Agilent 5100/5110 Series ICP-OES

Dual View 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 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

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentric glass nebulizer, SeaSpray U Series with Ezylok, standard for 5100/5110.</td>
<td>G8010-60255</td>
</tr>
<tr>
<td>Concentric glass nebulizer, Conikal U Series with Ezylok Recommended for organics.</td>
<td>G8010-60270</td>
</tr>
<tr>
<td>OneNeb Series 2 inert concentric nebulizer. Suitable for most sample types including organic solvents, HF acid digests and high TDS samples.</td>
<td>G8010-60293</td>
</tr>
<tr>
<td>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.</td>
<td>G8010-60345</td>
</tr>
<tr>
<td>Cleaning tool for concentric nebulizer.</td>
<td>G3266-80020</td>
</tr>
<tr>
<td>Sample inlet (Unifit) fitting for concentric glass nebulizer 0.75 mm id x 700 mm L, 10/pk.</td>
<td>G8010-80035</td>
</tr>
<tr>
<td>Sample inlet (Unifit) fitting for concentric glass nebulizer 0.5 mm id x 700 mm L, 10/pk.</td>
<td>G3266-80012</td>
</tr>
<tr>
<td>Gas inlet connector (Ezylok) for concentric nebulizer, 1/pk.</td>
<td>G3266-80015</td>
</tr>
<tr>
<td>PFA tubing, nebulizer gas supply, per m.</td>
<td>0890-2603</td>
</tr>
</tbody>
</table>

### Pump and Connecting Tubing

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peristaltic pump tubing, PVC, white/white, 12/pk.</td>
<td>3710034400</td>
</tr>
<tr>
<td>Peristaltic pump tubing, PVC, blue/blue, 12/pk.</td>
<td>3710034600</td>
</tr>
<tr>
<td>Peristaltic pump tubing, PVC, black/black, 12/pk.</td>
<td>3710027200</td>
</tr>
<tr>
<td>Peristaltic pump tubing, PVC, orange/white, 12/pk.</td>
<td>3710046900</td>
</tr>
<tr>
<td>Y piece connector for online addition of internal standard or ionization buffer.</td>
<td>1610132400</td>
</tr>
<tr>
<td>Barb connector, 1/16” to 1/8”, connects peristaltic pump tube for waste to drain tubing.</td>
<td>1610088600</td>
</tr>
<tr>
<td>Tubing, waste line from peri pump tube, per m.</td>
<td>3710024600</td>
</tr>
<tr>
<td>Tubing, waste line from spill tray, per m.</td>
<td>3710033400</td>
</tr>
<tr>
<td>Nebulizer capillary tubing, per m.</td>
<td>2410020500</td>
</tr>
</tbody>
</table>

### Spray Chambers

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spray chamber, double pass glass cyclonic, standard for 5100/5110.</td>
<td>G8010-60256</td>
</tr>
<tr>
<td>Spray chamber, single pass glass cyclonic.</td>
<td>G8010-60271</td>
</tr>
<tr>
<td>Inert double pass spray chamber, white, rec. for HF samples.</td>
<td>G8010-80034</td>
</tr>
<tr>
<td>Inert single pass spray chamber, white, rec. for HF samples.</td>
<td>G8000-70008</td>
</tr>
<tr>
<td>Drain connector for spray chamber waste (Unifit) 0.86 mm id x 2.0 mm od x 480 mm L, 3/pk.</td>
<td>G8010-80036</td>
</tr>
<tr>
<td>Seal for spray chamber nebulizer fitting (Helix), 4/pk.</td>
<td>G8010-80042</td>
</tr>
<tr>
<td>Locking screw for s/chamber neb. fitting (Helix).</td>
<td>G8010-80043</td>
</tr>
</tbody>
</table>
Advanced Valve System (AVS) Supplies

