

Need to Keep Your Lab Operational in the “New Normal”?

Recommended 5000 series ICP-OES consumables for bringing your lab back online

Labs today are often operating with restricted access to meet strict social distancing requirements. If you are looking to keep your lab operational and striving to achieve optimal performance, Agilent is here to make sure you have everything you need, every step of the way.

With that in mind, Agilent technical experts have compiled a list of recommended products designed to:

- Help you keep your operations running as efficiently and productively as possible.
- List recommended supplies for different matrices to ensure you have the correct configuration for your analysis.
- Simplify installation and ensure your lab continues to produce reliable results.

It's all part of our commitment to helping your lab navigate its “new normal” in these unprecedented times.

Recommended Supplies for Aqueous Matrices



Torches

- [G8010-60228](#): One-piece Easy fit torch with 1.8 mm id injector (standard torch for DV systems)
- [G8012-60000](#): One-piece Easy fit torch with 1.4 mm id injector (standard torch for RV systems)




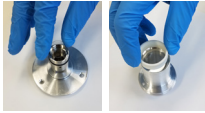




Sample Introduction

- [G8010-60255](#): SeaSpray nebulizer
- [G8010-60256](#): Double-pass glass cyclonic spray chamber
- [G8010-67001](#): Operating supplies kit, for 5000 series SVDV/VDV (dual view) ICP-OES
- [G8012-67001](#): Operating supplies kit, for 5000 series RV (radial view) ICP-OES








Peristaltic Pump Tubing

- [3710034400](#): PVC tubing with white/white tabs for aqueous samples
- [3710034600](#): PVC tubing with blue/blue tabs for aqueous waste
- [3710046900](#): PVC tubing with orange/white tabs for Internal Standard (aqueous based)
- [1610132400](#): Y-piece connector for online addition of internal standard










Standard (aqueous) 5000 Series ICP-OES Supplies Recommendations

Part Number	Product Description	Description and Usage	
See this link for a full selection of torches including the new fully demountable torch	One-piece, semi-demountable, and fully demountable torch options are available.	One-piece torches are supplied as standard with the instrument. Semi-demountable torches allow the outer tube-set to be removed and replaced when required. Fully demountable torches allow both the injector and outer tube set to be removed and replaced when required.	
G8010-80035	UniFit sample connector, 0.75 mm id, 10/pk	Sample capillaries are used to introduce sample into the nebulizer. Users will need to periodically change this sample connector and should have extras on hand.	
G8010-80036	UniFit drain connector for use with 5000 series ICP-OES spray chamber, 3/pk	Additional drain lines used to remove waste from the spray chamber. Users will need to periodically change this drain line and should have extras on hand.	
G8010-68014 (axial window) G8010-68018 (axial O-ring) G8010-68015 (radial window)	Replacement glass and O-ring for pre-optics window assembly	Additional glass or O-rings for the pre-optic window assemblies for axial and radial view. The windows need to be cleaned regularly and will need periodic replacement. It is advised for users to have spare windows to minimize downtime if a replacement is required.	
G8020-68016 G8010-60189	Replacement air filter element	Filter element for the cooling air inlet on the 5800/5900 ICP-OES. Filter element for the cooling air inlet in the 5100/5110 ICP-OES.	
6610030100	Bottle of wavelength calibration solution for ICP-OES 500 mL 5 ppm (ready to use)	This solution is required periodically by the user for wavelength calibration of the instrument.	
G8000-63003	Multimode Sample Introduction System (MSIS)	An optional accessory for Agilent's ICP-OES that allows sample introduction using either vapor generation or nebulization modes, or both at the same time. This eliminates the need to swap between a standard spray chamber and a vapor generation accessory, allowing the same instrument configuration to be used for both standard sample nebulization and vapor generation enabling analysis of both hydride and non-hydride elements. Recommended for environmentally sensitive elements including As, Se, Hg, Sn and others where low µg/L detection limits are required.	
3710027200	PVC peristaltic pump tubing for aqueous samples, black/black tabs, 12/pk	Peristaltic pump tubing used to pump reductant when using the MSIS. Peristaltic pump tubing is the most used consumable and should be replaced frequently (every 1-2 weeks for standard throughput).	
3710068900	PVC peristaltic pump tubing for aqueous samples, black/white tabs, 12/pk	Peristaltic pump tubing used to pump aqueous waste from the MSIS. Peristaltic pump tubing is the most used consumable and should be replaced frequently (every 1-2 weeks for standard throughput).	

