

Agilent 5000 Series ICP-OES

5800/5900 and 5100/5110 ICP-OES supplies

Agilent Technologies is committed to optimizing your laboratory's productivity, so we have produced this list of the most commonly ordered supplies and parts for the Agilent 5800/5900 and 5100/5110 SVDV/VDV and RV ICP-OES systems. Keep this list handy so you can quickly find the supplies you need and minimize instrument downtime.



Nebulizers and Supplies	Part Number
Concentric glass nebulizer, SeaSpray U Series with EzyLok, standard for 5000 series	G8010-60255
Concentric glass nebulizer, Conikal U Series with EzyLok, recommended for organics	G8010-60270
OneNeb Series 2 inert concentric nebulizer; suitable for most sample types including organic solvents, HF acid digests, and high TDS samples	G8010-60293
V-groove, inert, high TDS nebulizer for challenging matrices including organic solvents, HF acid digests & samples with high TDS (up to 30%) and/or large particulates (up to 350µm)	G8020-69001
Sample inlet fitting for OneNeb Series 2 nebulizer; includes capillary connector with captive sample capillary tubing 0.5 mm id, 1/16 inch od, 750 mm long	G8010-60345
Cleaning tool for concentric nebulizer	G3266-80020
Sample inlet (UniFit) fitting for concentric glass nebulizer 0.75 mm id x 700 mm L, 10/pk	G8010-80035
Sample inlet (UniFit) fitting for concentric glass nebulizer 0.5 mm id x 700 mm L, 10/pk	G3266-80012
Gas inlet connector (EzyLok) for concentric nebulizer, 1/pk	G3266-80015
PFA tubing, nebulizer gas supply, per m	0890-2603
Cleaning wire for V-Groove inert high TDS nebulizer gas orifice, 0.3m, 3/pk	5005-0451
Sample inlet fitting for V-groove nebulizer, 1/pk	5005-0447
Gas inlet fitting for V-groove nebulizer, 1/pk	5005-0446

Pump and Connecting Tubing	Part Number
Peristaltic pump tubing, PVC, white/white, 12/pk	3710034400
Peristaltic pump tubing, PVC, blue/blue, 12/pk	3710034600
Peristaltic pump tubing, PVC, black/black, 12/pk	3710027200
Peristaltic pump tubing, PVC, orange/white, 12/pk	3710046900
Y piece connector for online addition of internal standard or ionization buffer	1610132400
Barb connector, 1/16" to 1/8", connects peristaltic pump tube for waste to drain tubing	1610088600
Tubing, waste line from peristaltic pump tube, per m	3710024600
Tubing, waste line from spill tray, per m	3710033400
Nebulizer capillary tubing, per m	2410020500

Spray Chambers	Part Number
Spray chamber, double pass glass cyclonic, standard for 5000 series	G8010-60256
Spray chamber, single pass glass cyclonic	G8010-60271
Inert spray chamber for HF digests with removable baffle	G8014-68002
Drain connector for spray chamber waste (UniFit) 0.86 mm id x 2.0 mm od x 480 mm L, 3/pk	G8010-80036
Seal for spray chamber nebulizer fitting (Helix), 4/pk	G8010-80042
Locking screw for s/chamber neb. fitting (Helix)	G8010-80043
Nebulizer locking nut for inert spray chamber	G8003-60019
Removable baffle for inert spray chamber	G8014-20002
Inert spray chamber O-ring kit, 3/pk	G8014-68005
Inert spray chamber drain fitting; male Luer slip fitting with 10-32 thread	G8014-68007

