
Cerium, Lithium, Thallium, Yttrium		10 µg/mL	2% HNO_3	100 mL 250 mL 500 mL	ICP-MS-TS-2-100 ICP-MS-TS-2-250 ICP-MS-TS-2-500
Beryllium, Cobalt, Indium, Lead, Magnesium		10 µg/mL	2% HNO_3	100 mL 250 mL 500 mL	ICP-MS-TS-3-100 ICP-MS-TS-3-250 ICP-MS-TS-3-500
Aluminum, Barium, Beryllium, Bismuth, Cerium, Cobalt, Indium, Lead, Magnesium, Nickel, Vanadium, Yttrium		10 µg/mL	2% HNO_3	100 mL 250 mL 500 mL	ICP-MS-TS-4-100 ICP-MS-TS-4-250 ICP-MS-TS-4-500
Bismuth, Holmium, Indium, ^{6}Lithium, Scandium, Terbium, Uranium, Yttrium		10 µg/mL	2% HNO_3	100 mL 250 mL 500 mL	ICP-MS-TS-5-100 ICP-MS-TS-5-250 ICP-MS-TS-5-500
Barium, Beryllium, Cerium, Cobalt, Indium, Lead, Magnesium, Rhodium		10 µg/mL	2% HNO_3 + Tr HCl	100 mL 250 mL 500 mL	ICP-MS-TS-6-100 ICP-MS-TS-6-250 ICP-MS-TS-6-500
Barium, Beryllium, Cerium, Cobalt, Indium, Lead, Magnesium, Thallium, Thorium		10 µg/mL	2% HNO_3	100 mL 250 mL 500 mL	ICP-MS-TS-7-100 ICP-MS-TS-7-250 ICP-MS-TS-7-500
Barium, Beryllium, Bismuth, Cerium, Cobalt, Indium, Lead, Lithium, Nickel, Uranium		10 µg/mL	2% HNO_3	100 mL 250 mL 500 mL	ICP-MS-TS-8-100 ICP-MS-TS-8-250 ICP-MS-TS-8-500
Solution A*	Ytterbium, Yttrium	2.5 µg/mL	5% HNO_3	2 solution set at 100 mL each	ICP-MS-TS-9-100
	Aluminum, Barium, Bismuth, Chromium, Cobalt, Copper, Indium, ^{6}Lithium, Lutetium, Manganese, Scandium, Sodium, Strontium, Thallium, Thorium, Uranium, Vanadium	5 µg/mL			
	Lead, Magnesium, Nickel	10 µg/mL		2 solution set at 250 mL each	ICP-MS-TS-9-250
	Arsenic, Beryllium, Cadmium, Zinc	20 µg/mL			
Solution AB*	Iridium, Titanium	5 µg/mL	10% HCl + 1% HNO_3 + Tr HF	2 solution set at 500 mL each	ICP-MS-TS-9-500
	Antimony, Germanium, Molybdenum, Palladium, Ruthenium, Tin	10 µg/mL			

* Solution A and AB can also be sold separately.

ICP-MS Multi-Component Standards - Tuning Solutions (cont'd)

Components	Concentration	Matrix	Volume	Part #
Cerium, Cobalt, Lithium, Thallium, Yttrium	0.01 µg/mL	2% HNO_3	100 mL	ICP-MS-TS-10-100
			250 mL	ICP-MS-TS-10-250
			500 mL	ICP-MS-TS-10-500
Cerium, Cobalt, Lithium, Thallium, Yttrium	10 µg/mL	2% HNO_3	100 mL	ICP-MS-TS-11-100
			250 mL	ICP-MS-TS-11-250
			500 mL	ICP-MS-TS-11-500
Barium, Beryllium, Cerium, Cobalt, Indium, Lead, Magnesium, Rhodium, Uranium	10 µg/mL	2% HNO_3 + Tr HCl	100 mL	ICP-MS-TS-13-100
			250 mL	ICP-MS-TS-13-250
			500 mL	ICP-MS-TS-13-500
Beryllium, Cerium, Cobalt, Indium, Iron, Lead, Magnesium, Thorium, Uranium	0.001 µg/mL	0.5% HNO_3	100 mL	ICP-MS-TS-14-100
Barium	0.01 µg/mL		500 mL	ICP-MS-TS-14-500
Beryllium, Cerium, Cobalt, Indium, Iron, Lead, Magnesium, Thorium, Uranium	1 µg/mL	2% HNO_3	100 mL	ICP-MS-TS-15-100
			250 mL	ICP-MS-TS-15-250
Barium	10 µg/mL		500 mL	ICP-MS-TS-15-500
Barium, Beryllium, Cerium, Cobalt, Indium, Lithium, Lead, Magnesium, Rhodium, Thallium, Uranium, Yttrium	10 µg/mL	2% HNO3 + 5% HCl	100 mL	ICP-MS-TS-16-100
			250 mL	ICP-MS-TS-16-250
			500 mL	ICP-MS-TS-16-500
Cerium, Cobalt, Lithium, Magnesium, Thallium, Yttrium	10 µg/mL	2% HNO_3	100 mL	ICP-MS-TS-17-100
			250 mL	ICP-MS-TS-17-250
			500 mL	ICP-MS-TS-17-500
Barium, Boron, Cobalt, Gallium, Indium, Iron, Lithium, Lutetium, Potassium, Rhodium, Scandium, Sodium, Thallium, Uranium, Yttrium	1 µg/L	2% HNO_3 + Tr HCl	100 mL	ICP-MS-TS-18-100
			250 mL	ICP-MS-TS-18-250
			500 mL	ICP-MS-TS-18-500
Barium, Boron, Cobalt, Gallium, Indium, Iron, Lithium, Lutetium, Potassium, Rhodium, Scandium, Sodium, Thallium, Uranium, Yttrium	1 µg/mL	2% HNO_3 + Tr HCl	100 mL	ICP-MS-TS-19-100
			250 mL	ICP-MS-TS-19-250
			500 mL	ICP-MS-TS-19-500
Barium, Bismuth, Cerium, Cobalt, Indium, Lead, Lithium, Uranium	1 µg/L	2% HNO_3 + 0.5% HCl	100 mL	ICP-MS-TS-20-100
			250 mL	ICP-MS-TS-20-250
			500 mL	ICP-MS-TS-20-500
Barium, Bismuth, Cerium, Cobalt, Indium, Lead, Lithium, Uranium	1 µg/mL	2% HNO_3 + 0.5% HCl	100 mL	ICP-MS-TS-21-100
			250 mL	ICP-MS-TS-21-250
			500 mL	ICP-MS-TS-21-500

ICP-MS Multi-Component Standards - Set Up Solutions

Components	Concentration	Matrix	Volume	Part #
Beryllium, Cerium, Indium, Iron, Lead, Lithium, Magnesium, Uranium	1 µg/L	1% HNO_3	100 mL 250 mL 500 mL	ICP-MS-SS-1-100 ICP-MS-SS-1-250 ICP-MS-SS-1-500
Bismuth, Cerium, Cesium, Holmium, Indium, Rhodium, Tantalum, Terbium, Uranium, Yttrium	3 µg/L	2% HNO_3	100 mL 250 mL 500 mL	ICP-MS-SS-2-100 ICP-MS-SS-2-250 ICP-MS-SS-2-500
Barium, Thallium	4 µg/L			
Strontium	5 µg/L			
Manganese, Silver	6 µg/L			
Cobalt, Lithium, Scandium	8 µg/L			
Aluminum, Gallium, Magnesium	10 µg/L			
Copper, Nickel	15 µg/L			
Zinc	20 µg/L			
Beryllium	35 µg/L			
Cobalt	10 µg/L	1% HCl	100 mL	ICP-MS-SS-3-100
Cerium	1 µg/L			

IC Single and Multi-Component Standards

We offer a broad range of single and multi-component standards for Ion Chromatography/Ion Selective Electrode applications. These standards can be used with methods for common anions, such as EPA Method 300, Standard Method 4110, and ASTM D4327; methods for cations include EPA Method 300.7; methods for speciated metals, such as EPA Method 218.7; and methods for metal cyanide complexes include EPA Method 9015 and for total cyanide as in ASTM D 2036-97 to list a few.

IC Single-Component Standards - Anions				
Component	Concentration	Matrix	Volume	Part #
Acetate	100 µg/mL	H_2O	100 mL	IC-AC-100
Acetate	100 µg/mL	H_2O	250 mL	IC-AC-250
Acetate	100 µg/mL	H_2O	500 mL	IC-AC-500
Acetate	1,000 µg/mL	H_2O	100 mL	IC-AC-M-100
Acetate	1,000 µg/mL	H_2O	250 mL	IC-AC-M-250
Acetate	1,000 µg/mL	H_2O	500 mL	IC-AC-M-500
Bromate	100 µg/mL	H_2O	100 mL	IC-BRO3-100
Bromate	100 µg/mL	H_2O	250 mL	IC-BRO3-250
Bromate	100 µg/mL	H_2O	500 mL	IC-BRO3-500
Bromate	1,000 µg/mL	H_2O	100 mL	IC-BRO3-M-100
Bromate	1,000 µg/mL	H_2O	250 mL	IC-BRO3-M-250
Bromate	1,000 µg/mL	H_2O	500 mL	IC-BRO3-M-500
Bromide	10 µg/mL	H_2O	100 mL	IC-BR-10-100
Bromide	10 µg/mL	H_2O	250 mL	IC-BR-10-250
Bromide	10 µg/mL	H_2O	500 mL	IC-BR-10-500
Bromide	100 µg/mL	H_2O	100 mL	IC-BR-100
Bromide	100 µg/mL	H_2O	250 mL	IC-BR-250
Bromide	100 µg/mL	H_2O	500 mL	IC-BR-500
Bromide	1,000 µg/mL	H_2O	100 mL	IC-BR-M-100
Bromide	1,000 µg/mL	H_2O	250 mL	IC-BR-M-250
Bromide	1,000 µg/mL	H_2O	500 mL	IC-BR-M-500
Bromide	10,000 µg/mL	H_2O	100 mL	IC-BR-10M-100
Bromide	10,000 µg/mL	H_2O	250 mL	IC-BR-10M-250
Bromide	10,000 µg/mL	H_2O	500 mL	IC-BR-10M-500
Bromide	10 µg/mL	H_2O	100 mL	ICP-BR-10-100
Bromide	10 µg/mL	H_2O	250 mL	ICP-BR-10-250
Bromide	10 µg/mL	H_2O	500 mL	ICP-BR-10-500
Butyrate	100 µg/mL	H_2O	100 mL	IC-BTY-100
Butyrate	1,000 µg/mL	H_2O	100 mL	IC-BTY-M-100
Chlorate	100 µg/mL	H_2O	100 mL	IC-CLO3-100
Chlorate	100 µg/mL	H_2O	250 mL	IC-CLO3-250
Chlorate	100 µg/mL	H_2O	500 mL	IC-CLO3-500
Chlorate	1,000 µg/mL	H_2O	100 mL	IC-CLO3-M-100
Chlorate	1,000 µg/mL	H_2O	250 mL	IC-CLO3-M-250
Chlorate	1,000 µg/mL	H_2O	500 mL	IC-CLO3-M-500
Chloride	10 µg/mL	H_2O	100 mL	IC-CL-10-100
Chloride	10 µg/mL	H_2O	250 mL	IC-CL-10-250
Chloride	10 µg/mL	H_2O	500 mL	IC-CL-10-500
Chloride	10 µg/mL	H_2O	100 mL	ICP-CL-10-100
Chloride	10 µg/mL	H_2O	250 mL	ICP-CL-10-250
Chloride	10 µg/mL	H_2O	500 mL	ICP-CL-10-500
Chloride	100 µg/mL	H_2O	100 mL	IC-CL-100
Chloride	100 µg/mL	H_2O	250 mL	IC-CL-250
Chloride	100 µg/mL	H_2O	500 mL	IC-CL-250

