

# 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	<a href="#">G8010-60255</a>
Concentric glass nebulizer, Conikal U Series with EzyLok, recommended for organics	<a href="#">G8010-60270</a>
OneNeb Series 2 inert concentric nebulizer; suitable for most sample types including organic solvents, HF acid digests, and high TDS samples	<a href="#">G8010-60293</a>
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)	<a href="#">G8020-69001</a>
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	<a href="#">G8010-60345</a>
Cleaning tool for concentric nebulizer	<a href="#">G3266-80020</a>
Sample inlet (UniFit) fitting for concentric glass nebulizer 0.75 mm id x 700 mm L, 10/pk	<a href="#">G8010-80035</a>
Sample inlet (UniFit) fitting for concentric glass nebulizer 0.5 mm id x 700 mm L, 10/pk	<a href="#">G3266-80012</a>
Gas inlet connector (EzyLok) for concentric nebulizer, 1/pk	<a href="#">G3266-80015</a>
PFA tubing, nebulizer gas supply, per m	<a href="#">0890-2603</a>
Cleaning wire for V-Groove inert high TDS nebulizer gas orifice, 0.3m, 3/pk	<a href="#">5005-0451</a>
Sample inlet fitting for V-groove nebulizer, 1/pk	<a href="#">5005-0447</a>
Gas inlet fitting for V-groove nebulizer, 1/pk	<a href="#">5005-0446</a>

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

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

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

Torches and Supplies	Part Number
<b>SVDV/VDV torches for use in both axial and radial views</b>	
Easy-fit torch, one piece with 1.8 mm id injector and an extended outer tube with slot, standard for SVDV/VDV models	<a href="#">G8010-60228</a>
Easy-fit torch, semi demountable with 1.8 mm id injector, an extended outer tube with slot, and replaceable inner/outer tube-set	<a href="#">G8010-60236</a>
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	<a href="#">G8010-60232</a>
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	<a href="#">G8010-60231</a>
<b>Fully demountable torches for use in both axial and radial views</b>	
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	<a href="#">G8020-68001</a>
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	<a href="#">G8020-68002</a>
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	<a href="#">G8020-68003</a>
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	<a href="#">G8020-68004</a>
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	<a href="#">G8020-68005</a>
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.	<a href="#">G8020-68020</a>
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.	<a href="#">G8020-68022</a>
<b>RV torches for dedicated radial viewing</b>	
Easy-fit torch, one piece with 1.4 mm id injector; has a shorter length outer tube (no slot), standard for RV models	<a href="#">G8012-60000</a>
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	<a href="#">G8010-60234</a>
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	<a href="#">G8010-60237</a>
<b>Outer tube-sets for semi and fully demountable torches Includes intermediate tube (integrated into assembly) with top seal</b>	
Outer tube-set, DV configuration, for use with aqueous/acidic digests	<a href="#">G8010-60263</a>
Outer tube-set, RV configuration, for use with aqueous/acidic digests	<a href="#">G8010-60264</a>
Organics outer tube-set, DV configuration, for use with organic solvents	<a href="#">G8014-60022</a>
Organics outer tube-set, RV configuration, for use with organic solvents	<a href="#">G8016-60000</a>

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

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	<a href="#">G8010-67001</a>
Operating supplies kit for 5000 Series RV ICP-OES	<a href="#">G8012-67001</a>
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
<b>High TDS inert sample introductory kit</b>	
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	<a href="#">G8020-68023</a>
<b>Inert sample introduction kit for HF digests</b>	
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	<a href="#">G8010-68007</a>
Inert sample introduction kit for RV	<a href="#">G8010-68006</a>
<b>Ketone-based organics sample introduction kit</b>	
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	<a href="#">G8010-68009</a>
Ketone-based organics sample introduction kit for RV	<a href="#">G8010-68008</a>
<b>Volatile organics sample introduction kit</b>	
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	<a href="#">G8010-68005</a>
Volatile organics sample introduction kit for RV	<a href="#">G8010-68004</a>
<b>Semivolatile organics sample introduction kit</b>	
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	<a href="#">G8010-68029</a>
Semivolatile organics sample introduction kit for RV	<a href="#">G8010-68030</a>

