

ICP Multi-Element QC



- Traceable to NIST Reference Materials
- Formulated from Ultra High Purity Starting Materials, Water and Acids

- Meets EPA and Customer Applications
- Concentration Verified by Wet Chemical and Instrumental Analysis

- Packaged in Specially prepared Acid Leached Bottles
- Full Documentation

Quality Control Standards

Quality Control Standards can be used for many different applications. AccuTrace QC Standards are ideal for calibration when performing NPDES monitoring requirements and can be used for standard curve checks, inter-element correction methods, interference checks or any other unique application.

QC Standard #1

QCS-01-1 100 mL
QCS-01-5 500 mL
23 components in 5% HNO₃ tr. HF

Element	µg/mL	λ (nm)
Sb (Antimony)	100	206.833
As (Arsenic)	100	193.696
Be (Beryllium)	100	313.042
Cd (Cadmium)	100	226.502
Ca (Calcium)	100	315.887
Cr (Chromium)	100	205.552
Co (Cobalt)	100	228.616
Cu (Copper)	100	324.754
Fe (Iron)	100	259.940
Pb (Lead)	100	220.353
Li (Lithium)	100	670.784
Mg (Magnesium)	100	279.079
Mn (Manganese)	100	257.610
Mo (Molybdenum)	100	203.844
Ni (Nickel)	100	231.604
P (Phosphorus)	100	214.914
Se (Selenium)	100	196.090
Sr (Strontium)	100	421.552
Tl (Thallium)	100	190.864
Sn (Tin)	100	189.980
Ti (Titanium)	100	334.941
V (Vanadium)	100	292.402
Zn (Zinc)	100	213.856

QC Standard #2

QCS-02-1 100 mL
QCS-02-5 500 mL
7 components in 5% HNO₃ tr. HF

Element	µg/mL	λ (nm)
Al (Aluminum)	100	308.215
Ba (Barium)	100	493.409
B (Boron)	100	249.678
K (Potassium)	1000	766.491
Si (Silicon) †	500	251.611
Ag (Silver)	50	328.068
Na (Sodium)	100	588.995

† 1070 µg/mL as SiO₂

QC Standard #2R

QCS-02-R1-1 100 mL
QCS-02-R1-5 500 mL
7 components in 5% HNO₃ tr. HF

Element	µg/mL	λ (nm)
Al (Aluminum)	100	308.215
Ba (Barium)	100	493.409
B (Boron)	100	249.678
K (Potassium)	100	766.491
Si (Silicon) †	100	251.611
Ag (Silver)	100	328.068
Na (Sodium)	100	588.995

† 214 µg/mL as SiO₂

QC Standard #3

QCS-03-1 100 mL
QCS-03-5 500 mL
15 components in 5% HNO₃

Element	µg/mL	λ (nm)
Al (Aluminum)	100	308.215
Ba (Barium)	100	493.409
Cd (Cadmium)	100	226.502
Ca (Calcium)	100	315.887
Cr (Chromium)	100	205.552
Co (Cobalt)	100	228.616
Cu (Copper)	100	324.754
Fe (Iron)	100	259.940
Pb (Lead)	100	220.353
Mg (Magnesium)	100	279.079
Mn (Manganese)	100	257.610
Ni (Nickel)	100	231.604
Na (Sodium)	100	588.995
Ti (Titanium)	100	334.941
Zn (Zinc)	100	213.856

Quality Control Standards Sets

QCS-1-SET	3 x 100 mL	
QCS-01-1	QCS-02-1	QCS-03-1
QCS-5-SET	3 x 500 mL	
QCS-01-5	QCS-02-5	QCS-03-5

Multi-Elemental Standard I

QCS-04-1 100 mL
19 components in 5% HNO₃

Element	µg/mL	λ (nm)
Al (Aluminum)	100	308.215
Ba (Barium)	5	493.409
Be (Beryllium)	1	313.042
Bi (Bismuth)	200	223.061
B (Boron)	15	249.678
Cd (Cadmium)	20	266.502
Cr (Chromium)	25	205.552
Co (Cobalt)	20	228.616
Cu (Copper)	20	324.754
Ga (Gallium)	150	294.364
In (Indium)	200	230.061
Fe (Iron)	15	259.940
Pb (Lead)	200	220.353
Mn (Manganese)	5	257.610
Ni (Nickel)	50	231.604
Ag (Silver)	50	328.068
Sr (Strontium)	1	421.552
Tl (Thallium)	40	190.864
Zn (Zinc)	20	213.856

Multi-Elemental Standard II

QCS-05-1 100 mL
3 components in 2% HNO₃

Element	µg/mL	λ (nm)
Li (Lithium)	250	670.784
K (Potassium)	10,000	766.491
Na (Sodium)	1000	588.995

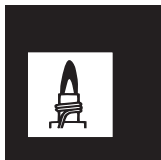
Multi-Elemental Standard III

QCS-06-1 100 mL
4 components in 2% HNO₃

Element	µg/mL	λ (nm)
Ba (Barium)	1000	493.409
Ca (Calcium)	1000	315.887
Mg (Magnesium)	1000	279.079
Sr (Strontium)	1000	421.552



These products require a Hazardous Shipping Fee except products marked with an asterisk *



ICP

Second Source QC & Instrument Check Standards

Second Source QC Standards

■ NIST Traceable ■ Independent Lots ■ Exact Match

These Alternative Source Line Standards exactly match a formulation from another source you may be already using. Our ASL formulations save you the cost of a custom formulation by providing you with true independent lots.

