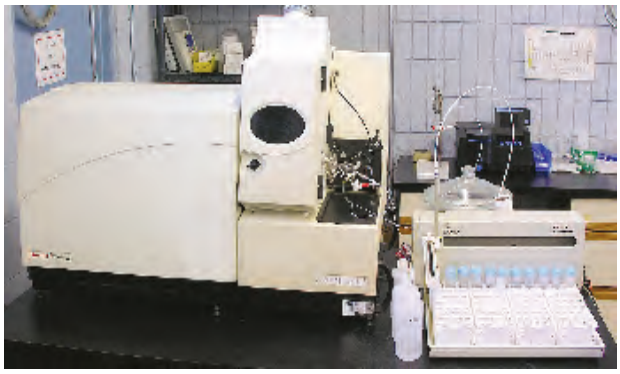
ULTRAgrade® ICP/ICP-MS Multi-Element Standards

Compare Directly to Merck CertiPUR® Inorganic Mixes

- ✔ 99.999% Pure Starting Materials, Wherever Possible
- ✔ Traceable to NIST SRMs
- ✔ ASTM Type 1, 18 Megohm Ultra Low TOC (<50 ppb) Water
- ✔ REACH Compliant Labeling and SDS
- ✔ ISO 9001:2000 Registered Quality System
- ✔ ISO 17025:2005 Accredited Laboratory

Competitive Pricing

Larger Standard Size



ICP Standards

ICP Calibration Standard – Surface Water (X)

23 Analytes

arsenic (As)	50 ng/mL
barium (Ba)	50 ng/mL
beryllium (Be)	20 ng/mL
bismuth (Bi)	10 ng/mL
boron (B)	100 ng/mL
cadmium (Cd)	20 ng/mL
calcium (Ca)	35000 ng/mL
chromium (Cr)	20 ng/mL
cobalt (Co)	25 ng/mL
copper (Cu)	20 ng/mL
iron (Fe)	100 ng/mL
lead (Pb)	25 ng/mL
magnesium (Mg)	15000 ng/mL
manganese (Mn)	30 ng/mL
molybdenum (Mo)	100 ng/mL
nickel (Ni)	50 ng/mL
potassium (K)	3000 ng/mL
selenium (Se)	10 ng/mL
sodium (Na)	8000 ng/mL
strontium (Sr)	100 ng/mL
thallium (Tl)	10 ng/mL
vanadium (V)	50 ng/mL
zinc (Zn)	50 ng/mL

in 5% HNO_3 with trace HF

ICM-106 **125 mL** ***

ICP Calibration Standard (IV)

23 Analytes

aluminum (Al)	1000 µg/mL
barium (Ba)	1000 µg/mL
bismuth (Bi)	1000 µg/mL
boron (B)	1000 µg/mL
cadmium (Cd)	1000 µg/mL
calcium (Ca)	1000 µg/mL
chromium (Cr)	1000 µg/mL
cobalt (Co)	1000 µg/mL
copper (Cu)	1000 µg/mL
gallium (Ga)	1000 µg/mL
indium (In)	1000 µg/mL
iron (Fe)	1000 µg/mL
lead (Pb)	1000 µg/mL
lithium (Li)	1000 µg/mL
magnesium (Mg)	1000 µg/mL
manganese (Mn)	1000 µg/mL
nickel (Ni)	1000 µg/mL
potassium (K)	1000 µg/mL
silver (Ag)	1000 µg/mL
sodium (Na)	1000 µg/mL
strontium (Sr)	1000 µg/mL
thallium (Tl)	1000 µg/mL
zinc (Zn)	1000 µg/mL

in 5% HNO_3

ICM-103 **125 mL** ***

ICP Calibration Standard (I)

19 Analytes

aluminum (Al)	100 µg/mL
barium (Ba)	5 µg/mL
beryllium (Be)	1 µg/mL
bismuth (Bi)	200 µg/mL
boron (B)	15 µg/mL
cadmium (Cd)	20 µg/mL
chromium (Cr)	25 µg/mL
cobalt (Co)	20 µg/mL
copper (Cu)	20 µg/mL
gallium (Ga)	150 µg/mL
indium (In)	200 µg/mL
iron (Fe)	15 µg/mL
lead (Pb)	200 µg/mL
manganese (Mn)	5 µg/mL
nickel (Ni)	50 µg/mL
silver (Ag)	50 µg/mL
strontium (Sr)	1 µg/mL
thallium (Tl)	400 µg/mL
zinc (Zn)	20 µg/mL

in 5% HNO_3

ICM-102 **125 mL** ***

CertiPUR® is a Registered Trademark of Merck KGaA

ICP Standards

- ✔ NIST traceable
- ✔ ULTRAgrade® certificate of analysis

ULTRAgrade®

- ✔ Starting materials are 99.999% pure, wherever possible
- ✔ REACH Compliant Labeling and SDS