Inert (HF Compatible) 5000 Series ICP-OES Supplies Recommendations

Part Number	Product Description	Description and Usage	
G8010-68007 (DV) G8010-68006 (RV)	Inert sample introduction kit, for use with HF digests.	Complete supplies kit for inert sample introduction. Includes inert spray chamber, OneNeb Series 2 nebulizer, inert semidemountable Easy-fit torch with 1.8 mm alumina injector, and SolvaFlex peristaltic pump tubing for sample (black/black) and waste (grey/grey).	
G8010-60231 (DV) or G8010-60234 (RV)	Semi-demountable Easy-fit inert torch for HF digests.	An inert injector is required for the analysis of HF containing samples. The semi demountable torch allows the removal/replacement of the outer tube-set. For additional flexibility the inert fully demountable torch can also be used.	
G8010-60293	OneNeb Series 2 inert concentric nebulizer	Ideal for routine analysis of samples up to 25% TDS with good precision and better sensitivity than a SeaSpray; inert construction makes it suitable for most solution types.	
G8010-60345	Sample inlet fitting for OneNeb Series 2 nebulizer 1/pk	Sample capillary for the OneNeb 2 nebulizer. Users will periodically need to replace this component and should have extras on hand.	
G8014-68002	Inert spray chamber for 5000 series ICP-OES	Cyclonic design inert spray chamber made of PET for use with HF digests, samples with high TDS levels or samples with particulates such as wear metals (used oils). Includes removeable baffle that allows it to be used as a double or single pass design. Features a durable sandblasted internal finish to ensure good drainage.	
3710034800	SolvaFlex peristaltic pump tubing for HF digested samples, black/black tabs, 12/pk	Standard size tubing used for HF acid digested samples. Peristaltic pump tubing is the most used consumable and should be replaced frequently (every 1-2 weeks for standard throughput).	
3710035200	SolvaFlex peristaltic pump tubing for HF acid waste, gray/gray tabs, 12/pk	Standard size tubing used for waste line when analyzing HF acid digested samples. Peristaltic pump tubing is the most used consumable and should be replaced frequently (every 1-2 weeks for standard throughput).	

Semi-Volatile Organic Solvent Compatible 5000 Series ICP-OES Supplies Recommendations