IC Single-Component Standards - Anions (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Chloride	1,000 µg/mL	H_2O	100 mL	IC-CL-M-100
Chloride	1,000 µg/mL	H_2O	250 mL	IC-CL-M-250
Chloride	1,000 µg/mL	H_2O	500 mL	IC-CL-M-500
Chloride	10,000 µg/mL	H_2O	100 mL	IC-CL-10M-100
Chloride	10,000 µg/mL	H_2O	250 mL	IC-CL-10M-250
Chloride	10,000 µg/mL	H_2O	500 mL	IC-CL-10M-500
Chlorite	100 µg/mL	H_2O	100 mL	IC-CLO2-100
Chlorite	100 µg/mL	H_2O	250 mL	IC-CLO2-250
Chlorite	100 µg/mL	H_2O	500 mL	IC-CLO2-500
Chlorite	1,000 µg/mL	H_2O	100 mL	IC-CLO2-M-100
Chlorite	1,000 µg/mL	H_2O	250 mL	IC-CLO2-M-250
Chlorite	1,000 µg/mL	H_2O	500 mL	IC-CLO2-M-500
Cyanide	100 µg/mL	2% KOH	100 mL	IC-CN-100
Cyanide	100 µg/mL	2% KOH	250 mL	IC-CN-250
Cyanide	100 µg/mL	2% KOH	500 mL	IC-CN-500
Cyanide	1,000 µg/mL	2% KOH	100 mL	IC-CN-M-100
Cyanide	1,000 µg/mL	2% KOH	250 mL	IC-CN-M-250
Cyanide	1,000 µg/mL	2% KOH	500 mL	IC-CN-M-500
Fluoride	10 µg/mL	H_2O	100 mL	IC-FF-10-100
Fluoride	10 µg/mL	H_2O	250 mL	IC-FF-10-250
Fluoride	10 µg/mL	H_2O	500 mL	IC-FF-10-500
Fluoride	100 µg/mL	H_2O	100 mL	IC-FF-100
Fluoride	100 µg/mL	H_2O	250 mL	IC-FF-250
Fluoride	100 µg/mL	H_2O	500 mL	IC-FF-500
Fluoride	1,000 µg/mL	H_2O	100 mL	IC-FF-M-100
Fluoride	1,000 µg/mL	H_2O	250 mL	IC-FF-M-250
Fluoride	1,000 µg/mL	H_2O	500 mL	IC-FF-M-500
Fluoride	10,000 µg/mL	H_2O	100 mL	IC-FF-10M-100
Fluoride	10,000 µg/mL	H_2O	250 mL	IC-FF-10M-250
Fluoride	10,000 µg/mL	H_2O	500 mL	IC-FF-10M-500
Formate	100 µg/mL	H_2O	100 mL	IC-FM-100
Formate	100 µg/mL	H_2O	250 mL	IC-FM-250
Formate	1,000 µg/mL	H_2O	100 mL	IC-FM-M-100
Formate	1,000 µg/mL	H_2O	250 mL	IC-FM-M-250
Formate	1,000 µg/mL	H_2O	500 mL	IC-FM-M-500
Glycolate	100 µg/mL	H_2O	100 mL	IC-GLY-100
Glycolate	1,000 µg/mL	H_2O	100 mL	IC-GLY-M-100
Glycolate	1,000 µg/mL	H_2O	500 mL	IC-GLY-M-500
Iodide	10 µg/mL	H_2O	100 mL	ICP-II-10-100
Iodide	10 µg/mL	H_2O	250 mL	ICP-II-10-250
Iodide	10 µg/mL	H_2O	500 mL	ICP-II-10-500
Iodide	10 µg/mL	H_2O	100 mL	IC-II-10-100
Iodide	10 µg/mL	H_2O	250 mL	IC-II-10-250
Iodide	10 µg/mL	H_2O	500 mL	IC-II-10-500
Iodide	100 µg/mL	H_2O	100 mL	IC-II-100
Iodide	100 µg/mL	H_2O	250 mL	IC-II-250
Iodide	100 µg/mL	H_2O	500 mL	IC-II-500
Iodide	1,000 µg/mL	H_2O	100 mL	IC-II-M-100
Iodide	1,000 µg/mL	H_2O	250 mL	IC-II-M-250
Iodide	1,000 µg/mL	H_2O	500 mL	IC-II-M-500
Lactate	100 µg/mL	H_2O	100 mL	IC-LAC-100

IC Single-Component Standards - Anions (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Lactate	1,000 µg/mL	H_2O	100 mL	IC-LAC-M-100
Lactate	1,000 µg/mL	H_2O	250 mL	IC-LAC-M-250
Nitrate	100 µg/mL	H_2O	100 mL	IC-NO-100
Nitrate	100 µg/mL	H_2O	250 mL	IC-NO-250
Nitrate	100 µg/mL	H_2O	500 mL	IC-NO-500
Nitrate	1,000 µg/mL	H_2O	100 mL	IC-NO-M-100
Nitrate	1,000 µg/mL	H_2O	250 mL	IC-NO-M-250
Nitrate	1,000 µg/mL	H_2O	500 mL	IC-NO-M-500
Nitrate	10,000 µg/mL	H_2O	100 mL	IC-NO-10M-100
Nitrate	10,000 µg/mL	H_2O	250 mL	IC-NO-10M-250
Nitrate	10,000 µg/mL	H_2O	500 mL	IC-NO-10M-500
Nitrite	100 µg/mL	H_2O	100 mL	IC-N-100
Nitrite	100 µg/mL	H_2O	250 mL	IC-N-250
Nitrite	100 µg/mL	H_2O	500 mL	IC-N-500
Nitrite	1,000 µg/mL	H_2O	100 mL	IC-N-M-100
Nitrite	1,000 µg/mL	H_2O	250 mL	IC-N-M-250
Nitrite	1,000 µg/mL	H_2O	500 mL	IC-N-M-500
Nitrogen from Nitrate	100 µg/mL	H_2O	100 mL	IC-NO3-100
Nitrogen from Nitrate	100 µg/mL	H_2O	250 mL	IC-NO3-250
Nitrogen from Nitrate	100 µg/mL	H_2O	500 mL	IC-NO3-500
Nitrogen from Nitrate	1,000 µg/mL	H_2O	100 mL	IC-NO3-M-100
Nitrogen from Nitrate	1,000 µg/mL	H_2O	250 mL	IC-NO3-M-250
Nitrogen from Nitrate	1,000 µg/mL	H_2O	500 mL	IC-NO3-M-500
Nitrogen from Nitrite	100 µg/mL	H_2O	100 mL	IC-NO2-100
Nitrogen from Nitrite	100 µg/mL	H_2O	250 mL	IC-NO2-250
Nitrogen from Nitrite	100 µg/mL	H_2O	500 mL	IC-NO2-500
Nitrogen from Nitrite	1,000 µg/mL	H_2O	100 mL	IC-NO2-M-100
Nitrogen from Nitrite	1,000 µg/mL	H_2O	250 mL	IC-NO2-M-250
Nitrogen from Nitrite	1,000 µg/mL	H_2O	500 mL	IC-NO2-M-500
Oxalate	100 µg/mL	H_2O	100 mL	IC-OX-100
Oxalate	100 µg/mL	H_2O	250 mL	IC-OX-250
Oxalate	100 µg/mL	H_2O	500 mL	IC-OX-500
Oxalate	1,000 µg/mL	H_2O	100 mL	IC-OX-M-100
Oxalate	1,000 µg/mL	H_2O	250 mL	IC-OX-M-250
Oxalate	1,000 µg/mL	H_2O	500 mL	IC-OX-M-500
Perchlorate	100 µg/mL	H_2O	100 mL	IC-CLO4-100
Perchlorate	100 µg/mL	H_2O	250 mL	IC-CLO4-250
Perchlorate	100 µg/mL	H_2O	500 mL	IC-CLO4-500
Perchlorate	1,000 µg/mL	H_2O	100 mL	IC-CLO4-M-100
Perchlorate	1,000 µg/mL	H_2O	250 mL	IC-CLO4-M-250
Perchlorate	1,000 µg/mL	H_2O	500 mL	IC-CLO4-M-500
Phosphate	100 µg/mL	H_2O	100 mL	IC-PP-100
Phosphate	100 µg/mL	H_2O	250 mL	IC-PP-250
Phosphate	100 µg/mL	H_2O	500 mL	IC-PP-500
Phosphate	1,000 µg/mL	H_2O	100 mL	IC-PP-M-100
Phosphate	1,000 µg/mL	H_2O	250 mL	IC-PP-M-250
Phosphate	1,000 µg/mL	H_2O	500 mL	IC-PP-M-500
Phosphate	10,000 µg/mL	H_2O	100 mL	IC-PP-10M-100
Phosphate	10,000 µg/mL	H_2O	250 mL	IC-PP-10M-250
Phosphate	10,000 µg/mL	H_2O	500 mL	IC-PP-10M-500
Phosphate	100 µg/mL	H_2O	100 mL	IC-KPP-100