ICP Calibration Standard - Quality Control (XVI)

21 Analytes

antimony (Sb)	100 µg/mL
arsenic (As)	100 µg/mL
beryllium (Be)	100 µg/mL
cadmium (Cd)	100 µg/mL
calcium (Ca)	100 µg/mL
chromium (Cr)	100 µg/mL
cobalt (Co)	100 µg/mL
copper (Cu)	100 µg/mL
iron (Fe)	100 µg/mL
lead (Pb)	100 µg/mL
lithium (Li)	100 µg/mL
magnesium (Mg)	100 µg/mL
manganese (Mn)	100 µg/mL
molybdenum (Mo)	100 µg/mL
nickel (Ni)	100 µg/mL
selenium (Se)	100 µg/mL
strontium (Sr)	100 µg/mL
thallium (Tl)	100 µg/mL
titanium (Ti)	100 µg/mL
vanadium (V)	100 µg/mL
zinc (Zn)	100 µg/mL

in 5% HNO_3 with trace HF, tartaric acid

ICM-108 **125 mL** ***

ICP Calibration Standard (VIII)

24 Analytes

aluminum (Al)	100 µg/mL
barium (Ba)	100 µg/mL
beryllium (Be)	100 µg/mL
bismuth (Bi)	100 µg/mL
boron (B)	100 µg/mL
cadmium (Cd)	100 µg/mL
calcium (Ca)	100 µg/mL
chromium (Cr)	100 µg/mL
cobalt (Co)	100 µg/mL
copper (Cu)	100 µg/mL
gallium (Ga)	100 µg/mL
iron (Fe)	100 µg/mL
lead (Pb)	100 µg/mL
lithium (Li)	100 µg/mL
magnesium (Mg)	100 µg/mL
manganese (Mn)	100 µg/mL
nickel (Ni)	100 µg/mL
potassium (K)	100 µg/mL
selenium (Se)	100 µg/mL
sodium (Na)	100 µg/mL
strontium (Sr)	100 µg/mL
tellurium (Te)	100 µg/mL
thallium (Tl)	100 µg/mL
zinc (Zn)	100 µg/mL

in 5% HNO_3 with trace HCl

ICM-101 **125 mL** ***

ICP Calibration Standard – Trace Metals (XIII)

15 Analytes

aluminum (Al)	500 µg/mL
arsenic (As)	100 µg/mL
beryllium (Be)	100 µg/mL
cadmium (Cd)	25 µg/mL
chromium (Cr)	100 µg/mL
cobalt (Co)	100 µg/mL
copper (Cu)	100 µg/mL
iron (Fe)	100 µg/mL
lead (Pb)	100 µg/mL
manganese (Mn)	100 µg/mL
mercury (Hg)	5 µg/mL
nickel (Ni)	100 µg/mL
selenium (Se)	25 µg/mL
vanadium (V)	250 µg/mL
zinc (Zn)	100 µg/mL

in 5% HNO_3 with trace HF

ICM-104 **125 mL** ***

ICP Calibration Standard – Earth Alkali Elements (III)

4 Analytes

barium (Ba)	1000 µg/mL
calcium (Ca)	1000 µg/mL
magnesium (Mg)	1000 µg/mL
strontium (Sr)	1000 µg/mL

in 5% HNO_3

ICM-100 **125 mL** ***

ICP Calibration Standard – Toxic Elements (IX)

9 Analytes

arsenic (As)	100 µg/mL
beryllium (Be)	100 µg/mL
cadmium (Cd)	100 µg/mL
chromium (VI) (Cr+6)	100 µg/mL
lead (Pb)	100 µg/mL
mercury (Hg)	100 µg/mL
nickel (Ni)	100 µg/mL
selenium (Se)	100 µg/mL
thallium (Tl)	100 µg/mL

in 5% HNO_3

ICM-105 **125 mL** ***

ICP Calibration Standard – Sewage Sludge (XI)

7 Analytes

cadmium (Cd)	10 µg/mL
chromium (Cr)	900 µg/mL
copper (Cu)	800 µg/mL
mercury (Hg)	8 µg/mL
nickel (Ni)	200 µg/mL
lead (Pb)	900 µg/mL
zinc (Zn)	2500 µg/mL

in 5% HNO_3

ICM-109 **125 mL** ***

ICP Calibration Standard – HCl Soluble Elements (XVII)

