ENSURE INSTRUMENT REPRODUCIBILITY

Pump Tubing

PerkinElmer offers a wide range of high-quality peristaltic pump tubing for all of your Atomic Spectroscopy applications. Remember to replace your tubing frequently and always keep spares on hand.

2-Stop Peristaltic Pump Tubing

i.d. (mm)	Stop Colors	Part No.
Standard PVC (Pkg. 12)		
0.19	Orange - Red	**N0695476**
0.25	Orange - Blue	**N0773117**
0.38	Orange - Green	**N0777110**
0.64	Orange - White	**N8122012**
0.76	Black - Black	**09908587**
1.14	Red - Red	**09908585**
1.42	Yellow - Yellow	**N0777521**
1.52	Yellow - Blue	**09923536**
1.85	Green - Green	**N0777518**
2.06	Purple - Purple	**N0777561**
Flared PVC (Pkg. 12)		
0.19	Orange - Red	**N0773111**
0.25	Orange - Blue	**N0773112**
0.38	Orange - Green	**N0777042**
0.44	Green - Yellow	**N0773113**
0.51	Orange - Yellow	**N0777476**
0.64	Orange - White	**N0777711**
0.76	Black - Black	**N0777043**
Solvent Flex (Pkg. 12)		
0.38	Orange - Green	**N8145211**
0.76	Black - Black	**00473550**
1.14	Red - Red	**09923037**
2.79	Purple - White	**02508080**

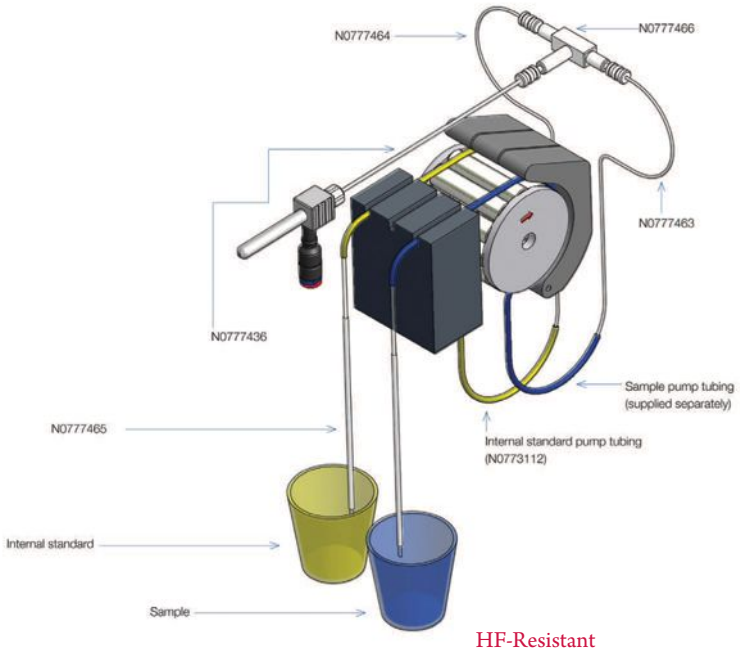
i.d. (mm)	Stop Colors	Part No.
Viton® (Pkg. 12)		
0.51	Orange - Yellow	**N0777446**
0.76	Black - Black	**N0773118**
1.02	White - White	**N0777442**
1.14	Red - Red	**N0773115**
1.30	Gray - Gray	**N0777445**
1.65	Blue - Blue	**N0777447**
Santoprene® (Pkg. 12)		
1.14	Red - Red	**N0773119**
1.30	Gray - Gray	**N0777444**
1.85	Green - Green	**N0773116**
Silicone (Pkg. 6)		
0.76	Black - Black	**00473552**
1.02	White - White	**N0777441**
1.14	Red - Red	**N0691595**
1.30	Gray - Gray	**N0777443**
2.79	Purple - White	**09923448**

3-Stop Peristaltic Pump Tubing

i.d. (mm)	Stop Colors	Part No.
Standard PVC (Pkg. 12)		
0.76	Black - Black	**B0506058**
1.14	Red - Red	**B0193160**
1.52	Yellow - Blue	**B0193161**
2.06	Purple - Purple	**B0199034**
3.18	Black - White	**B0508310**

Internal Standard Kits

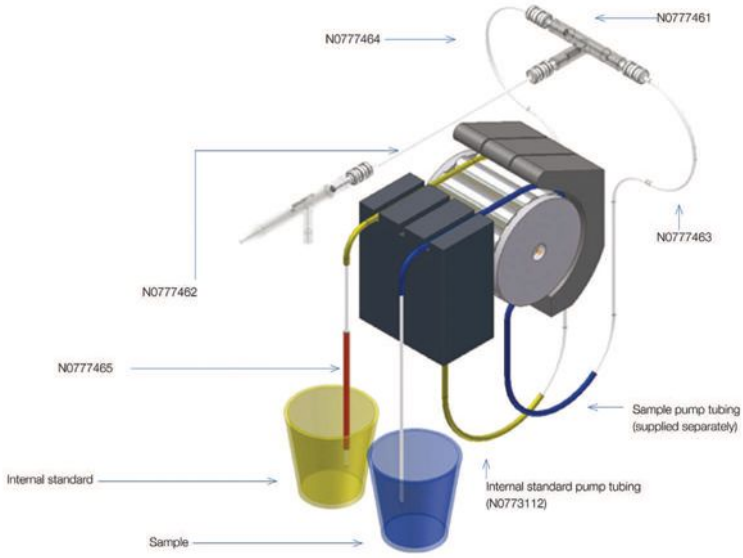
In-line Standard Additions kits, one which includes a glass mixing chamber/combiner for solutions which do not contain HF and another which includes an inert mixing chamber/combiner. Both kits are completely modular so that damaged or worn components can easily be replaced. The heart of the kit is the mixing chamber/combiner. It is designed for zero dead volume on the input ends which accommodate the sample and addition lines. The output end is designed with a small mixing chamber so that the sample and added reagent are intimately mixed prior to introduction to the nebulizer. All connections to the mixing chamber/combiner use EzyFit connectors. A sampling probe for the reagent addition bottle is included so that it remains well anchored in the bottle. Inline addition of internal standards and ionization buffers provides an efficient means of accurately and precisely dosing all of your samples without extra effort or the risk of error or contamination. Internal standardization is often used to compensate for physical and mass-space interferences in ICP spectrometry. In many cases, it also enhances short-term and long-term reproducibility.



HF-Resistant
Internal Standard Kit

HF-Resistant Internal Standard Kit

Description	Part No.
HF-Resistant Internal Standard Kit	**N0774067**
Kit Includes:	
HF Mixing T-piece	**N0777466**
Internal Standard Sample Probe	**N0777465**
EzyFit Sample Tube 0.5 mm ID	**N0777463**
EzyFit with 1/16 inch OD x 0.50 mm ID x 700 mm Long Sample Tube	**N0777436**
EzyFit with 1/16 inch OD x x 0.25 mm ID x 700 mm Long Sample Tube	**N0777437**
Vitex® Gripper Paper	
Orange-Blue Flared End PVC Tubing 0.25 i.d. - Pkg 12	**N0773112**



Non HF-Resistant
Internal Standard Kit

Non HF-Resistant Internal Standard Kit

Description	Part No.
Non HF-Resistant Internal Standard Kit	**N0774068**
Kit Includes:	
EzyFit Glass Mixing T-piece	**N0777461**
Internal Standard Sample Probe	**N0777465**
EzyFit Sample Tube - Twin	**N0777462**
EzyFit with 1/16 inch OD x 0.50 mm ID x 700 mm Long Sample Tube	**N0777436**
EzyFit with 1/16 inch OD x x 0.25 mm ID x 700 mm Long Sample Tube	**N0777437**
Vitex® Gripper Paper	
Orange-Blue Flared End PVC Tubing 0.25 i.d. - Pkg 12	**N0773112**

AUTOSAMPLER PROBES AND COMPONENTS

S10 Autosampler

AS-90/90A/90*plus*/91/93*plus*/S10 Sampling Probe Assemblies

Stainless Steel

Description	Part No.
Flame Sampling Probe Assembly, 0.6 mm i.d. Includes Stainless Steel Sampling Probe and Screw Fitting (B3000152) and Flame Capillary (B3000157 – replaces B0196963) Tubing Assembly.	**B3000159**
FIAS™ Sampling Probe Assembly, 0.6 mm i.d. Includes Stainless Steel Sampling Probe and Screw Fitting (B3000152) and FIAS Capillary Tubing Assembly (B3000158 – replaces B0196966).	**B3000160**
FIAS Standard Sampling Probe Assembly, 1.0 mm i.d. Includes Stainless Steel Sampling Probe and Screw Fitting (B3000152) and FIAS Capillary Tubing Assembly (B0191060 – replaces B0501044).	**B3000161**

Corrosion-Resistant

Corrosion-resistant probes are suitable for inorganic acids and most organic solvents, except NMP.

Description	Part No.
Flame Sampling Probe Assembly, 0.6 mm i.d.* Includes Sampling Probe with FEP Tube and Screw Fitting (B3000055) and Capillary Tubing Assembly (B3000157).	**B3001770**
FIAS Sampling Probe Assembly, 0.6 mm i.d.* Includes Sampling Probe with FEP Tube and Screw Fitting (B3000055) and FIAS Capillary Tubing Assembly (B3000158).	**B3001771**
FIAS Standard Sampling Probe Assembly, 1.0 mm i.d.* Includes Sampling Probe with FEP Tube and Screw Fitting (B3001769) and Capillary Tubing Assembly (B0191060).	**B3001772**

*This probe cannot be used with AS-90s, which have the older sampling probe holder.

Used Oil Autosampler Probe

Autosampler probe for the AS-90plus, AS-93plus and S10 Autosamplers. The probe includes a particulate filter on the tip to remove fibers.

Description	Part No.
Used Oil Autosampler Probe	**N0771529**

Sampling Probe Assembly Components

Description	Part No.
Stainless Steel Sampling Probe with Screw Fitting Requires, but does not include, one of the capillary tubing assemblies described below.	**B3000152**
Flame Capillary Tubing Assembly 1 m length, 0.6 mm i.d., one fitting	**B3000157**
FIAS Capillary Tubing Assembly 1 m length, 0.6 mm i.d., two fittings	**B3000158**
FIAS Capillary Tubing Assembly 1 m length, 1.0 mm i.d., two fittings	**B0191060**

ESI Autosampler Probes

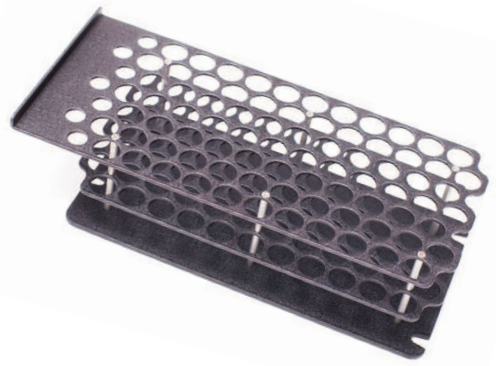
Description	Part No.
Autosampler Probes	
Autosampler Probe, 0.15 mm	**N0777221**
Autosampler Probe, 0.20 mm	**N0777222**
Autosampler Probe, 0.25 mm	**N0777223**
Autosampler Probe, 0.30 mm	**N0777224**
Autosampler Probe, 0.50 mm	**N0777225**
Autosampler Probe, 0.80 mm	**N0777226**
Sample Probes	
High Flow, Carbon Fiber Support, 0.8 mm i.d. (blue)	**N0777285**
Low Flow, Carbon Fiber Support, 0.8 mm i.d. (blue)	**N0777266**
Sample Probe Line Holder	**N0777227**
Carrier Probes	
High Flow, Carbon Fiber Support, 0.5 mm i.d. (orange)	**N0777286**
Low Flow, Carbon Fiber Support, 0.5 mm i.d. (orange)	**N0777267**

Cetac Autosampler Probes

Description	Part No.
Cetac Autosampler Probe, 12 inch length, 0.5 mm i.d.	**N0774088**
Cetac Stainless Steel Sample Probe with Filter Tip	**N0777146**

Accessories

Description	Part No.
Cleaning Wire	**B0505962**
S10 Dust Cover	**N2020045**



Sample Trays

AS-90/90A/90*plus* Sample Trays

Description/Capacity	Sample Vessel Size	Part No.
Tray A – 144	4.5 mL, 6 mL, 8 mL	**B3000133**
Tray B – 98*	15 mL, 16 mL	**B3000132**
Tray C – 36	50 mL	**B3000135**
Blank Tray		**B0501056**

*Polypropylene sample tray.