<table>
<thead>
<tr>
<th>Miscellaneous AVS supplies</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rinse (20 L) and waste (10 L) containers for AVS 6/7 (1 each)</td>
<td>G8494-60005</td>
</tr>
<tr>
<td>Internal standard container (5 L) kit for AVS 7, 1/pk.</td>
<td>G8495-60005</td>
</tr>
<tr>
<td>Reagent uptake capillary tube 1.6 mm od x 1.0 mm id x 1400 mm long with heavy PTFE sinker, 1/pk.</td>
<td>G8494-60007</td>
</tr>
<tr>
<td>Check valve outlet for AVS switching valve, non-metallic, 1/pk.</td>
<td>G8010-60300</td>
</tr>
<tr>
<td>Mounting clamp for AVS 4/6/7 switching valve, 1/pk.</td>
<td>G8494-60004</td>
</tr>
<tr>
<td>Tubing kits for AVS</td>
<td></td>
</tr>
<tr>
<td>Sample inlet connection kit for AVS switching valve, 1/pk.</td>
<td>G8010-60303</td>
</tr>
<tr>
<td>Nebulizer connection kit for AVS switching valve, 1/pk.</td>
<td>G8010-60304</td>
</tr>
<tr>
<td>Autosampler connection kit for AVS switching valve, 1/pk.</td>
<td>G8010-60306</td>
</tr>
<tr>
<td>Internal standard connection kit for AVS 7 switching valve, 1/pk.</td>
<td>G8010-60307</td>
</tr>
<tr>
<td>Pump outlet connection kit for AVS switching valve, 1/pk.</td>
<td>G8010-60308</td>
</tr>
<tr>
<td>Nebulizer adaptor kit for AVS switching valve, 1/pk.</td>
<td>G8010-60333</td>
</tr>
<tr>
<td>Waste tube kit for 4 port AVS switching valve, 1/pk.</td>
<td>G8010-60334</td>
</tr>
<tr>
<td>Sample/rinse connection kit for AVS switching valve, 2/pk.</td>
<td>G8010-60335</td>
</tr>
<tr>
<td>Autosampler peri-pump connection kit, 1/pk.</td>
<td>G8010-60348</td>
</tr>
</tbody>
</table>

AVS sample loops

| AVS sample loop, 1.0 mL volume, 1/pk. (Standard loop supplied with the AVS) | G8010-60305 |
| AVS sample loop, 0.25 mL volume, 1/pk. | G8010-60338 |
| AVS sample loop, 0.5 mL volume, 1/pk. | G8010-60339 |
| AVS sample loop, 1.5 mL volume, 1/pk. | G8010-60340 |
| AVS sample loop, 2.0 mL volume, 1/pk. | G8010-60341 |
| AVS sample loop, 2.5 mL volume, 1/pk. | G8010-60342 |
| AVS sample loop, 3.0 mL volume, 1/pk. | G8010-60343 |
| AVS sample loop, 3.5 mL volume, 1/pk. | G8010-60344 |

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

<table>
<thead>
<tr>
<th>Torches and Supplies</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>5100/5110 SVDV/VDV torches for use in both axial &amp; radial views</td>
<td></td>
</tr>
<tr>
<td>Easy-fit torch, one piece with 1.8 mm id injector and an extended outer tube with slot, standard for SVDV/VDV models.</td>
<td>G8010-60228</td>
</tr>
<tr>
<td>Easy-fit torch, demountable with 1.8 mm id injector, an extended outer tube with slot &amp; replaceable inner/outer tube set.</td>
<td>G8010-60236</td>
</tr>
<tr>
<td>Easy-fit torch, demountable, high solids with 2.4 mm id injector, an ext. outer tube with slot &amp; replaceable inner/outer tube set.</td>
<td>G8010-60232</td>
</tr>
<tr>
<td>Easy-fit torch, demountable, semi-volatile organics, with 1.4 mm id inj., ext. outer tube with slot &amp; replaceable inner/outer tube set.</td>
<td>G8010-60233</td>
</tr>
<tr>
<td>Easy-fit torch, inert, demountable for HF digests, with 1.8 mm id ceramic injector, an ext. outer tube with slot and replaceable inner/outer tube set.</td>
<td>G8010-60231</td>
</tr>
<tr>
<td>Quartz outer tube set for demountable torch, comprises ext. length outer tube with slot, intermediate tube (integrated) and top seal.</td>
<td>G8010-60263</td>
</tr>
<tr>
<td>5100/5110 RV torches for dedicated radial viewing</td>
<td></td>
</tr>
<tr>
<td>Easy-fit torch, one piece with 1.4 mm id injector. Has a shorter length outer tube (no slot), standard for RV models.</td>
<td>G8012-60000</td>
</tr>
<tr>
<td>Easy-fit torch, demountable with 1.4 mm id injector, shorter outer tube (no slot) and replaceable inner/outer tube set.</td>
<td>G8010-60237</td>
</tr>
<tr>
<td>Easy-fit torch, demountable, volatile organics, with 0.8 mm id injector, shorter outer tube (no slot) and replaceable inner/outer tube set.</td>
<td>G8010-60235</td>
</tr>
<tr>
<td>Easy-fit torch, inert, demountable for HF digests, with 1.8 mm id ceramic injector, shorter outer tube (no slot) and replaceable inner/outer tube set.</td>
<td>G8010-60234</td>
</tr>
<tr>
<td>Quartz outer tube set for demountable torch, comprises shorter length outer tube (no slot), intermediate tube (integrated) and top seal.</td>
<td>G8010-60264</td>
</tr>
</tbody>
</table>