Safe storage of solutions	Part Number
Waste container kit, 10L with Stay Safe cap and filter, 1/pk	5005-0437
Diluent / Carrier bottle kit for ADS 2 or Autosampler rinse, 6L HDPE with Stay Safe cap and venting valve, 1/pk	5005-0435
Advanced Valve System (AVS) Supplies	Part Number
Miscellaneous AVS supplies	
Rinse (20 L) and waste (10 L) containers for AVS 6/7 (1 each)	G8494-60005
Internal standard container (5 L) kit for AVS 7, 1/pk	G8495-60005
Reagent uptake capillary tube, 1.6 mm od x 1.0 mm id x 1400 mm long, with heavy PTFE sinker, 1/pk	G8494-60007
Check valve outlet for AVS switching valve, nonmetallic, 1/pk	G8010-60300
Mounting clamp for AVS 4/6/7 switching valve, 1/pk	G8494-60004
Tubing kits for AVS	
Sample inlet connection kit for AVS switching valve, 1/pk	G8010-60303
Nebulizer connection kit for AVS switching valve, for concentric nebulizers with a UniFit sample connector, 1/pk	G8010-60304
Autosampler connection kit for AVS switching valve, 1/pk	G8010-60306
V-groove nebulizer connection kit for AVS switching valve, 1/pk.	5005-0445
Internal standard connection kit for AVS 7 switching valve, 1/pk	G8010-60307
Pump outlet connection kit for AVS switching valve, 1/pk	G8010-60308
Nebulizer adapter kit for AVS switching valve, 1/pk	G8010-60333
Waste tube kit for 4 port AVS switching valve, 1/pk	G8010-60334
Sample/rinse connection kit for AVS switching valve, 2/pk	G8010-60335
Autosampler peristaltic pump connection kit, 1/pk; allows bypass of the switching valve when required (e.g., for wavelength calibration)	G8010-60348
AVS/ADS sample loops	
AVS/ADS sample loop, 1.0 mL volume, 1/pk (standard loop supplied with the AVS)	5005-0423
AVS/ADS sample loop, 0.25 mL volume, 1/pk	5005-0420
AVS/ADS sample loop, 0.5 mL volume, 1/pk	5005-0421
AVS/ADS sample loop, 0.75 mL volume, 1/pk	5005-0422
AVS/ADS sample loop, 1.25 mL volume, 1/pk	5005-0424
AVS/ADS sample loop, 1.5 mL volume, 1/pk	5005-0425
AVS/ADS sample loop, 2.0 mL volume, 1/pk	5005-0426
AVS/ADS sample loop, 2.5 mL volume, 1/pk	5005-0427
AVS/ADS sample loop, 3.0 mL volume, 1/pk	5005-0449
AVS/ADS sample loop, 3.5 mL volume, 1/pk	5005-0450
AVS 7/6/4 valve supplies	
Spare valve, 7 port, 2 position for AVS 7 switching valve, 1/pk	G8495-60000
Stator and rotor for 7 port AVS 7 switching valve, 1/pk	G8495-60003
Rotor seal for 6-7 port valve used with AVS 6/7 switching valve, 1/pk	G8494-60002
Spare valve, 6 port, 2 position for AVS 6 switching valve, 1/pk	G8494-60000
Stator and rotor for 6 port AVS 6 switching valve, 1/pk	G8494-60003
Spare valve, 4 port, 2 position for AVS 4 switching valve, 1/pk	G8493-60000
Stator and rotor for 4 port AVS 4 switching valve, 1/pk	G8493-60003
Rotor seal for 4 port AVS 4 switching valve, 1/pk	G8493-60002