IC Single-Component Standards - Anions (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Phosphate	100 µg/mL	H_2O	250 mL	IC-KPP-250
Phosphate	100 µg/mL	H_2O	500 mL	IC-KPP-500
Phosphate	1,000 µg/mL	H_2O	100 mL	IC-KPP-M-100
Phosphate	1,000 µg/mL	H_2O	250 mL	IC-KPP-M-250
Phosphate	1,000 µg/mL	H_2O	500 mL	IC-KPP-M-500
Phosphorus	100 µg/mL	H_2O	100 mL	IC-P-100
Phosphorus	100 µg/mL	H_2O	250 mL	IC-P-250
Phosphorus	100 µg/mL	H_2O	500 mL	IC-P-500
Phosphorus	1,000 µg/mL	H_2O	100 mL	IC-P-M-100
Phosphorus	1,000 µg/mL	H_2O	250 mL	IC-P-M-250
Phosphorus	1,000 µg/mL	H_2O	500 mL	IC-P-M-500
Phosphorus	1,000 µg/mL	H_2O	100 mL	IC-KP-M-100
Phosphorus	1,000 µg/mL	H_2O	250 mL	IC-KP-M-250
Phosphorus	1,000 µg/mL	H_2O	500 mL	IC-KP-M-500
Propionate	100 µg/mL	H_2O	100 mL	IC-PRO-100
Propionate	100 µg/mL	H_2O	250 mL	IC-PRO-250
Propionate	100 µg/mL	H_2O	500 mL	IC-PRO-500
Propionate	1,000 µg/mL	H_2O	100 mL	IC-PRO-M-100
Propionate	1,000 µg/mL	H_2O	250 mL	IC-PRO-M-250
Propionate	1,000 µg/mL	H_2O	500 mL	IC-PRO-M-500
Sulfate	100 µg/mL	H_2O	100 mL	IC-SS-100
Sulfate	100 µg/mL	H_2O	250 mL	IC-SS-250
Sulfate	100 µg/mL	H_2O	500 mL	IC-SS-500
Sulfate	1,000 µg/mL	H_2O	100 mL	IC-SS-M-100
Sulfate	1,000 µg/mL	H_2O	250 mL	IC-SS-M-250
Sulfate	1,000 µg/mL	H_2O	500 mL	IC-SS-M-500
Sulfate	10,000 µg/mL	H_2O	100 mL	IC-SS-10M-100
Sulfate	10,000 µg/mL	H_2O	250 mL	IC-SS-10M-250
Sulfate	10,000 µg/mL	H_2O	500 mL	IC-SS-10M-500
Sulfur	100 µg/mL	H_2O	100 mL	IC-SR-100
Sulfur	100 µg/mL	H_2O	250 mL	IC-SR-250
Sulfur	100 µg/mL	H_2O	500 mL	IC-SR-500
Sulfur	1,000 µg/mL	H_2O	100 mL	IC-SR-M-100
Sulfur	1,000 µg/mL	H_2O	250 mL	IC-SR-M-250
Sulfur	1,000 µg/mL	H_2O	500 mL	IC-SR-M-500
Thiocyanate	100 µg/mL	H_2O	100 mL	IC-SCN-100
Thiocyanate	1,000 µg/mL	H_2O	100 mL	IC-SCN-M-100
Thiocyanate	1,000 µg/mL	H_2O	250 mL	IC-SCN-M-250
Thiocyanate	1,000 µg/mL	H_2O	500 mL	IC-SCN-M-500
Thiosulfate	100 µg/mL	H_2O	100 mL	IC-S2O3-100
Thiosulfate	1,000 µg/mL	H_2O	100 mL	IC-S2O3-M-100
Thiosulfate	1,000 µg/mL	H_2O	250 mL	IC-S2O3-M-250
Thiosulfate	1,000 µg/mL	H_2O	500 mL	IC-S2O3-M-500
Valerate	1,000 µg/mL	H_2O	100 mL	IC-VAL-M-100
Phosphorus	100 µg/mL	H_2O	100 mL	IC-KP-100
Phosphorus	100 µg/mL	H_2O	250 mL	IC-KP-250
Phosphorus	100 µg/mL	H_2O	500 mL	IC-KP-500
Ammonia as Nitrogen	100 µg/mL	H_2O	100 mL	IC-NH3-N-100
Ammonia as Nitrogen	100 µg/mL	H_2O	250 mL	IC-NH3-N-250
Ammonia as Nitrogen	100 µg/mL	H_2O	500 mL	IC-NH3-N-500
Ammonia as Nitrogen	1,000 µg/mL	H_2O	100 mL	IC-NH3-N-M-100

IC Single-Component Standards - Cations

Component	Concentration	Matrix	Volume	Part #
Ammonia as Nitrogen	1,000 µg/mL	H_2O	250 mL	IC-NH3-N-M-250
Ammonia as Nitrogen	1,000 µg/mL	H_2O	500 mL	IC-NH3-N-M-500
Ammonium	100 µg/mL	H_2O	100 mL	IC-NH-100
Ammonium	100 µg/mL	H_2O	250 mL	IC-NH-250
Ammonium	100 µg/mL	H_2O	500 mL	IC-NH-500
Ammonium	1,000 µg/mL	H_2O	100 mL	IC-NH-M-100
Ammonium	1,000 µg/mL	H_2O	250 mL	IC-NH-M-250
Ammonium	1,000 µg/mL	H_2O	500 mL	IC-NH-M-500
Calcium	100 µg/mL	H_2O	100 mL	IC-CA-100
Calcium	100 µg/mL	H_2O	250 mL	IC-CA-250
Calcium	100 µg/mL	H_2O	500 mL	IC-CA-500
Calcium	1,000 µg/mL	H_2O	100 mL	IC-CA-M-100
Calcium	1,000 µg/mL	H_2O	250 mL	IC-CA-M-250
Calcium	1,000 µg/mL	H_2O	500 mL	IC-CA-M-500
Diethanolamine	100 µg/mL	H_2O	100 mL	IC-DEA-100
Diethanolamine	100 µg/mL	H_2O	250 mL	IC-DEA-250
Diethanolamine	100 µg/mL	H_2O	500 mL	IC-DEA-500
Diethanolamine	1,000 µg/mL	H_2O	100 mL	IC-DEA-M-100
Diethanolamine	1,000 µg/mL	H_2O	250 mL	IC-DEA-M-250
Diethanolamine	1,000 µg/mL	H_2O	500 mL	IC-DEA-M-500
Dimethylamine	100 µg/mL	H_2O	100 mL	IC-DMA-100
Dimethylamine	100 µg/mL	H_2O	250 mL	IC-DMA-250
Dimethylamine	100 µg/mL	H_2O	500 mL	IC-DMA-500
Dimethylamine	1,000 µg/mL	H_2O	100 mL	IC-DMA-M-100
Dimethylamine	1,000 µg/mL	H_2O	250 mL	IC-DMA-M-250
Dimethylamine	1,000 µg/mL	H_2O	500 mL	IC-DMA-M-500
Ethanolamine	100 µg/mL	H_2O	100 mL	IC-EA-100
Ethanolamine	1,000 µg/mL	H_2O	100 mL	IC-EA-M-100
Ethanolamine	1,000 µg/mL	H_2O	250 mL	IC-EA-M-250
Lithium	100 µg/mL	H_2O	100 mL	IC-LI-100
Lithium	100 µg/mL	H_2O	250 mL	IC-LI-250
Lithium	1,000 µg/mL	H_2O	100 mL	IC-LI-M-100
Lithium	1,000 µg/mL	H_2O	250 mL	IC-LI-M-250
Lithium	1,000 µg/mL	H_2O	500 mL	IC-LI-M-500
Magnesium	100 µg/mL	H_2O	100 mL	IC-MG-100
Magnesium	100 µg/mL	H_2O	250 mL	IC-MG-250
Magnesium	100 µg/mL	H_2O	500 mL	IC-MG-500
Magnesium	1,000 µg/mL	H_2O	100 mL	IC-MG-M-100
Magnesium	1,000 µg/mL	H_2O	250 mL	IC-MG-M-250
Magnesium	1,000 µg/mL	H_2O	500 mL	IC-MG-M-500
Morpholine	100 µg/mL	H_2O	100 mL	IC-MOR-100
Morpholine	100 µg/mL	H_2O	250 mL	IC-MOR-250
Morpholine	100 µg/mL	H_2O	500 mL	IC-MOR-500
Morpholine	1,000 µg/mL	H_2O	100 mL	IC-MOR-M-100
Morpholine	1,000 µg/mL	H_2O	250 mL	IC-MOR-M-250
Morpholine	1,000 µg/mL	H_2O	500 mL	IC-MOR-M-500
Nitrogen	100 µg/mL	H_2O	100 mL	IC-NT-100
Nitrogen	100 µg/mL	H_2O	250 mL	IC-NT-250
Nitrogen	100 µg/mL	H_2O	500 mL	IC-NT-500
Nitrogen	1,000 µg/mL	H_2O	100 mL	IC-NT-M-100
Nitrogen	1,000 µg/mL	H_2O	250 mL	IC-NT-M-250

IC Single-Component Standards - Cations (cont'd)				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Nitrogen	1,000 µg/mL	H_2O	500 mL	IC-NT-M-500
Potassium	100 µg/mL	H_2O	100 mL	IC-K-100
Potassium	100 µg/mL	H_2O	250 mL	IC-K-250
Potassium	100 µg/mL	H_2O	500 mL	IC-K-500
Potassium	1,000 µg/mL	H_2O	100 mL	IC-K-M-100
Potassium	1,000 µg/mL	H_2O	250 mL	IC-K-M-250
Potassium	1,000 µg/mL	H_2O	500 mL	IC-K-M-500
Sodium	100 µg/mL	H_2O	100 mL	IC-NA-100
Sodium	100 µg/mL	H_2O	250 mL	IC-NA-250
Sodium	100 µg/mL	H_2O	500 mL	IC-NA-500
Sodium	1,000 µg/mL	H_2O	100 mL	IC-NA-M-100
Sodium	1,000 µg/mL	H_2O	250 mL	IC-NA-M-250
Sodium	1,000 µg/mL	H_2O	500 mL	IC-NA-M-500

IC Multi-Component Standards - Anions					
Components		**Concentration**	**Matrix**	**Volume**	**Part #**
Solution A*	Bromide, Chloride, Fluoride, Nitrate, Phosphate, Sulfate	100 µg/mL	H_2O	2 solution set at 100 mL each	IC-1-100
				2 solution set at 250 mL each	IC-1-250
Solution B*	Nitrite			2 solution set at 500 mL each	IC-1-500
Solution A*	Bromide, Chloride, Fluoride, Nitrate, Phosphate, Sulfate	1,000 µg/mL	H_2O	2 solution set at 100 mL each	IC-2-100
				2 solution set at 250 mL each	IC-2-250
Solution B*	Nitrite			2 solution set at 500 mL each	IC-2-500
Fluoride		20 µg/mL	H_2O	100 mL	IC-AN5-1-100
Chloride		30 µg/mL		250 mL	IC-AN5-1-250
Nitrate		100 µg/mL		500 mL	IC-AN5-1-500
Phosphate, Sulfate		150 µg/mL			
Fluoride		100 µg/mL	H_2O	100 mL	IC-AN6-1-100
Chloride		200 µg/mL			
Bromide, Nitrate, Sulfate		400 µg/mL		500 mL	IC-AN6-1-500
Phosphate		600 µg/mL			

* Solution A and B can also be sold separately.

IC Multi-Component Standards - Cations				
Components	**Concentration**	**Matrix**	**Volume**	**Part #**
Ammonium, Calcium, Magnesium, Potassium, Sodium	100 µg/mL	H_2O	100 mL 250 mL 500 mL	IC-4-100 IC-4-250 IC-4-500
Lithium	50 µg/mL	H_2O	100 mL 250 mL 500 mL	IC-CAT6-1-100 IC-CAT6-1-250 IC-CAT6-1-500
Sodium	200 µg/mL			
Ammonium, Magnesium	250 µg/mL			
Calcium, Potassium	500 µg/mL			
Lithium	50 µg/mL	H_2O	100 mL 250 mL 500 mL	IC-CAT6-2-100 IC-CAT6-2-250 IC-CAT6-2-500
Magnesium, Potassium, Sodium	200 µg/mL			
Ammonium	400 µg/mL			
Calcium	1,000 µg/mL			

IC Single-Component Standards - Metal Cyanide Complexes					
Component	**Source**	**Concentration**	**Matrix**	**Volume**	**Part #**
Gold	Gold Metal	1 µg/mL	0.01% NaCN + 0.1N NaOH	100 mL	AU-CN-1-100
Gold	Gold Metal	1 µg/mL	0.01% NaCN + 0.1N NaOH	500 mL	AU-CN-1-500
Gold	Gold Metal	10 µg/mL	0.01% NaCN + 0.1N NaOH	100 mL	AU-CN-10-100
Gold	Gold Metal	10 µg/mL	0.01% NaCN + 0.1N NaOH	500 mL	AU-CN-10-500
Gold	Gold Metal	1,000 µg/mL	0.05% NaCN + 0.1N NaOH	100 mL	AU-CN-1000-100
Gold	Gold Metal	1,000 µg/mL	0.05% NaCN + 0.1N NaOH	500 mL	AU-CN-1000-500

Organic Acids

We offer stock inventory of short-chain fatty acids well suited for Ion Chromatography methods. The ISO 17034 Certificate of Analysis verifies the concentration of the anion of these compounds against second-source Certified Reference Materials. Source materials may include either the salt or acid form of these organic acids.