Part Number	Product Description	Description and Usage	
G8010-68029 (DV) or G8010-68030 (RV)	Semi-volatile organics sample introduction kit for samples prepared in semi-volatile organic solvents (including kerosene).	Complete supplies kit for introduction of semi-volatile organic samples. Includes double pass glass cyclonic spray chamber, Conikal nebulizer, fully demountable Easy-fit torch with 1.4 mm ID quartz injector and outer tube-set for organics, solvent resistant drain tubing and PVC Solvaflex peristaltic pump tubes for sample (black/black tabs) and waste (grey/grey tabs).	
G8010-68009 (DV) or G8010-68008 (RV)	Ketone based organic solvent introduction kit for samples prepared in ketone based organic solvents (including MIBK).	Complete supplies kit for introduction of ketone based organic samples. Includes double pass glass cyclonic spray chamber, Conikal nebulizer, fully demountable Easy-fit torch with 1.4 mm ID quartz injector and outer tube-set for organics, solvent resistant drain tubing and Marprene peristaltic pump tubes for sample (white/white tabs) and waste (blue/blue tabs).	
G8020-68002	Fully demountable 1.4 mm torch (DV)	Users analyzing organic solvents may have carbon build up on the injector. Removing this carbon build up can be hazardous and a chore with the semi-demountable torch. The removable injector on the fully demountable torch simplifies maintenance by enabling the injector to be removed and placed in a muffle furnace for cleaning.	
G8014-60022 (DV) or G8016-60000 (RV)	High purity quartz outer tube set for ICP-OES used with organic solvents	The fully demountable torch for organics is supplied with one outer tube-set. While the organic tube sets have long lifetime, it is recommended that users have an extra on hand to minimize downtime due to breakage or routine maintenance.	
G8020-60806	1.4mm ID tapered quartz injector for the fully demountable torch	Users analyzing organic solvents have carbon build up on the injector. When carbon build up occurs more frequently, it may be time to replace the injector. It is recommended that users have an extra injector on hand to minimize downtime due to breakage or routine maintenance.	
G8010-60270	Conikal Nebulizer (Glass concentric), U-Series 1/pk	The Conikal nebulizer is recommended for routine analysis of most organic samples. Users should order at least 1 spare nebulizer to ensure they have an extra nebulizer to minimize downtime during routine maintenance, or if the nebulizer is damaged.	
G8010-80035	UniFit sample connector, 0.75 mm id, 10/pk	Additional sample capillaries used to introduce sample into the nebulizer. Users will need to periodically change this sample connector and should have extras on hand.	
3710034800	SolvaFlex peristaltic pump tubing for semi-volatile organic solvents, black/black tabs, 12/pk.	Standard size tubing used for samples prepared in semi-volatile organic solvents. Peristaltic pump tubing is the most used consumable and should be replaced frequently (every 1-2 weeks for standard throughput).	
3710035200	SolvaFlex peristaltic pump tubing for semi-volatile organic waste, gray/gray tabs, 12/pk	Standard size tubing used for waste line when analyzing samples prepared in semi-volatile organic solvents. Peristaltic pump tubing is the most used consumable and should be replaced frequently (every 1-2 weeks for standard throughput).	







Volatile Organic Solvent Compatible 5800/5900 ICP-OES Supplies Recommendations

Part Number	Product Description	Description and Usage	
G8010-68005 (DV) or G8010-68004 (RV)	Volatile organics sample introduction kit for samples prepared in volatile organic solvents (e.g. gasoline).	Complete supplies kit for introduction of volatile organic samples. Includes Conikal nebulizer, fully demountable Easy-fit torch with 0.8 mm ID quartz injector and outer tube-set for organics, solvent resistant drain tubing and Viton peristaltic pump tubes for sample (white/white tabs) and waste (blue/blue tabs). Requires but does NOT include a cooled spray chamber. The IsoMist temperature-controlled spray chamber is recommended.	
G8486A #100	IsoMist temperature-controlled spray chamber	The IsoMist temperature-controlled spray chamber provides the benefits of a temperature-controlled sample introduction system with a temperature range between -10 ° C and +60 ° C. Includes self-installable software, polymer coated glass double pass spray chamber, Puraflex transfer line, 90° elbow for waste and operation/installation manual. Recommended for analysis of volatile solvents.	
G8020-68001	Fully demountable 0.8 mm id torch (RV)	Users analyzing organic solvents may have carbon build up on the injector. Removing this carbon build up can be hazardous and a chore with the semi-demountable torch. The removable injector on the fully demountable torch simplifies maintenance by enabling the injector to be removed and placed in a muffle furnace for cleaning.	
G8014-60022 (DV) or G8016-60000 (RV)	High purity quartz outer tube set for ICP-OES used with organic solvents	The fully demountable torch for organics is supplied with one outer tube-set. While the organic tube sets have long lifetime, it is recommended that users have an extra on hand to minimize downtime due to breakage or routine maintenance.	
G8020-60805	0.8 mm ID Tapered quartz injector for the fully demountable torch	Users analyzing organic solvents have carbon build up on the injector. When carbon build up occurs more frequently, it may be time to replace the injector. It is recommended that users have an extra injector on hand to minimize downtime due to breakage or routine maintenance.	
G8010-60270	Conikal nebulizer (Glass concentric), U-series 1/pk	The Conikal nebulizer is recommended for routine analysis of most organic samples. Users should order at least 1 spare nebulizer to ensure they have an extra nebulizer to minimize downtime during routine maintenance, or if the nebulizer is damaged.	
G8010-80035	UniFit sample connector, 0.75 mm id, 10/pk	Additional sample capillaries used to introduce sample into the nebulizer. Users will need to periodically change this sample connector and should have extras on hand.	
G8010-68023	UniFit right angle drain fitting for IsoMist, 3/pk	Additional drain lines used to remove waste from the IsoMist temperature-controlled spray chamber. Users will need to periodically change this drain line and should have extras on hand.	
3710043700	Viton peristaltic pump tubing for volatile organic solvents, white/white tabs, 12/pk.	Standard size tubing used for samples prepared in volatile organic solvents. Peristaltic pump tubing is the most used consumable and should be replaced frequently (every 1-2 weeks for standard throughput).	
3710043900	Viton peristaltic pump tubing for volatile organic waste, blue/blue tabs, 12/pk.	Standard size tubing used for waste line when analyzing samples prepared in volatile organic solvents. Peristaltic pump tubing is the most used consumable and should be replaced frequently (every 1-2 weeks for standard throughput).	