Second Source QC Standard #1

QCS-ASL-7-1 1 x 100 mL
QCS-ASL-7-5 1 x 500 mL
 7 components in 2-5% HNO₃ tr. HF

Element	µg/mL	λ (nm)
Al (Aluminum)	100	396.152
Ba (Barium)	100	493.409
B (Boron)	100	493.409
K (Potassium)	1000	766.490
Si (Silicon)	50	251.618
Ag (Silver)	100	328.068
Na (Sodium)	100	589.592

Second Source QC Standard #2

QCS-ASL-21-1 1 x 100 mL
QCS-ASL-21-5 1 x 500 mL
 21 components in 2-5% HNO₃ tr. HF

Element	µg/mL	λ (nm)	Element	µg/mL	λ (nm)
Sb (Antimony)	100	206.833	Mg (Magnesium)	100	279.079
As (Arsenic)	100	193.696	Mn (Manganese)	100	257.610
Be (Beryllium)	100	313.042	Mo (Molybdenum)	100	203.844
Cd (Cadmium)	100	226.502	Ni (Nickel)	100	231.604
Ca (Calcium)	100	315.887	Se (Selenium)	100	196.090
Cr (Chromium)	100	205.552	Sr (Strontium)	100	421.552
Co (Cobalt)	100	228.616	Tl (Thallium)	100	190.864
Cu (Copper)	100	324.754	Ti (Titanium)	100	334.941
Fe (Iron)	100	259.940	V (Vanadium)	100	292.402
Pb (Lead)	100	220.353	Zn (Zinc)	100	213.856
Li (Lithium)	100	670.784			

Match Other Supplier's Products.
 Use as a True Second Source.

Instrument Check Standards

These instrument check standards are used to verify ICP instrumentation performance over specific wavelength ranges from 160 nm to 790 nm. These standards are ideal for method development, technician training and other calibration uses.

Instrument Check Standard #1

ICS-01-1 100 mL
ICS-01-5 500 mL
 9 components in 2% HNO₃

Element	µg/mL	λ (nm)
Al (Aluminum)	100	396.152
Ba (Barium)	10	233.527
Be (Beryllium)	10	313.042
B (Boron)	100	249.773
Ca (Calcium)	10	317.933
Ni (Nickel)	100	231.604
P (Phosphorus)	1000	213.618
Sc (Scandium)	10	361.384
Zn (Zinc)	100	213.856

Instrument Check Standard #4

ICS-04-1 100 mL
ICS-04-5 500 mL
 12 components in 2% HNO₃

Element	µg/mL	λ (nm)
Al (Aluminum)	100	396.152
As (Arsenic)	100	189.042
Ba (Barium)	10	233.527
Cu (Copper)	100	324.754
Pb (Lead)	100	220.353
Mn (Manganese)	100	257.610
Ni (Nickel)	100	231.604
P (Phosphorus)	100	213.618
K (Potassium)	500	766.490
Sc (Scandium)	100	361.384
Na (Sodium)	100	589.592
Zn (Zinc)	100	213.856

Instrument Check Standard #6

ICS-06-1 100 mL
ICS-06-5 500 mL
 9 components in 2% HNO₃

Element	µg/mL	λ (nm)
Al (Aluminum)	50	396.152
As (Arsenic)	50	189.042
Cr (Chromium)	50	205.552
Co (Cobalt)	50	228.616
Cu (Copper)	50	324.754
Pb (Lead)	50	220.353
P (Phosphorus)	50	213.618
K (Potassium)	50	766.490
Na (Sodium)	50	589.592

Instrument Check Standard #2

ICS-02-1 100 mL
ICS-02-5 500 mL
 7 components in 2% HNO₃

Element	µg/mL	λ (nm)
Ba (Barium)	50	233.527
Be (Beryllium)	20	313.042
La (Lanthanum)	20	379.478
Mn (Manganese)	20	257.610
Ni (Nickel)	20	231.604
Sc (Scandium)	20	361.384
Zn (Zinc)	20	213.856

Instrument Check Standard #5

ICS-05-1 100 mL
ICS-05-5 500 mL
 15 components in 2% HNO₃

Element	µg/mL	λ (nm)
Al (Aluminum)	100	396.152
As (Arsenic)	100	189.042
Cd (Cadmium)	100	214.438
Cr (Chromium)	100	205.552
Co (Cobalt)	100	228.616
Cu (Copper)	100	324.754
Fe (Iron)	100	259.940
Pb (Lead)	100	220.353
Mg (Magnesium)	100	279.553
Mn (Manganese)	100	257.610
Ni (Nickel)	100	231.604
K (Potassium)	100	766.490
Na (Sodium)	100	589.592
Y (Yttrium)	600	320.332
Zn (Zinc)	100	213.856

Instrument Check Standard #7

ICS-07-1 100 mL
ICS-07-5 500 mL
 7 components in 2% HNO₃

Element	µg/mL	λ (nm)
Al (Aluminum)	50	396.152
Ba (Barium)	50	233.527
Cd (Cadmium)	50	214.438
Cu (Copper)	50	324.754
Mn (Manganese)	50	257.610
K (Potassium)	500	766.490
Zn (Zinc)	50	213.856

Instrument Check Standard #3

ICS-03-1 100 mL
ICS-03-5 500 mL
 11 components in 2% HNO₃ tr. HF

Element	µg/mL	λ (nm)
As (Arsenic)	20	189.042
La (Lanthanum)	20	379.083
Li (Lithium)	20	670.784
Mn (Manganese)	20	257.610
Mo (Molybdenum)	20	202.030
Ni (Nickel)	20	231.604
P (Phosphorus)	100	213.618
K (Potassium)	100	766.490
Sc (Scandium)	20	361.384
Na (Sodium)	20	589.592
S (Sulfur)	100	180.731

ICP Multi-Element

ICP Screening Standards

Screening Standards

■ 69 Elements in Three Mixes ■ Economical ■ Easy to Use

These three Qualitative Standards can be combined to scan samples quickly and easily for elements present. They should be used for element identification only. The concentration of each element is approximately 10 µg/mL. To screen for all 69 elements these 3 semi-quantitative standards can be blended together and used immediately.

Semi-Quantitative Standard #1

SQS-01-1 1 x 100 mL
33 components in 2-5% HNO₃ tr. HF

Element	µg/mL	λ (nm)
Al (Aluminum)	10	396.152
As (Arsenic)	10	193.696
Ba (Barium)	10	493.409
Bi (Bismuth)	10	223.061
Ca (Calcium)	10	315.887
Cd (Cadmium)	10	226.502
Ce (Cerium)	10	413.765
Dy (Dysprosium)	10	353.170
Er (Erbium)	10	337.271
Eu (Europium)	10	381.967
Ga (Gallium)	10	294.364
Gd (Gadolinium)	10	214.438
Ho (Holmium)	10	345.600
In (Indium)	10	230.606
La (Lanthanum)	10	379.478
Lu (Lutetium)	10	261.542
Mg (Magnesium)	10	279.079
Na (Sodium)	10	589.592
Nd (Neodymium)	10	401.225
P (Phosphorus)	10	213.618
Pb (Lead)	10	220.353
Pr (Praseodymium)	10	390.844
Sc (Scandium)	10	361.384
Se (Selenium)	10	196.090
Sm (Samarium)	10	359.260
Sr (Strontium)	10	421.552
Tb (Terbium)	10	350.917
Th (Thorium)	10	283.730
Tl (Thallium)	10	190.864
Tm (Thulium)	10	313.126
U (Uranium)	10	385.958
Y (Yttrium)	10	320.332
Yb (Ytterbium)	10	328.937