AS-91 Sample Trays

Description/Capacity	Sample Vessel Size	Part No.
Tray E – 218	4.5 mL, 6 mL, 8 mL	**B0509554**
Tray F – 152	15 mL, 16 mL	**B0509555**
Tray G – 55	50 mL	**B0508520**

Trays A, C, E, F and G are powder-coated, corrosion-resistant aluminum.

AS-93*plus*/S10 Sample Tray

Description/Capacity	Sample Vessel Size	Part No.
Tray F – 9/29	50 mL/15 mL	**B3001647**
Tray E – 90	4.5 mL, 6 mL, 8 mL	**B3140617**
Tray F – 60	15 mL, 16 mL	**B3140618**
Tray G – 30	50 mL	**B3140621**

AS-93plus sample trays are polypropylene.

AS-93*plus*/S10 Rinsing Kit

Description/Capacity	Part No.
AS-93*plus* Rinsing Kit	**B3140236**
Spare Parts	
Rinsing Port	**B3140622**
Adapter M	**B0507919**
Pump Tube – 2.79 mm i.d. (pkg. 6)	**B3140721**
Pump Tube – 1.14 mm i.d. (pkg. 6)	**B3140730**
Tygon® Drain Tube – 2 m	**B0509650**
PVC Rinse Liquid Feed Tube – 2 m	**B0048139**
Connector	**B3140715**

Cetac Autosampler Supplies

Racks

Rack	Vial Size	Part No.
21-Position	50 mL	**N0777152**
24-Position	30 mL	**N0777151**
40-Position	20 mL	**N0777150**
40-Position	20 mL	**N0777169**
40-Position/Gilson 29	20 mL	**N0777155**
45-Position/120 cc Sample Rack (oils)		**N0777298**
60-Position	14 mL	**N0777149**
80-Position Collection Metal for Oil		**N0774085**
90-Position	8 mL	**N0777148**
90-Position (Round Hole)	8 mL	**N0777153**
90-Position Collection Metal for Oil		**N0777154**

ESI Autosampler Supplies

Racks and Rack Covers

Standard Racks

Description	Size	Diameter	Part No.
10-Position		28 mm	**N0777228**
24-Position	4 x 6	14 mm	**N0777234**
Adapter Plate**			**N0777235**

**For Gemetec/Cetac ASX-100's racks

Micro Racks

21-Position	3 x 7	14 mm	**N0777229**
40-Position	4 x 10	14 mm	**N0777230**
60-Position	5 x 12	8 mm	**N0777231**
90-Position	5 x 12		**N0777232**
Cover for Micro Racks			**N0777233**

Large Racks

21-Position	3 x 7	30 mm	**N0777242**
40-Position	4 x 10	20 mm	**N0777243**
60-Position	5 x 12	16 mm	**N0777244**
90-Position	6 x 15	13 mm	**N0777245**

Super Racks

10-Position***	2 x 5	61 mm	**N0777253**
12-Position	2 x 6	50 mm	**N0777252**
21-Position	3 x 7	22 mm	**N0777251**
21-Position	3 x 7	28 mm	**N0777250**
21-Position	3 x 7	30 mm	**N0777249**
27-Position	3 x 9	28 mm	**N0777248**
80-Position	5 x 16	16 mm	**N0777247**
120-Position	6 x 20	13 mm	**N0777246**

***Holds 205 mL bottles.

Polypropylene Autosampler Tubes for AA, ICP-OES and ICP-MS

Standard Tubes with Screw Caps and Printed Graduations

Translucent polypropylene tubes are designed to provide you with excellent chemical resistance.

Capacity	Size	Description	Qty/Pack	Qty/Case	Part No.
15 mL Conical	17 mm x 120 mm	50/Bag, 10 Bags/Case	50	500	**B0193233**
50 mL Conical/Freestanding	28 mm x 115 mm	25/Bag, 20 Bags/Case	25	500	**B0193234**

Autosampler Tubes with Round Bottom

Capacity	Size	Type	Qty/Pack	Part No.
5 mL Round Bottom	12 mm x 75 mm	Round Bottom	500	**B0193235**
8 mL Round Bottom	13 mm x 100 mm	Round Bottom	1,200	**N0777156**
8 mL Round Bottom	13 mm x 100 mm	Round Bottom/Bulk	1,000	**B0508901**
8 mL Round Bottom	13 mm x 100 mm	Round Bottom	250	**N0777159**
15 mL Round Bottom	17 mm x 100 mm	Round Bottom	1,200	**N0777167**
		Plug for 15 mL Vials (Part No. N0777167)	1,200	**N0777599**
15 mL Round Bottom	17 mm x 100 mm	Round Bottom	250	**N0777168**
16 mL Round Bottom	17 mm x 100 mm	Round Bottom/Packs of 125	1,000	**N9301205**
50 mL Round Bottom	30 mm x 115 mm	Round Bottom/Bulk	500	**N0777158**
50 mL Round Bottom	30 mm x 115 mm	Round Bottom/50 Tubes per bag	500	**N0777164**

SuperClear™ Tubes with Printed Graduations

SuperClear tubes are made from a unique medical grade resin that is far more durable than commodity grade resins used in most other brands of tubes. Tubes are available with either a flat cap with a two stage seal, or a plug style cap that includes a very deep sealing area.

Capacity	Size	Description	Qty/Pack	Qty/Case	Part No.
15 mL SuperClear Tubes with Flat Caps					
15 mL Conical	17 mm x 118 mm	50/Bag, 10 Bags/Case	50	500	**N0777701**
15 mL Conical	17 mm x 118 mm	25/Rack, 2 Racks/Pkg, 10 Pkg/Cs	50	500	**N0777702**
15 mL Conical	17 mm x 118 mm	Bulk, Tubes & Caps in Separate Bags	500	500	**N0777703**
50 mL SuperClear Tubes with Flat Caps					
50 mL Conical	29 mm x 115 mm	50/Bag, 10 Bags/Case	50	500	**N0777691**
50 mL Conical	29 mm x 115 mm	25/Rack, 20 Racks/Case	25	500	**N0777692**
50 mL Conical	29 mm x 115 mm	Bulk, Tubes & Caps in Separate Bags	500	500	**N0777693**

PerformR™ Freestanding Tubes with Printed Graduations

Freestanding 50 mL Tubes are available for use in those applications where a rack is not available. They include a large white solvent resistant writing area and black graduations. Available with either a flat cap or a plug style cap. Certified to IATA 95kPa Standard.

Capacity	Size	Description	Qty/Pack	Qty/Case	Part No.
Freestanding 50 mL Tubes with Flat Caps					
50 mL Conical/Freestanding	29 mm x 115 mm	50/Bag, 10 Bags/Case	50	500	**N0777697**
50 mL Conical/Freestanding	29 mm x 115 mm	Bulk, Tubes & Caps in Separate Bags	500	500	**N0777698**

CONSUMABLE APPLICATION PACKS

We've taken the guesswork out of ordering. Everything you need to run your analysis – from lamps and standards to application notes – in one, easy-to-order pack.

PinAAcle 900Z Application Pack for Blood Lead Determination (Part No. N0770885)

Centers for Disease Control (CDC) require action for blood-lead level concentration above the 10 µg/dL guideline. Validated applications to determine whole blood levels are possible with PinAAcle 900Z with application pack.

Includes: Lamps, Standards, Graphite Tubes, and Sample Cups*.

PinAAcle 900 Application Pack for Trace Metals in Water by GFAAS (Method 200.9) (Part No. N0770886)

PinAAcle 900 with application pack helps analyze several trace elements – including arsenic, cadmium, lead, selenium and thallium – that are recognized as toxic or carcinogenic in drinking water.

Includes: Lamps, Standards, Graphite Tubes, and Sample Cups*.

PinAAcle 900 Application Pack for Toxic and Trace Elements in Food (Part No. N0770887)

Ingesting of trace elements from food can be linked to nutrition, disease, and even physiological development. PinAAcle 900 with application pack helps determine the presence of these elements.

Includes: Lamps, Standards, Burner Head, Graphite Tubes, and Sample Cups*.

Optima 8x00 Application Pack for Toxicity Characteristic Leaching Procedure (TCLP) Extracts by Method 6010 (Part No. N0770888)

This application pack contains all the consumables to run TCLP, the most quantitative test required by the EPA to determine the toxicity levels and disposal regulations for unknown materials.

Includes: Autosampler Tubes and Standards*.

Optima 8300 Application Pack for Multi-element Analysis of Rocks and Sediment (Part No. N0770889)

Optima 8300 with application pack can be used to determine if soils are deficient in micronutrients or if they contain toxic heavy metal contamination.

Includes: Autosampler Tubes, Pump Tubing, Standards, Mixing Block, and Internal Standard probe*.

Description	Instrument	Part No.
Blood Lead Determination	PinAAcle 900Z	**N0770885**
Trace Metals in Water by GFAAS	PinAAcle 900	**N0770886**
Toxic and Trace Elements in Food	PinAAcle 900	**N0770887**
Toxicity Characteristic Leaching Procedure (TCLP) Extracts	Optima 8x00	**N0770888**
Multi-element Analysis of Rocks and Sediment	Optima 8300	**N0770889**

*** Please visit our website for complete details on what is included in each Application Pack.**

PIONEERED THE USE OF FLOW INJECTION TECHNIQUES

The use of flow injection saves time, money and manpower — while at the same time, extending your analytical flexibility and capabilities.

PerkinElmer carries a wide selection of genuine supplies and accessories for your FIMS-100, FIMS-400, FIAS-100 or FIAS-400. Keeping your system in good working order by using only the best replacement parts is the first step in assuring quality analytical performance. Regular maintenance and/or replacement of consumables such as tubing, connectors and adapters will maximize the lifetime and productivity of your PerkinElmer flow injection system.

Adapters with Internal Thread

¼ in (6.4 mm) Internal Screw Thread

Type*	Description	Part No.
A B	A 1.8 mm o.d. nipple	B0193342
	B 3.3 mm o.d. nipple	B0506716
C	4 mm o.d. nipple	B0196850
E	For the quartz cell	B0196857
F	0.7 mm o.d. Pt/Ir capillary nipple	B0193873
G	Two nipples to connect tubes to the pre-concentration accessory	B0501580

Connectors

Type*	Description	Part No.
IA	Connector with nipples for 1.7 to 3.2 mm i.d. tubes	B0199233
IB	Connector with nipples for 2.4 to 3.2 mm i.d. tubes	B0196882
II	Connector with 1/4 in (6.4 mm) internal screw thread	B0196704
IIIA	T-piece with nipples for 1.5 to 2.5 mm i.d. tubes	B0199035
IIIB	T-piece with nipples for 3.5 to 4.5 mm i.d. tubes	B0198201

Adapters with External Thread

¼ in (6.4 mm) External Screw Thread

Type*	Description	Part No.
K L	K 1.8 mm o.d. nipple	B0507918
	L 2.8 mm o.d. nipple	B0507920
M	4 mm o.d. nipple	B0507919
N	0.7 mm o.d. Pt/Ir capillary nipple	B0507949
	Screw Plug	B0507921

*Type designation refers to diagrams in instrument manuals.