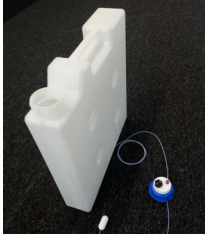

High TDS Compatible 5000 Series ICP-OES Supplies Recommendations

Part Number	Product Description	Description and Usage	
G8010-60346	Nebulizer gas humidifier for 5000 Series ICP-OES	The argon humidifier accessory is used to humidify the nebulizer gas when analyzing samples with high concentrations of total dissolved solids (TDS). It helps to reduce blockage in the nebulizer and sample introduction system, improving long term stability. Recommended when solutions have >3% TDS.	
G8020-68004	Fully demountable Easy-fit high TDS torch with 2.4 mm quartz injector (DV).	Users analyzing high TDS samples typically require more torch maintenance making the fully demountable torch an ideal choice. Fully demountable torches allow the injector and outer tube set to be removed and replaced as needed. For a more economical option, a semi-demountable high TDS torch is also available (PN G8010-60232).	
G8010-60263 (DV) or G8010-60264 (RV)	Quartz outer tube set for ICP-OES used with conventional aqueous samples	The fully demountable torch for high TDS samples is supplied with one outer tube-set. It is recommended that users have an extra on hand to minimize downtime due to breakage or routine maintenance.	
G8020-60808	2.4 mm ID tapered quartz injector for the fully demountable torch	Users analyzing high TDS samples can experience injector blockage if a standard bore injector is used. A wide bore injector reduces blockage. It is recommended that users have an extra injector on hand to minimize downtime due to breakage or routine maintenance.	
G8014-68002	Inert spray chamber for the 5000 series ICP-OES	Cyclonic design inert spray chamber for use with samples with high TDS levels or samples with particulates such as wear metals (used oils). Includes removeable baffle that allows it to be used as a double or single pass design. Features a durable sandblasted internal finish to ensure good drainage.	
G8010-60293	OneNeb Series 2 inert concentric nebulizer	Ideal for routine analysis of samples up to 25% TDS with good precision and better sensitivity than a SeaSpray; inert construction makes it suitable for most solution types.	
G8010-60345	Sample inlet fitting for OneNeb Series 2 nebulizer 1/pk	Additional sample capillary for the OneNeb 2 nebulizer. Users will periodically need to replace this component and should have extras on hand.	
3710034400	PVC peristaltic pump tubing for aqueous samples, white/white tabs, 12/pk	Standard size tubing used for conventional aqueous samples. Peristaltic pump tubing is the most used consumable and should be replaced frequently (every 1-2 weeks for standard throughput).	
3710034600	PVC peristaltic pump tubing for aqueous samples, blue/blue tabs, 12/pk	Standard size tubing used for waste with conventional aqueous samples. Peristaltic pump tubing is the most used consumable and should be replaced frequently (every 1-2 weeks for standard throughput).	
3710046900	PVC peristaltic pump tubing for aqueous internal standard, orange/white tabs, 12/pk	Standard size tubing used for aqueous based internal standard. Peristaltic pump tubing is the most used consumable and should be replaced frequently (every 1-2 weeks for standard throughput).	
1610132400	Y-piece connector for online addition of internal standards.	This is the connector needed for on-line addition of internal standard to the sample prior to nebulization. This reduces sample preparation for the user.	