Organic Acids				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Acetate	100 µg/mL	H_2O	100 mL	IC-AC-100
Acetate	100 µg/mL	H_2O	250 mL	IC-AC-250
Acetate	100 µg/mL	H_2O	500 mL	IC-AC-500
Acetate	1,000 µg/mL	H_2O	100 mL	IC-AC-M-100
Acetate	1,000 µg/mL	H_2O	250 mL	IC-AC-M-250
Acetate	1,000 µg/mL	H_2O	500 mL	IC-AC-M-500
Butyrate	100 µg/mL	H_2O	100 mL	IC-BTY-100
Butyrate	1,000 µg/mL	H_2O	100 mL	IC-BTY-M-100
Formate	100 µg/mL	H_2O	100 mL	IC-FM-100
Formate	100 µg/mL	H_2O	250 mL	IC-FM-250
Formate	1,000 µg/mL	H_2O	100 mL	IC-FM-M-100
Formate	1,000 µg/mL	H_2O	250 mL	IC-FM-M-250
Formate	1,000 µg/mL	H_2O	500 mL	IC-FM-M-500
Glycolate	100 µg/mL	H_2O	100 mL	IC-GLY-100
Glycolate	1,000 µg/mL	H_2O	100 mL	IC-GLY-M-100
Glycolate	1,000 µg/mL	H_2O	500 mL	IC-GLY-M-500
Lactate	100 µg/mL	H_2O	100 mL	IC-LAC-100
Lactate	1,000 µg/mL	H_2O	100 mL	IC-LAC-M-100
Lactate	1,000 µg/mL	H_2O	250 mL	IC-LAC-M-250
Oxalate	100 µg/mL	H_2O	100 mL	IC-OX-100
Oxalate	100 µg/mL	H_2O	250 mL	IC-OX-250
Oxalate	100 µg/mL	H_2O	500 mL	IC-OX-500
Oxalate	1,000 µg/mL	H_2O	100 mL	IC-OX-M-100
Oxalate	1,000 µg/mL	H_2O	250 mL	IC-OX-M-250
Oxalate	1,000 µg/mL	H_2O	500 mL	IC-OX-M-500
Propionate	100 µg/mL	H_2O	100 mL	IC-PRO-100
Propionate	100 µg/mL	H_2O	250 mL	IC-PRO-250
Propionate	100 µg/mL	H_2O	500 mL	IC-PRO-500
Propionate	1,000 µg/mL	H_2O	100 mL	IC-PRO-M-100
Propionate	1,000 µg/mL	H_2O	250 mL	IC-PRO-M-250
Propionate	1,000 µg/mL	H_2O	500 mL	IC-PRO-M-500
Valerate	1,000 µg/mL	H_2O	100 mL	IC-VAL-M-100

Industrial Hygiene and Air Monitoring Standards

- Address the needs of quality control or method development
- Used with industrial hygiene methods including, NIOSH Methods 7300, 7500 and 1000 Series, OSHA Method 91, ASTM Standard D7035, ISO Standard 15202-1 and 15202-2, and CEN (EN) Standard 13890
- Products included in our ISO 9001:2015, ISO/IEC 17025:2005 and ISO 17034:2015 scope of accreditation

Absorbent Tubes & Diffusive Samplers

Organic solvent analytes are gravimetrically applied to tubes or passive sampler badges containing charcoal sorbents. Following manufacture, products are desorbed and tested using OSHA/NIOSH methods established for applicable components. Second source Certified Reference Materials are used to validate concentration.

To order a standard, please provide the following information:

- Analytes of interest
- Analyte mass per tube or badge
- If ordering a diffusive sampler, indicate brand of package: 3M, Assay Technology or SKC
- Quantity of spiked tubes/badges and blanks

Contact us at 843.767.7900 or toll free at 866.767.4771 or via email to info@highpuritystandards.com. You can also visit our website at highpuritystandards.com.

Silica for XRD/IR Analysis

TMFM-Crystalline Silica

We offer standards of alpha-Quartz or Cristobalite on PVC filters in concentrations ranging from 10 µg/filter to 500 µg/filter for the alpha-Quartz and 5 µg/filter to 250 µg/filter for the Cristobalite.

Available as custom products which may include background materials.

Please contact Customer Service for details on concentrations and pricing.

Toxic Air Metals on Quartz Filter

Metals currently listed as Hazardous Air Pollutants (HAP) include: antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium. We have designed products that comply with EPA methods for Air Monitoring. The more popular filter media for these products include Quartz or PTFE-coated filters. Dissolved metals are applied to the selected filter media and tested against appropriate Certified Reference Materials. These products are provided with an ISO 17034:2016 Certificate of Analysis.

To request varying components/concentrations and your choice of filter type (Quartz, MCE, PVC, PTFE-coated, or Acrylic), contact us today to discuss your special mix needs.

Hexavalent Chromium on MCE or PVC Filters

This is a custom product due to the short stability period. Validation via Ion Chromatography or IC-ICP-MS is available. Please send custom specifications to info@highpuritystandards.com.

Industrial Hygiene and Ambient Air Analysis

The following trace metals on mixed cellulose ester are designed to meet QC requirements for Method 7300. Additional blanks are available.

Description	Part #
Trace metals on mixed cellulose ester; 10 spiked filters and 5 blanks	QC-TMFM-A through QC-TMFM-G

Components	QC-TMFM-A	QC-TMFM-B	QC-TMFM-C	QC-TMFM-D	QC-TMFM-E	QC-TMFM-F	QC-TMFM-G
	µg/filter	µg/filter	µg/filter	µg/filter	µg/filter	µg/filter	µg/filter
Aluminum	—	—	—	50	100	—	—
Arsenic	10	50	100	10	20	10	50
Barium	2.5	10	25	2.5	5	2.5	10
Beryllium	1	10	25	0.1	0.2	1	10
Cadmium	1	10	25	1	2	1	10
Chromium	2.5	10	25	2.5	5	2.5	10
Cobalt	2.5	10	25	2.5	5	2.5	10
Copper	2.5	25	50	2.5	5	2.5	25
Iron	2.5	25	50	2.5	5	2.5	25
Lead	2.5	25	50	2.5	5	2.5	25
Manganese	1	10	25	1	5	1	10
Nickel	2.5	10	25	2.5	5	2.5	10
Silver	1	5	10	1	2	1	5
Thallium	2.5	10	25	2.5	5	2.5	10
Uranium	—	—	—	—	—	2.5	5
Vanadium	2.5	10	25	2.5	5	2.5	10
Zinc	2.5	50	100	2.5	5	2.5	50

Beryllium Oxide

Beryllium Oxide is a toxic particulate material present in workplace samples that is known to be resistant to dissolution. These standards are available for method development or quality control checks. The source of the Beryllium Oxide applied to the filter is NIST SRM 1877 high-fired BeO powder. Blanks are supplied separately; contact us for information.

Beryllium Oxide Particulates on Filter		
Description	µg/filter	Part #
0.05 µg/filter of BeO as Be (2 filters)	0.05	TMFM-CBEO-0.05
0.1 µg/filter of BeO as Be (2 filters)	0.1	TMFM-CBEO-0.1
0.2 µg/filter of BeO as Be (2 filters)	0.2	TMFM-CBEO-0.2
0.5 µg/filter of BeO as Be (2 filters)	0.5	TMFM-CBEO-0.5
1 µg/filter of BeO as Be (2 filters)	1	TMFM-CBEO-1.0
2 µg/filter of BeO as Be (2 filters)	2	TMFM-CBEO-2.0
5 µg/filter of BeO as Be (2 filters)	5	TMFM-CBEO-5.0
10 µg/filter of BeO as Be (2 filters)	10	TMFM-CBEO-10.0
25 µg/filter of BeO as Be (2 filters)	25	TMFM-CBEO-25.0

Respirable Silica on PVC Media Filter

We now offer standards of alpha-Quartz (from NIST SRM 1878b) or Cristobalite (from NIST SRM 1879b) on PVC filters. These forms of silica come in concentration ranges of 10 µg/filter to 500 µg/filter for the alpha-Quartz and 5 µg/filter to 250 µg/filter for the Cristobalite.This is a NIST-traceable product that comes with an ISO 17034 Certificate of Analysis. Contact us for details on concentrations and pricing.

Respirable Silica on PVC Media Filter	
Description	**Part #**
TMFM Crystalline Silica	TMFM-Crystalline Silica

Cleaned Filters

To address the need for clean blank PVC filters, we offer two methods of cleaning PVC filters to remove specific contaminants.

1. A patented process to remove chromium or vanadium[1]
2. An in-house method to remove silicon

A Certificate of Analysis with the concentration per filter of the removed analyte is included with the product. Please contact us to submit an order for Clean Filters. Bulk pricing is available.

Cleaned Filters	
Description	**Part #**
Cleaned 37 mm PVC filters in quantities of 25	PVC37MMPC

[1] Licensed from the United States of America under U.S. Patent No. 8,415,452, Rubenstein, M. “Hexavalent chromium and total chromium removal from polyvinylchloride (PVC) polymers”

Organic Standards

We offer multi-component Certified Reference Materials for a variety of EPA and ASTM methods. All products come with an ISO 17034 Certificate of Analysis which includes concentration values verified against second source Certified Reference Materials and a weight report traceable to NIST.

Alcohols Mix				
Components	**Concentration**	**Matrix**	**Volume**	**Part #**
Allyl alcohol, 1-Butanol, tert-Butyl alcohol, Ethanol, Ethylene glycol, Methanol, 2-Methyl-1-propanol, 1-Propanol, 2-Propanol	2,000 µg/mL	DI Water	1 mL	8015-M9C-A1

BTEX Standards				
Components	**Concentration**	**Matrix**	**Volume**	**Part #**
Benzene, Ethylbenzene, Toluene, m-Xylene, o-Xylene, p-Xylene	200 µg/mL	Methanol-P&T	1 mL	BTEX-LM6C-A1
Benzene, Ethylbenzene, Toluene, m-Xylene, o-Xylene, p-Xylene	2,000 µg/mL	Methanol-P&T	1 mL	BTEX-HM6C-A1

Fatty Acids Mix				
Components	**Concentration**	**Matrix**	**Volume**	**Part #**
Acetic acid, Butyric acid, Isobutyric acid, Isovaleric acid, Propionic acid, Valeric acid	1,000 µg/mL	H_2O	1 mL	FA-M6C-A1

PAH Analyte Mix				
Components	**Concentration**	**Matrix**	**Volume**	**Part #**
Acenaphthene, Acenaphthylene, Anthracene, Benz(a)anthracene, Benzo(a) pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz(a,h)anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd) pyrene, Naphthalene, Phenanthrene, Pyrene	2,000 µg/mL	Methylene Chloride:Benzene	1 mL	PAH-HM16C-A1

Dutch 7 PCB Congeners Mix				
Components	**Concentration**	**Matrix**	**Volume**	**Part #**
2,2,4'-Trichlorobiphenyl (BZ-28) 2,2',5,5'-Tetrachlorobiphenyl (BZ-52) 2,2',4,5,5'-Pentachlorobiphenyl (BZ-101) 2,3',4,4',5-Pentachlorobiphenyl (BZ-118) 2,2',3,4,4',5'-Hexachlorobiphenyl (BZ-138) 2,2',4,4',5,5'-Hexachlorobiphenyl (BZ-153) 2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)	100 µg/mL	Hexane	1 mL	PCB-MD7C-A1