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

SPS 4 Autosampler Supplies	Part Number
<b>SPS 4 autosampler options</b>	
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	<a href="#">G8410-68260</a>
SPS 4 rinse tube kit, for low volatile organics; allows use of low volatile organic solvents in rinse station	<a href="#">G8410-68261</a>
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	<a href="#">G8410-68262</a>
<b>Spare probes</b>	
SPS 4 probe 0.8 mm id, green marker, inert, FEP sleeved, 1/pk (standard probe for ICP-OES)	<a href="#">G8410-80102</a>
SPS 4 probe 1.0 mm id, blue marker, inert, FEP sleeved, 1/pk	<a href="#">G8410-80103</a>
SPS 4 probe 1.2 mm id, black marker, inert, FEP sleeved, 1/pk (required for viscous, high matrix, and high TDS samples)	<a href="#">G8410-80104</a>
<b>Peristaltic pump tubing for the rinse pump</b>	
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)	<a href="#">3710049000</a>
Peristaltic pump tubing, Santoprene, 3 bridged, gray/gray tabs, 12 tubes/pk (for use with ketone-based solvents)	<a href="#">3710057500</a>
Peristaltic pump tubing, Viton, 3 bridged, black/black tabs with flared ends, 12 tubes/pk (for use with aromatic organic solvents)	<a href="#">3710069100</a>
<b>Racks and tubes</b>	
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)	<a href="#">G8410-40000</a>
Sample rack for 13 mm od tubes, 90 positions (1/pk)	<a href="#">6610026400</a>
Sample rack for 16 mm od tubes, 60 positions (1/pk)	<a href="#">6610025400</a>
Sample rack for 20 mm od tubes, 40 positions (1/pk)	<a href="#">6610025500</a>
Sample rack for 25 mm od tubes, 24 positions (1/pk)	<a href="#">6610026500</a>
Sample rack for 30 mm od tubes (50 mL centrifuge tubes), 21 positions (1/pk)	<a href="#">6610026600</a>
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	<a href="#">6610026100</a>
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	<a href="#">6610026000</a>
Centrifuge tubes skirted polypropylene, 50 mL (500/pk) screw-capped, 29 mm od	<a href="#">190065200</a>
Polypropylene tubes, 17 mm x 130 mm (1,000/pk)	<a href="#">0000001600L</a>

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

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

MSIS Supplies	Part Number
Reagent pump tubing, PVC, black/black, 12/pk	<a href="#">3710027200</a>
Waste pump tubing, PVC, black/white 12/pk	<a href="#">3710068900</a>
MSIS nebulizer bushing (with O-rings)	<a href="#">G8479-20020</a>
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)	<a href="#">G8479-67000</a>
<b>MSIS drain tube assembly, 1/pk</b>	
Includes:	
- 0.2 m length of 1/8 inch id drain tubing with bushing for waste outlet	<a href="#">G8479-60100</a>
- Barb adapter	
- Single peristaltic pump tube, 2 bridged PVC with black/white tabs	
<b>MSIS reaction cone assembly, 1/pk</b>	
Includes:	
- Reaction cone	<a href="#">G8479-60300</a>
- Bushing	
- Threaded barb adapter	
- Tubing connector for sample inlet	
<b>MSIS reagent tubing kit</b>	
Includes:	
- O-rings for nebulizer bushing (1 pair)	<a href="#">G8479-68100</a>
- 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	