Mixing/Separation Assembly

Complete modular unit, consisting of two mixing manifolds with tubing adapters, a gas liquid separator with a PTFE membrane, five spare PTFE membranes, one PTFE tube (110 mm long) and one PTFE tube (300 mm long).

Description	Part No.
Mixing/Separation Assembly	**B0507957**

Mixing Block

Modular "building block" type mixing manifold with one mixing channel and three connections, two inlet and one outlet. Made from chemically-resistant plastic. Several of these blocks can be "plugged" together easily to create a single unit with enhanced mixing capabilities.

Description	Part No.
Mixing Block	**B0507962**

Gas/Liquid Separator

Modular "building block" type gas-liquid separator made from chemically-resistant plastic. An exchangeable PTFE membrane in the screw cap of the separator prevents liquid from being carried into the quartz cell when working with strong foaming samples.

Description	Part No.
Gas/Liquid Separator	**B0507959**
Glass Gas/Liquid Separator	**B0193772**
Gas/Liquid Separator Holder for Glass Separator	**B0509479**
PTFE Membrane (pkg. 50)	**B0508306**
Mixing Manifold for Glass Gas/Liquid Separator	**B0187258**

Tool, Screw Connectors

Description	Part No.
Tool, Screw Connectors	**B0501315**

Flow Injection Furnace Supplies

Description	Part No.
FIAS-Furnace Sample Transfer Tube	**B0509612**
Quartz Pipette Tip/20 mm (pkg. 1)	**B0510032**
Silicone Tube	**B0029796**

Sample Loops

Description	Part No.
200 µL	**B0194048**
500 µL	**B0194049**
1,000 µL	**B0501000**

Tubing

Peristaltic pump tubing has a wall thickness of 0.84 mm.

3-Stop Peristaltic Pump Tubing Pkg. 12

Tubing i.d.	Color Code	Part No.
0.76 mm	Black/black	**B0506058**
1.14 mm	Red/red	**B0193160**
1.52 mm	Yellow/blue	**B0193161**
2.06 mm	Violet/violet	**B0199034**
3.18 mm	Black/white	**B0508310**

Peristaltic Pump Tubing, Solvent-Resistant

Tubing i.d.	Color Code	Part No.
1.14 mm	White/white	**B0507692**

PTFE Tubing

Tubing i.d.	Length	Part No.
0.35 mm	1 m	**B0506060**
0.5 mm	1 m	**B0507020**
0.7 mm	1 m	**B0507021**
1.0 mm	1 m	**B0029792**
1.75 mm	1 m	**B0017998**

PTFE Tubing Assemblies

Tubing i.d.	Screw Fittings Color	Length	Part No.
0.35 mm	White	60 mm	**B0501594**
1.0 mm	Blue	110 mm	**B0191058**
1.0 mm	Blue	300 mm	**B0198097**
1.0 mm	Blue	700 mm	**B0191059**
1.0 mm	Blue	1,000 mm	**B0191060**
1.75 mm	Black	250 mm	**B0198099**
1.75 mm	Black	450 mm	**B0198100**
3-dimensional reactor 0.35 mm (two flanged ends)			**B0501595**

PVC Tubing

Description	Part No.
3 mm i.d. with 1 mm wall thickness, no fittings	**B0048139**

Price per meter.

Silicone Tubing

Description	Part No.
1 m x 5 mm i.d., no fittings	**B0018283**
1 m x 3 mm i.d.	**B0070126**
For FIMS Cell Exhaust Outlet, 3 m	**B0046948**

Rinse Pump Tubing, Pharmed

Tubing i.d.	Color Code	Pkg	Part No.
1.14 mm	Red/red	6	**B3140730**
2.79 mm	Purple/white	6	**B3140721**

EXPERIENCE RELIABLE, ACCURATE RESULTS

Inorganic Aqueous Standards

PerkinElmer offers a complete selection of atomic spectroscopy aqueous standards. Each solution is supplied with a comprehensive Certificate of Analysis that documents the quality and reliability.

Pure Grade Standards for AA and ICP-OES

- Analyzed by ICP-OES
- Analyzed by Classical Wet Assay
- 32 trace impurities analyzed by ICP-MS of the final solution and reported on the certificate
- Impurities reported at ppm level
- All Standards are prepared and certified under ISO Guide 34 and ISO 17025 – certified by A2LA

Pure Plus Grade Standards for ICP-MS

- Analyzed by ICP-OES
- Analyzed by Classical Wet Assay
- 67 trace impurities analyzed by ICP-MS of the final solution and reported on the certificate
- Impurities reported at ppb level
- All Standards are prepared and certified under ISO Guide 34 and ISO 17025 – certified by A2LA

PerkinElmer Standards are compatible with other manufacturers' instruments

Single-Element Standards – 1,000 mg/L

Element	Symbol	Matrix	Pure Grade 125 mL Part No.	Pure Grade 500 mL Part No.	Pure Plus Grade 125 mL Part No.
Aluminum	Al	2% HNO_3	**N9300184**	**N9300100**	**N9303726**
Antimony	Sb	2% HNO_3	**N9300207**	**N9300101**	**N9303750**
Arsenic	As	2% HNO_3	**N9300180**	**N9300102**	**N9303727**
Barium	Ba	2% HNO_3	**N9300181**	**N9300103**	**N9303729**
Beryllium	Be	2% HNO_3	**N9300172**	**N9300104**	**N9303730**
Bismuth	Bi	10% HNO_3	**N9303761**	**N9300105**	**N9303731***
Boron	B	H_2O	**N9303760**	**N9300106**	
Cadmium	Cd	2% HNO_3	**N9300176**	**N9300107**	**N9303734**
Calcium	Ca	2% HNO_3	**N9303763**	**N9300108**	**N9303733**
Carbon	C	H_2O	**N9303762**	**N9300109**	
Cerium	Ce	2% HNO_3	**N9303765**	**N9300110**	
Cesium	Cs	2% HNO_3	**N9303767**	**N9300111**	
Chromium	Cr	2% HNO_3	**N9300173**	**N9300112**	**N9303736**
Cobalt	Co	2% HNO_3	**N9303766**	**N9300113**	**N9303735**
Copper	Cu	2% HNO_3	**N9300183**	**N9300114**	**N9303737**
Dysprosium	Dy	2% HNO_3	**N9303768**	**N9300115**	
Erbium	Er	2% HNO_3	**N9303769**	**N9300116**	
Europium	Eu	2% HNO_3	**N9303770**	**N9300117**	
Gadolinium	Gd	2% HNO_3	**N9303773**	**N9300118**	
Gallium	Ga	2% HNO_3	**N9303772**	**N9300119**	
Germanium	Ge	H_2O/0.16% F-	**N9303774**	**N9300120**	**N9303739***
Gold	Au	10% HCl	**N9303759**	**N9300121**	**N9303728****
Hafnium	Hf	2% HCl	**N9303775**	**N9300122**	
Holmium	Ho	2% HNO_3	**N9303776**	**N9300123**	
Indium	In	2% HNO_3	**N9303777**	**N9300124**	**N9303741***

Element	Symbol	Matrix	Pure Grade 125 mL Part No.	Pure Grade 500 mL Part No.	Pure Plus Grade 125 mL Part No.
Iridium	Ir	10% HCl	**N9303778**	**N9300125**	
Iron	Fe	2% HNO_3	**N9303771**	**N9300126**	**N9303738**
Lanthanum	La	2% HNO_3	**N9303780**	**N9300127**	
Lead	Pb	2% HNO_3	**N9300175**	**N9300128**	**N9303748**
Lithium	Li	2% HNO_3	**N9303781**	**N9300129**	
Lutetium	Lu	2% HNO_3	**N9303782**	**N9300130**	
Magnesium	Mg	2% HNO_3	**N9300179**	**N9300131**	**N9303743**
Manganese	Mn	2% HNO_3	**N9303783**	**N9300132**	**N9303744**
Mercury	Hg	10% HNO_3	**N9300174**	**N9300133**	**N9303740***
Molybdenum	Mo	H_2O	**N9303784**	**N9300134**	**N9303745**
Neodymium	Nd	2% HNO_3	**N9303787**	**N9300135**	
Nickel	Ni	2% HNO_3	**N9300177**	**N9300136**	**N9303747**
Niobium	Nb	H_2O/0.4% HF	**N9303786**	**N9300137**	
Palladium	Pd	10% HCl	**N9303789**	**N9300138**	
Phosphorus	P	H_2O	**N9303788**	**N9300139**	
Platinum	Pt	10% HCl	**N9303791**	**N9300140**	
Potassium	K	2% HNO_3	**N9303779**	**N9300141**	**N9303742**
Praseodymium	Pr	2% HNO_3	**N9303790**	**N9300142**	
Rhenium	Re	H_2O	**N9303793**	**N9300143**	
Rhodium	Rh	10% HCl	**N9303794**	**N9300144**	**N9303749***
Rubidium	Rb	2% HNO_3	**N9303792**	**N9300145**	
Ruthenium	Ru	10% HCl	**N9303795**	**N9300146**	
Samarium	Sm	2% HNO_3	**N9303800**	**N9300147**	
Scandium	Sc	2% HNO_3	**N9303798**	**N9300148**	**N9303751***
Selenium	Se	2% HNO_3	**N9300182**	**N9300149**	**N9303752**
Silicon	Si	H_2O	**N9303799**	**N9300150**	
Silver	Ag	2% HNO_3	**N9300171**	**N9300151**	**N9303725**
Sodium	Na	2% HNO_3	**N9303785**	**N9300152**	**N9303746**
Strontium	Sr	2% HNO_3	**N9303802**	**N9300153**	
Sulfur	S	H_2O	**N9303796**	**N9300154**	
Tantalum	Ta	H_2O/0.8% HF	**N9303803**	**N9300155**	
Tellurium	Te	5% HNO_3	**N9303805**	**N9300156**	
Terbium	Tb	2% HNO_3	**N9303804**	**N9300157**	**N9303753***
Tin	Sn	20% HCl	**N9303801**	**N9300161**	**N9303838**
Thallium	Tl	2% HNO_3	**N9300170**	**N9300158**	**N9303755**
Thorium	Th	2% HNO_3	**N9303842**		
Thulium	Tm	2% HNO_3	**N9303807**	**N9300160**	
Titanium	Ti	H_2O/tr 0.24% F-	**N9303806**	**N9300162**	**N9303754**
Tungsten	W	H_2O	**N9303809**	**N9300163**	
Uranium	U	2% HNO_3		**N9303844**	
Vanadium	V	2% HNO_3	**N9303808**	**N9300165**	**N9303756**
Ytterbium	Yb	2% HNO_3	**N9303811**	**N9300166**	
Yttrium	Y	2% HNO_3	**N9303810**	**N9300167**	**N9303757***
Zinc	Zn	2% HNO_3	**N9300178**	**N9300168**	**N9303758**
Zirconium	Zr	2% HNO_3	**N9303812**	**N9300169**	

* 10 mg/L ** 100 mg/L

Single-Element Standards – 10,000 mg/L

Element	Symbol	Matrix	Pure Grade 125 mL Part No.	Pure Grade 500 mL Part No.
Aluminum	Al	5% HNO_3	**N9304111**	**N9304110**
Calcium	Ca	5% HNO_3	**N0691581**	**N9303764**
Copper	Cu	5% HNO_3	**N9304112**	
Iron	Fe	5% HNO_3	**N9304113**	**N9307117**
Magnesium	Mg	5% HNO_3	**N0691745**	**N9304114**
Manganese	Mn	5% HNO_3	**N9304115**	
Nickel	Ni	5% HNO_3	**N9304117**	**N9304116**
Phosphorus	P	H_2O	**N9304119**	**N9304118**
Potassium	K	5% HNO_3	**N9304121**	**N9304120**
Silicon	Si	H_2O/4% HF	**N9304122**	
Sodium	Na	5% HNO_3	**N9304124**	**N9304123**
Sulfur	S	H_2O	**N9304126**	**N9304125**
Yttrium	Y	5% HNO_3	**N9304128**	**N9304127**
Zinc	Zn	5% HNO_3	**N9304129**	