Internal Standard				
Components	**Concentration**	**Matrix**	**Volume**	**Part #**
Acenaphthene-d_{10}, Chrysene-d_{12}, 1,4-Dichlorobenzene-d_4, Naphthalene-d_8, Perylene-d_{12}, Phenanthrene-d_{10}	2,000 µg/mL	Methylene Chloride	1 mL	SV-IS-M6C-A1

Trihalomethanes

Components	Concentration	Matrix	Volume	Part #
Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane	200 µg/mL	Methanol-P&T	1 mL	THM-LM4C-A1
Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane	2,000 µg/mL	Methanol-P&T	1 mL	THM-HM4C-A1

Purgeable Gases Mix

Components	Concentration	Matrix	Volume	Part #
Bromomethane, Chloroethane, Chloromethane, Dichlorodifluoromethane, Trichlorofluoromethane, Vinyl Chloride	200 µg/mL	Methanol-P&T	1 mL	VOC-LM6C-A1
Bromomethane, Chloroethane, Chloromethane, Dichlorodifluoromethane, Trichlorofluoromethane, Vinyl Chloride	2,000 µg/mL	Methanol-P&T	1 mL	VOC-HM6C-A1

Surrogate Standard

Components	Concentration	Matrix	Volume	Part #
4-Bromofluorobenzene, Dibromofluoromethane, Toluene-d_8	2,000 µg/mL	Methanol-P&T	1 mL	VOC-SURR-M3C-A1

Volatile Organic Combination Mix

Components			Concentration	Matrix	Volume	Part #
Benzene	1,3-Dichlorobenzene	Naphthalene	2,000 µg/mL	Methanol-P&T	1 mL	VOC-M54C-A1
Bromobenzene	1,4-Dichlorobenzene	n-Propylbenzene				
Bromochloromethane	1,1-Dichloroethane	Styrene				
Bromodichloromethane	1,2-Dichloroethane	1,1,1,2-Tetrachloroethane				
Bromoform	1,1-Dichloroethene	1,1,2,2-Tetrachloroethane				
n-Butylbenzene	cis-1,2-Dichloroethene	Tetrachloroethene				
sec-Butylbenzene	trans-1,2-Dichloroethene	Toluene				
tert-Butylbenzene	1,2-Dichloropropane	1,2,3-Trichlorobenzene				
Carbon tetrachloride	1,3-Dichloropropane	1,2,4-Trichlorobenzene				
Chlorobenzene	2,2-Dichloropropane	1,1,1-Trichloroethane				
Chloroform	1,1-Dichloropropene	1,1,2-Trichloroethane				
2-Chlorotoluene	cis-1,3-Dichloropropene	Trichloroethene				
4-Chlorotoluene	trans-1,3-Dichloropropene	1,2,3-Trichloropropane				
1,2-Dibromo-3-chloropropane	Ethylbenzene	1,2,4-Trimethylbenzene				
Dibromochloromethane	Hexachlorobutadiene	1,3,5-Trimethylbenzene				
1,2-Dibromoethane	Isopropylbenzene	m-Xylene				
Dibromomethane	p-Isopropyltoluene	o-Xylene				
1,2-Dichlorobenzene	Methylene chloride	p-Xylene				

Volatile Organic Mix with 60 Certified Components

Components			Concentration	Matrix	Volume	Part #
Benzene	1,2-Dichlorobenzene	Naphthalene	200 µg/mL	Methanol-P&T	1 mL	VOC-M60C-A1
Bromobenzene	1,3-Dichlorobenzene	n-Propylbenzene				
Bromochloromethane	1,4-Dichlorobenzene	Styrene				
Bromodichloromethane	Dichlorodifluoromethane	1,1,1,2-Tetrachloroethane				
Bromoform	1,1-Dichloroethane	1,1,2,2-Tetrachloroethane				
Bromomethane	1,2-Dichloroethane	Tetrachloroethene				
n-Butylbenzene	1,1-Dichloroethene	Toluene				
sec-Butylbenzene	cis-1,2-Dichloroethene	1,2,3-Trichlorobenzene				
tert-Butylbenzene	trans-1,2-Dichloroethene	1,2,4-Trichlorobenzene				
Carbon tetrachloride	1,2-Dichloropropane	1,1,1-Trichloroethane				
Chlorobenzene	1,1-Dichloropropene	1,1,2-Trichloroethane				
Chloroethane	cis-1,3-Dichloropropene	Trichloroethene				
Chloroform	trans-1,3-Dichloropropene	Trichlorofluoromethane				
Chloromethane	1,3-Dichloropropane	1,2,3-Trichloropropane				
2-Chlorotoluene	2,2-Dichloropropane	1,2,4-Trimethylbenzene				
4-Chlorotoluene	Ethylbenzene	1,3,5-Trimethylbenzene				
1,2-Dibromo-3-chloropropane	Hexachlorobutadiene	Vinyl chloride				
Dibromochloromethane	Isopropylbenzene	m-Xylene				
1,2-Dibromoethane	p-Isopropyltoluene	o-Xylene				
Dibromomethane	Methylene chloride	p-Xylene				

Volatile Organic Mix with 60 Certified Components

Components			Concentration	Matrix	Volume	Part #
Benzene	1,2-Dichlorobenzene	Naphthalene	1,000 µg/mL	Methanol-P&T	1 mL	VOC-M60C-1000-A1
Bromobenzene	1,3-Dichlorobenzene	n-Propylbenzene				
Bromochloromethane	1,4-Dichlorobenzene	Styrene				
Bromodichloromethane	Dichlorodifluoromethane	1,1,1,2-Tetrachloroethane				
Bromoform	1,1-Dichloroethane	1,1,2,2-Tetrachloroethane				
Bromomethane	1,2-Dichloroethane	Tetrachloroethene				
n-Butylbenzene	1,1-Dichloroethene	Toluene				
sec-Butylbenzene	cis-1,2-Dichloroethene	1,2,3-Trichlorobenzene				
tert-Butylbenzene	trans-1,2-Dichloroethene	1,2,4-Trichlorobenzene				
Carbon tetrachloride	1,2-Dichloropropane	1,1,1-Trichloroethane				
Chlorobenzene	1,1-Dichloropropene	1,1,2-Trichloroethane				
Chloroethane	cis-1,3-Dichloropropene	Trichloroethene				
Chloroform	trans-1,3-Dichloropropene	Trichlorofluoromethane				
Chloromethane	1,3-Dichloropropane	1,2,3-Trichloropropane				
2-Chlorotoluene	2,2-Dichloropropane	1,2,4-Trimethylbenzene				
4-Chlorotoluene	Ethylbenzene	1,3,5-Trimethylbenzene				
1,2-Dibromo-3-chloropropane	Hexachlorobutadiene	Vinyl chloride				
Dibromochloromethane	Isopropylbenzene	m-Xylene				
1,2-Dibromoethane	p-Isopropyltoluene	o-Xylene				
Dibromomethane	Methylene chloride	p-Xylene				

Base Neutral & Acid Combination Calibration Standard with 76 Certified Components

Components			Concentration	Matrix	Volume	Part #
Acenaphthene	1,3-Dichlorobenzene	1-Methylnaphthalene	1,000 µg/mL	Methylene Chloride	1 mL	VOC-M76C-A1
Acenaphthylene	1,4-Dichlorobenzene	2-Methylnaphthalene				
Aniline	2,4-Dichlorophenol	2-Methylphenol				
Anthracene	Diethyl phthalate	3-Methylphenol*				
Azobenzene	Dimethyl phthalate	4-Methylphenol*				
Benz(a)anthracene	2,4-Dimethylphenol	Naphthalene				
Benzo(a)pyrene	1,2-Dinitrobenzene	2-Nitroaniline				
Benzo(b)fluoranthene	1,3-Dinitrobenzene	3-Nitroaniline				
Benzo(g,h,i)perylene	1,4-Dinitrobenzene	4-Nitroaniline				
Benzo(k)fluoranthene	2,4-Dinitrophenol	Nitrobenzene				
Benzyl alcohol	2,4-Dinitrotoluene	2-Nitrophenol				
4-Bromodiphenyl ether	2,6-Dinitrotoluene	4-Nitrophenol				
Butylbenzyl phthalate	4,6-Dinitro-2-methylphenol	n-Nitrosodimethylamine**				
Carbazole	Diphenylamine	n-Nitrosodi-n-propylamine				
4-Chloroaniline (p-Chloroaniline)	Di-n-butyl phthalate	Pentachlorophenol				
bis(2-Chloroethoxy)methane	Di-n-octyl phthalate	Phenanthrene				
bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)adipate	Phenol				
bis(2-Chloro-1-methylethyl)ether	bis(2-Ethylhexyl)phthalate	Pyrene				
2-Chloronaphthalene	Fluoranthene	Pyridine				
2-Chlorophenol	Fluorene	2,3,4,6-Tetrachlorophenol				
4-Chlorophenyl-phenyl ether	Hexachlorobenzene	2,3,5,6-Tetrachlorophenol				
4-Chloro-3-methylphenol	Hexachlorobutadiene	1,2,4-Trichlorobenzene				
Chrysene	Hexachlorocyclopentadiene	2,4,5-Trichlorophenol				
Dibenz(a,h)anthracene	Hexachloroethane	2,4,6-Trichlorophenol				
Dibenzofuran	Indeno(1,2,3-cd)pyrene					
1,2-Dichlorobenzene	Isophorone					

* 3-Methylphenol and 4-Methylphenol are at a concentration of 500 µg/mL.
** n-Nitrosodimethylamine (8270-listed analyte) decomposes to Diphenylamine (mix component).

Metallo-Organic Standards

The standards listed are for the determination of metals in oils and lubricants. These products include metals in a light mineral oil (20 cSt) matrix. Other oil and organic solvent matrices are available upon request.