Torches and Supplies	Part Number
SVDV/VDV torches for use in both axial and radial views	
Easy-fit torch, one piece with 1.8 mm id injector and an extended outer tube with slot, standard for SVDV/VDV models	G8010-60228
Easy-fit torch, semi demountable with 1.8 mm id injector, an extended outer tube with slot, and replaceable inner/outer tube-set	G8010-60236
Easy-fit torch, semi demountable, high solids, with 2.4 mm id injector, an extended outer tube with slot, and replaceable inner/outer tube-set	G8010-60232
Easy-fit torch, inert, semi demountable for HF digests, with 1.8 mm id ceramic injector, an extended outer tube with slot, and replaceable inner/outer tube-set	G8010-60231
Fully demountable torches for use in both axial and radial views	
Easy-fit torch, fully demountable, volatile organics, with 0.8 mm id injector; includes a replaceable extended (high purity quartz) outer tube for organic applications with slot for radial viewing	G8020-68001
Easy-fit torch, fully demountable, semivolatile organics, with 1.4 mm id injector; includes a replaceable extended (high purity quartz) outer tube for organic applications with slot for radial viewing	G8020-68002
Easy-fit inert torch, fully demountable, for HF digests, with 1.8 mm id alumina (inert) injector; includes a replaceable extended (standard) outer tube with slot for radial viewing, plus a spare outer tube	G8020-68003
Easy-fit torch, fully demountable, high solids, with 2.4 mm id injector; includes a replaceable extended (standard) outer tube with slot for radial viewing, plus a spare outer tube	G8020-68004
Easy-fit torch, fully demountable with 1.8 mm id injector; includes a replaceable extended (standard) outer tube with slot for radial viewing, plus a spare outer tube	G8020-68005
Easy-fit inert torch, fully demountable for semi-volatile organics, HF digests or Lithium-ion battery materials, with 1.4 mm id alumina (inert) injector; includes a replaceable extended (high purity quartz) outer tube-set for organic applications with slot for radial viewing.	G8020-68020
Easy-fit inert torch, fully demountable, high solids, with 2.4 mm id alumina (inert) injector; includes a replaceable extended (standard) outer tube with slot for radial viewing, plus a spare outer tube.	G8020-68022
RV torches for dedicated radial viewing	
Easy-fit torch, one piece with 1.4 mm id injector; has a shorter length outer tube (no slot), standard for RV models	G8012-60000
Easy-fit torch, inert, semi demountable for HF digests, with 1.8 mm id ceramic injector, shorter outer tube (no slot), and replaceable inner/outer tube-set	G8010-60234
Easy-fit torch, semi demountable with 1.4 mm id injector; has a shorter length outer tube (no slot) and replaceable inner/outer tube-set	G8010-60237
Outer tube-sets for semi and fully demountable torches Includes intermediate tube (integrated into assembly) with top seal	
Outer tube-set, DV configuration, for use with aqueous/acidic digests	G8010-60263
Outer tube-set, RV configuration, for use with aqueous/acidic digests	G8010-60264
Organics outer tube-set, DV configuration, for use with organic solvents	G8014-60022
Organics outer tube-set, RV configuration, for use with organic solvents	G8016-60000

Torches and Supplies	Part Number
Quartz injectors	
Replacement 0.8 mm id tapered quartz injector	G8020-60805
Replacement 1.4 mm id tapered quartz injector	G8020-60806
Replacement 1.8 mm id tapered quartz injector	G8020-60807
Replacement 2.4 mm id tapered quartz injector	G8020-60808
Alumina (inert) injectors for fully demountable torches	
Replacement 0.8mm id alumina injector	G8020-47002
Replacement 1.4mm id alumina injector	G8020-47003
Replacement 1.8mm id alumina injector	G8020-47005
Replacement 2.4mm id alumina injector	G8020-47004
Miscellaneous torch supplies	
Torch clamp, to clamp the spray chamber to the ball joint on the torch (not suitable for inert torch)	G8000-64140
Torch clamp for inert, semi and fully demountable torches; clamps the inert spray chamber to the base of the inert torch (not suitable for standard torch)	G8010-60227
Torch cleaning stand for 5000 Series torches; designed to make the torch cleaning process easier and safer, also prevents damage to the torch	G8010-68021
Storage rack for 5000 Series torches; holds up to 5 torches, multiple racks can be stacked on top of each other if required	G8010-67000
Top seal for 5000 Series semi and fully demountable torches, 3/pk	G8014-60023
Injector locking nut for fully demountable torch for 5000 Series ICP-OES	G8020-60810

Operating Supplies Kits	Part Number
Includes supplies required to support up to 12 months routine operation; extra supplies may be required for labs with high workload or high matrix samples	
Operating supplies kit for 5000 Series DV ICP-OES	G8010-67001
Operating supplies kit for 5000 Series RV ICP-OES	G8012-67001
Each kit includes:	
– Semi demountable torch – 2 quartz outer tube-sets – 4 pks sample + waste peristaltic pump tubing – Internal standard pump tubing and connectors – SeaSpray nebulizer (U series) – UniFit connectors (0.75 mm id) for nebulizer – EzyLok gas connector – Double-pass glass cyclonic spray chamber – UniFit connectors for spray chamber drain – Spare clamp for the ball joint – Replacement pre-optic window (DV kit includes supplies for both radial and axial windows) – Barb connectors for waste line – Nebulizer capillary tubing – PFA tubing for nebulizer gas supply – Drain tubing for waste liquid from spray chamber – Drain tubing for sample tray and seal for spray chamber nebulizer fitting (Helix)	