Mixed Calibration Standards

Matrix	Contents	Volume	Part No.
Mixed Calibration Standard			
2% HNO_3	50 mg/L: As, K 10 mg/L: La, Li, Mn, Ni, Sr, Zn 1 mg/L: Ba, Mg	500 mL	**N0691579**
Mixed Calibration Standard 1			
2% HNO_3	500 mg/L: Pb 200 mg/L: Se 150 mg/L: Cd, Zn 100 mg/L: Mn 50 mg/L: Be	125 mL	**N9300200**
Mixed Calibration Standard 2			
5% HNO_3	10,000 mg/L: Fe 100 mg/L: Ba, Co, Cu, V	125 mL	**N9300201**
Mixed Calibration Standard 3			
2% HNO_3 /tr HF	500 mg/L: As 100 mg/L: Mo, Si	125 mL	**N9300202**
Mixed Calibration Standard 4			
5% HNO_3	1,000 mg/L: Ca 400 mg/L: K 200 mg/L: Al, Na 20 mg/L: Cr, Ni	125 mL	**N9300203**
Mixed Calibration Standard 5			
5% HNO_3 /tr Tartaric Acid/tr HF	1,000 mg/L: Mg 200 mg/L: Sb, Tl 100 mg/L: B 50 mg/L: Ag	125 mL	**N9300204**

Initial Calibration Verification Standards

Matrix	Contents	Volume	Part No.
5% HNO_3	500 mg/L: Ca, K, Mg, Na 200 mg/L: Al, Ba 100 mg/L: Fe 60 mg/L: Sb 50 mg/L: Co, V 40 mg/L: Ni 25 mg/L: Cu 20 mg/L: Zn 15 mg/L: Mn 10 mg/L: Ag, As, Cr, Tl 5 mg/L: Cd, Se 3 mg/L: Pb	500 mL	**N9300224**
5% HNO_3	Initial Calibration Verification Standard	125 mL	**N9303953**

Quality Control Standards

Matrix	Contents	Volume	Part No.
Quality Control Standard, 21 Elements Pure (Pure XVI)			
5% HNO_3 /tr Tartaric Acid/tr HF	100 mg/L: As, Be, Ca, Cd, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn	125 mL	**N9300281**
Quality Control Standard, 21 Elements Pure Plus			
5% HNO_3 /tr Tartaric Acid/tr HF	100 mg/L: As, Be, Ca, Cd, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn	125 mL	**N9303837**
Quality Control Standard, 7A Elements			
5% HNO_3 /tr HF	1,000 mg/L: K 500 mg/L: Si 100 mg/L: Al, B, Ba, Na 50 mg/L: Ag	125 mL	**N9300280**

Instrument Calibration Standards for CLP

Matrix	Contents	Volume	Part No.
Instrument Calibration Standard 1			
5% HNO_3	5,000 mg/L: Ca, K, Mg, Na	125 mL	**N9300218**
Instrument Calibration Standard 2			
5% HNO_3	400 mg/L: Ni 200 mg/L: Zn 150 mg/L: Mn 100 mg/L: Ag, Cr	125 mL	**N9300219**
Instrument Calibration Standard 3			
5% HNO_3	2,000 mg/L: Al, Ba 1,000 mg/L: Fe 500 mg/L: Co, V 250 mg/L: Cu 50 mg/L: Be	125 mL	**N9300220**
Instrument Calibration Standard 4			
5% HNO_3	100 mg/L: As, Tl 50 mg/L: Cd, Se 30 mg/L: Pb	125 mL	**N9300221**

Matrix Blanks

Matrix	Volume	Part No.
Water Blank		
ASTM® Type I Water, 18 megohm	125 mL	**N9303814**
ASTM® Type I Water, 18 megohm	250 mL	**N9303813**
Hydrochloric Acid Blank		
2% HCl in ASTM® Type I Water	125 mL	**N9303815**
2% Nitric Acid Blank		
2% HNO_3 in ASTM® Type I Water	125 mL	**N0773120**
2% HNO_3 in ASTM® Type I Water	500 mL	**N9308550**
1% Nitric Acid Blank		
1% HNO_3 in ASTM® Type I Water	125 mL	**N9303732**

GFAAS Mixed Standard

Matrix	Contents	Volume	Part No.
5% HNO_3 w/trace of HF	100 mg/L: Al, As, Pb, Sb, Se, Tl 50 mg/L: Ba, Co, Cu, Ni 20 mg/L: Cr, Fe, Mn 10 mg/L: Ag 5 mg/L: Be, Cd	125 mL	**N9300244**

AA Test Mix

Matrix	Contents	Volume	Part No.
2% HCl	50 mg/L: Ca, Cr, Cu, Fe, Ni 20 mg/L: K 10 mg/L: Na, Zn	125 mL	**02900540**

Contract Required Detection Limits (CRDL)

Matrix	Contents	Volume	Part No.
5% HNO_3 /tr Tartaric Acid/tr HF	120 mg/L: Sb 100 mg/L: Co, V 80 mg/L: Ni 50 mg/L: Cu 40 mg/L: Zn 30 mg/L: Mn 20 mg/L: Ag, As, Cr, Tl 10 mg/L: Be, Cd, Se 6 mg/L: Pb	125 mL	**N9300225**

Matrix Modifiers for Graphite Furnace AA

Matrix	Contents	Volume	Part No.
$Mg(NO_3)_2$	1% Mg $(HNO_3)_2$ (as nitrate)	100 mL	**B0190634**
Pd	1% Pd (as nitrate)	50 mL	**B0190635**
$NH_4H_2PO_4$	10% $NH_4H_2PO_4$	100 mL	**N9303445**

Reagents

Matrix	Volume	Part No.
Triton® X-100 Wetting Agent	100 mL	**N9300260**
Antifoaming Silicone Emulsion	500 mL	**B0507226**
Glycerol	1 L	**B3141064**

Instrument Check Standards

Matrix	Contents	Volume	Part No.
Instrument Check Standard 1			
2% HNO_3 /tr Tartaric Acid/tr HF	10 mg/L: Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Sb, Se, Tl, V, Zn	125 mL	**N9303821**
Instrument Check Standard 3			
2% HNO_3	200 mg/L: Ca, Fe, K, Mg, Na	125 mL	**N9303822**
Instrument Check Standard 4			
2% HNO_3	10 mg/L: Mo, Th, U	125 mL	**N9303823**
Instrument Check Standard 5			
2% HNO_3 /tr HF	10 mg/L: Mo, Sn, Sr, Ti	125 mL	**N9303824**

Interference Check Standards

Matrix	Contents	Volume	Part No.
Interference Check Standard 1			
H_2O/tr HNO_3/0.6% Tartaric Acid	1,000 mg/L: Sb	125 mL	**N9300207**
Interference Check Standard 5			
5% HNO_3	6,000 mg/L: Ca 5,000 mg/L: Fe 3,000 mg/L: Mg 1,200 mg/L: Al 1,000 mg/L: Na	125 mL	**N9300208**
Interference Check Standard 18			
5% HNO_3	20,000 mg/L: K 1,000 mg/L: As, Pb, Tl 500 mg/L: Se 300 mg/L: Ag, Ba, Cd, Co, Cr, Cu, Ni, V, Zn 200 mg/L: Mn 100 mg/L: Be, Hg*	125 mL	**N9300205**
Interferents A			
5% HNO_3	5,000 mg/L: Al, Ca, Mg 2,000 mg/L: Fe	500 mL	**N9300226**
Alternate Interferents A			
5% HNO_3	1,000 mg/L: Cr, Cu, Mn, Ni, Ti, V	500 mL	**N9300228**
Analytes B			
5% HNO_3 /trTartaric Acid/tr HF	100 mg/L: Cd, Ni, Zn 60 mg/L: Sb 50 mg/L: Ba, Be, Co, Cr, Cu, Mn, V 20 mg/L: Ag 10 mg/L: As, Tl 5 mg/L: Pb, Se	125 mL	**N9300227**
Alternate Analytes B			
5% HNO_3 /tr Tartaric Acid/tr HF	100 mg/L: Al, As, B, Mo, Na, Sb, Se, Tl 10 mg/L: Ca, Fe, Mg, Si	125 mL	**N9300229**
Interference Check Standards			
H_2O/tr HNO_3/0.6% Tartaric Acid	1,000 mg/L: Sb	500 mL	**N9303797**
Interference Check Solution 1 (for SW-846 & ILM 05.2)			
5% HNO_3 /tr HF	10,000 mg/L: Cl 2,000 mg/L: C 1,000 mg/L: Al, Ca, Fe, K, Mg, Na, P, S 20 mg/L: Mo, Ti	125 mL	**N9303828**
Interference Check Solution 2 (for SW-846)			
2% HNO_3	10 mg/L: Ag, As, Cd, Co, Cr, Cu, Mn, Ni, Zn	125 mL	**N9303830**
Analytes C (for ILM 05.2)			
2% HNO_3 /tr Tartaric Acid/tr HF	2 mg/L: Ag, As, Ba, Be, Cd, Co, Cr, Cu, Hg*, Mn, Ni, Pb, Sb, Se, Tl, V, Zn	125 mL	**N9303831**

*Supplied in separate bottle.

Universal Data Acquisition Standards Kit

Matrix	Contents	Volume	Part No.
Solution Kit (Includes items listed)			**N9306225**
5% HNO_3	10 mg/L: Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sm, Sc, Tb, Th, Tm, Y, Yb	125 mL	**N9300232**
5% HNO_3	10 mg/L: Al, Ag, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, In, K, Li, Mg, Mn, Na, Ni, Pb, Rb, Se, Sr, Tl, U, V, Zn	125 mL	**N9300233**
10% HCl /1% HNO_3	10 mg/L: Au, Hf, Ir, Pd, Pt, Rh, Ru, Sb, Sn, Te	125 mL	**N9300234**
5% HNO_3	10 mg/L: Hg	125 mL	**N9300253**
H_2O/tr HF /tr HNO_3	10 mg/L: B, Ge, Mo, Nb, P, Re, S, Si, Ta, Tl, W, Zr	125 mL	**N9300235**

Water Pollutant Standards

Matrix	Contents	Volume	Part No.
Primary Drinking Water Metals			
2% HNO_3	100 mg/L: Ba 10 mg/L: Ag, As, Cr, Hg*, Pb 5 mg/L: Cd, Se	125 mL	**N9300216**
Secondary Drinking Water Metals			
2% HNO_3	500 mg/L: Zn 100 mg/L: Cu 30 mg/L: Fe 5 mg/L: Mn	125 mL	**N9300217**
Trace Metals I			
5% HNO_3	500 mg/L: Al 250 mg/L: V 100 mg/L: As, Be, Co, Cr, Cu, Fe Mn, Ni, Pb, Zn 25 mg/L: Cd, Se 10 mg/L: Hg*	125 mL	**N9300211**
Trace Metals II			
2% HNO_3	20 mg/L: Sb, Tl 10 mg/L: Ag	125 mL	**N9300212**
Trace Metals III			
2% HNO_3	500 mg/L: Ba, Ca, Mo, Na 100 mg/L: K, Mg	125 mL	**N9300213**
Alternate Metals I			
2% HNO_3	20 mg/L: Al, Fe, V 10 mg/L: Co, Cu, Mn, Ni, Zn 5 mg/L: Be, Sb, Tl	125 mL	**N9300214**
Alternate Metals II			
2% HNO_3	500 mg/L: Ca, Na 100 mg/L: K, Mg	125 mL	**N9300215**
2% HNO_3	500 mg/L: Ca, Na 100 mg/L: K, Mg	500 mL	**N9303952**

*Supplied in separate bottle.