Metallo-Organic Single-Component Standards				
Component	**Concentration**	**Matrix**	**Weight**	**Part #**
Aluminum	1,000 µg/mL	Mineral Oil	50 g	ALOMS-50
Aluminum	1,000 µg/mL	Mineral Oil	100 g	ALOMS-100
Antimony	1,000 µg/mL	Mineral Oil	50 g	SBOMS-50
Antimony	1,000 µg/mL	Mineral Oil	100 g	SBOMS-100
Arsenic	50 µg/g	Mineral Oil	50 g	ASOMS-50
Arsenic	50 µg/g	Mineral Oil	100 g	ASOMS-100
Barium	1,000 µg/mL	Mineral Oil	50 g	BAOMS-50
Barium	1,000 µg/mL	Mineral Oil	100 g	BAOMS-100
Beryllium	1,000 µg/mL	Mineral Oil	100 g	BEOMS-100
Boron	1,000 µg/mL	Mineral Oil	50 g	BBOMS-50
Boron	1,000 µg/mL	Mineral Oil	100 g	BBOMS-100
Cadmium	1,000 µg/mL	Mineral Oil	50 g	CDOMS-50
Cadmium	1,000 µg/mL	Mineral Oil	100 g	CDOMS-100
Calcium	1,000 µg/mL	Mineral Oil	50 g	CAOMS-50
Calcium	1,000 µg/mL	Mineral Oil	100 g	CAOMS-100
Chromium	1,000 µg/mL	Mineral Oil	50 g	CROMS-50
Chromium	1,000 µg/mL	Mineral Oil	100 g	CROMS-100
Cobalt	1,000 µg/mL	Mineral Oil	100 g	COOMS-100
Copper	1,000 µg/mL	Mineral Oil	50 g	CUOMS-50
Copper	1,000 µg/mL	Mineral Oil	100 g	CUOMS-100
Indium	1,000 µg/mL	Mineral Oil	50 g	INOMS-50
Indium	1,000 µg/mL	Mineral Oil	100 g	INOMS-100
Iron	1,000 µg/mL	Mineral Oil	100 g	FEOMS-100
Lead	1,000 µg/mL	Mineral Oil	100 g	PBOMS-100
Lithium	1,000 µg/mL	Mineral Oil	50 g	LIOMS-50
Lithium	1,000 µg/mL	Mineral Oil	100 g	LIOMS-100
Magnesium	1,000 µg/mL	Mineral Oil	50 g	MGOMS-50
Magnesium	1,000 µg/mL	Mineral Oil	100 g	MGOMS-100
Manganese	1,000 µg/mL	Mineral Oil	50 g	MNOMS-50
Manganese	1,000 µg/mL	Mineral Oil	100 g	MNOMS-100
Mercury	50 µg/g	Mineral Oil	50 g	HGOMS-50
Mercury	50 µg/g	Mineral Oil	100 g	HGOMS-100
Molybdenum	1,000 µg/mL	Mineral Oil	100 g	MOOMS-100
Nickel	1,000 µg/mL	Mineral Oil	50 g	NIOMS-50
Nickel	1,000 µg/mL	Mineral Oil	100 g	NIOMS-100
Phosphorus	1,000 µg/mL	Mineral Oil	50 g	PPOMS-50
Phosphorus	1,000 µg/mL	Mineral Oil	100 g	PPOMS-100
Potassium	1,000 µg/mL	Mineral Oil	50 g	KKOMS-50
Potassium	1,000 µg/mL	Mineral Oil	100 g	KKOMS-100
Selenium	50 µg/g	Mineral Oil	50 g	SEOMS-50
Selenium	50 µg/g	Mineral Oil	100 g	SEOMS-100
Silicon	1,000 µg/mL	Mineral Oil	50 g	SIOMS-50
Silicon	1,000 µg/mL	Mineral Oil	100 g	SIOMS-100

Metallo-Organic Single-Component Standards (cont'd)				
Component	**Concentration**	**Matrix**	**Weight**	**Part #**
Silver	1,000 µg/mL	Mineral Oil	50 g	AGOMS-50
Silver	1,000 µg/mL	Mineral Oil	100 g	AGOMS-100
Sodium	1,000 µg/mL	Mineral Oil	50 g	NAOMS-50
Sodium	1,000 µg/mL	Mineral Oil	100 g	NAOMS-100
Sulfur	1,000 µg/mL	Mineral Oil	50 g	SSOMS-50
Sulfur	1,000 µg/mL	Mineral Oil	100 g	SSOMS-100
Tin	1,000 µg/mL	Mineral Oil	50 g	SNOMS-50
Tin	1,000 µg/mL	Mineral Oil	100 g	SNOMS-100
Titanium	1,000 µg/mL	Mineral Oil	50 g	TIOMS-50
Titanium	1,000 µg/mL	Mineral Oil	100 g	TIOMS-100
Tungsten	1,000 µg/mL	Mineral Oil	100 g	WWOMS-100
Vanadium	1,000 µg/mL	Mineral Oil	50 g	VVOMS-50
Vanadium	1,000 µg/mL	Mineral Oil	100 g	VVOMS-100
Yttrium	1,000 µg/mL	Mineral Oil	50 g	YYOMS-50
Yttrium	1,000 µg/mL	Mineral Oil	100 g	YYOMS-100
Zinc	1,000 µg/mL	Mineral Oil	50 g	ZNOMS-50
Zinc	1,000 µg/mL	Mineral Oil	100 g	ZNOMS-100
Trace Metals	—	Soybean Oil	100 g	CRM-TMSO-100
Base Mineral Oil	—	Light Mineral Oil	500 mL	BMOMS-500

Metallo-Organic Multi-Component Standards				
Components	**Concentration**	**Matrix**	**Weight**	**Part #**
Aluminum, Chromium, Copper, Iron, Lead, Magnesium, Nickel, Silicon, Silver, Sodium, Tin, Titanium	200 µg/g	Mineral Oil	50g 100g	OMS-12-50 OMS-12-100
Aluminum, Barium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Phosphorus, Silicon, Silver, Sodium, Tin, Titanium, Vanadium, Zinc	200 µg/g	Mineral Oil	50g 100g 200g	OMS-21-50 OMS-21-100 OMS-21-200

Metal Extraction Customs

We now offer custom standards of metals extracted into various organic solvents. These standards are verified via ICP analysis and come with NIST SRM-traceable Certificates of Analysis.

To obtain a quotation for a metal extracted custom standard, you can use our inorganic quote form available at highpuritystandards.com or contact us at 843.767.7900 or toll free at 866.767.4771 or via email to info@highpuritystandards.com.

Water Standards

We offer standards designed to be used in laboratory performance evaluation, quality control, and method development when conducting drinking water, wastewater, soil, or hazardous waste analysis. Included in this category are solutions designed to simulate natural or polluted water.

Wastewater Standards			
Components	**Concentration***	**Matrix**	**Part #**
Mercury**	0.001 µg/mL	10% HNO_3 + Tr HF	CWW-TM-A
Antimony, Arsenic, Beryllium, Cadmium, Selenium, Silver, Thallium	0.010 µg/mL		
Aluminum, Barium, Boron, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Molybdenum, Nickel, Strontium, Vanadium, Zinc	0.050 µg/mL		
Mercury**	0.005 µg/mL	10% HNO_3 + Tr HF	CWW-TM-B
Antimony, Arsenic, Beryllium, Cadmium, Selenium, Silver, Thallium	0.050 µg/mL		
Aluminum, Barium, Boron, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Molybdenum, Nickel, Strontium, Vanadium, Zinc	0.200 µg/mL		
Mercury**	0.010 µg/mL	10% HNO_3 + Tr HF	CWW-TM-C
Antimony, Arsenic, Beryllium, Cadmium, Selenium, Silver, Thallium	0.150 µg/mL		
Aluminum, Barium, Boron, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Molybdenum, Nickel, Strontium, Vanadium, Zinc	0.500 µg/mL		
Mercury**	0.020 µg/mL	10% HNO_3 + Tr HF	CWW-TM-D
Antimony, Arsenic, Beryllium, Cadmium, Selenium, Silver, Thallium	0.250 µg/mL		
Aluminum, Barium, Boron, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Molybdenum, Nickel, Strontium, Vanadium, Zinc	1 µg/mL		
Mercury**	0.001 µg/mL	10% HNO_3 + Tr HF	CWW-TM-E
Antimony, Arsenic, Beryllium, Selenium, Silver, Thallium	0.005 µg/mL		
Aluminum, Barium, Boron, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Molybdenum, Nickel, Strontium, Vanadium, Zinc	0.025 µg/mL		
Arsenic, Beryllium, Cadmium, Selenium	0.005 µg/mL	10% HNO_3 + Tr HF	CWW-TM-F
Mercury**	0.020 µg/mL		
Aluminum, Cobalt, Iron, Manganese, Molybdenum, Strontium, Thallium, Vanadium	0.025 µg/mL		
Antimony, Silver	0.250 µg/mL		
Barium, Boron, Chromium, Copper, Lead, Nickel, Zinc	1 µg/mL		
Antimony, Mercury**, Silver, Thallium	0.005 µg/mL	10% HNO_3 + Tr HF	CWW-TM-G
Barium, Boron, Chromium, Copper, Lead, Zinc	0.025 µg/mL		
Arsenic, Beryllium, Cadmium, Nickel, Selenium	0.250 µg/mL		
Aluminum, Cobalt, Iron, Manganese, Molybdenum, Strontium, Vanadium	1 µg/mL		
Mercury**	0.001 µg/mL	10% HNO_3 + Tr HF	CWW-TM-H
Beryllium, Silver	0.020 µg/mL		
Selenium	0.050 µg/mL		
Aluminum, Arsenic, Barium, Cadmium, Manganese, Molybdenum, Strontium	0.100 µg/mL		
Antimony	0.200 µg/mL		
Boron, Iron, Thallium	0.250 µg/mL		
Chromium, Cobalt, Copper, Lead, Nickel, Vanadium, Zinc	0.500 µg/mL		

* Concentrations found when each 10 mL sample is diluted to one liter.
** The concentration of mercury cannot be guaranteed for any extended period of time due to the nature of the element.

Wastewater Standards - Trace Metals

Components	Concentration	Matrix	Volume	Part #
Silver	2 µg/L	2% HNO_3 + Tr HF	100 mL	CRM-TMDW-100
Tellurium	3 µg/L		250 mL	CRM-TMDW-250
Antimony, Bismuth, Cadmium, Rubidium, Selenium, Thallium, Uranium	10 µg/L		500 mL	CRM-TMDW-500
Beryllium, Chromium, Copper, Lithium	20 µg/L			
Cobalt	25 µg/L			
Vanadium	30 µg/L			
Lead, Manganese	40 µg/L			
Barium	50 µg/L			
Nickel	60 µg/L			
Zinc	70 µg/L			
Arsenic	80 µg/L			
Iron, Molybdenum	100 µg/L			
Aluminum	120 µg/L			
Strontium	250 µg/L			
Potassium	2,500 µg/L			
Sodium	6,000 µg/L			
Magnesium	9,000 µg/L			
Calcium	35,000 µg/L			
Silver	2 µg/L	2% HNO_3 + Tr HF	100 mL	CRM-TMDW-A-100
Cadmium, Thallium	10 µg/L		250 mL	CRM-TMDW-A-250
Selenium	11 µg/L		500 mL	CRM-TMDW-A-500
Beryllium, Lithium	15 µg/L			
Chromium, Copper, Lead	20 µg/L			
Cobalt	25 µg/L			
Vanadium	35 µg/L			
Manganese	40 µg/L			
Antimony, Arsenic	55 µg/L			
Nickel	60 µg/L			
Zinc	75 µg/L			
Iron	90 µg/L			
Molybdenum	110 µg/L			
Aluminum	125 µg/L			
Boron	150 µg/L			
Strontium	300 µg/L			
Barium	500 µg/L			
Sodium	2,300 µg/L			
Potassium	2,500 µg/L			
Magnesium	8,000 µg/L			
Calcium	31,000 µg/L			

Wastewater Standards - Trace Metals (cont'd)

Components	Concentration	Matrix	Volume	Part #
Silver	2 µg/L	2% HNO_3 + Tr HF	100 mL	CRM-TMDW-B-100
Arsenic, Cadmium, Thallium	10 µg/L			
Selenium	11 µg/L			
Beryllium, Lithium	15 µg/L			
Chromium, Copper, Lead	20 µg/L			
Cobalt	25 µg/L			
Vanadium	35 µg/L			
Manganese	40 µg/L			
Antimony	55 µg/L			
Nickel	60 µg/L			
Zinc	75 µg/L		250 mL	CRM-TMDW-B-250
Iron	90 µg/L			
Molybdenum	110 µg/L		500 mL	CRM-TMDW-B-500
Aluminum	125 µg/L			
Boron	150 µg/L			
Strontium	300 µg/L			
Barium	500 µg/L			
Potassium	2,500 µg/L			
Magnesium	8,000 µg/L			
Sodium	22,000 µg/L			
Calcium	31,000 µg/L			