Semi-Quantitative Standard #2

SQS-02-1 1 x 100 mL
34 components in 2-5% HNO₃ tr. HCl tr. HF

Element	µg/mL	λ (nm)
Au (Gold)	10	242.795
B (Boron)	10	493.409
Be (Beryllium)	10	313.042
Co (Cobalt)	10	228.616
Cr (Chromium)	10	205.552
Cs (Cesium)	10	452.673
Cu (Copper)	10	324.754
Fe (Iron)	10	259.940
Ge (Germanium)	10	209.426
Hf (Hafnium)	10	277.336
Ir (Iridium)	10	670.784
K (Potassium)	10	766.490
Li (Lithium)	10	670.784
Mn (Manganese)	10	257.610
Mo (Molybdenum)	10	203.844
Nb (Niobium)	10	309.418
Ni (Nickel)	10	231.604
Pd (Palladium)	10	340.458
Pt (Platinum)	10	214.423
Rb (Rubidium)	10	420.185
Re (Rhenium)	10	197.313
Rh (Rhodium)	10	233.477
Ru (Ruthenium)	10	240.272
S (Sulfur)	10	180.731
Sb (Antimony)	10	206.833
Si (Silicon)	10	251.618
Sn (Tin)	10	189.989
Ta (Tantalum)	10	226.230
Te (Tellurium)	10	214.281
Ti (Titanium)	10	334.941
V (Vanadium)	10	292.402
W (Tungsten)	10	207.911
Zn (Zinc)	10	213.856
Zr (Zirconium)	10	343.823

Semi-Quantitative Standard #3

SQS-03-1 1 x 100 mL
2 components in 2-5% HNO₃

Element	µg/mL	λ (nm)
Hg (Mercury)	10	194.227
Ag (Silver)	10	328.068

Technical Note

To verify screening results, use single element standards to confirm and quantify the concentration.

ICP Multi-Element

Custom Standards

When you have a need for unique Analytical Standards, let the experts at AccuStandard assist in designing your formulation. Our technical group, with over 80 years of combined analytical experience, will review your request, suggest the most economical and stable formulation, and provide pricing all within 24 hours.

For a Quick Quote, copy the custom quote form in the back of catalog and fax it back. We will get right back to you.

Plus we typically ship within one week after order receipt.



These products require a Hazardous Shipping Fee except products marked with an asterisk *

ICP SDWA Standards



ICP Multi-Element

SDWA Standards

For use in SW-846, Method 1310 and U.S. NPDWR 40CFR Part 141. The three Drinking Water Standards are used for monitoring drinking water and/or ground and surface water.

Primary Drinking Water Metals

SDWA-01-1 100 mL
SDWA-01-5 500 mL
7 components in 2% HNO₃

Element	µg/mL	λ (nm)
As (<i>Arsenic</i>)	10	193.696
Ba (<i>Barium</i>)	100	493.409
Cd (<i>Cadmium</i>)	5	226.502
Cr (<i>Chromium</i>)	10	205.552
Pb (<i>Lead</i>)	10	220.353
Se (<i>Selenium</i>)	5	196.090
Ag (<i>Silver</i>)	10	328.068

Secondary Drinking Water Metals

SDWA-02-1 100 mL
SDWA-02-5 500 mL
4 components in 2% HNO₃

Element	µg/mL	λ (nm)
Cu (<i>Copper</i>)	100	324.754
Fe (<i>Iron</i>)	30	259.940
Mn (<i>Manganese</i>)	5	257.610
Zn (<i>Zinc</i>)	500	213.856

Mercury Solution

SDWA-03-1 100 mL
SDWA-03-5 500 mL
1 component in 5% HNO₃

Element	µg/mL	λ (nm)
Hg (<i>Mercury</i>)	20	194.232

Set of Drinking Water Standards

SDWA-1-SET 3 x 100 mL
SDWA-01-1 SDWA-02-1 SDWA-03-1

SDWA-5-SET 3 x 500 mL
SDWA-01-5 SDWA-02-5 SDWA-03-5

Standards for Analytes covered in the Safe Drinking Water Act (SDWA)

Primary Metals for Analysis by GFAA

Contains GFAA approved elements
SDWA-05-1 100 mL
SDWA-05-5 500 mL
9 components in 2-5% HNO₃

Element	µg/mL	λ (nm)
Sb (<i>Antimony</i>)	10	206.833
As (<i>Arsenic</i>)	10	193.696
Cd (<i>Cadmium</i>)	10	226.502
Cr (<i>Chromium</i>)	10	205.552
Cu (<i>Copper</i>)	10	324.754
Pb (<i>Lead</i>)	10	220.353
Ni (<i>Nickel</i>)	10	231.604
Se (<i>Selenium</i>)	10	196.090
Tl (<i>Thallium</i>)	10	190.864

Primary Metals for Analysis by ICP

Contains all approved elements
SDWA-04-1 100 mL
SDWA-04-5 500 mL
9 components in 2-5% HNO₃

Element	µg/mL	λ (nm)
As (<i>Arsenic</i>)	100	193.696
Ba (<i>Barium</i>)	10	493.409
Be (<i>Beryllium</i>)	10	313.042
Cd (<i>Cadmium</i>)	10	226.502
Ca (<i>Calcium</i>)	100	317.933
Cr (<i>Chromium</i>)	10	205.552
Cu (<i>Copper</i>)	10	324.754
Ni (<i>Nickel</i>)	10	231.604
Na (<i>Sodium</i>)	100	588.995

Primary Metals for Analysis by ICP-MS

Contains all approved elements
SDWA-06-MS-1 100 mL
SDWA-06-MS-5 500 mL
11 components in 2% HNO₃