7 Analytes

antimony (Sb)	100 µg/mL
hafnium (Hf)	100 µg/mL
iridium (Ir)	100 µg/mL
tantalum (Ta)	100 µg/mL
tin (Sn)	100 µg/mL
titanium (Ti)	100 µg/mL
zirconium (Zr)	100 µg/mL

in 15% HCl with trace HNO_3, HF, tartaric

ICM-107 **125 mL** ***

ICP, GFAA & Ion Chromatography Standards

ICP Wavelength Calibration Standard (V)

26 Analytes

aluminum (Al)	20 µg/mL
arsenic (As)	20 µg/mL
barium (Ba)	2 µg/mL
beryllium (Be)	1 µg/mL
boron (B)	2 µg/mL
cadmium (Cd)	2 µg/mL
calcium (Ca)	10 µg/mL
chromium (Cr)	2 µg/mL
copper (Cu)	2 µg/mL
iron (Fe)	2 µg/mL
lead (Pb)	20 µg/mL
lithium (Li)	2 µg/mL
magnesium (Mg)	1 µg/mL
manganese (Mn)	1 µg/mL
mercury (Hg)	5 µg/mL
nickel (Ni)	5 µg/mL
phosphorus (P)	10 µg/mL
potassium (K)	100 µg/mL
scandium (Sc)	1 µg/mL
selenium (Se)	20 µg/mL
sodium (Na)	20 µg/mL
strontium (Sr)	1 µg/mL
tellurium (Te)	20 µg/mL
titanium (Ti)	2 µg/mL
yttrium (Y)	1 µg/mL
zinc (Zn)	2 µg/mL

in 5% HNO_3 with trace HF

ICM-110-5 **500 mL** ***

ICP Tuning Standard (XXIV)

15 Analytes

aluminum (Al)	50 µg/mL
arsenic (As)	50 µg/mL
barium (Ba)	50 µg/mL
cadmium (Cd)	50 µg/mL
chromium (Cr)	50 µg/mL
cobalt (Co)	50 µg/mL
copper (Cu)	50 µg/mL
lead (Pb)	50 µg/mL
manganese (Mn)	50 µg/mL
molybdenum (Mo)	50 µg/mL
nickel (Ni)	50 µg/mL
potassium (K)	500 µg/mL
selenium (Se)	50 µg/mL
strontium (Sr)	50 µg/mL
zinc (Zn)	50 µg/mL

in 1% HNO_3

ICM-120-5 **500 mL** ***

ICP Wavelength Calibration Standard (XIV)

11 Analytes

arsenic (As)	20 µg/mL
lanthanum (La)	20 µg/mL
lithium (Li)	20 µg/mL
manganese (Mn)	20 µg/mL
molybdenum (Mo)	20 µg/mL
nickel (Ni)	20 µg/mL
phosphorus (P)	100 µg/mL
potassium (K)	100 µg/mL
scandium (Sc)	20 µg/mL
sodium (Na)	20 µg/mL
sulfur (S)	100 µg/mL

in 2% HCl with trace HNO_3

ICM-111-5 **500 mL** ***

IC Cations Mixture (VII)

9 Analytes

ammonium (NH_4^+)	100 µg/mL
barium (Ba^{+2})	100 µg/mL
calcium (Ca^{+2})	100 µg/mL
lithium (Li^+)	100 µg/mL
magnesium (Mg^{+2})	100 µg/mL
manganese (Mn)	100 µg/mL
potassium (K^+)	100 µg/mL
sodium (Na^+)	100 µg/mL
strontium (Sr^{+2})	100 µg/mL

in 0.2% HNO_3

ICC-330 **125 mL** ***

Graphite Furnace AA Calibration Standard (XVIII)

16 Analytes

aluminum (Al)	100 µg/mL
antimony (Sb)	100 µg/mL
arsenic (As)	100 µg/mL
barium (Ba)	50 µg/mL
beryllium (Be)	5 µg/mL
cadmium (Cd)	5 µg/mL
chromium (Cr)	20 µg/mL
cobalt (Co)	50 µg/mL
copper (Cu)	50 µg/mL
iron (Fe)	20 µg/mL
lead (Pb)	100 µg/mL
manganese (Mn)	20 µg/mL
nickel (Ni)	50 µg/mL
selenium (Se)	100 µg/mL
silver (Ag)	10 µg/mL
thallium (Tl)	100 µg/mL

in 5% HNO_3 with trace tartaric

ICM-150 **125 mL** ***

ICP-MS Standards

- ✔ NIST traceable
- ✔ ULTRAgrade® certificate of analysis

ULTRAgrade®

- ✔ Starting materials are 99.999% pure, wherever possible
- ✔ REACH Compliant Labeling and SDS

ICP-MS Calibration Standard (XXI)