Application Kits	Part Number
High TDS inert sample introductory kit	
Kit includes:	
– Inert double-pass spray chamber with ball joint socket – V-groove, inert, high TDS nebulizer fully-demountable, inert Easy-fit torch with alumina (inert) injector (2.4 mm id) – Solvaflex peristaltic pump tubes for sample (grey/grey tabs) and waste (blue/blue tabs)	
High TDS inert sample introduction kit for SVDV/VDV	G8020-68023
Inert sample introduction kit for HF digests	
Kit includes:	
– Inert double-pass spray chamber with ball joint socket – OneNeb Series 2 nebulizer – Semi demountable, inert Easy-fit torch with ceramic injector (1.8 mm id) – Torch clamp for inert torch – Solvaflex peristaltic pump tubes for sample (black/black tabs) and waste (gray/gray tabs)	
Inert sample introduction kit for SVDV/VDV	G8010-68007
Inert sample introduction kit for RV	G8010-68006
Ketone-based organics sample introduction kit	
Kit includes:	
– Double-pass glass cyclonic spray chamber with ball joint socket – Conikal nebulizer – Fully demountable, Easy-fit torch with 1.4 mm id injector – Solvent resistant drain tubing – Marprene peristaltic pump tubes for sample (white/white tabs) and waste (blue/blue tabs)	
Ketone-based organics sample introduction kit for SVDV/VDV	G8010-68009
Ketone-based organics sample introduction kit for RV	G8010-68008
Volatile organics sample introduction kit	
Kit includes:	
– Conikal nebulizer – Fully demountable, Easy-fit torch with 0.8 mm id injector – Solvent resistant drain tubing – Viton peristaltic pump tubes for sample (white/white tabs) and waste (blue/blue tabs)	
NOTE: Requires but does NOT include the IsoMist peltier cooled spray chamber	
Volatile organics sample introduction kit for SVDV/VDV	G8010-68005
Volatile organics sample introduction kit for RV	G8010-68004
Semivolatile organics sample introduction kit	
Kit includes:	
– Double-pass glass cyclonic spray chamber with ball joint socket – Conikal nebulizer – Fully demountable, Easy-fit torch with 1.4 mm id injector – Solvent resistant drain tubing – PVC Solvaflex peristaltic pump tubes for sample (black/black tabs) and waste (gray/gray tabs)	
Semivolatile organics sample introduction kit for SVDV/VDV	G8010-68029
Semivolatile organics sample introduction kit for RV	G8010-68030

Miscellaneous Supplies	Part Number
Tubing clamp for sample tray Secures the drain tubing to the sample tray	G8010-40026
Argon gas inlet filter Requires annual replacement (customer-replaceable unit)	G8010-60136
Replacement filter element for cooling air inlet Suits the dusty environment air inlet filter option for 5100 and 5110	G8010-60189
Replacement air filter element for 5800/5900 ICP-OES	G8020-68016
Quartz window for the axial view pre-optic window	G8010-68014
O-ring for the axial view pre-optic window	G8010-68018
Pre-optics cone for the axial view pre-optic window	G8010-68109
Estele powder for cleaning pre-optics cone	8110002800
Quartz window for the radial view pre-optic window	G8010-68015
Argon humidifier accessory Used to humidify the nebulizer gas for samples >3% TDS Includes: – 2 x 0.6 m 4 mm od gas lines – Fitting plate and bracket – Installation instructions	G8010-60346