Wastewater Standards - Nutrient Solutions

Components	Concentration*	Matrix	Volume	Part #
Nitrogen from NH_4Cl	1 µg/mL	H_2O	10 mL	CWW-N-A
Nitrogen from $NaNO_2$ + $NaNO_3$				
Phosphorus from Na_2HPO_4				
Nitrogen from NH_4Cl	15 µg/mL	H_2O	10 mL	CWW-N-B
Nitrogen from $NaNO_2$ + $NaNO_3$				
Phosphorus from Na_2HPO_4	5 µg/mL			
Nitrogen from NH_4Cl	25 µg/mL	H_2O	10 mL	CWW-N-C
Nitrogen from $NaNO_2$ + $NaNO_3$				
Phosphorus from Na_2HPO_4	10 µg/mL			

Wastewater Standards - Cyanide Solutions

Components	Concentration**	Matrix	Volume	Part #
Complex Cyanide	0.1 µg/mL	0.5% KOH	10 mL	CWW-CN-B
Free Cyanide				
Total Cyanide	0.2 µg/mL			
Complex Cyanide	0.5 µg/mL	0.5% KOH	10 mL	CWW-CN-C
Free Cyanide				
Total Cyanide	1.0 µg/mL			
Complex Cyanide	0.02 µg/mL	0.5% KOH	10 mL	CWW-CN-D
Free Cyanide				
Total Cyanide	0.04 µg/mL			
Complex Cyanide	0.35 µg/mL	0.5% KOH	10 mL	CWW-CN-F
Free Cyanide				
Total Cyanide	0.7 µg/mL			

* Concentrations found when each 10 mL sample is diluted to one liter.
** Concentrations found when each 10 mL sample is diluted to two liters.

Wastewater Standards - Demand Solutions

Component	Concentration*	Matrix	Volume	Part #
Total Organic Carbon	1 µg/mL	H_2O	5 mL	CWW-TOC-A
Total Organic Carbon	10 µg/mL	H_2O	5 mL	CWW-TOC-B
Total Organic Carbon	20 µg/mL	H_2O	5 mL	CWW-TOC-C
Total Organic Carbon	30 µg/mL	H_2O	5 mL	CWW-TOC-D
Total Organic Carbon	40 µg/mL	H_2O	5 mL	CWW-TOC-E
Total Organic Carbon	50 µg/mL	H_2O	5 mL	CWW-TOC-F
Total Organic Carbon	100 µg/mL	H_2O	5 mL	CWW-TOC-G

Primary Drinking Water Metals

Components		Concentration	Matrix	Volume	Part #
Solution A	Silver	10 µg/mL	2% HNO_3 + Tr HF	100 mL	DWPS-100
	Barium, Cadmium, Selenium	50 µg/mL		250 mL	DWPS-250
	Arsenic, Chromium, Lead	100 µg/mL		500 mL	DWPS-500
Solution B	Mercury	20 µg/mL	5% HNO_3		

Secondary Drinking Water Metals

Components	Concentration	Matrix	Volume	Part #
Copper, Manganese, Zinc	50 µg/mL	2% HNO_3	100 mL	DWSS-100
			250 mL	DWSS-250
Iron	100 µg/mL		500 mL	DWSS-500

Simulated Rain Water

Components	Concentration**	pH @ 25° C	Specific Conductance @ 25° C	Matrix	Volume	Part #
Ammonium	0.1 mg/L	4.3	26 µS/cm	H_2O	5 each x 50 mL	SR-1-250
Calcium	0.01 mg/L					
Chloride	0.25 mg/L					
Flouride, Potassium	0.05 mg/L					
Magnesium	0.02 mg/L					
Nitrate	0.5 mg/L					
Sodium	0.2 mg/L					
Sulfate	2.5 mg/L					
Ammonium, Chloride	1 mg/L	3.6	130 µS/cm	H_2O	5 each x 50 mL	SR-2-250
Calcium	0.05 mg/L					
Flouride, Potassium	0.1 mg/L					
Magnesium	0.05 mg/L					
Nitrate	7 mg/L					
Sodium	0.4 mg/L					
Sulfate	11 mg/L					

* Concentrations found when each 5 mL sample is diluted to one liter.

** Concentrations are the targeted values for each level.

Simulated Sea Water

Components		Concentration	Matrix	Volume	Part #
Primary Components	Silicon	4 mg/kg	2% HNO_3	100 mL	CRM-SW-100
	Boron	5 mg/kg		250 mL	CRM-SW-250
	Strontium	12 mg/kg		500 mL	CRM-SW-500
	Carbon	30 mg/kg			
	Potassium	380 mg/kg			
	Calcium	400 mg/kg			
	Sulfur	900 mg/kg			
	Magnesium	1,250 mg/kg			
	Sodium	10,500 mg/kg			
	Chloride	19,000 mg/kg			
Trace Components	Gold	0.000006 mg/kg			
	Mercury	0.00003 mg/kg			
	Scandium	0.00004 mg/kg			
	Cadmium, Nickel	0.0001 mg/kg			
	Chromium, Silver, Vanadium	0.0003 mg/kg			
	Selenium	0.0004 mg/kg			
	Molybdenum	0.0005 mg/kg			
	Uranium	0.0015 mg/kg			
	Lead	0.004 mg/kg			
	Zinc	0.005 mg/kg			
	Copper, Manganese	0.01 mg/kg			
	Arsenic, Iron	0.02 mg/kg			
	Barium, Iodide	0.05 mg/kg			
	Lithium, Phosphorus	0.1 mg/kg			
	Rubidium	0.2 mg/kg			
	Aluminum	0.5 mg/kg			

Speciation Standards

We offer speciated, single-component Certified Reference Materials in applicable aqueous matrices. Other concentrations and matrices (including filters or solids) are available as custom products. All products come with an ISO 17034 Certificate of Analysis which includes total concentration values verified against a NIST SRM and speciated concentrations verified against second source Certified Reference Materials.

Speciation Standards				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Arsenic +3	1,000 µg/mL	2% HCl	50 mL	10003-6-50
Arsenic +3	1,000 µg/mL	2% HCl	100 mL	10003-6-100
Arsenic +3	1,000 µg/mL	2% HCl	250 mL	10003-6-250
Arsenic +3	1,000 µg/mL	2% HCl	500 mL	10003-6-500
Arsenic +5	1,000 µg/mL	H_2O	50 mL	10003-7-50
Arsenic +5	1,000 µg/mL	H_2O	100 mL	10003-7-100
Arsenic +5	1,000 µg/mL	H_2O	250 mL	10003-7-250
Arsenic +5	1,000 µg/mL	H_2O	500 mL	10003-7-500
Chromium +3	10 µg/mL	2% HCl	100 mL	10-12-6-100
Chromium +3	1,000 µg/mL	2% HCl	100 mL	100012-6-100
Chromium +3	1,000 µg/mL	2% HCl	250 mL	100012-6-250
Chromium +3	1,000 µg/mL	2% HCl	500 mL	100012-6-500
Chromium +6	10 µg/mL	H_2O	100 mL	10-12-7-100
Chromium +6	10 µg/mL	H_2O	250 mL	10-12-7-250
Chromium +6	10 µg/mL	H_2O	500 mL	10-12-7-500
Chromium +6	100 µg/mL	H_2O	100 mL	100-12-7-100
Chromium +6	100 µg/mL	H_2O	250 mL	100-12-7-250
Chromium +6	100 µg/mL	H_2O	500 mL	100-12-7-500
Chromium +6	1,000 µg/mL	H_2O	50 mL	100012-7-50
Chromium +6	1,000 µg/mL	H_2O	100 mL	100012-7-100
Chromium +6	1,000 µg/mL	H_2O	250 mL	100012-7-250
Chromium +6	1,000 µg/mL	H_2O	500 mL	100012-7-500
Chromium +6	10,000 µg/mL	H_2O	100 mL	10M12-7-100
Chromium +6	10,000 µg/mL	H_2O	250 mL	10M12-7-250
Chromium +6	10,000 µg/mL	H_2O	500 mL	10M12-7-500
Iron +3	1,000 µg/mL	2% HNO_3	100 mL	100026-7-100
Iron +3	1,000 µg/mL	2% HNO_3	250 mL	100026-7-250
Iron +3	1,000 µg/mL	2% HNO_3	500 mL	100026-7-500
Selenium +4	1,000 µg/mL	H_2O	100 mL	100049-6-100
Selenium +4	1,000 µg/mL	H_2O	250 mL	100049-6-250
Selenium +4	1,000 µg/mL	H_2O	500 mL	100049-6-500
Selenium +6	1,000 µg/mL	H_2O	100 mL	100049-7-100
Selenium +6	1,000 µg/mL	H_2O	250 mL	100049-7-250

Wet Chemistry Standards and Reagents

These products cover a variety of non-spectrographic or non-chromatographic methods, including pH, conductivity and alkalinity. Single-component IC/ISE standards may also be used as wet chemical standards. High-purity, sub-boiling acid and reagents used for dilution of standards and samples are also available.

Alkalinity Standard				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Calcium Carbonate	1,000 µg/mL	H_2O	500 mL	WQC-ALK-500

Conductivity Standard				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Conductivity @ 25°C	100 µmhos	H_2O	500 mL	WQC-COND-500

Wet Chemistry Standards and Reagents - Cyanide				
Component	**Concentration**	**Matrix**	**Volume**	**Part #**
Cyanide	100 µg/mL	2% KOH	100 mL	IC-CN-100
Cyanide	100 µg/mL	2% KOH	250 mL	IC-CN-250
Cyanide	100 µg/mL	2% KOH	500 mL	IC-CN-500
Cyanide	1,000 µg/mL	2% KOH	100 mL	IC-CN-M-100
Cyanide	1,000 µg/mL	2% KOH	250 mL	IC-CN-M-250
Cyanide	1,000 µg/mL	2% KOH	500 mL	IC-CN-M-500

Wet Chemistry Standards and Reagents - Cyanide Multi-Component Standards				
Components	**Concentration***	**Matrix**	**Volume**	**Part #**
Complex Cyanide	0.1 µg/mL	0.5% KOH	10 mL	CWW-CN-B
Free Cyanide				
Total Cyanide	0.2 µg/mL			
Complex Cyanide	0.5 µg/mL	0.5% KOH	10 mL	CWW-CN-C
Free Cyanide				
Total Cyanide	1.0 µg/mL			
Complex Cyanide	0.02 µg/mL	0.5% KOH	10 mL	CWW-CN-D
Free Cyanide				
Total Cyanide	0.04 µg/mL			
Complex Cyanide	0.35 µg/mL	0.5% KOH	10 mL	CWW-CN-F
Free Cyanide				
Total Cyanide	0.7 µg/mL			

* Concentrations found when each 10 mL sample is diluted to two liters.

pH Standards

Components	Concentration	Matrix	Volume	Part #
pH Standard 4 @ 25°C	4.00 units	H_2O	500 mL	WQC-PH-4-500
pH Standard 7 @ 25°C	7.00 units	H_2O	500 mL	WQC-PH-7-500
pH Standard 10 @ 25°C	10.00 units	H_2O	500 mL	WQC-PH-10-500