Element	µg/mL	λ (nm)
Sb (<i>Antimony</i>)	10	206.833
As (<i>Arsenic</i>)	10	193.696
Ba (<i>Barium</i>)	10	493.409
Be (<i>Beryllium</i>)	10	313.042
Cd (<i>Cadmium</i>)	10	226.502
Cr (<i>Chromium</i>)	10	205.552
Cu (<i>Copper</i>)	10	324.754
Pb (<i>Lead</i>)	10	220.353
Ni (<i>Nickel</i>)	10	231.604
Se (<i>Selenium</i>)	10	196.090
Tl (<i>Thallium</i>)	10	190.864

Primary Metals for Analysis by GFAA / ICP / ICP-MS

SDWA-07-1 100 mL
SDWA-07-5 500 mL
14 components in 2% HNO₃

Element	µg/mL	λ (nm)
Sb (<i>Antimony</i>)	100	206.833
As (<i>Arsenic</i>)	100	193.696
Ba (<i>Barium</i>)	10	493.409
Be (<i>Beryllium</i>)	10	313.042
Cd (<i>Cadmium</i>)	10	226.502
Ca (<i>Calcium</i>)	100	317.933
Cr (<i>Chromium</i>)	10	205.552
Cu (<i>Copper</i>)	10	324.754
Pb (<i>Lead</i>)	10	220.353
Ni (<i>Nickel</i>)	10	231.604
Se (<i>Selenium</i>)	10	196.090
Si (<i>Silicon</i>) †	100	251.611
Na (<i>Sodium</i>)	100	588.995
Tl (<i>Thallium</i>)	10	190.864

† 214 µg/mL as SiO₂

Secondary Metals for Analysis by GFAA / ICP / ICP-MS

SDWA-08-1 100 mL
SDWA-08-5 500 mL
5 components in 2-5% HNO₃

Element	µg/mL	λ (nm)
Al (<i>Aluminum</i>)	10	308.215
Fe (<i>Iron</i>)	100	259.940
Mn (<i>Manganese</i>)	10	257.610
Ag (<i>Silver</i>)	10	328.068
Zn (<i>Zinc</i>)	10	213.856

Primary & Secondary Metals for Analysis by GFAA/ICP/ICP-MS

Contains all Primary & Secondary Metals
SDWA-09-1 100 mL
SDWA-09-5 500 mL
19 components in 2% HNO₃

Element	µg/mL	λ (nm)
Al (<i>Aluminum</i>)	10	308.215
Sb (<i>Antimony</i>)	100	206.833
As (<i>Arsenic</i>)	100	193.696
Ba (<i>Barium</i>)	10	493.409
Be (<i>Beryllium</i>)	10	313.042
Cd (<i>Cadmium</i>)	10	226.502
Ca (<i>Calcium</i>)	100	317.933
Cr (<i>Chromium</i>)	10	205.552
Cu (<i>Copper</i>)	10	324.754
Fe (<i>Iron</i>)	100	259.940
Pb (<i>Lead</i>)	10	220.353
Mn (<i>Manganese</i>)	10	257.610
Ni (<i>Nickel</i>)	10	231.604
Se (<i>Selenium</i>)	10	196.090
Si (<i>Silicon</i>) †	100	251.611
Ag (<i>Silver</i>)	10	328.068
Na (<i>Sodium</i>)	100	588.995
Tl (<i>Thallium</i>)	10	190.864
Zn (<i>Zinc</i>)	10	213.856

† 214 µg/mL as SiO₂



ICP

Groundwater, Wastewater & TCLP

Groundwater & Wastewater Standards

Trace Metals I, II, III

Trace Metals I

WPTM-01-1 100 mL
WPTM-01-5 500 mL
15 components in 5% HNO₃

Element	µg/mL	λ (nm)
Al (Aluminum)	500	396.152
As (Arsenic)	100	189.042
Be (Beryllium)	100	313.042
Cd (Cadmium)	25	214.438
Cr (Chromium)	100	205.552
Co (Cobalt)	100	228.616
Cu (Copper)	100	324.754
Fe (Iron)	100	259.940
Pb (Lead)	100	220.353
Mn (Manganese)	100	257.610
Hg (Mercury)	5	194.232
Ni (Nickel)	100	231.604
Se (Selenium)	25	196.090
V (Vanadium)	250	292.402
Zn (Zinc)	100	213.856

Trace Metals II

WPTM-02-1 100 mL
WPTM-02-5 500 mL
3 components in 2% HNO₃

Element	µg/mL	λ (nm)
Sb (Antimony)	20	217.581
Ag (Silver)	10	328.068
Tl (Thallium)	20	351.924

Trace Metals III

WPTM-03-1 100 mL
WPTM-03-5 500 mL
6 components in 5% HNO₃ tr. HF

Element	µg/mL	λ (nm)
Ba (Barium)	500	233.527
Ca (Calcium)	500	317.933
Mg (Magnesium)	100	279.553
Mo (Molybdenum)	500	202.030
K (Potassium)	100	766.490
Na (Sodium)	500	589.592

Trace Metals Sets

WPTM-1-SET	3 x 100 mL	WPTM-5-SET	3 x 500 mL
WPTM-01-1	WPTM-03-1	WPTM-01-5	WPTM-03-5
WPTM-02-1		WPTM-02-5	

Alternate Metals for Groundwater and Wastewater Analysis

Alternate Metals I

WPAM-01-1 100 mL
WPAM-01-5 500 mL
11 components in 2% HNO₃

Element	µg/mL	λ (nm)
Al (Aluminum)	20	396.152
Sb (Antimony)	5	217.581
Be (Beryllium)	5	313.042
Co (Cobalt)	10	228.616
Cu (Copper)	10	324.754
Fe (Iron)	20	259.940
Mn (Manganese)	10	257.610
Ni (Nickel)	10	231.604
Tl (Thallium)	5	351.924
V (Vanadium)	20	292.402
Zn (Zinc)	10	213.856

Alternate Metals III

WPAM-03-1 100 mL
WPAM-03-5 500 mL
4 components in 2% HNO₃

Element	µg/mL	λ (nm)
Ca (Calcium)	500	317.933
Mg (Magnesium)	100	279.553
K (Potassium)	100	766.490
Na (Sodium)	500	589.592