Miscellaneous 5100/5110 torch supplies

<table>
<thead>
<tr>
<th>Miscellaneous 5100/5110 torch supplies</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torch clamp, to clamp the spray chamber to the ball joint on the torch (not suitable for inert torch).</td>
<td>G8000-64140</td>
</tr>
<tr>
<td>Torch clamp for inert, demountable torch. Clamps the inert spray chamber to the base of the inert torch (not suitable for standard torch).</td>
<td>G8010-60227</td>
</tr>
<tr>
<td>Torch cleaning stand for 5100/5110 Series torches. Designed to make the torch cleaning process easier and safer, also preventing damage to the torch.</td>
<td>G8010-68021</td>
</tr>
<tr>
<td>Storage rack for 5100/5110 Series torches. Holds up to 5 torches, multiple racks can be stacked on top of each other if required.</td>
<td>G8010-67000</td>
</tr>
</tbody>
</table>
## Application Kits

**Inert sample introduction kit for HF digests**

Kit includes:
- Inert double pass spray chamber with ball joint socket
- OneNeb Series 2 nebulizer
- 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)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Inert sample introduction kit for SVDV/VDV.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G8010-68007</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Inert sample introduction kit for RV.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G8010-68006</td>
</tr>
</tbody>
</table>

**Ketone-based organics sample introduction kit**

Kit includes:
- Double pass glass cyclonic spray chamber with ball joint socket
- Conikal nebulizer
- 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)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Ketone-based organics sample introduction kit for SVDV/VDV.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G8010-68009</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Ketone-based organics sample introduction kit for RV.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G8010-68008</td>
</tr>
</tbody>
</table>

**Volatile organics sample introduction kit**

Kit includes:
- Conikal nebulizer
- 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)

Requires but does not include the IsoMist peltier cooled spray chamber.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Volatile organics sample introduction kit for SVDV/VDV.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G8010-68005</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Volatile organics sample introduction kit for RV.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G8010-68004</td>
</tr>
</tbody>
</table>

**Semi-volatile organics sample introduction kit**

Kit includes:
- Double pass glass cyclonic spray chamber with ball joint socket
- Conikal nebulizer
- 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)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Semi-volatile organics sample introduction kit for SVDV/VDV.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G8010-68029</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Semi-volatile organics sample introduction kit for RV.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G8010-68030</td>
</tr>
</tbody>
</table>

## Operating Supplies Kits

Includes supplies required to support up to 12 months routine operation. Extra supplies may be required for labs that have high workload or high matrix samples.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Operating supplies kit for 5100/5110 DV ICP-OES.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G8010-67001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Operating supplies kit for 5100/5110 RV ICP-OES.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G8012-67001</td>
</tr>
</tbody>
</table>

Each kit includes:
- Demountable torch
- 2 quartz outer tube sets
- 4 pk's 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)
### Miscellaneous Supplies