Instrument Setup Solutions

Matrix	Contents	Volume	Part No.
Vis Wavecal Solution			
2% HNO_3	50 mg/L: K 10 mg/L: La, Li, Mn, Na, Sr 1 mg/L: Ba, Ca	250 mL	**N9302946**
UV Wavecal Solution			
5% HCl	100 mg/L: K, P, S 20 mg/L: As, La, Li, Mn, Mo, Na, Ni, Sc	250 mL	**N0681470**
5% HCl	100 mg/L: K, P, S 20 mg/L: As, La, Li, Mn, Mo, Na, Ni, Sc 1 mg/L: Ca	500 mL	**N0582152**
Low UV Standard			
2% HNO_3	10 mg/L: Al, P, S	250 mL	**N0691580**
Calcium Stray Light Standard			
H_2O	10,000 mg/L: Ca	125 mL	**N0691581**

Spike Sample Analysis

Matrix	Contents	Volume	Part No.
Spike Sample Standard I			
5% HNO_3 /tr Tartaric Acid/tr HF	200 mg/L: Al, As, Ba, Se, Tl 100 mg/L: Fe 50 mg/L: Co, Mn, Ni, Pb, Sb, V, Zn 25 mg/L: Cu 20 mg/L: Cr 5 mg/L: Ag, Be, Cd	125 mL	**N9300230**
Spike Sample Standard I (water)			
5% HNO_3 /tr Tartaric Acid/tr HF	500 mg/L: Fe 250 mg/L: Ba, Zn 100 mg/L: Co, Cr, Cu, Mn, Ni, Sb, V 50 mg/L: As, Pb 25 mg/L: Ag, Be, Cd, Se, Tl	125 mL	**N9303839**
Spike Sample Standard 2 (soil)			
5% HNO_3 /tr Tartaric Acid/tr HF	250 mg/L: Ba, Cr, Cu, Zn 150 mg/L: V 125 mg/L: Ni 100 mg/L: Co, Pb, Sb 50 mg/L: As, Cd 25 mg/L: Ag, Be, Se, Tl	125 mL	**N9303840**
Spike Sample Standard 3 (for ILM 05.2)			
5% HNO_3 /tr Tartaric Acid/tr HF	200 mg/L: Al, Ba 50 mg/L: Co, Mn, Ni, V, Zn 25 mg/L: Cu 20 mg/L: Cr 10 mg/L: Sb 5 mg/L: Ag, Be, Cd, Tl 4 mg/L: As 2 mg/L: Pb 1 mg/L: Se	125 mL	**N9303841**

Internal Standard Solutions

Matrix	Contents	Volume	Part No.
Multi-Element Internal Standard			
2% HNO_3	10 mg/L: Bi, Ho, In, ^{6}Li, Sc, Tb, Y	125 mL	**N9303834**
Internal Standard Mix			
5-10% HNO_3	10 mg/L: Bi, Ge, In, ^{6}Li, Sc, Tb, Y	125 mL	**N9303832**
Internal Standard Mix			
5-10% HNO_3	10 mg/L: Bi, Ge, In, ^{6}Li, Sc, Tb, Y	500 mL	**N9303833**

Isotope Standard

Matrix	Contents	Volume	Part No.
Lithium 6 Standard			
2% HNO_3	100 mg/L: ^{6}Li	125 mL	**N9303955**

Wash Standards

Matrix	Volume	Part No.
ELAN DRC Wash Solution		
0.5% HNO_3	250 mL	**N8125033**
ELAN 9000/6X00/DRC-e Wash Solution		
1% HNO_3	1,000 mL	**N8122038**
NexION Wash Solution		
1% HNO_3	250 mL	**N8145050**
Water Blank		
ASTM® Type I Water, 18 megohm	125 mL	**N9303814**

Multi-Element Standards

Matrix	Contents	Volume	Part No.
Multi-Element Solution			
5% HNO_3	1,000 mg/L: Al, Ca, Fe, Mg	500 mL	**N9307113**
Multi-Element Solution			
5% HNO_3	1,000 mg/L: K, Na, P	500 mL	**N9307114**
Multi-Element Solution			
2-5% HNO_3	1,000 mg/L: Mo, Sb, Sn, W, Zr	500 mL	**N9307115**
Multi-Element Solution			
5% HNO_3	1,000 mg/L: As, Ba, Be, Cd, Cr, Co, Cu, La, Pb, Li, Mn, Ni, Sc, Sr, V, Y, Zn	500 mL	**N9307116**
Multi-Element Solution 1			
2% HNO_3	10 mg/L: Be, Bi, Ce, Co, In, Mg, Ni, Pb, U	125 mL	**N9300231**
Multi-Element Solution 2			
5% HNO_3	10 mg/L: Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sc, Sm, Tb, Th, Tm, Y, Yb	125 mL	**N9300232**
Multi-Element Solution 3			
5% HNO_3	10 mg/L: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, Hg*, In, K, Li, Mg, Mn, Na, Ni, Pb, Rb, Se, Sr, Tl, U, V, Zn	125 mL	**N9300233**
Multi-Element Solution 3 without Mercury			**N9301720**
Multi-Element Solution 4			
10% HCl/1% HNO_3	10 mg/L: Au, Hf, Ir, Pd, Pt, Rh, Ru, Sb, Sn, Te	125 mL	**N9300234**
Multi-Element Solution 5			
H_2O/tr HF/tr HNO_3	10 mg/L: B, Ge, Mo, Nb, P, Re, S, Si, Ta, Ti, W, Zr	125 mL	**N9300235**
Set of Multi-Element Solutions Includes: (1 bottle of each)			**N9300236**
Multi-Element Solution 2		125 mL	**N9300232**
Multi-Element Solution 3		125 mL	**N9300233**
Multi-Element Solution 4		125 mL	**N9300234**
Multi-Element Solution 5		125 mL	**N9300235**
Water Blank		125 mL	**N9303814**
Hydrochloric Acid Blank		125 mL	**N9303815**
2% Nitric Acid Blank		125 mL	**N0773120**
PerkinElmer Pure I			
5% HNO_3	400 mg/L: Tl 200 mg/L: Bi, In, Pb 150 mg/L: Ga 100 mg/L: Al 50 mg/L: Ag, Ni 25 mg/L: Cr 20 mg/L: Cd, Co, Cu, Zn 15 mg/L: B, Fe 5 mg/L: Ba, Mn 1 mg/L: Be, Sr	125 mL	**N9303940**
PerkinElmer Pure IV (Quality Control Standard 23)			
10% HNO_3	1,000 mg/L: Ag, Al, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, In, K, Li, Mg, Mn, Na, Ni, Pb, Sr, Tl, Zn	125 mL	**N9303941**
PerkinElmer Pure VIII			
5% HNO_3	100 mg/L: Al, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, Li, Mg, Mn, Na, Ni, Pb, Se, Sr, Te, Tl, Zn	125 mL	**N9303942**
PerkinElmer Pure IX			
5% HNO_3	100 mg/L: As, Be, Pb, Cd	125 mL	**N9303943**
PerkinElmer Pure X			
2% HNO_3	35,000 ug/L: Ca 15,000 ug/L: Mg 8,000 ug/L: Na 3,000 ug/L: K 100 ug/L: B, Fe, Mo, Sr 50 ug/L: As, Ba, Ni, V, Zn 30 ug/L: Mn 25 ug/L: Co, Pb 20 ug/L: Be, Cd, Cr, Cu 10 ug/L: Bi, Se, Tl	125 mL	**N9303944**
8 mg/L Mercury in 5% HNO_3			
5% HNO_3	8 mg/L: Hg	125 mL	**N9303954**
PerkinElmer Pure XI			
5% HNO_3	2,500 mg/L: Zn 900 mg/L: Cr, Pb 800 mg/L: Cu 200 mg/L: Ni 10 mg/L: Cd	125 mL	**N9303945**

Multi-Element Standards

Matrix	Contents	Volume	Part No.
5 mg/L Mercury in 5% HNO_3			
5% HNO_3	5 mg/L: Hg in 5% HNO_3	125 mL	**N9303949**
PerkinElmer Pure XIII			
5% HNO_3	500 mg/L: Al 250 mg/L: V 100 mg/L: As, Be, Co, Cr, Cu, Fe, Mn, Ni, Pb, Zn 25 mg/L: Cd, Se	125 mL	**N9303946**
PerkinElmer Pure XVI (Quality Control Standard, 21 Elements)			
5% HNO_3 /tr Tartaric Acid/tr HF	100 mg/L: As, Be, Ca, Cd, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn	125 mL	**N9300281**
PerkinElmer Pure XVII			
15% HCl /trace HF	100 mg/L: Hf, Ir, Sb, Sn, Ta, Tl, Zr	125 mL	**N9303948**

*Supplied in separate bottle.

Instrument Calibration Standards

Matrix	Contents	Volume	Part No.
Instrument Calibration Standard 1			
5% HNO_3/tr Tartaric Acid	20 mg/L: Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Th, Tl, U, V, Zn	125 mL	**N9303816**
Instrument Calibration Standard 2			
5% HNO_3 /tr Tartaric Acid/tr HF	100 mg/L: Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn	125 mL	**N9301721**
Instrument Calibration Standard 3			
5% HNO_3	1,000 mg/L: Ca, Fe, K, Mg, Na	125 mL	**N9303818**
Initial Calibration Verification Standard 1			
5% HNO_3/tr Tartaric Acid	1,000 mg/L: Ca, Fe, K, Mg, Na, Sr 10 mg/L: Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, Th, U	125 mL	**N9303825**
Initial Calibration Verification Standard 2			
2% HNO_3 /tr HF	10 mg/L: Sn, Ti	125 mL	**N9303826**
Elan 6100 DRC Setup/Stab/Masscal Solution			
0.5% HNO_3	10 µg/L: Ba 1 µg/L: Al, Cd, Ce, Cr, Cu, In, Pb, Mg, Mn, Rh, Th	1,000 mL	**N8125035**
Elan DRC/DRCplus/DRC II Solution Kit Includes: (items listed below)			**N8120541**
	2 x 1,000 mL: Setup/Stability/Masscal Solution		**N8125035**
	2 x 250 mL: Wash Solution		**N8125033**
	1 x 250 mL: Sensitivity/Detection Limit Solution		**N8125034**
	1 x 125 mL: Methanol Blank Solution		**N8125037**
	1 x 125 mL: Chromium in Methanol Solution		**N8125038**
Elan 9000/6100 Solution Kit Includes: (items listed below)			**N8120522**
	2 x 1,000 mL: Setup/Stability/Masscal Solution		**N8125030**
	1 x 125 mL: Dual-Detector Calibration Solution		**N8125010**
	1 x 1000 mL: Wash Solution		**N8122038**
	1 x 250 mL: Detection Limit Solution		**N8125031**
Elan 9000/6100 Setup/Stability/Masscal Solution			
1% HNO_3	10 µg/L: Ba, Cd, Ce, Cu, In, Pb, Mg, Rh, U	1,000 mL	**N8125030**
Elan 6000/5000 Plasma Setup Solution			
2% HNO_3	10 µg/L: Ba, Cd, Ce, Cu, Ge, Pb, Mg, Rh, Sc, Tb, Tl	1,000 mL	**N8122014**
Elan 5000 Detection Limit Solution			
2% HNO_3	10 µg/L: Be, Co, Ge, In, Tl, U	100 mL	**N8122017**

SmartTune Standards

Matrix	Contents	Volume	Part No.
SmartTune Solution for Standard ELANs/DRC-e			
1% HNO_3	10 µg/L: Ba, Be, Ce, Co, In, Pb, Mg, Rh, U	1,000 mL	**N8125040**
SmartTune Solution for DRC/DRCplus/DRC II			
0.5% HNO_3	10 µg/L: Ba 1 µg/L: Be, Ce, Co, In, Fe, Pb, Mg, Th, U	1,000 mL	**N8125041**
Tuning Solution 1			
2% HNO_3 /5% HCl	10 mg/L: Ba, Be, Ce, Co, In, Li, Mg, Pb, Rh, Tl, U, Y	125 mL	**N9303843**
NexION Setup Solution			
1% HNO_3	1 µg/L: Be, Ce, Fe, In, Li, Mg, Pb, U	500 mL	**N8145051**