29 Analytes

aluminum (Al)	10 µg/mL
arsenic (As)	10 µg/mL
barium (Ba)	10 µg/mL
beryllium (Be)	10 µg/mL
bismuth (Bi)	10 µg/mL
cadmium (Cd)	10 µg/mL
calcium (Ca)	10 µg/mL
cesium (Cs)	10 µg/mL
chromium (Cr)	10 µg/mL
cobalt (Co)	10 µg/mL
copper (Cu)	10 µg/mL
gallium (Ga)	10 µg/mL
indium (In)	10 µg/mL
iron (Fe)	10 µg/mL
lead (Pb)	10 µg/mL
lithium (Li)	10 µg/mL
magnesium (Mg)	10 µg/mL
manganese(Mn)	10 µg/mL
nickel (Ni)	10 µg/mL
potassium (K)	10 µg/mL
rubidium (Rb)	10 µg/mL
selenium (Se)	10 µg/mL
silver (Ag)	10 µg/mL
sodium (Na)	10 µg/mL
strontium (Sr)	10 µg/mL
thallium (Tl)	10 µg/mL
uranium (U)	10 µg/mL
vanadium (V)	10 µg/mL
zinc (Zn)	10 µg/mL

in 5% HNO_3

IMS-102 **125 mL** ***

ICP-MS Calibration Standard (VI)

30 Analytes

aluminum (Al)	10 µg/mL
arsenic (As)	100 µg/mL
barium (Ba)	10 µg/mL
beryllium (Be)	100 µg/mL
bismuth (Bi)	10 µg/mL
boron (B)	100 µg/mL
cadmium (Cd)	10 µg/mL
calcium (Ca)	1000 µg/mL
chromium (Cr)	10 µg/mL
cobalt (Co)	10 µg/mL
copper (Cu)	10 µg/mL
gallium (Ga)	10 µg/mL
iron (Fe)	100 µg/mL
lead (Pb)	10 µg/mL
lithium (Li)	10 µg/mL
magnesium (Mg)	10 µg/mL
manganese (Mn)	10 µg/mL
molybdenum (Mo)	10 µg/mL
nickel (Ni)	10 µg/mL
potassium (K)	10 µg/mL
rubidium (Rb)	10 µg/mL
selenium (Se)	100 µg/mL
silver (Ag)	10 µg/mL
sodium (Na)	10 µg/mL
strontium (Sr)	10 µg/mL
tellurium (Te)	10 µg/mL
thallium (Tl)	10 µg/mL
uranium (U)	10 µg/mL
vanadium (V)	10 µg/mL
zinc (Zn)	100 µg/mL

in 5% HNO_3 with trace HF

IMS-120 **125 mL** ***

ICP-MS Mass Calibration Standard (XXIII)

15 Analytes

barium (Ba)	1 ng/mL
boron (B)	1 ng/mL
cobalt (Co)	1 ng/mL
gallium (Ga)	1 ng/mL
indium (In)	1 ng/mL
iron (Fe)	1 ng/mL
lithium (Li)	1 ng/mL
lutetium (Lu)	1 ng/mL
potassium (K)	1 ng/mL
rhodium (Rh)	1 ng/mL
scandium (Sc)	1 ng/mL
sodium (Na)	1 ng/mL
thallium (Tl)	1 ng/mL
uranium (U)	1 ng/mL
yttrium (Y)	1 ng/mL

in 5% HNO_3 with trace HCl

IMS-130-5 **500 mL** ***

ICP-MS Plasma Setup Solution (XX)

11 Analytes

barium (Ba)	10 ng/mL
cerium (Ce)	10 ng/mL
cadmium (Cd)	10 ng/mL
copper (Cu)	10 ng/mL
germanium (Ge)	10 ng/mL
magnesium (Mg)	10 ng/mL
lead (Pb)	10 ng/mL
rhodium (Rh)	10 ng/mL
scandium (Sc)	10 ng/mL
terbium (Tb)	10 ng/mL
thallium (Tl)	10 ng/mL

in 1% HNO_3 with trace HF

IMS-133-L **1 L** ***

Mercury ICP-MS Standard (XXI)

mercury (Hg)

@ 10 µg/mL in 5% HNO_3

IMS-121 **125 mL** ***

ICP-MS Optimization Standard (XXII)

5 Analytes

cadmium (Cd)	200 ng/mL
copper (Cu)	200 ng/mL
lead (Pb)	200 ng/mL
magnesium (Mg)	200 ng/mL
rhodium (Rh)	200 ng/mL

in 2% HNO_3 with trace HCl

IMS-131 **125 mL** ***

ICP-MS Detection Limit Standard (XIX)

5 Analytes

beryllium (Be)	10 ng/mL
cobalt (Co)	10 ng/mL
indium (In)	10 ng/mL
thallium (Tl)	10 ng/mL
uranium (U)	10 ng/mL

in 1% HNO_3

IMS-132 **125 mL** ***

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