SPS 4 Autosampler Supplies	Part Number
SPS 4 autosampler options	
High uptake volume rinse kit for SPS 4, recommended for use when connected to switching valves; allows rinse uptake rate to be increased to 25 mL/min	G8410-68260
SPS 4 rinse tube kit, for low volatile organics; allows use of low volatile organic solvents in rinse station	G8410-68261
Pump drain kit for SPS 4 autosampler, 1/pk Provides the components required to allow the liquid overflow to be pumped from the rinse station	G8410-68262
Spare probes	
SPS 4 probe 0.8 mm id, green marker, inert, FEP sleeved, 1/pk (standard probe for ICP-OES)	G8410-80102
SPS 4 probe 1.0 mm id, blue marker, inert, FEP sleeved, 1/pk	G8410-80103
SPS 4 probe 1.2 mm id, black marker, inert, FEP sleeved, 1/pk (required for viscous, high matrix, and high TDS samples)	G8410-80104
Peristaltic pump tubing for the rinse pump	
Peristaltic pump tubing, PVC Solvaflex, 3 bridged, gray/gray tabs tabs, 12 tubes/pk (standard tubing for the rinse pump, for use with aqueous or low volatile organic solvents)	3710049000
Peristaltic pump tubing, Santoprene, 3 bridged, gray/gray tabs, 12 tubes/pk (for use with ketone-based solvents)	3710057500
Peristaltic pump tubing, Viton, 3 bridged, black/black tabs with flared ends, 12 tubes/pk (for use with aromatic organic solvents)	3710069100
Racks and tubes	
Standards rack 34 position (1/pk); provides 12 places for 50 mL 30 mm od centrifuge tubes and 22 places for 18 mm od test tubes (standard configuration for ICP-OES)	G8410-40000
Sample rack for 13 mm od tubes, 90 positions (1/pk)	6610026400
Sample rack for 16 mm od tubes, 60 positions (1/pk)	6610025400
Sample rack for 20 mm od tubes, 40 positions (1/pk)	6610025500
Sample rack for 25 mm od tubes, 24 positions (1/pk)	6610026500
Sample rack for 30 mm od tubes (50 mL centrifuge tubes), 21 positions (1/pk)	6610026600
Rack overlay for 60-position sample rack (1/pk, recommend 2 per rack); allows 13 mm and some 16 mm od tubes to be used in 60-position rack	6610026100
Rack overlay for 40-position sample rack (1/pk, recommend 2 per rack); allows 18 mm od tubes to be used in 40-position rack	6610026000
Centrifuge tubes skirted polypropylene, 50 mL (500/pk) screw-capped, 29 mm od	190065200
Polypropylene tubes, 17 mm x 130 mm (1,000/pk)	00000001600L

Advanced Dilution System (ADS 2) Supplies	Part Number
Tubing Kits for ADS 2	
ADS 2 tubing kit, Valve C set-up, 2/pk	5005-0106
ADS 2 tubing kit, Valve B set-up, 4/pk	5005-0102
ADS 2 tubing kit, Valve A-Valve C, 1/pk	5005-0103
ADS 2 tubing kit, Carrier/Diluent, 2/pk	5005-0105
ADS 2 tubing kit, Valve A-AVS Valve, 1/pk	G8457-68004
Syringes for ADS 2	
Syringe, 5mL, for ADS 2 carrier on ICP-OES	5299-0037
Syringe, 10mL, for ADS 2 diluent on ICP-OES	5299-0038
Sample Loops for ADS 2	
AVS/ADS sample loop, 0.5 mL volume, 1/pk	5005-0421
AVS/ADS sample loop, 0.75 mL volume, 1/pk	5005-0422
AVS/ADS sample loop, 1.0 mL volume, 1/pk	5005-0423
AVS/ADS sample loop, 1.25 mL volume, 1/pk	5005-0424
AVS/ADS sample loop, 1.5 mL volume, 1/pk	5005-0425
AVS/ADS sample loop, 2.0 mL volume, 1/pk	5005-0426
AVS/ADS sample loop, 2.5 mL volume, 1/pk (standard loop supplied with the ADS 2)	5005-0427
AVS/ADS sample loop, 3.0 mL volume, 1/pk	5005-0449
ADS 2 valve supplies	
Spare valve, 7 port, 2 position for AVS 7 switching valve, 1/pk	G8495-60000
Stator and rotor for 7 port AVS 7 switching valve, 1/pk	G8495-60003
Rotor seal for 6-7 port valve used with AVS 6/7 switching valve, 1/pk	G8494-60002
Bottle Kits and filters	
Waste container kit, 10L with Stay Safe cap and filter, 1/pk	5005-0437
Replacement Stay Safe charcoal filter with 6-month time strip, for waste container kit, 1/pk	5043-1193
Diluent/Carrier bottle kit for ADS 2 or Autosampler rinse, 6L HDPE with Stay Safe cap and venting valve, 1/pk	5005-0435
Replacement Stay Safe venting valve with 6-month time strip, for rinse bottle kit, 1/pk	5005-1190