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

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	<a href="#">5190-8352</a>
Antimony ICP standard in 1% HNO <sub>3</sub> , 1% tartaric acid	<a href="#">5190-8354</a>
Arsenic ICP standard	<a href="#">5190-8356</a>
Barium ICP standard	<a href="#">5190-8358</a>
Beryllium ICP standard	<a href="#">5190-8360</a>
Bismuth ICP standard	<a href="#">5190-8362</a>
Boron ICP standard in 1% NH <sub>4</sub> OH	<a href="#">5190-8364</a>
Cadmium ICP standard	<a href="#">5190-8366</a>
Calcium ICP standard	<a href="#">5190-8368</a>
Cerium ICP standard	<a href="#">5190-8370</a>
Cesium ICP standard	<a href="#">5190-8372</a>
Chromium ICP standard	<a href="#">5190-8374</a>
Cobalt ICP standard	<a href="#">5190-8376</a>
Copper ICP standard	<a href="#">5190-8378</a>
Dysprosium ICP standard (500 mL)	<a href="#">5190-8381</a>
Europium ICP standard (500 mL)	<a href="#">5190-8385</a>
Gadolinium ICP standard	<a href="#">5190-8386</a>
Gallium ICP standard in 5% HNO <sub>3</sub> , 0.5% HCl	<a href="#">5190-8388</a>
Germanium ICP standard in 5% HNO <sub>3</sub> , trace HF	<a href="#">5190-8390</a>
Gold ICP standard in 20% HCl	<a href="#">5190-8392</a>
Hafnium ICP standard in 5% HCl	<a href="#">5190-8394</a>
Holmium ICP standard (1,000 ppm)	<a href="#">5190-8465</a>
Indium ICP standard	<a href="#">5190-8398</a>
Iridium ICP standard in 20% HCl	<a href="#">5190-8400</a>
Iron ICP standard	<a href="#">5190-8402</a>
Lanthanum ICP standard	<a href="#">5190-8404</a>
Lead ICP standard	<a href="#">5190-8406</a>
Lithium ICP standard	<a href="#">5190-8408</a>
Lutetium ICP standard	<a href="#">5190-8410</a>
Magnesium ICP standard	<a href="#">5190-8412</a>
Manganese ICP standard	<a href="#">5190-8414</a>
Mercury ICP standard	<a href="#">5190-8416</a>
Molybdenum ICP standard in 1% NH <sub>4</sub> OH	<a href="#">5190-8418</a>
Neodymium ICP standard (500 mL)	<a href="#">5190-8421</a>
Nickel ICP standard	<a href="#">5190-8422</a>
Niobium ICP standard in 2% HF	<a href="#">5190-8424</a>
Palladium ICP standard in 10% HNO <sub>3</sub>	<a href="#">5190-8426</a>
Phosphorus ICP standard	<a href="#">5190-8428</a>
Platinum ICP standard in 20% HCl	<a href="#">5190-8430</a>
Potassium ICP standard	<a href="#">5190-8432</a>

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

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

Multi-Element Calibration Standards	Part Number
Calibration mix 1, 125 mL Contains 100 mg/L Sb, Mo, Sn, and Tl in 2% HNO <sub>3</sub> + 0.5% HF	<a href="#">6610030500</a>
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 <sub>3</sub>	<a href="#">6610030600</a>
Calibration mix majors, 125 mL Contains 500 mg/L Ca, Fe, K, Mg, and Na in 5% HNO <sub>3</sub>	<a href="#">6610030700</a>
<b>IntelliQuant calibration solutions</b>	
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 <sub>3</sub> blank.	<a href="#">5191-3932</a>
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 <sub>3</sub> (100 mL)	<a href="#">5191-3933</a>
IntelliQuant multi-element standard No. 2 (Ready to use) 100 mg/L of Ce, Eu, Gd, Ho, La, Ni, S & Te in 5% HNO <sub>3</sub> (100 mL)	<a href="#">5191-3934</a>
IntelliQuant multi-element standard No. 3 (Ready to use) 100 mg/L Co, Dy, Re, Sm, Th & V in 5% HNO <sub>3</sub> (100 mL)	<a href="#">5191-3935</a>
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 <sub>3</sub> (100 mL)	<a href="#">5191-3936</a>
IntelliQuant multi-element standard No. 5 (Ready to use) 100 mg/L of Al, Fe, Mo, Nd, Pr, Tb & U in 5% HNO <sub>3</sub> (100 mL)	<a href="#">5191-3937</a>
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 <sub>3</sub> + trace HF (100 mL)	<a href="#">5191-3938</a>
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)	<a href="#">5191-3939</a>
Calibration blank solution for ICP-OES (Ready to use) Pure ASTM Type 1A water in 5% HNO <sub>3</sub> (500 mL)	<a href="#">5190-7001</a>

Wavelength Calibration Solutions	Part Number
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 <sub>3</sub> (Dilute 10x before use)	<a href="#">6610030000</a>
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 <sub>3</sub> (Ready to use)	<a href="#">6610030100</a>
ICP-OES calibration blank solution, 500 mL Pure ASTM Type 1A water in 5% HNO <sub>3</sub> (For use as a calibration blank or diluent for the wavelength calibration concentrate)	<a href="#">5190-7001</a>

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

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)	<a href="#">5190-8599</a>
ICV quality control standard in 5% HNO <sub>3</sub> 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)	<a href="#">5190-9408</a>
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 <sub>3</sub> + trace HF)	<a href="#">5190-9418</a>

Agilent also offers single element standards at different concentrations and volumes, plus a comprehensive range of multi-element standards, environmental standards, ionization buffers, metallo-organic and biodiesel standards, and solvents for atomic spectroscopy. With the assurance of NIST traceability, Agilent's Certified Reference Materials and standard mixes offer accurate, reliable calibrations at great value.

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