Environmental Method Sets

Matrix	Contents	Volume	Part No.
Environmental Standard Kit for non-DRC/ Standard ICP-MS Instruments Includes: (1 bottle of each)			**N9307111**
	1,000 mg/L: Ca, K, Mg, Na	125 mL	**N9307805**
	1,000 mg/L: Al, Fe	125 mL	**N9307806**
	100 mg/L: Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn	125 mL	**N9301721**
	100 mg/L: B, Th, U	125 mL	**N9307807**
	10 mg/L: Hg	125 mL	**N9300253**
	Internal Standard Mix 50 mg/L: Sc 20 mg/L: Ge 10 mg/L: In, Ir, 6Li, Rh, Tb, Y	125 mL	**N9307808**

Environmental Method Sets

Matrix	Contents	Volume	Part No.
Environmental Standard Kit for DRC Instruments Includes: (1 bottle of each)			**N9307112**
	1,000 mg/L: Ca, K, Mg, Na	125 mL	**N9307805**
	1,000 mg/L: Al, Fe	125 mL	**N9307806**
	100 mg/L: Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn	125 mL	**N9301721**
	100 mg/L: B, Th, U	125 mL	**N9307807**
	10 mg/L: Hg	125 mL	**N9300253**
	Internal Standard Mix 200 mg/L: Sc 20 mg/L: Ga 10 mg/L: In, Ir, Rh, Tm	125 mL	**N9307738**
Contract Lab Program Modification Set Includes: (1 bottle of each)			**N9307103**
2% HNO_3 /5% HCl	10 mg/L: Ba, Be, Ce, Co, In, Li, Mg, Pb, Rh, Tl, U, Y	125 mL	**N9303843**
2% HNO_3/tr Tartaric Acid	20 mg/L: Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Th, Tl, U, V, Zn	125 mL	**N9303816**
5% HNO_3 /tr Tartaric Acid/tr HF	100 mg/L: Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn	125 mL	**N9301721**
5% HNO_3/tr Tartaric Acid	500 mg/L: Ca, K, Mg, Na 20 mg/L: Al, Ba 10 mg/L: Fe 6 mg/L: Sb 5 mg/L: Co, V 4 mg/L: Ni 2.5 mg/L: Cu 2 mg/L: Zn 1.5 mg/L: Mn 1 mg/L: Ag, As, Cr, Tl 0.5 mg/L: Be, Cd, Se 0.3 mg/L: Pb	125 mL	**N9303819**
2% HNO_3 /tr Tartaric Acid/tr HF	10 mg/L: Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Sb, Se, Tl, V, Zn	125 mL	**N9303821**
5% HNO_3	10 mg/L: Hg	125 mL	**N9300253**
2% HNO_3	200 mg/L: Ca, Fe, K, Mg, Na	125 mL	**N9303822**
2% HNO_3	10 mg/L: Mo, Th, U	125 mL	**N9303823**
2% HNO_3 /tr HF	10 mg/L: Mo, Sn, Sr, Ti	125 mL	**N9303824**
5% HNO_3 /tr HF	21,215 mg/L: Cl 3,000 mg/L: Ca 2,500 mg/L: Fe, Na 2,000 mg/L: C 1,000 mg/L: Al, K, Mg, P, S 20 mg/L: Mo, Ti	125 mL	**N9303827**
2% HNO_3	20 mg/L: Co, Cr, Cu, Mn, Ni, V 10 mg/L: As, Cd, Se, Zn 5 mg/L: Ag	125 mL	**N9303829**
5% HNO_3 /tr Tartaric Acid/tr HF	500 mg/L: Fe 250 mg/L: Ba, Zn 100 mg/L: Co, Cr, Cu, Mn, Ni, Sb, V 50 mg/L: As, Pb 25 mg/L: Ag, Be, Cd, Se, Tl	125 mL	**N9303839**
5% HNO_3 /tr Tartaric Acid/tr HF	250 mg/L: Ba, Cr, Cu, Zn 150 mg/L: V 125 mg/L: Ni 100 mg/L: Co, Pb, Sb 50 mg/L: As, Cd 25 mg/L: Ag, Be, Se, Tl	125 mL	**N9303840**
5% HNO_3	1,000 mg/L: Al, Ca, Fe, K, Mg, Na 20 mg/L: Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Se, Tl, V, Zn	125 mL	**N9303835**
H_2O/tr HF	7,200 mg/L: Cl 2,000 mg/L: C 1,000 mg/L: P, S 20 mg/L: Mo, Sb, Ti	125 mL	**N9303836**
Calibration Standards Set for Method 6010 Includes: (1 bottle of each)			**N9307104**
5% HNO_3	5,000 mg/L: Ca, K, Mg, Na	125 mL	**N9300218**
5% HNO_3	400 mg/L: Ni 200 mg/L: Zn 150 mg/L: Mn 100 mg/L: Ag, Cr	125 mL	**N9300219**
5% HNO_3	2,000 mg/L: Al, Ba 1,000 mg/L: Fe 500 mg/L: Co, V 250 mg/L: Cu 50 mg/L: Be	125 mL	**N9300220**
5% HNO_3	100 mg/L: As, Tl 50 mg/L: Cd, Pb, Se	125 mL	**N9300221**
H_2O/tr HF	10 mg/L: B, Ge, Mo, Nb, P, Re, S, Si, Ta, Ti, W, Zr	125 mL	**N9300235**
2% HNO_3	1,000 mg/L: Li	500 mL	**N9300129**
2% HNO_3	1,000 mg/L: Sb	500 mL	**N9300101**
2% HNO_3	1,000 mg/L: Sr	500 mL	**N9300153**
20% HCl	1,000 mg/L: Sn	500 mL	**N9300161**
2% HNO_3	1,000 mg/L: Cr	500 mL	**N9300112**
2% HNO_3	1,000 mg/L: Cu	500 mL	**N9300114**
2% HNO_3	1,000 mg/L: Mn	500 mL	**N9300132**
2% HNO_3	1,000 mg/L: Ni	500 mL	**N9300136**
H_2O/tr HF	1,000 mg/L: Ti	500 mL	**N9300162**
2% HNO_3	1,000 mg/L: V	500 mL	**N9300165**
2% HNO_3	1,000 mg/L: Al	500 mL	**N9300100**
2% HNO_3	1,000 mg/L: Ca	500 mL	**N9300108**
2% HNO_3	1,000 mg/L: Fe	500 mL	**N9300126**
2% HNO_3	1,000 mg/L: Mg	500 mL	**N9300131**
Internal Standard Set for Method 6010 & 200.7 Includes: (1 bottle of each)			**N9307105**
2% HNO_3	1,000 mg/L: Y	500 mL	**N9300167**
2% HNO_3	1,000 mg/L: Sc	500 mL	**N9300148**
Interference Solutions for Method 6010 Includes: (1 bottle of each)			**N9307106**
2% HNO_3	1,000 mg/L: Al	125 mL	**N9300184**
2% HNO_3	1,000 mg/L: Ca	500 mL	**N9300108**
2% HNO_3	1,000 mg/L: Mg	125 mL	**N9300179**
2% HNO_3	1,000 mg/L: Fe	500 mL	**N9300126**

Environmental Method Sets

Matrix	Contents	Volume	Part No.
2% HNO_3	1,000 mg/L: K	500 mL	**N9300141**
2% HNO_3	1,000 mg/L: Na	500 mL	**N9300152**
2% HNO_3	1,000 mg/L: Cr	500 mL	**N9300112**
2% HNO_3	1,000 mg/L: Cu	500 mL	**N9300114**
2% HNO_3	1,000 mg/L: Mn	500 mL	**N9300132**
2% HNO_3	1,000 mg/L: Ni	500 mL	**N9300136**
H_2O/tr HF	1,000 mg/L: Ti	500 mL	**N9300162**
2% HNO_3	1,000 mg/L: V	500 mL	**N9300165**
5% HNO_3	5,000 mg/L: Al, Ca, Mg 2,000 mg/L: Fe	500 mL	**N9300226**
5% HNO_3 /tr Tart-HF	100 mg/L: Cd, Ni, Zn 60 mg/L: Sb 50 mg/L: Ba, Be, Co, Cr, Cu, Mn, V 20 mg/L: Ag 10 mg/L: As, Tl 5 mg/L: Pb, Se	125 mL	**N9300227**
5% HNO_3	1,000 mg/L: Cr, Cu, Mn, Ni, Ti, V	500 mL	**N9300228**
5% HNO_3 /tr Tartaric Acid/tr HF	100 mg/L: Al, As, B, Mo, Na, Sb, Se, Tl 10 mg/L: Ca, Fe, Mg, Si	125 mL	**N9300229**
Calibration Standards for Method 200.7 Includes: (1 bottle of each)			**N9307107**
5% HNO3	5,000 mg/L: Ca, K, Mg, Na	125 mL	**N9300218**
5% HNO_3	400 mg/L: Ni 200 mg/L: Zn 150 mg/L: Mn 100 mg/L: Ag, Cr	125 mL	**N9300219**
5% HNO_3	2,000 mg/L: Al, Ba 1,000 mg/L: Fe 500 mg/L: Co, V 250 mg/L: Cu 50 mg/L: Be	125 mL	**N9300220**
5% HNO_3	100 mg/L: As, Tl 50 mg/L: Cd, Pb, Se	125 mL	**N9300221**
H_2O/tr HF	10 mg/L: B, Ge, Mo, Nb, P, Re, S, Si, Ta, Ti, W, Zr	125 mL	**N9300235**
2% HNO_3	1,000 mg/L: Li	500 mL	**N9300129**
2% HNO_3	1,000 mg/L: Sb	500 mL	**N9300101**
2% HNO_3	1,000 mg/L: Sr	500 mL	**N9300153**
20% HCl	1,000 mg/L: Sn	500 mL	**N9300161**
Interference Solutions for Method 200.7 Includes: (1 bottle of each)			**N9307108**
2% HNO_3	1,000 mg/L: Al	125 mL	**N9300184**
2% HNO_3	1,000 mg/L: Ca	500 mL	**N9300108**
2% HNO_3	1,000 mg/L: Mg	125 mL	**N9300179**
2% HNO_3	1,000 mg/L: Fe	500 mL	**N9300126**
2% HNO_3	1,000 mg/L: K	500 mL	**N9300141**
2% HNO_3	1,000 mg/L: Na	500 mL	**N9300152**
5% HNO_3	5,000 mg/L: Al, Ca, Mg 2,000 mg/L: Fe	500 mL	**N9300226**
5% HNO_3/tr Tart-HF	100 mg/L: Cd, Ni, Zn 60 mg/L: Sb 50 mg/L: Ba, Be, Co, Cr, Cu, Mn, V 20 mg/L: Ag 10 mg/L: As, Tl 5 mg/L: Pb, Se	125 mL	**N9300227**
Environmental EPA Set 1 Includes: (1 bottle of each)			**N9307110**
2% HNO_3	500 mg/L: Pb 200 mg/L: Se 150 mg/L: Cd, Zn 100 mg/L: Mn 50 mg/L: Be	125 mL	**N9300200**
5% HNO_3	10,000 mg/L: Fe 100 mg/L: Ba, Co, Cu, V	125 mL	**N9300201**
2% HNO_3/ tr HF	500 mg/L: As 100 mg/mL: Mo, Si	125 mL	**N9300202**
5% HNO_3	1,000 mg/L: Ca 400 mg/L: K 200 mg/L: Al, Na 20 mg/L: Cr, Ni	125 mL	**N9300203**
5% HNO_3/ tr Tart-HF	1,000 mg/L: Mg 200 mg/L: Sb, Tl 100 mg/L: B 50 mg/L: Ag	125 mL	**N9300204**
5% HNO_3	20,000 mg/L: K 1,000 mg/L: As, Pb, Tl 500 mg/L: Se 300 mg/L: Ag, Ba, Cd, Co, Cr, Cu, Ni, V, Zn 200 mg/L: Mn 100 mg/L: Be	125 mL	**N9300205**
5% HNO_3	100 mg/L: Hg	125 mL	**N9300223**
5% HNO_3	6,000 mg/L: Ca 5,000 mg/L: Fe 3,000 mg/L: Mg 1,200 mg/L: Al 1,000 mg/L: Na	125 mL	**N9300208**
H_2O/tr HNO_3 /0.6% Tartaric Acid	1,000 mg/L: Sb	125 mL	**N9300207**
5% HNO_3	ASTM® Type I Water	500 mL	
5% HCl	ASTM® Type I Water	500 mL	
Environmental EPA Set 2 Includes: (1 bottle of each)			**N9307109**
2% HNO_3	500 mg/L: Pb 200 mg/L: Se 150 mg/L: Cd, Zn 100 mg/L: Mn 50 mg/L: Be	125 mL	**N9300200**
5% HNO_3	10,000 mg/L: Fe 100 mg/L: Ba, Co, Cu, V	125 mL	**N9300201**
2% HNO_3 /tr HF	500 mg/L: As 100 mg/L: Mo, Si	125 mL	**N9300202**
5% HNO_3	1,000 mg/L: Ca 400 mg/L: K 200 mg/L: Al, Na 20 mg/L: Cr, Ni	125 mL	**N9300203**
5% HNO_3 /tr Tart-HF	1,000 mg/L Mg 200 mg/L: Sb, Tl 100 mg/L: B 50 mg/L: Ag	125 mL	**N9300204**