ADS 2 Supplies Kit	Part Number
ADS 2 tubing kit for ICP-OES	
Includes:	
– Valve C set-up	
– Valve B set-up	
– Valve A-Valve C	
– Carrier/Diluent	
– Valve A-AVS Valve	
	5005-0474
ADS 2 supplies kit for ICP-OES	
Includes:	
– Carrier syringe	
– Diluent syringe	
– Replacement tubing kits, as per 5005-0474	
– 3 valve rotors seals	
– 2 Stay safe charcoal filter	
– 4 Stay safe venting valves	
	5005-0476

MSIS Supplies	Part Number
Reagent pump tubing, PVC, black/black, 12/pk	3710027200
Waste pump tubing, PVC, black/white 12/pk	3710068900
MSIS nebulizer bushing (with O-rings)	G8479-20020
O-rings for MSIS nebulizer bushing, 1 pair	
Includes 1 pair of replacement O-rings for the nebulizer bushing (1 internal and 1 external O-ring)	G8479-67000
MSIS drain tube assembly, 1/pk	
Includes:	
– 0.2 m length of 1/8 inch id drain tubing with bushing for waste outlet	
– Barb adapter	
– Single peristaltic pump tube, 2 bridged PVC with black/white tabs	
	G8479-60100
MSIS reaction cone assembly, 1/pk	
Includes:	
– Reaction cone	
– Bushing	
– Threaded barb adapter	
– Tubing connector for sample inlet	
	G8479-60300
MSIS reagent tubing kit	
Includes:	
– O-rings for nebulizer bushing (1 pair)	
– Tubing connectors for reagent/sample inlets	
– Capillary tubing 0.01 inch id x 0.03 inch od to join to peristaltic pump tubing for reductant inlet	
	G8479-68100

VGA 77 Supplies	Part Number
Sodium tetrahydroborate reagent, 500 g	8210029100
Reagent pump tubing, black/black, 12/pk	3710027200
Sample pump tubing, purple/black, 12/pk	3710027300
Tubing and connector kit	9910061900
ICP-OES hydride module (recommended to dedicate a module to Hg determinations)	9910062200
Gas-liquid separator	9910062000
Pump tube beds kit	9910050700

Single Element ICP Standards	Part Number
Supplied in 100 mL bottles, concentration 10,000 ppm (1%) in 5% nitric acid (unless indicated otherwise), 1 mL of solution contains 10 mg of metal	
Aluminum ICP standard	5190-8352
Antimony ICP standard in 1% HNO ₃ , 1% tartaric acid	5190-8354
Arsenic ICP standard	5190-8356
Barium ICP standard	5190-8358
Beryllium ICP standard	5190-8360
Bismuth ICP standard	5190-8362
Boron ICP standard in 1% NH ₄ OH	5190-8364
Cadmium ICP standard	5190-8366
Calcium ICP standard	5190-8368
Cerium ICP standard	5190-8370
Cesium ICP standard	5190-8372
Chromium ICP standard	5190-8374
Cobalt ICP standard	5190-8376
Copper ICP standard	5190-8378
Dysprosium ICP standard (500 mL)	5190-8381
Europium ICP standard (500 mL)	5190-8385
Gadolinium ICP standard	5190-8386
Gallium ICP standard in 5% HNO ₃ , 0.5% HCl	5190-8388
Germanium ICP standard in 5% HNO ₃ , trace HF	5190-8390
Gold ICP standard in 20% HCl	5190-8392
Hafnium ICP standard in 5% HCl	5190-8394
Holmium ICP standard (1,000 ppm)	5190-8465
Indium ICP standard	5190-8398
Iridium ICP standard in 20% HCl	5190-8400
Iron ICP standard	5190-8402
Lanthanum ICP standard	5190-8404
Lead ICP standard	5190-8406
Lithium ICP standard	5190-8408
Lutetium ICP standard	5190-8410
Magnesium ICP standard	5190-8412
Manganese ICP standard	5190-8414
Mercury ICP standard	5190-8416
Molybdenum ICP standard in 1% NH ₄ OH	5190-8418
Neodymium ICP standard (500 mL)	5190-8421
Nickel ICP standard	5190-8422
Niobium ICP standard in 2% HF	5190-8424
Palladium ICP standard in 10% HNO ₃	5190-8426
Phosphorus ICP standard	5190-8428
Platinum ICP standard in 20% HCl	5190-8430
Potassium ICP standard	5190-8432