Alternate Trace Metals Sets

WPAM-1-SET	2 x 100 mL
WPAM-01-1	WPAM-03-1
WPAM-5-SET	2 x 500 mL
WPAM-01-5	WPAM-03-5

TCLP Multi-Element Calibration Standards

For use in SW-846, Method 1311 Toxicity Characteristic Leaching Procedure

TCLP Standard #1

TCLP-01-1 100 mL
TCLP-01-5 500 mL
7 components in 5% HNO₃

Element	µg/mL	λ (nm)
As (Arsenic)	25	189.042
Ba (Barium)	500	233.527
Cd (Cadmium)	5	214.438
Cr (Chromium)	25	205.552
Pb (Lead)	25	220.353
Se (Selenium)	5	196.090
Ag (Silver)	25	328.068

TCLP Standard for ICP

TCLP-ICP-1 100 mL
TCLP-ICP-5 500 mL
4 components in 2% HNO₃

Element	µg/mL	λ (nm)
Ba (Barium)	500	233.527
Cd (Cadmium)	5	214.438
Cr (Chromium)	25	205.552
Ag (Silver)	25	328.068

TCLP Standard for GFAA

TCLP-GFAA-1 100 mL
TCLP-GFAA-5 500 mL
3 components in 5% HNO₃

Element	µg/mL	λ (nm)
As (Arsenic)	25	189.042
Pb (Lead)	25	220.353
Se (Selenium)	5	196.090

TCLP Standard #2

For Mercury Analysis using ICP or Cold Vapor AA

TCLP-02-1 100 mL
TCLP-02-5 500 mL
1 component in 5% HNO₃

Element	µg/mL	λ (nm)
Hg (Mercury)	20	194.232

These products require a Hazardous Shipping Fee except products marked with an asterisk *

ICP

MISA Test Group 29



ICP Multi-Element

MISA Test Group 29 Analysis Calibration Standards

For use in MISA Test Group 29 Analysis or general use standards. Set of six standards contains 69 elements at 100 µg/mL each. Ideal for the laboratory that wants to analyze for everything.

MISA Standard 1

Rare Earth Metals

MISA-01-1 100 mL
18 components in 100 µg/mL in 5% HNO₃

Element	λ (nm)
Ce (<i>Cerium</i>)	413.765
Dy (<i>Dysprosium</i>)	353.170
Er (<i>Erbium</i>)	337.271
Eu (<i>Europium</i>)	381.967
Gd (<i>Gadolinium</i>)	342.247
Ho (<i>Holmium</i>)	345.600
La (<i>Lanthanum</i>)	379.478
Lu (<i>Lutetium</i>)	261.542
Nd (<i>Neodymium</i>)	401.225
Pr (<i>Praseodymium</i>)	390.844
Sc (<i>Scandium</i>)	361.384
Sm (<i>Samarium</i>)	359.260
Tb (<i>Terbium</i>)	350.917
Th (<i>Thorium</i>)	283.730
Tm (<i>Thulium</i>)	313.126
U (<i>Uranium</i>)	385.958
Yb (<i>Ytterbium</i>)	328.937
Y (<i>Yttrium</i>)	371.030

MISA Standard 2

Precious Metals

MISA-02-1 100 mL
6 components in 100 µg/mL in 10% HCl

Element	λ (nm)
Au (<i>Gold</i>)	242.795
Ir (<i>Iridium</i>)	224.268
Pd (<i>Palladium</i>)	340.458
Pt (<i>Platinum</i>)	214.423
Rh (<i>Rhodium</i>)	233.477
Ru (<i>Ruthenium</i>)	240.272

MISA Standard 3

Tellurium

MISA-03-1 100 mL
1 component in 100 µg/mL in 10% HCl

Element	λ (nm)
Te (<i>Tellurium</i>)	214.281

MISA Standard 4

Alkali, Alkaline Earth, Non-Transition Group

MISA-04-1 100 mL
16 components in 100 µg/mL in 10% HNO₃

Element	λ (nm)
Al (<i>Aluminum</i>)	309.271
As (<i>Arsenic</i>)	193.696
Ba (<i>Barium</i>)	455.403
Be (<i>Beryllium</i>)	313.042
Bi (<i>Bismuth</i>)	223.061
Ca (<i>Calcium</i>)	393.366
Cs (<i>Cesium</i>)	452.673
Ga (<i>Gallium</i>)	294.364
In (<i>Indium</i>)	230.606
Li (<i>Lithium</i>)	670.784
Mg (<i>Magnesium</i>)	279.553
K (<i>Potassium</i>)	766.490
Rb (<i>Rubidium</i>)	420.185
Se (<i>Selenium</i>)	196.026
Na (<i>Sodium</i>)	589.995
Sr (<i>Strontium</i>)	407.771

Complete Calibration Set

MISA-1-SET	6 x 100 mL		
MISA-01-1	MISA-03-1	MISA-05-1	
MISA-02-1	MISA-04-1	MISA-06-1	

MISA Standard 5

Fluoride Soluble Group

MISA-05-1 100 mL
15 components in 100 µg/mL in HNO₃ tr. HF

Element	λ (nm)
Sb (<i>Antimony</i>)	206.833
B (<i>Boron</i>)	249.773
Ge (<i>Germanium</i>)	209.426
Hf (<i>Hafnium</i>)	277.336
Mo (<i>Molybdenum</i>)	202.030
Nb (<i>Niobium</i>)	309.418
P (<i>Phosphorus</i>)	213.618
Re (<i>Rhenium</i>)	197.313
Si (<i>Silicon</i>)	251.618
S (<i>Sulfur</i>)	180.731
Ta (<i>Tantalum</i>)	226.230
Sn (<i>Tin</i>)	189.989
Ti (<i>Titanium</i>)	334.941
W (<i>Tungsten</i>)	207.911
Zr (<i>Zirconium</i>)	343.823

MISA Standard 6

Transition Metals

MISA-06-1 100 mL
13 components in 100 µg/mL in 10% HNO₃

Element	λ (nm)
Cd (<i>Cadmium</i>)	214.438
Co (<i>Cobalt</i>)	238.892
Cu (<i>Copper</i>)	324.754
Cr (<i>Chromium</i>)	205.552
Fe (<i>Iron</i>)	238.204
Pb (<i>Lead</i>)	220.353
Mn (<i>Manganese</i>)	257.610
Hg (<i>Mercury</i>)	214.281
Ni (<i>Nickel</i>)	231.604
Ag (<i>Silver</i>)	328.068
Tl (<i>Thallium</i>)	190.864
V (<i>Vanadium</i>)	292.402
Zn (<i>Zinc</i>)	213.856