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubing clamp for sample tray. Secures the drain tubing to the sample tray.</td>
<td>G8010-40026</td>
</tr>
<tr>
<td>Replacement filter element for cooling air inlet. Suits the dusty environment air inlet filter option.</td>
<td>G8010-60189</td>
</tr>
<tr>
<td>Quartz window for the axial view pre-optic window.</td>
<td>G8010-68014</td>
</tr>
<tr>
<td>O-ring for the axial view pre-optic window.</td>
<td>G8010-68018</td>
</tr>
<tr>
<td>Pre-optics cone for the axial view pre-optic window.</td>
<td>G8010-68109</td>
</tr>
<tr>
<td>Esteele powder for cleaning pre-optics cone.</td>
<td>G8010-68018</td>
</tr>
<tr>
<td>Quartz window for the radial view pre-optic window.</td>
<td>G8010-68015</td>
</tr>
<tr>
<td>Argon humidifier accessory. Used to humidify the nebulizer gas for samples &gt;3% TDS. Includes:</td>
<td>G8010-60346</td>
</tr>
<tr>
<td>• 2 x 0.6 m 4 mm od gas lines</td>
<td></td>
</tr>
<tr>
<td>• Fitting plate and bracket</td>
<td></td>
</tr>
<tr>
<td>• Installation instructions</td>
<td></td>
</tr>
</tbody>
</table>

### SPS 4 Autosampler Supplies

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPS 4 Autosampler options</strong></td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>G8410-68260</td>
</tr>
<tr>
<td>SPS 4 rinse tube kit, for low volatile organics. Allows use of low volatile organic solvents in rinse station.</td>
<td>G8410-68261</td>
</tr>
<tr>
<td>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.</td>
<td>G8410-68262</td>
</tr>
<tr>
<td><strong>Spare probes</strong></td>
<td></td>
</tr>
<tr>
<td>SPS 4 probe 0.8 mm id, green marker, inert, FEP sleeved, 1/pk (Standard probe for ICP-OES).</td>
<td>G8410-80102</td>
</tr>
<tr>
<td>SPS 4 probe 1.0 mm id, blue marker, inert, FEP sleeved, 1/pk.</td>
<td>G8410-80103</td>
</tr>
<tr>
<td>SPS 4 probe 1.2 mm id, black marker, inert, FEP sleeved, 1/pk (required for viscous, high matrix and high TDS samples).</td>
<td>G8410-80104</td>
</tr>
<tr>
<td><strong>Peristaltic pump tubing for the rinse pump</strong></td>
<td></td>
</tr>
<tr>
<td>Peristaltic pump tubing, PVC SolvaFlex, 3 bridged, gray/gray tabs (12 tubes/pk). Standard tubing for the rinse pump, for use with aqueous or low volatile organic solvents.</td>
<td>3710049000</td>
</tr>
<tr>
<td>Peristaltic pump tubing, Santoprene, 3 bridged, gray/gray tabs (12 tubes/pk). For use with ketone-based solvents.</td>
<td>3710057500</td>
</tr>
<tr>
<td>Peristaltic pump tubing, Viton, 3 bridged, black/black tabs with flared ends (12 tubes/pk). For use with aromatic organic solvents.</td>
<td>3710069100</td>
</tr>
<tr>
<td><strong>Racks and tubes</strong></td>
<td></td>
</tr>
<tr>
<td>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).</td>
<td>G8410-40000</td>
</tr>
<tr>
<td>Sample rack for 13 mm od tubes, 90 positions (1/pk).</td>
<td>6610026400</td>
</tr>
<tr>
<td>Sample rack for 16 mm od tubes, 60 positions (1/pk).</td>
<td>6610025400</td>
</tr>
<tr>
<td>Sample rack for 20 mm od tubes, 40 positions (1/pk).</td>
<td>6610025500</td>
</tr>
<tr>
<td>Sample rack for 25 mm od tubes, 24 positions (1/pk).</td>
<td>6610026500</td>
</tr>
<tr>
<td>Sample rack for 30 mm od tubes (50 mL centrifuge tubes), 21 positions (1/pk).</td>
<td>6610026600</td>
</tr>
<tr>
<td>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.</td>
<td>6610026100</td>
</tr>
<tr>
<td>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.</td>
<td>6610026000</td>
</tr>
<tr>
<td>Centrifuge tubes polypropylene, 50 mL (500/pk) screw-capped, 29 mm od.</td>
<td>190065200</td>
</tr>
<tr>
<td>Polypropylene tubes, 17 mm x 130 mm, 1000/pk.</td>
<td>00000001600L</td>
</tr>
</tbody>
</table>
## VGA 77 Supplies