SPS 4 Autosampler Supplies Recommendations (5000 Series ICP-OES)

Part Number	Product Description	Description and Usage	
G8410-60100	SPS 4 Autosampler cover kit, 1/pk	Recommended to fully enclose the autosampler to help reduce sample and standard contamination from dust and drafts.	
5043-0065	PVC Flexible Ducting 50 mm-id for SPS 4 cover kit, 5 m	Ducting required to enable removal of fumes from the autosampler with the cover fitted. Fitted with 56 mm OD cuffs.	
G8410-80102	SPS 4 probe 0.8 mm id with green markers. Inert, FEP sleeved for SPS 4 autosampler, 1/pk	Required to support routine operation of the SPS 4 autosampler.	
3710049000	Peristaltic pump tubing for supply of rinse solution to the autosampler, PVC Solvaflex, 3-bridged, grey/grey tabs, 12/pk	Required for routine operation as regular replacement of the pump tubing is recommended.	
6610025400	Sample rack for 16 mm od tubes, 60 positions	Additional sample racks are recommended to provide additional holding and storage capacity.	
6610026100	Rack overlay for 60-position sample rack. Allows 13 mm od tubes to be used in 60-position rack	Additional sample racks are recommended to provide additional holding and storage capacity.	
6610026600	Sample rack for 30 mm od tubes, 21 positions	Additional sample racks are recommended to provide additional holding and storage capacity.	
G8410-40000	Standards rack, 34 position, for SPS 4 autosampler	Additional standard rack for AA/MP-AES and ICP-OES autosampler configuration.	
190049700	Polypropylene sample tubes, 16 mm od, 125 mm height, 1000/pk	Sample tube recommended for the 60-position sample rack.	
190065200	Centrifuge tubes, screw-capped, 29 mm od, 50 mL polypropylene, 500/pk	Sample tube recommended for the 21-position sample rack.	
G8010-60306	Autosampler Connection Kit for AVS 6/7 switching valve used with 5000 series ICP-OES, 1/pk	Recommended when the user wants to use the autosampler with the AVS 6/7 switching valve. Super Flangeless One-Piece Fitting, 1/4-28 Flat-Bottom, for 1/16" OD tubing used to join the probe line to the valve assembly.	

AVS 6/7 Advanced Valve System Supplies Recommendations (5000 Series ICP-OES)

Part Number	Product Description	Description and Usage	
G8494-60002	Rotor seal for 6-7 port valve for AVS 6/7 switching valve used with 5800/5900 ICP-OES, 1/pk.	Standard rotor seal with the AVS 6/7. This part wears with use and should be inspected regularly. Users will periodically need to replace this component and should have extras on hand.	
G8495-60000 (AVS 7) or G8494-60000 (AVS 6)	Spare valve, 6/7 port, 2 positions for AVS 6/7 switching valve used with 5800/5900 ICP-OES, 1/pk	Replacement valve assembly for the AVS 6/7. This part wears with use and should be inspected regularly. Users will periodically need to replace this component and should have extras on hand.	
UCP316	PTFE plug for 1/4-28 flat bottom, 1/pk	Blanking plug that can be used to block the 7th port of the AVS 7, if internal standard addition is NOT required.	
G8494-60005	Rinse (10 L) and waste (20 L) containers for AVS 6/7 switching valve used with 5800/5900 ICP-OES	10 L HDPE container for rinse solution and 20 L HDPE container for waste, both fitted with safety caps to prevent vapors reaching the lab. Supply lines fitted with sinkers to ensure the capillary draws from the base of the container.	
G8495-60005	Internal standard container (5 L) kit for AVS 7 switching valve used with 5800/5900 ICP-OES, 1/pk.	5 L polypropylene space saver container for internal standard. Fitted with safety caps to prevent vapors in the laboratory. Supply line fitted with sinker to ensure the capillary draws from the base of the container.	
G8494-60007	Reagent uptake capillary tube 1.6 mm OD x 1.0 mm ID x 1400 mm long with heavy PTFE sinker, 1/pk.	Supply line for rinse/internal standard supply to instrument, fitted with sinker to ensure the capillary draws from the base of the container.	

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