Calibration and Matrix Blanks

Nitric Acid Blank

CLP-BLN-5 500 mL
CLP-BLN-L-SET L (2 x 500 mL)

5% HNO₃ in ASTM Type I Water

Water Blank

CLP-BLW-5 * 500 mL
CLP-BLW-L-SET * L (2 x 500 mL)

ASTM Type I Water

Hydrochloric Acid Blank

CLP-BLH-5 500 mL
CLP-BLH-L-SET L (2 x 500 mL)

5% HCl in ASTM Type I Water

Mixed Acid Blank

CLP-BLMA-5 500 mL
CLP-BLMA-L-SET L (2 x 500 mL)

5% HCl + 1% HNO₃ in ASTM Type I Water





ICP Multi-Element

Multi-Element ICP

ICP Multi-Element

ICP Multi-Element Standard Solution I

MES-01-1 100 mL
MES-01-5 500 mL
19 comps. in 1 mol/L HNO₃

Element	µg/mL
Ag (Silver)	50
Al (Aluminum)	100
B (Boron)	15
Ba (Barium)	5
Be (Beryllium)	1
Bi (Bismuth)	200
Cd (Cadmium)	20
Co (Cobalt)	20
Cr (Chromium)	25
Cu (Copper)	20
Fe (Iron)	15
Ga (Gallium)	150
In (Indium)	200
Mn (Manganese)	5
Ni (Nickel)	50
Pb (Lead)	200
Sr (Strontium)	1
Tl (Thallium)	400
Zn (Zinc)	20

ICP Multi-Element Standard Solution II

MES-02-1 100 mL
MES-02-5 500 mL
3 comps. in 1 mol/L HNO₃

Element	µg/mL
Li (Lithium)	250
K (Potassium)	10,000
Na (Sodium)	1000

ICP Multi-Element Standard Solution III

MES-03-1 100 mL
MES-03-5 500 mL
4 comps. in 1 mol/L HNO₃

Element	µg/mL
Ba (Barium)	1000
Ca (Calcium)	1000
Mg (Magnesium)	1000
Sr (Strontium)	1000

ICP Multi-Element Standard Solution IV

MES-04-1 100 mL
MES-04-5 500 mL
23 comps. in 1 mol/L HNO₃

Element	µg/mL
Ag (Silver)	1000
Al (Aluminum)	1000
B (Boron)	1000
Ba (Barium)	1000
Bi (Bismuth)	1000
Ca (Calcium)	1000
Cd (Cadmium)	1000
Co (Cobalt)	1000
Cr (Chromium)	1000
Cu (Copper)	1000
Fe (Iron)	1000
Ga (Gallium)	1000
In (Indium)	1000
K (Potassium)	1000
Li (Lithium)	1000
Mg (Magnesium)	1000
Mn (Manganese)	1000
Na (Sodium)	1000
Ni (Nickel)	1000
Pb (Lead)	1000
Sr (Strontium)	1000
Tl (Thallium)	1000
Zn (Zinc)	1000

ICP Multi-Element Standard Solution V

MES-05-1-SET 2x100 mL
MES-05-5-SET 2x500 mL
26 comps. in 5% HCl

Element	µg/mL
K (Potassium)	100
Al (Aluminum)	20
As (Arsenic)	20
Na (Sodium)	20
Pb (Lead)	20
Se (Selenium)	20
Ca (Calcium)	20
P (Phosphorus)	20
Te (Tellurium)	20
Ni (Nickel)	5
B (Boron)	2
Ba (Barium)	2
Cd (Cadmium)	2
Cr (Chromium)	2
Cu (Copper)	2
Fe (Iron)	2
Li (Lithium)	2
Ti (Titanium)	2
Zn (Zinc)	2
Be (Beryllium)	1
Mg (Magnesium)	1
Mn (Manganese)	1
Sc (Scandium)	1
Sr (Strontium)	1
Y (Yttrium)	1

MES-05-HG
Hg (Mercury) 5
supplied separately for better stability in 5% HNO₃

ICP Multi-Element Standard Solution VI for MS

MES-06-1-SET 100 mL
MES-06-5-SET 500 mL
29 comps. in 1 mol/L HNO₃ tr. HF

Element	µg/mL
Ag (Silver)	10
Al (Aluminum)	10
As (Arsenic)	100
B (Boron)	100
Ba (Barium)	10
Be (Beryllium)	100
Bi (Bismuth)	10
Ca (Calcium)	1000
Cd (Cadmium)	10
Co (Cobalt)	10
Cr (Chromium)	10
Cu (Copper)	10
Fe (Iron)	100
Ga (Gallium)	10
K (Potassium)	10
Mn (Manganese)	10
Mg (Magnesium)	10
Mn (Manganese)	10
Mo (Molybdenum)	10
Na (Sodium)	10
Ni (Nickel)	10
Pb (Lead)	10
Rb (Rubidium)	10
Se (Selenium)	100
Sr (Strontium)	10
Tl (Thallium)	10
U (Uranium)	10
V (Vanadium)	10
Zn (Zinc)	100

MES-06-TE
Te (Tellurium) 10
supplied separately for better stability in 10% HCl

ICP Multi-Element Standard Solution VII

MES-07-1 * 100 mL
MES-07-5 * 500 mL
9 comps. in Water tr. HNO₃

Element	µg/mL
NH ₄ (Ammonium)	100
Ba (Barium)	100
Ca (Calcium)	100
K (Potassium)	100
Li (Lithium)	100
Mg (Magnesium)	100
Mn (Manganese)	100
Na (Sodium)	100
Sr (Strontium)	100

ICP Multi-Element Standard Solution VIII

MES-08-1-SET 2x100 mL
MES-08-5-SET 2x500 mL
24 comps. in 1 mol/L HNO₃

MES-08 Element	µg/mL
Al (Aluminum)	100
B (Boron)	100
Ba (Barium)	100
Be (Beryllium)	100
Bi (Bismuth)	100
Ca (Calcium)	100
Cd (Cadmium)	100
Co (Cobalt)	100
Cr (Chromium)	100
Cu (Copper)	100
Fe (Iron)	100
Ga (Gallium)	100
K (Potassium)	100
Li (Lithium)	100
Mg (Magnesium)	100
Mn (Manganese)	100
Na (Sodium)	100
Ni (Nickel)	100
Pb (Lead)	100
Se (Selenium)	100
Sr (Strontium)	100
Tl (Thallium)	100
Zn (Zinc)	100