Environmental Method Sets

Matrix	Contents	Volume	Part No.
5% HNO_3	20,000 mg/L: K 1,000 mg/L: As, Pb, Tl 500 mg/L: Se 300 mg/L: Ag, Ba, Cd, Co, Cr, Cu, Ni, V, Zn 200 mg/L: Mn 100 mg/L: Be	125 mL	**N9300205**
5% HNO_3	6,000 mg/L: Ca 5,000 mg/L: Fe 3,000 mg/L: Mg 1,200 mg/L: Al 1,000 mg/L Na	125 mL	**N9300208**
H_2O/tr HNO_3 /0.6% Tartaric Acid	1,000 mg/L: Sb	125 mL	**N9300207**
5% HNO_3	ASTM® Type I Water	500 mL	
5% HCl	ASTM® Type I Water	500 mL	

Toxicity Characteristic Leachate Procedure (TCLP) Standard

Matrix	Contents	Volume	Part No.
TCLP Standard 1			
2% HNO_3	500 mg/L: Ba 25 mg/L: Ag, As, Cr, Pb 100 mg/L: Hg* 5 mg/L: Cd, Se	500 mL	**N9300241**

*Supplied in separate bottle.

Performance Verification Standards

Matrix	Contents	Volume	Part No.
Methanol Blank Solution			
1% Semiconductor Grade		125 mL	**N8125037**
Chromium in Methanol Solution			
1% Semiconductor Grade Methanol	10 mg/L: Cr	125 mL	**N8125038**
Selenium Solution			
5% HNO_3	10 mg/L: Se	250 mL	**N8125039**
NexION 300Q Solution Kit – Non-Cell Includes: (items listed below)			**N8140503**
1 x 250 mL NexION Wash Solution			**N8145050**
1 X 500 mL NexION Setup Solution			**N8145051**
1 X 500 mL NexION 300Q Non-cell Stability Solution			**N8145053**
1 X 100 mL NexION Standard/DRC Mode Detection Limit Blank Solution			**N8145055**
1 x 100 mL NexION Dual Detector Mode Detection Limit Solution			**N8145056**
1 x 100 mL NexION Dual Detector Solution			**N8145059**
NexION 300 X/D/S Solution Kit – Cell Instruments Includes: (items listed below)			**N8140504**
1 x 250 mL NexION Wash Solution			**N8145050**
1 X 500 mL NexION Setup Solution			**N8145051**
1 x 250 mL NexION KED Setup Solution			**N8145052**
1 x 500 mL NexION 300X/D/S Cell Stability Solution			**N8145054**

Matrix	Contents	Volume	Part No.
NexION Standard/DRC Mode Detection Limit Blank Solution		100 mL	**N8145055**
NexION Standard/DRC Mode Detection Limit Solution		100 mL	**N8145056**
NexION KED Mode Detection Limit Blank Solution		100 mL	**N8145057**
NexION KED Mode Detection Limit Solution		100 mL	**N8145058**
NexION Dual Detector Solution		100 mL	**N8145059**
NexION Setup Solution			
1% HNO_3	1 µg/L: Be, Ce, Fe, In, Li, Mg, Pb, U	500 mL	**N8145051**
NexION KED Setup Solution			
1% HCl	10 µg/L: Co 1 µg/L: Ce	250 mL	**N8145052**
NexION 300Q Non-cell Stability Solution			
1% HNO_3	1 µg/L: Cd, Cu, Mg, Pb	500 mL	**N8145053**
NexION 300X/D/S Cell Stability Solution			
1% HNO_3	10 µg/L: Co, Cu, Se 1 µg/L: Cd, Cr, Fe, In, Mg, Pb	500 mL	**N8145054**
NexION Standard/DRC Mode Detection Limit Blank Solution			
0.5% HNO_3		100 mL	**N8145055**
NexION Standard/DRC Mode Detection Limit Solution			
0.5% HNO_3	1 µg/L: Be, Ca, Co, Fe, In, U	100 mL	**N8145056**
NexION KED Mode Detection Limit Blank Solution			
1% HCl		100 mL	**N8145057**
NexION KED Mode Detection Limit Solution			
1% HCl	10 µg/L: V, As, Se	100 mL	**N8145058**
NexION Dual Detector Solution			
2% HNO_3	50 µg/L: Al, Ba, Ce, Co, In, Li, Mg, Mn, Ni, Pb, Tb, U, Zn	100 mL	**N8145059**
NexION AFT Single-Element Solution			
2% HNO_3	2 µg/L: Fe	100 mL	**N8145060**
NexION AFT Multi-Element Solution			
2% HNO_3	2 µg/L: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, In, K, Li, Mg, Mn, Na, Ni, Pb, Rb, Se, Sr, Tl, U, V, Zn	100 mL	**N8145061**

USP Elemental Impurities Kit

Matrix	Contents	Volume	Part No.
Includes: 1 Bottle Each			**N9303957**
Solution 1 5% HNO3	2,500 mg/kg: Cu, Mn 250 mg/kg: Cr, Mo, Ni, V 15 mg/kg: As, Hg 10 mg/kg: Pb 5 mg/kg: Cd	125 mL	
Solution 2 15% HCl	100 mg/kg: Ir, Os, Pd, Pt, Rh, Ru	125 mL	

Wear Metal Metallo-Organic Standards

Features and Benefits

- Metallo-organic metals in hydrocarbon oil
- Accuracy ensured by Quality Testing with NIST® Standard Reference Materials when available
- Certificate of Analysis supplied with each standard

Single-Element, Metallo-Organic Standards

Matrix: Hydrocarbon Oil

Element Name	Symbol	Size	Part No.
Aluminum 1000 µg/g	Al	50 g	**N9308200**
Antimony 1000 µg/g	Sb	50 g	**N9308201**
Arsenic 1000 µg/g	As	50 g	**N9308202**
Barium 1000 µg/g	Ba	50 g	**N9308203**
Beryllium 1000 µg/g	Be	50 g	**N9308204**
Bismuth 1000 µg/g	Bi	50 g	**N9308205**
Boron 1000 µg/g	B	50 g	**N9308206**
Cadmium 1000 µg/g	Cd	50 g	**N9308207**
Calcium 1000 µg/g	Ca	50 g	**N9308208**
Calcium 5000 µg/g	Ca	50 g	**N9308322**
Chromium 1000 µg/g	Cr	50 g	**N9308209**
Cobalt 1000 µg/g	Co	50 g	**N9308210**
Copper 1000 µg/g	Cu	50 g	**N9308211**
Iron 1000 µg/g	Fe	50 g	**N9308212**
Lanthanum 1000 µg/g	La	50 g	**N9308213**
Lead 1000 µg/g	Pb	50 g	**N9308214**
Lithium 1000 µg/g	Li	50 g	**N9308215**
Magnesium 1000 µg/g	Mg	50 g	**N9308216**
Manganese 1000 µg/g	Mn	50 g	**N9308217**
Mercury 1000 µg/g	Hg	50 g	**N9308218**
Molybdenum 1000 µg/g	Mo	50 g	**N9308219**
Nickel 1000 µg/g	Ni	50 g	**N9308220**
Phosphorus 1000 µg/g	P	50 g	**N9308221**
Potassium 1000 µg/g	K	50 g	**N9308222**
Scandium 1000 µg/g	Sc	10 g	**N9308255**
Scandium 1000 µg/g	Sc	50 g	**N9308223**
Selenium 1000 ug/g	Se	50 g	**N9308224**
Silicon 1000 µg/g	Si	50 g	**N9308225**
Silver 1000 µg/g	Ag	50 g	**N9308226**
Sodium 1000 µg/g	Na	50 g	**N9308227**
Strontium 1000 µg/g	Sr	50 g	**N9308228**
Sulfur 10 µg/g	S	50 g	**N9308229**
Sulfur 100 µg/g	S	50 g	**N9308230**
Sulfur 1000 µg/g	S	50 g	**N9308231**
Thallium 1000 µg/g	Tl	50 g	**N9308232**
Tin 1000 µg/g	Sn	50 g	**N9308233**
Titanium 1000 µg/g	Ti	50 g	**N9308234**
Vanadium 1000 µg/g	V	50 g	**N9308235**
Yttrium 1000 µg/g	Y	50 g	**N9308236**
Yttrium 5000 µg/g	Y	50 g	**N9308323**
Zinc 1000 µg/g	Zn	50 g	**N9308237**
Zirconium 1000 µg/g	Zr	50 g	**N9308238**

V-21 Wear Metal Standards

Includes: Al, Ba, B, Cd, Ca, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, P, Si, Ag, Na, Sn, Ti, V, Zn

Matrix: Hydrocarbon Oil

Description	Size	Part No.
V-21 Wear Metals Standards 10 µg/g	100 g	**N9308300**
V-21 Wear Metals Standards 10 µg/g	200 g	**N9308301**
V-21 Wear Metals Standards 10 µg/g	400 g	**N9308324**
V-21 Wear Metals Standards 30 µg/g	100 g	**N9308302**
V-21 Wear Metals Standards 30 µg/g	200 g	**N9308303**
V-21 Wear Metals Standards 30 µg/g	400 g	**N9308325**
V-21 Wear Metals Standards 50 µg/g	100 g	**N9308304**
V-21 Wear Metals Standards 50 µg/g	200 g	**N9308305**
V-21 Wear Metals Standards 50 µg/g	400 g	**N9308326**
V-21 Wear Metals Standards 100 µg/g	100 g	**N9308306**
V-21 Wear Metals Standards 100 µg/g	200 g	**N9308307**
V-21 Wear Metals Standards 100 µg/g	400 g	**N9308327**
V-21 Wear Metals Standards 300 µg/g	100 g	**N9308308**
V-21 Wear Metals Standards 300 µg/g	200 g	**N9308309**
V-21 Wear Metals Standards 300 µg/g	400 g	**N9308328**
V-21 Wear Metals Standards 500 µg/g	100 g	**N9308310**
V-21 Wear Metals Standards 500 µg/g	200 g	**N9308311**
V-21 Wear Metals Standards 500 µg/g	400 g	**N9308329**
V-21 Wear Metals Standards 900 µg/g	100 g	**N9308312**
V-21 Wear Metals Standards 900 µg/g	200 g	**N9308313**
V-21 Wear Metals Standards 900 µg/g	400 g	**N9308330**