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8210029100</td>
<td>Sodium tetrahydroborate reagent, 500 g.</td>
</tr>
<tr>
<td>3710027200</td>
<td>Reagent pump tubing, black/black, 12/pk.</td>
</tr>
<tr>
<td>3710027300</td>
<td>Sample pump tubing, purple/black, 12/pk.</td>
</tr>
<tr>
<td>9910061900</td>
<td>Tubing and connector kit.</td>
</tr>
<tr>
<td>9910062200</td>
<td>ICP-ES hydride module (recommended to dedicate a module to Hg determinations).</td>
</tr>
<tr>
<td>9910062000</td>
<td>Gas-liquid separator.</td>
</tr>
<tr>
<td>9910050700</td>
<td>Pump tube beds kit.</td>
</tr>
</tbody>
</table>

## MSIS Supplies

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3710027200</td>
<td>Reagent pump tubing, PVC, black/black, 12/pk.</td>
</tr>
<tr>
<td>3710068900</td>
<td>Waste pump tubing, PVC, black/white 12/pk.</td>
</tr>
<tr>
<td>G8479-20020</td>
<td>MSIS nebulizer bushing (with O-rings).</td>
</tr>
<tr>
<td>G8479-67000</td>
<td>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).</td>
</tr>
<tr>
<td>G8479-60100</td>
<td>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</td>
</tr>
<tr>
<td>G8479-60300</td>
<td>MSIS reaction cone assembly, 1/pk. Includes: • Reaction cone • Bushing • Threaded barb adapter • Tubing connector for sample inlet</td>
</tr>
<tr>
<td>G8479-68100</td>
<td>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</td>
</tr>
<tr>
<td>Single Element ICP Standards</td>
<td>Part Number</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Aluminum ICP Standard.</td>
<td>5190-8352</td>
</tr>
<tr>
<td>Antimony ICP Standard in 1% HNO₃, 1% tartaric acid.</td>
<td>5190-8354</td>
</tr>
<tr>
<td>Arsenic ICP Standard.</td>
<td>5190-8356</td>
</tr>
<tr>
<td>Barium ICP Standard.</td>
<td>5190-8358</td>
</tr>
<tr>
<td>Beryllium ICP Standard.</td>
<td>5190-8360</td>
</tr>
<tr>
<td>Bismuth ICP Standard.</td>
<td>5190-8362</td>
</tr>
<tr>
<td>Boron ICP Standard in 1% NH₄OH.</td>
<td>5190-8364</td>
</tr>
<tr>
<td>Cadmium ICP Standard.</td>
<td>5190-8366</td>
</tr>
<tr>
<td>Calcium ICP Standard.</td>
<td>5190-8368</td>
</tr>
<tr>
<td>Cerium ICP Standard.</td>
<td>5190-8370</td>
</tr>
<tr>
<td>Cesium ICP Standard.</td>
<td>5190-8372</td>
</tr>
<tr>
<td>Chromium ICP Standard.</td>
<td>5190-8374</td>
</tr>
<tr>
<td>Cobalt ICP Standard.</td>
<td>5190-8376</td>
</tr>
<tr>
<td>Copper ICP Standard.</td>
<td>5190-8378</td>
</tr>
<tr>
<td>Dysprosium ICP Standard.</td>
<td>5190-8380</td>
</tr>
<tr>
<td>Erbium ICP Standard.</td>
<td>5190-8382</td>
</tr>
<tr>
<td>Europium ICP Standard.</td>
<td>5190-8384</td>
</tr>
<tr>
<td>Gadolinium ICP Standard.</td>
<td>5190-8386</td>
</tr>
<tr>
<td>Gallium ICP Standard in 5% HNO₃, 0.5% HCl.</td>
<td>5190-8388</td>
</tr>
<tr>
<td>Germanium ICP Standard in 5% HNO₃, trace HF.</td>
<td>5190-8390</td>
</tr>
<tr>
<td>Gold ICP Standard in 20% HCl.</td>
<td>5190-8392</td>
</tr>
<tr>
<td>Hafnium ICP Standard in 5% HCl.</td>
<td>5190-8394</td>
</tr>
<tr>
<td>Holmium ICP Standard.</td>
<td>5190-8396</td>
</tr>
<tr>
<td>Indium ICP Standard.</td>