MES-08-TE
Te (Tellurium) 100
supplied separately for better stability

ICP Multi-Element Standard Solution IX

MES-09-1-SET 2x100 mL
MES-09-5-SET 2x500 mL
9 comps. in 1 mol/L HNO₃

MES-09 Element	µg/mL
As (Arsenic)	100
Be (Beryllium)	100
Pb (Lead)	100
Cd (Cadmium)	100
Cr (Chromium)	100
Ni (Nickel)	100
Se (Selenium)	100
Tl (Thallium)	100

MES-09-HG
Hg (Mercury) 100
supplied separately for better stability

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ICP Multi-Element



Multi-Element ICP

ICP Multi-Element Standard Solution X

MES-10-1 100 mL
MES-10-5 500 mL
23 comps. in 1 mol/L HNO₃

Element	µg/mL
Ca (Calcium)	3500
Mg (Magnesium)	1500
Na (Sodium)	800
K (Potassium)	300
B (Boron)	10
Fe (Iron)	10
Mo (Molybdenum)	10
Sr (Strontium)	10
As (Arsenic)	5
Ba (Barium)	5
Ni (Nickel)	5
V (Vanadium)	5
Zn (Zinc)	5
Mn (Manganese)	3
Co (Cobalt)	2.5
Pb (Lead)	2.5
Be (Beryllium)	2
Cd (Cadmium)	2
Cr (Chromium)	2
Cu (Copper)	2
Bi (Bismuth)	1
Se (Selenium)	1
Tl (Thallium)	1

ICP Multi-Element Standard Solution XI

MES-11-1-SET 2x100 mL
MES-11-5-SET 2x500 mL
6 comps. in 1 mol/L HNO₃

MES-11 Element	µg/mL
Cd (Cadmium)	10
Cr (Chromium)	900
Cu (Copper)	800
Ni (Nickel)	200
Pb (Lead)	900
Zn (Zinc)	2500

MES-11-HG
Hg (Mercury) 8
supplied separately for better product stability

ICP Multi-Element Standard Solution XII

MES-12-1-SET 100 mL
MES-12-5-SET 500 mL
7 comps. in 5% HCl tr. HNO₃

MES-12-R1 Element	µg/mL
As (Arsenic)	1000
Mo (Molybdenum)	1000
P (Phosphorus)	1000
S (Sulfur)	1000
Si (Silicon)	1000
W (Tungsten)	1000
V (Vanadium)	1000

MES-12-ZR
Zr (Zirconium) 1000
supplied separately for better product stability

ICP Multi-Element Standard Solution XIII

MES-13-1-SET 2x100 mL
MES-13-5-SET 2x500 mL
15 comps. in 5% HNO₃

MES-13 Element	µg/mL
Al (Aluminum)	500
As (Arsenic)	100
Be (Beryllium)	100
Cd (Cadmium)	25
Co (Cobalt)	100
Cr (Chromium)	100
Cu (Copper)	100
Fe (Iron)	100
Mn (Manganese)	100
Ni (Nickel)	100
Pb (Lead)	100
Se (Selenium)	25
V (Vanadium)	250
Zn (Zinc)	100

MES-13-HG
Hg (Mercury) 5
supplied separately for better stability

ICP Multi-Element Standard Solution XIV

MES-14-1 100 mL
MES-14-5 500 mL
11 comps. in 2% HCl tr. HNO₃

Element	µg/mL
P (Phosphorus)	100
S (Sulfur)	100
K (Potassium)	100
As (Arsenic)	20
La (Lanthanum)	20
Li (Lithium)	20
Mo (Molybdenum)	20
Mn (Manganese)	20
Ni (Nickel)	20
Sc (Scandium)	20
Na (Sodium)	20

ICP Multi-Element Standard Solution XV

MES-15-1 100 mL
MES-15-5 500 mL
8 comps. in 2% HNO₃

Element	µg/mL
Ba (Barium)	1
Ca (Calcium)	1
K (Potassium)	50
La (Lanthanum)	10
Li (Lithium)	10
Mn (Manganese)	10
Na (Sodium)	10
Sr (Strontium)	10

ICP Multi-Element Standard Solution XVI

MES-16-1 100 mL
MES-16-5 500 mL
21 comps. in 5% HNO₃ tr. HF

Element	µg/mL
Sb (Antimony)	100
As (Arsenic)	100
Be (Beryllium)	100
Cd (Cadmium)	100
Ca (Calcium)	100
Cr (Chromium)	100
Co (Cobalt)	100
Cu (Copper)	100
Fe (Iron)	100
Pb (Lead)	100
Li (Lithium)	100
Mg (Magnesium)	100
Mn (Manganese)	100
Mo (Molybdenum)	100
Ni (Nickel)	100
Se (Selenium)	100
Sr (Strontium)	100
Tl (Thallium)	100
Ti (Titanium)	100
V (Vanadium)	100
Zn (Zinc)	100

ICP Multi-Element Standard Solution XVII

MES-17-1 100 mL
MES-17-5 500 mL
7 comps. in 15% HCl tr. HNO₃

Element	µg/mL
Hf (Hafnium)	100
Ir (Iridium)	100
Sb (Antimony)	100
Sn (Tin)	100
Ta (Tantalum)	100
Ti (Titanium)	100
Zr (Zirconium)	100

ICP Multi-Element GF AAS Standard Solution XVIII

MES-18-1 100 mL
MES-18-5 500 mL
16 comps. in 5% HNO₃

Element	µg/mL
Al (Aluminum)	100
As (Arsenic)	100
Pb (Lead)	100
Sb (Antimony)	100
Se (Selenium)	100
Tl (Thallium)	100
Ba (Barium)	50
Co (Cobalt)	50
Cu (Copper)	50
Ni (Nickel)	50
Cr (Chromium)	20
Fe (Iron)	20
Mn (Manganese)	20
Ag (Silver)	10
Be (Beryllium)	10
Cd (Cadmium)	10