Single Element ICP Standards	Part Number
Praseodymium ICP standard (1,000 ppm)	5190-8505
Rhenium ICP standard (1,000 ppm)	5190-8507
Rhodium ICP standard in 20% HCl (1,000 ppm)	5190-8509
Rubidium ICP standard	5190-8440
Ruthenium ICP standard in 20% HCl	5190-8442
Samarium ICP standard (1,000 ppm)	5190-8515
Scandium ICP standard	5190-8446
Selenium ICP standard	5190-8448
Silicon ICP standard in H ₂ O	5190-8450
Silver ICP standard	5190-8452
Sodium ICP standard	5190-8454
Strontium ICP standard	5190-8207
Sulfur ICP standard in H ₂ O	5190-8209
Tantalum ICP standard in 2% HF (500 mL)	5190-8212
Tellurium ICP standard in 30% HCl	5190-8213
Terbium ICP standard (500 mL)	5190-8216
Thallium ICP standard	5190-8217
Thulium ICP standard (1,000 ppm)	5190-8541
Tin ICP standard in 20% HCl	5190-8221
Titanium ICP standard in H ₂ O	5190-8224
Tungsten ICP standard in 5% HNO ₃ , trace HF	5190-8226
Vanadium ICP standard	5190-8228
Ytterbium ICP standard (500 mL)	5190-8231
Yttrium ICP standard	5190-8232
Zinc ICP standard	5190-8234
Zirconium ICP standard	5190-8236

USP <232> Standards	Part Number
Parenterals version	
ICH/USP <232> parenteral kit, 4 x 100 mL	5191-4536
ICH/USP <232> class 1 and 2 parenteral elements, 100 mL	5191-4533
ICH/USP <232> parenteral combined 1, 100 mL	5191-4534
ICH/USP <232> parenteral combined 2, 100 mL	5191-4535
ICH/USP <232> pharma internal standard 1, 100 mL	5190-9770
Orals version	
ICH/USP <232> orals kit, 5 x 100 mL	5190-9771
ICH/USP target elements standard A, 100 mL	5190-9766
ICH/USP target elements standard B, 100 mL	5190-9767
ICH/USP target elements standard C, 100 mL	5190-9768
ICH/USP target elements standard D, 100 mL	5190-9769
ICH/USP <232> pharma internal standard 1, 100 mL	5190-9770