<td>5190-8398</td>
</tr>
<tr>
<td>Iridium ICP Standard in 20% HCl.</td>
<td>5190-8400</td>
</tr>
<tr>
<td>Iron ICP Standard.</td>
<td>5190-8402</td>
</tr>
<tr>
<td>Lanthanum ICP Standard.</td>
<td>5190-8404</td>
</tr>
<tr>
<td>Lead ICP Standard.</td>
<td>5190-8406</td>
</tr>
<tr>
<td>Lithium ICP Standard.</td>
<td>5190-8408</td>
</tr>
<tr>
<td>Lutetium ICP Standard.</td>
<td>5190-8410</td>
</tr>
<tr>
<td>Magnesium ICP Standard.</td>
<td>5190-8412</td>
</tr>
<tr>
<td>Manganese ICP Standard.</td>
<td>5190-8414</td>
</tr>
<tr>
<td>Mercury ICP Standard.</td>
<td>5190-8416</td>
</tr>
<tr>
<td>Molybdenum ICP Standard in 1% NH₄OH.</td>
<td>5190-8418</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Single Element ICP Standards (continued)</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neodymium ICP Standard.</td>
<td>5190-8420</td>
</tr>
<tr>
<td>Nickel ICP Standard.</td>
<td>5190-8422</td>
</tr>
<tr>
<td>Niobium ICP Standard in 2% HF.</td>
<td>5190-8424</td>
</tr>
<tr>
<td>Palladium ICP Standard in 10% HNO₃.</td>
<td>5190-8426</td>
</tr>
<tr>
<td>Phosphorus ICP Standard.</td>
<td>5190-8428</td>
</tr>
<tr>
<td>Platinum ICP Standard in 20% HCl.</td>
<td>5190-8430</td>
</tr>
<tr>
<td>Potassium ICP Standard.</td>
<td>5190-8432</td>
</tr>
<tr>
<td>Praseodymium ICP Standard.</td>
<td>5190-8434</td>
</tr>
<tr>
<td>Rhenium ICP Standard.</td>
<td>5190-8436</td>
</tr>
<tr>
<td>Rhodium ICP Standard in 20% HCl.</td>
<td>5190-8438</td>
</tr>
<tr>
<td>Rubidium ICP Standard.</td>
<td>5190-8440</td>
</tr>
<tr>
<td>Ruthenium ICP Standard in 20% HCl.</td>
<td>5190-8442</td>
</tr>
<tr>
<td>Samarium ICP Standard.</td>
<td>5190-8444</td>
</tr>
<tr>
<td>Scandium ICP Standard.</td>
<td>5190-8446</td>
</tr>
<tr>
<td>Selenium ICP Standard.</td>
<td>5190-8448</td>
</tr>
<tr>
<td>Silicon ICP Standard in H₂O.</td>
<td>5190-8450</td>
</tr>
<tr>
<td>Silver ICP Standard.</td>
<td>5190-8452</td>
</tr>
<tr>
<td>Sodium ICP Standard.</td>
<td>5190-8454</td>
</tr>
<tr>
<td>Strontium ICP Standard.</td>
<td>5190-8207</td>
</tr>
<tr>
<td>Sulfur ICP Standard in H₂O.</td>
<td>5190-8209</td>
</tr>
<tr>
<td>Tantalum ICP Standard in 2% HF.</td>
<td>5190-8211</td>
</tr>
<tr>
<td>Tellurium ICP Standard in 30% HCl.</td>
<td>5190-8213</td>
</tr>
<tr>
<td>Terbium ICP Standard.</td>
<td>5190-8215</td>
</tr>
<tr>
<td>Thallium ICP Standard.</td>
<td>5190-8217</td>
</tr>
<tr>
<td>Thulium ICP Standard.</td>
<td>5190-8219</td>
</tr>
<tr>
<td>Tin ICP Standard in 20% HCl.</td>
<td>5190-8221</td>
</tr>
<tr>
<td>Titanium ICP Standard in H₂O.</td>
<td>5190-8222</td>
</tr>
<tr>
<td>Tungsten ICP Standard in 5% HNO₃, trace HF.</td>
<td>5190-8226</td>
</tr>
<tr>
<td>Vanadium ICP Standard.</td>
<td>5190-8228</td>
</tr>
<tr>
<td>Ytterbium ICP Standard.</td>
<td>5190-8230</td>
</tr>
<tr>
<td>Yttrium ICP Standard.</td>
<td>5190-8232</td>
</tr>
<tr>
<td>Zinc ICP Standard.</td>
<td>5190-8234</td>
</tr>
<tr>
<td>Zirconium ICP Standard.</td>
<td>5190-8236</td>
</tr>
</tbody>
</table>
Wavelength Calibration Solutions