Acid and Water Reagents

Description	Volume	Part #
D.I. 18 Megaohm Water Reagent Blank	500 mL	RB-H2O-500
D.I. 18 Megaohm Water Reagent Blank	1 Liter	RB-H2O-1L
2% Hydrochloric Acid Reagent Blank	500 mL	RB-HCL-2-500
2% Hydrochloric Acid Reagent Blank	1 Liter	RB-HCL-2-1L
5% Hydrochloric Acid Reagent Blank	1 Liter	RB-HCL-5-1L
2% Nitric Acid Reagent Blank	500 mL	RB-HNO3-2-500
2% Nitric Acid Reagent Blank	1 Liter	RB-HNO3-2-1L
5% Nitric Acid Reagent Blank	500 mL	RB-HNO3-5-500
5% Nitric Acid Reagent Blank	1 Liter	RB-HNO3-5-1L
Mixed Mineral Acid 2% HNO3 + 0.5% HF Reagent Blank	500 mL	RB-MMA-1-500
Mixed Mineral Acid 2% HNO3 + 0.5% HF Reagent Blank	1 Liter	RB-MMA-1-1L

Subboiling Distilled Acids

Description	Volume	Part #
Subboiling Distilled Hydrochloric Acid, Trace Metals Grade	250 mL	SB-HCL-250
Subboiling Distilled Hydrochloric Acid, Trace Metals Grade	500 mL	SB-HCL-500
Subboiling Distilled Hydrochloric Acid, Trace Metals Grade	1 Liter	SB-HCL-1L
Subboiling Distilled Nitric Acid, Trace Metals Grade	250 mL	SB-HNO3-250
Subboiling Distilled Nitric Acid, Trace Metals Grade	500 mL	SB-HNO3-500
Subboiling Distilled Nitric Acid, Trace Metals Grade	1 Liter	SB-HNO3-1L

AAS Solutions

We offer a variety of Matrix Modifiers for Graphite Furnace Atomic Absorption Spectroscopy (GFAAS) and Ionization Buffers. The cesium ionization buffer is recommended by manufacturers of ICP and AAS instrumentation. The lanthanum ionization buffer used in Flame AAS can be employed as a releasing agent for the alkaline earth metals, silicon, and aluminum as well.

Ionization Buffers for Flame AAS

Ionization buffers are used to increase the free electron population in flame emission or absorption and, thereby, suppress ionization interference effects of many ions in high temperature flames, such as nitrous oxide-acetylene. While the alkali metals are known to be ionized at various degrees, many metals, including aluminum and silicon, are ionized at an appreciable extent in a nitrous oxide-acetylene flame. Ionization buffers are always recommended with the nitrous oxide-acetylene flame. It is of interest to note that the ionization potential of lanthanum (5.6 eV) is very close to that of lithium (5.39 eV). Therefore, lanthanum acts as an ionization buffer as well as a releasing agent for the alkaline earth metals, silicon and aluminum.

Flame AAS - Ionization Buffers

Description	Matrix	Volume	Part #
1% Cesium	1% HNO_3	250 mL	IB-CS-B1-250
		500 mL	IB-CS-B1-500
5% Cesium	1% HNO_3	250 mL	IB-CS-B5-250
		500 mL	IB-CS-B5-500
5% Lanthanum	1% HNO_3	250 mL	IB-LA-B5-250
		500 mL	IB-LA-B5-500
1% Lanthanum	1% HCl	250 mL	IB-LA-A1-250
		500 mL	IB-LA-A1-500
5% Lanthanum	1% HCl	250 mL	IB-LA-A5-250
		500 mL	IB-LA-A5-500

Flame AAS - Solutions

Component	Source	Concentration	Matrix	Volume	Part #
Gold	Gold Metal	1 µg/mL	0.01% NaCN + 0.1N NaOH	100 mL	AU-CN-1-100
Gold	Gold Metal	1 µg/mL	0.01% NaCN + 0.1N NaOH	500 mL	AU-CN-1-500
Gold	Gold Metal	10 µg/mL	0.01% NaCN + 0.1N NaOH	100 mL	AU-CN-10-100
Gold	Gold Metal	10 µg/mL	0.01% NaCN + 0.1N NaOH	500 mL	AU-CN-10-500
Gold	Gold Metal	1,000 µg/mL	0.05% NaCN + 0.1N NaOH	100 mL	AU-CN-1000-100
Gold	Gold Metal	1,000 µg/mL	0.05% NaCN + 0.1N NaOH	500 mL	AU-CN-1000-500

Matrix Modifiers for Graphite Furnace

Our matrix modifiers are designed for use with Graphite Furnace Atomic Absorption Spectroscopy (GFAAS). A matrix modifier is added to the sample to prevent analyte loss during the ashing step by converting the analyte to a less volatile form.

Graphite Furnace - Matrix Modifiers			
Description	**Matrix**	**Volume**	**Part #**
10% $NH_4H_2PO_4$	0.05% HNO_3	100 mL	MM-9003-100
20% $NH_4H_2PO_4$	0.05% HNO_3	100 mL	MM-9004-100
		250 mL	MM-9004-250
0.1% $Mg(NO_3)_2$	1% HNO_3	100 mL	MM-9010-100
1% $Mg(NO_3)_2$	1% HNO_3	100 mL	MM-9011-100
		250 mL	MM-9011-250
5% $Mg(NO_3)_2$	1% HNO_3	100 mL	MM-9012-100
		250 mL	MM-9012-250
0.1% Pd	10% HNO_3 + Tr HCl	100 mL	MM-9020-100
1% Pd	10% HNO_3 + Tr HCl	100 mL	MM-9021-100
2% Pd	10% HNO_3 + Tr HCl	100 mL	MM-9022-100
1% $Ni(NO_3)_2$	1% HNO_3	100 mL	MM-9031-100
		250 mL	MM-9031-250
5% $Ni(NO_3)_2$	1% HNO_3	100 mL	MM-9032-100
0.1% NH_4NO_3	H_2O	100 mL	MM-9040-100
5% NH_4NO_3	H_2O	100 mL	MM-9042-100
		250 mL	MM-9042-250
1,000 µg Pd/mL - 600 µg $Mg(NO_3)_2$/mL	10% HNO_3 + Tr HCl	100 mL	MM-9100-100
		250 mL	MM-9100-250
1,500 µg Pd/mL - 1,000 $Mg(NO_3)_2$/mL	10% HNO_3 + Tr HCl	100 mL	MM-9101-100
		250 mL	MM-9101-250
750 µg Pd/mL - 500 $Mg(NO_3)_2$/mL	10% HNO_3 + Tr HCl	100 mL	MM-9102-100
10,000 µg $NH_4H_2PO_4$/mL - 500 µg $Mg(NO_3)_2$/mL	1% HNO_3	100 mL	MM-9110-100
		250 mL	MM-9110-250

Graphite Furnace - Solutions				
Components	**Concentration**	**Matrix**	**Volume**	**Part #**
Arsenic, Lead, Selenium, Thallium	2 µg/mL	2% HNO_3	100 mL	ICV-GFAA-100
			250 mL	ICV-GFAA-250
Cadmium, Chromium, Silver	0.4 µg/mL		500 mL	ICV-GFAA-500

Custom Standards

Standards made to your specifications

- Convenient packaging available from 30 mL up to 20 L
- Certificate of Analysis includes NIST traceability, where applicable
- Provide ISO/IEC 17025:2005 and ISO 17034:2016 accreditation unless otherwise specified

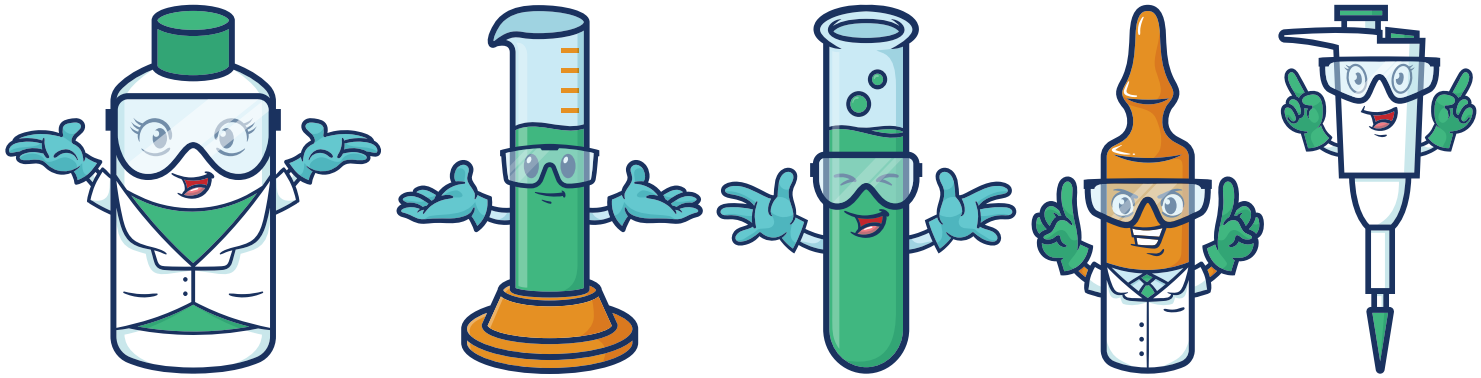
We welcome requests for single and multi-component standards. Looking for a concentration that isn't available in stock? Other concentrations are available upon request.

Custom products include a Certificate of Analysis that includes NIST traceability, where applicable. A variety of packaging options are available to accommodate your needs.

In addition to aqueous solutions, custom standards are prepared in a variety of oils and organic solvents as well as on filter media.

We offer custom organic solutions for use with GC, GC-MS, HPLC and Karl Fischer applications.

Our chemists have extensive experience in developing standards and will work with you to design the optimum product. Use our custom quote form at highpuritystandards.com or send your specifications via email to info@highpuritystandards.com. We will respond promptly with a quote.



Additional Information

LABORATORY USE

Our products are intended for laboratory use only. They are not intended for medical, food, drug, or household use. All products should be handled and used by trained professional personnel only. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user.

SECOND SOURCE

Ask us about how we can assist you with your second source requirements. We can manufacture second source lots for any catalog item. Contact us for details.

CERTIFICATE OF ANALYSIS AND SAFETY DATA SHEETS

Each product includes a Certificate of Analysis and a Safety Data Sheet. SDS information for catalog items is available at highpuritystandards.com. NIST traceability documentation, if available, is included in the Certificate of Analysis.

PACKAGING OPTIONS

We stock inorganic solutions in 50 mL, 100 mL, 250 mL, and 500 mL sizes. The 50 mL size is designed for those laboratories who need a smaller volume of solution, thereby limiting waste disposal costs. Our organic standards are available in 1 mL, 2 mL, 5 mL, and 10 mL ampules. Both smaller and larger volumes are also available. Please contact us if you require volumes outside our standard offering.

Notes

Distributed By:

Greyhound Chromatography and Allied Chemicals
6, Kelvin PArk, Birkenhead, Merseyside, CH41 1LT, UK

Tel: + 44 (0) 151 649 4000 Fax: + 44 (0) 151 649 4001
Email: sales@greyhoundchrom.com

WWW.GREYHOUNDCHROM.COM

Greyhound
CHROMATOGRAPHY
AND ALLIED CHEMICALS

hps
high-purity standards