ICP Multi-Element Standard Solution XIX for MS

MES-19-1 100 mL
MES-19-5 500 mL
5 comps. in 1% HNO₃

Element	µg/mL
Be (Beryllium)	1
Co (Cobalt)	1
In (Indium)	1
Tl (Thallium)	1
U (Uranium)	1

ICP Multi-Element Standard Solution XX for MS

MES-20-1 100 mL
MES-20-5 500 mL
11 comps. in 1% HNO₃

Element	µg/mL
Mg (Magnesium)	1
Cu (Copper)	1
Cd (Cadmium)	1
Pb (Lead)	1
Sc (Scandium)	1
Rh (Rhodium)	1
Tl (Thallium)	1
Ce (Cerium)	1
Ge (Germanium)	1
Tb (Terbium)	1
Ba (Barium)	1

ICP Multi-Element

Multi-Element ICP continued on next page

ICP Multi-Element



ICP Multi-Element

Multi-Element ICP

ICP Multi-Element Standard Solution XXI for MS

MES-21-1-SET 2x100 mL
MES-21-5-SET 2x500 mL
30 comps. in 5% HNO₃

MES-21 Element	µg/mL
Ag (Silver)	10
Al (Aluminum)	10
As (Arsenic)	10
Ba (Barium)	10
Be (Beryllium)	10
Bi (Bismuth)	10
Ca (Calcium)	10
Cd (Cadmium)	10
Co (Cobalt)	10
Cr (Chromium)	10
Cs (Cesium)	10
Cu (Copper)	10
Fe (Iron)	10
Ga (Gallium)	10
In (Indium)	10
K (Potassium)	10
Li (Lithium)	10
Mg (Magnesium)	10
Mn (Manganese)	10
Na (Sodium)	10
Ni (Nickel)	10
Pb (Lead)	10
Rb (Rubidium)	10
Se (Selenium)	10
Sr (Strontium)	10
Tl (Thallium)	10
V (Vanadium)	10
U (Uranium)	10
Zn (Zinc)	10

MES-21-HG 10
Hg (Mercury)
supplied separately for better product stability

ICP Multi-Element Standard Solution XXII for MS

MES-22-1 100 mL
MES-22-5 500 mL
5 comps. in 2% HNO₃

Element	µg/mL
Cd (Cadmium)	2
Cu (Copper)	2
Mg (Magnesium)	2
Pb (Lead)	2
Rh (Rhodium)	2

EU Formulation

Scope: For the determination of 32 elements by ICP (Inductively Coupled Plasma)

DIN EN ISO 11885 - 32 Element ICP Standard Set

DINENISO-11885-1-SET 2 x 100 mL
DINENISO-11885-5-SET 2 x 500 mL

Part 1

DINENISO-11885A-1 100 mL
DINENISO-11885A-5 500 mL
24 comps. in 2-5% HNO₃ tr. HF

	µg/mL
Ag (Silver)	20
Al (Aluminum)	40
As (Arsenic)	80
Ba (Barium)	2
Be (Beryllium)	2
Bi (Bismuth)	40
Ca (Calcium)	2
Cd (Cadmium)	10
Co (Cobalt)	10
Cr (Chromium)	10
Cu (Copper)	10
Fe (Iron)	20
K (Potassium)	50
Li (Lithium)	2
Mg (Magnesium)	1
Mn (Manganese)	2
Na (Sodium)	20
Ni (Nickel)	50
Pb (Lead)	50
Sb (Antimony)	50
Se (Selenium)	50
Sr (Strontium)	0.5
V (Vanadium)	10
Zn (Zinc)	5

Part 2

DINENISO-11885B-1 100 mL
DINENISO-11885B-5 500 mL
8 comps. in 2-5% HNO₃ tr. HF

	µg/mL
B (Boron)	5
Mo (Molybdenum)	30
P (Phosphorus)	50
S (Sulfur)	50
Si (Silicon)	20
Sn (Tin)	50
Ti (Titanium)	5
Zr (Zirconium)	10

Gun Powder Residue

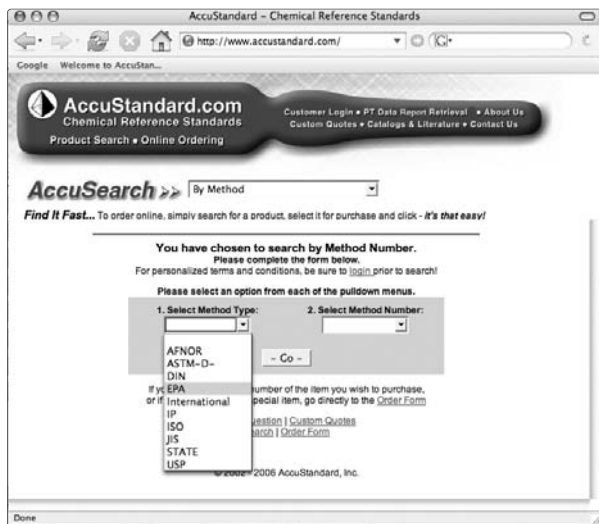
This is used in forensic applications for analyzing wipes for the presence of gun powder residue.

ICP-PWDRES-5 500 mL
3 components in 5% HNO₃

Element	µg/mL	λ (nm)
Pb (Lead)	5	220.353
Ba (Barium)	5	493.409
Sb (Antimony)	0.2	206.833

Looking for a method number you can't find in the Index or Table of Contents?

There are more on our Website.



These products require a Hazardous Shipping Fee except products marked with an asterisk *

CLP-BLH-5:25	QCS-1-SET:20
CLP-BLH-L-SET:25	QCS-5-SET:20
CLP-BLMA-5:25	QCS-ASL-21-1:21
CLP-BLMA-L-SET:25	QCS-ASL-21-5:21
CLP-BLN-5:25	QCS-ASL-7-1:21
CLP-BLN-L-SET:25	QCS-ASL-7-5:21
CLP-BLW-5:25	SDWA-01-1:23
CLP-BLW-L-SET:25	SDWA-01-5:23
CS-01-1:21	SDWA-02-1:23
DINENISO-11885-1-SET:28	SDWA-02-5:23
DINENISO-11885-5-SET:28	SDWA-03-1:23
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ICS-01-5:21	SDWA-04-1:23
ICS-02-1:21	SDWA-04-5:23
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MES-05-5-SET:26	TCLP-GFAA-5:24
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MES-06-5-SET:26	TCLP-ICP-5:24
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