<table>
<thead>
<tr>
<th>Multi-Element Calibration Standards</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibration mix 1, 125 mL.</td>
<td>6610030500</td>
</tr>
<tr>
<td>Contains 100 mg/L Sb, Mo, Sn and Ti in 2% HNO₃. + 0.5% HF.</td>
<td></td>
</tr>
<tr>
<td>Calibration mix 2, 125 mL.</td>
<td>6610030600</td>
</tr>
<tr>
<td>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% HNO₃.</td>
<td></td>
</tr>
<tr>
<td>Calibration mix majors, 125 mL.</td>
<td>6610030700</td>
</tr>
<tr>
<td>Contains 500 mg/L Ca, Fe, K, Mg and Na in 5% HNO₃.</td>
<td></td>
</tr>
</tbody>
</table>

IntelliQuant Calibration Solutions

<table>
<thead>
<tr>
<th>Internal Standard/Ionization Suppressant</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cesium Nitrate Buffer Solution, 1%</td>
<td>5190-8343</td>
</tr>
<tr>
<td>10,000 ppm Cs in 5% nitric acid, 100 mL bottle.</td>
<td></td>
</tr>
<tr>
<td>Cesium Buffer Solution, 10%</td>
<td>5190-9421</td>
</tr>
<tr>
<td>100,000 ppm Cs in 5% nitric acid, 500 mL bottle.</td>
<td></td>
</tr>
<tr>
<td>Yttrium Solution, 1%</td>
<td>5190-8233</td>
</tr>
<tr>
<td>10,000 ppm Y in 5% nitric acid, 500 mL bottle. Also used for instrument optimization.</td>
<td></td>
</tr>
<tr>
<td>ICP Internal Standard, 125 mL bottle.</td>
<td>6610030400</td>
</tr>
<tr>
<td>100 mg/L Li, Sc, Y, In, Tb, Bi in 5% nitric acid.</td>
<td></td>
</tr>
</tbody>
</table>

Environmental Standards

<table>
<thead>
<tr>
<th>Environmental Standards</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>5190-8599</td>
</tr>
<tr>
<td>ICV Quality Control Standard in 5% HNO₃ 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, Ti at 10 ppm, Be, Cd, Se at 5 ppm, and Pb at 3 ppm.</td>
<td>5190-9408</td>
</tr>
<tr>
<td>QCSTD-27 Quality Control Standard, 100 mL. Quality control standard for environmental analyses. Contains Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Sr, Na, Ti, Ti, V, Zn at 100 ppm.</td>
<td>5190-9418</td>
</tr>
</tbody>
</table>

Agilent also offers single element standards at different concentrations and volumes, plus a comprehensive range of multi-element standards, ionization buffers, metallo-organic and biodiesel standards, solvents, and environmental standards 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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