Multi-Element Calibration Standards	Part Number
Calibration mix 1, 125 mL Contains 100 mg/L Sb, Mo, Sn, and Tl in 2% HNO ₃ + 0.5% HF	6610030500
Calibration mix 2, 125 mL Contains 100 mg/L Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Se, Ti, Th, U, V, and Zn in 5% HNO ₃	6610030600
Calibration mix majors, 125 mL Contains 500 mg/L Ca, Fe, K, Mg, and Na in 5% HNO ₃	6610030700
IntelliQuant calibration solutions	
IntelliQuant calibration kit Used to update the presupplied IntelliQuant calibration to achieve a greater level of accuracy for semiquantitative analysis. Includes: multi-element standards No. 1 to 7 plus a 5% HNO ₃ blank.	5191-3932
IntelliQuant multi-element standard No. 1 (Ready to use) 100 mg/L of As, Cr, Er, Pb, Lu, Mn, P, Rb, Sc, Ag, Tm, Y & Yb in 5% HNO ₃ (100 mL)	5191-3933
IntelliQuant multi-element standard No. 2 (Ready to use) 100 mg/L of Ce, Eu, Gd, Ho, La, Ni, S & Te in 5% HNO ₃ (100 mL)	5191-3934
IntelliQuant multi-element standard No. 3 (Ready to use) 100 mg/L Co, Dy, Re, Sm, Th & V in 5% HNO ₃ (100 mL)	5191-3935
IntelliQuant multi-element standard No. 4 (Ready to use) 100 mg/L of B, Ba, Be, Bi, Ca, Cd, Cs, Cu, Ga, Hg, In, K, Li, Mg, Na, Se, Sr, Ti & Zn in 5% HNO ₃ (100 mL)	5191-3936
IntelliQuant multi-element standard No. 5 (Ready to use) 100 mg/L of Al, Fe, Mo, Nd, Pr, Tb & U in 5% HNO ₃ (100 mL)	5191-3937
IntelliQuant multi-element standard No. 6 (Ready to use) 100 mg/L of Sb, Ge, Hf, Nb, Si, Sn, Ta, Ti, W & Zr in 5% HNO ₃ + trace HF (100 mL)	5191-3938
IntelliQuant multi-element standard No. 7 (Ready to use) 100 mg/L of Au, Ir, Os, Pd, Pt, Rh & Ru in 10% HCl (100 mL)	5191-3939
Calibration blank solution for ICP-OES (Ready to use) Pure ASTM Type 1A water in 5% HNO ₃ (500 mL)	5190-7001
Wavelength Calibration Solutions	
ICP-OES wavelength calibration concentrate, 500 mL Contains 50 mg/L Al, As, Ba, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Se, Sr, Zn and 500 mg/L K in 5% HNO ₃ (Dilute 10x before use)	6610030000
ICP-OES wavelength calibration solution, 500 mL Contains 5 mg/L Al, As, Ba, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Se, Sr, Zn and 50 mg/L K in 5% HNO ₃ (Ready to use)	6610030100
ICP-OES calibration blank solution, 500 mL Pure ASTM Type 1A water in 5% HNO ₃ (For use as a calibration blank or diluent for the wavelength calibration concentrate)	5190-7001

Internal Standard/Ionization Suppressant	Part Number
Cesium nitrate buffer solution, 1% 10,000 ppm Cs in 5% nitric acid, 500 mL bottle	5190-8343
Cesium buffer solution, 10% 100,000 ppm Cs in 5% nitric acid, 500 mL bottle	5190-9421
Yttrium solution, 1% 10,000 ppm Y in 5% nitric acid, 500 mL bottle; also used for instrument optimization	5190-8233
ICP internal standard, 125 mL bottle 100 mg/L ⁶ Li, Sc, Y, In, Tb, Bi in 5% nitric acid	6610030400

Environmental Standards	Part Number
INTF-A quality control standard Interference check standard for preparation of US EPA CLP standards ICSA and ICSAB (contains Al, Ca, Mg at 5000 ppm, Fe at 2000 ppm in 20% HCl, 500 mL)	5190-8599
ICV quality control standard in 5% HNO ₃ with trace tartaric acid, 500 mL Initial/continuing calibration verification standard for US EPA CLP analyses (contains Ca, Mg, K, Na at 500 ppm; Al, Ba at 200 ppm; Fe at 100 ppm; Sb at 60 ppm; Co, V at 50 ppm; Ni at 40 ppm; Cu at 25 ppm; Zn at 20 ppm; Mn at 15 ppm; As, Cr, Ag, Tl at 10 ppm; Be, Cd, Se at 5 ppm; and Pd at 3 ppm)	5190-9408
QCSTD-27 quality control standard, 100 mL Quality control standard for environmental analyses (contains Al, Sb, As, B, Ba, Be, Cd, Co, Cr, Cu, Fe, Pb, K, Mg, Mn, Mo, Ni, Ag, Se, Si, Na, Sr, Ti, Tl, V & Zn at 100 ppm in 5% HNO ₃ + trace HF)	5190-9418

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