V-23 Wear Metal Standards

Includes: Ag, Al, B, Ba, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Si, Sn, Ti, V, Zn

Matrix: Hydrocarbon Oil

Description	Size	Part No.
V-23 Wear Metals Standards 10 µg/g	100 g	**N9308239**
V-23 Wear Metals Standards 10 µg/g	200 g	**N0776109**
V-23 Wear Metals Standards 10 µg/g	400 g	**N9308315**
V-23 Wear Metals Standards 30 µg/g	100 g	**N9308241**
V-23 Wear Metals Standards 30 µg/g	200 g	**N9308242**
V-23 Wear Metals Standards 30 µg/g	400 g	**N9308316**
V-23 Wear Metals Standards 50 µg/g	100 g	**N9308243**
V-23 Wear Metals Standards 50 µg/g	200 g	**N0776104**
V-23 Wear Metals Standards 50 µg/g	400 g	**N9308317**
V-23 Wear Metals Standards 100 µg/g	100 g	**N9308245**
V-23 Wear Metals Standards 100 µg/g	200 g	**N0776105**
V-23 Wear Metals Standards 100 µg/g	400 g	**N9308318**
V-23 Wear Metals Standards 300 µg/g	100 g	**N9308247**
V-23 Wear Metals Standards 300 µg/g	200 g	**N9308248**
V-23 Wear Metals Standards 300 µg/g	400 g	**N9308319**
V-23 Wear Metals Standards 500 µg/g	100 g	**N9308249**
V-23 Wear Metals Standards 500 µg/g	200 g	**N0776106**
V-23 Wear Metals Standards 500 µg/g	400 g	**N9308320**
V-23 Wear Metals Standards 900 µg/g	100 g	**N9308251**
V-23 Wear Metals Standards 900 µg/g	200 g	**N9308252**
V-23 Wear Metals Standards 900 µg/g	400 g	**N9308321**

Internal Standards

Description	Matrix	Size	Part No.
Cobalt (Co) Internal Standard, 6%	Mineral Spirits	200 g	**N0776107**
Cobalt (Co) Internal Standard, 6%	Mineral Spirits	400 g	**N9308334**
Cobalt (Co) Internal Standard, 5000 µg/g	Hydrocarbon Oil	50 g	**N9308258**

Metal Additive Standards

Description	Matrix	Size	Part No.
Metal Additive Standard 4: Ca @ 5000 µg/g; Mg, P, Zn @ 1600 µg/g	Hydrocarbon Oil	100 g	**N9308259**
Metal Additive Standard 4: Ca @ 5000 µg/g; Mg, P, Zn @ 1600 µg/g	Hydrocarbon Oil	200 g	**N0776108**
Metal Additive Standard 4: Ca @ 5000 µg/g; Mg, P, Zn @ 1600 µg/g	Hydrocarbon Oil	400 g	**N9308333**

Matrix Oils and Solvents

Description	Matrix	Volume	Part No.
75 cSt Hydrocarbon Oil	75 cSt Oil	500 mL	**N0776103**
75 cSt Hydrocarbon Oil	75 cSt Oil	1 Gal.	**N9308262**
20 cSt Mineral oil (low sulfur)	20 cSt Mineral Oil	500 mL	**N9308263**
20 cSt Mineral oil (low sulfur)	20 cSt Mineral Oil	½ Gal.	**N9308264**

V-Solv

V-Solv™ ICP Solvent is a proprietary solvent that is used for diluting oil and other organic liquids for analysis by ICP and ICP-MS. Use V-Solv™ as a matrix blank and as a diluent for your calibration standards and samples for outstanding nebulization characteristics.

Description	Matrix	Volume	Part No.
V-Solv™ ICP Solvent	V-Solv™	1 Gal.	**N9308265**

Fuel Dilution Oils

Description	Matrix	Volume	Part No.
Blank for Diesel Fuel Dilution Standards	75 cSt Hydrocarbon Oil	100 mL	**N9308266**
2% (v/v) Devolatilized Diesel Fuel in Hydrocarbon Oil	75 cSt Hydrocarbon Oil	100 mL	**N9308267**
4% (v/v) Devolatilized Diesel Fuel in Hydrocarbon Oil	75 cST Hydrocarbon Oil	100 mL	**N9308297**
5% (v/v) Devolatilized Diesel Fuel in Hydrocarbon Oil	75 cSt Hydrocarbon Oil	100 mL	**N9308268**
10% (v/v) Devolatilized Diesel Fuel in Hydrocarbon Oil	75 cSt Hydrocarbon Oil	100 mL	**N9308269**
Blank for Gas Fuel Dilution Standards	75 cSt Hydrocarbon Oil	100 mL	**N9308270**
2% (v/v) Devolatilized Gasoline in Hydrocarbon Oil	75 cSt Hydrocarbon Oil	100 mL	**N9308271**
5% (v/v) Devolatilized Gasoline in Hydrocarbon Oil	75 cSt Hydrocarbon Oil	100 mL	**N9308272**
10% (v/v) Devolatilized Gasoline in Hydrocarbon Oil	75 cSt Hydrocarbon Oil	100 mL	**N9308273**
Blank	20 cSt Hydrocarbon Oil	100 mL	**N9308274**
Ethylene Glycol & Propylene Glycol – conc. 100 µg/g	20 cSt Hydrocarbon Oil	100 mL	**N9308275**
Ethylene Glycol & Propylene Glycol – conc. 500 µg/g	20 cSt Hydrocarbon Oil	100 mL	**N9308276**
Ethylene Glycol & Propylene Glycol – conc. 1000 µg/g	20 cSt Hydrocarbon Oil	100 mL	**N9308277**

Karl Fischer Standards

Nominal Water Concentration (%)	Matrix	Volume	Part No.
Karl Fischer Water in Oil, Blank	10W30 Motor Oil	100 mL	**N9308278**
Karl Fischer Water in Oil, 0.1%	10W30 Motor Oil	100 mL	**N9308279**
Karl Fischer Water in Oil, 0.5%	10W30 Motor Oil	100 mL	**N9308280**
Karl Fischer Water in Oil, 1.0%	10W30 Motor Oil	100 mL	**N9308281**

Soot Content Standards

Nominal Soot Content Range (%)	Matrix	Volume	Part No.
Nominal Soot Content Range%: Blank	15W40 Diesel Oil	50 mL	**N9308282**
Nominal Soot Content Range%: 0.5-2	15W40 Diesel Oil	50 mL	**N9308283**
Nominal Soot Content Range%: 2-4	15W40 Diesel Oil	50 mL	**N9308284**
Nominal Soot Content Range%: 4-6	15W40 Diesel Oil	50 mL	**N9308285**

Performance Testing Standards

Performance Testing Program

Analyze a sample for up to 23 common elements and report the concentrations in µg/g (ppm). You may enter all elements or only those that you are interested in. Provides an instant response to submitted values, with convenient color-coded pass/fail indications in green (pass), yellow (borderline) and red (fail) formats via a custom-designed, easy-to-use, on-line user interface.

Description	Size	Part No.
PTP Standard	25 g	**N9308314**

Viscosity PTP Test Standard

Designed to provide analytical laboratories with a method of monitoring their analytical performance as measured against Certified Reference Materials (CRM's). Currently, the types of instrumentation included in the program are ICP, viscosity, and particle sizing systems. This Viscosity Standard will have values reportable at 40° C and 100° C.

Description	Size	Part No.
Viscosity PTP Test Standard	50 g	**N9308540**

Biodiesel Standards

Description	Matrix	Volume	Part No.
Biodiesel Blank	B100 Biodiesel	100 mL	**N9308286**
Biodiesel Blank	B100 Biodiesel	500 mL	**N9308287**
Sulfur @ 20 µg/g in Biodiesel	B100 Biodiesel	100 mL	**N9308288**
Metals in Biodiesel - Ca, K, Mg, Na, P @ 20 µg/g	B100 Biodiesel	100 g	**N9308289**
100% #2 Diesel Fuel	#2 Diesel Fuel	20 mL	**N9308290**
2% (v/v) Biodiesel in #2 Diesel Fuel	#2 Diesel Fuel	20 mL	**N9308291**
5% (v/v) Biodiesel in #2 Diesel Fuel	#2 Diesel Fuel	20 mL	**N9308292**
10% (v/v) Biodiesel in #2 Diesel Fuel	#2 Diesel Fuel	20 mL	**N9308293**
15% (v/v) Biodiesel in #2 Diesel Fuel	#2 Diesel Fuel	20 mL	**N9308294**
20% (v/v) Biodiesel in #2 Diesel Fuel	#2 Diesel Fuel	20 mL	**N9308295**
100% (v/v) Biodiesel	B100 Biodiesel	20 mL	**N9308296**

Viscosity Reference Standards

Description	Matrix	Size	Part No.
Viscosity Standard 30	Hydrocarbon Oil	1 Gallon	**N5316025**
Viscosity Standard 110	Hydrocarbon Oil	1 Gallon	**N5316024**
Viscosity Standard 130	Hydrocarbon Oil	1 Gallon	**N5316026**

CLEAN, RELIABLE, TEMPERATURE CONTROLLED FLUID

POLYSCIENCE® WHISPERCOOL™ REFRIGERATED CHILLER

The PolyScience® WhisperCool™ Refrigerated Chiller is designed to deliver quiet and reliable performance over a broad range of operating temperatures and conditions. Extremely dependable and energy efficient, it features a -10 to 40 °C operating temperature range, built-in process and equipment protection, and highly intuitive user interface. This chiller is designed for use on both ICP-OES and ICP-MS instruments.

Key Advantages

- 50% quieter operation than comparable models
- 2900 watts (9889 BTU/hour) cooling capacity
- Built-in temperature, pressure, and flow rate alarms

Part No.	N0772046	N0772045
Electrical Requirements	208-230 V, 60 Hz, 12.2 A	240 V, 50 Hz, 12.2 A
Operating Temperature Range	-10 to 40 °C	
Temperature Stability	±0.1 °C (±1.8 °F)	
Cooling Capacity at 20 °C	2900 Watts (9889 BTU/hr)	
at 10 °C	1925 Watts (6574 BTU/hr)	
at 0 °C	1000 Watts (3410 BTU/hr)	
Compressor	1.0 HP	
Reservoir Capacity	4.2 L	
Pump Type	Turbine	
Maximum Pump Pressure	90 PSI	
Maximum Pump Flow	13.2 LPM	
Replacement Air Filter	**N0777095** (Air Filter with Frame, 13x14")	
Chiller Coolant Mix	**N0776099** (Five Half-gallon Bottles)	

Chiller Coolant Mix

Non-glycol coolant, which is made up of five half gallon bottles of distilled water and includes an additive to control black algae and other resistant strains.

Description	Part No.
Chiller Coolant Mix	**N0776099**

Coolant Fluid

1 liter bottle. It is essential that this chiller coolant be used with ELAN 9000/6xX00/DRC/NexION series instruments. Also suitable for organics chillers.

Description	Part No.
ELAN Coolant Fluid	**WE016558**

Heat Exchanger System

Cooling systems for the ELAN 9000/DRC II/e/NexION systems. Air cooled recirculator without refrigeration. Not to be placed in areas with temperatures above 30 °C (86 °F). Requires the use of Coolant Fluid (WE016558).

ICP-MS Power Requirement	Part No.
120 V, 60 Hz	**N8122248**
220/250 V, 50/60 Hz	**N8122247**

Chillers/Recirculating Water Cooling Systems

ICP Model	Power Requirement	Operating Temp.	Flow Rate	Part No.
Optima/ELAN/NexION	208 – 230 V, 60 Hz, 8 A	-15° to 40 °C	60 psi: 4.3 gpm/16.3 Lpm	**N0772046**
Optima/ELAN/NexION	240 V, 50 Hz, 8.5 A	-15° to 40 °C	60 psi: 4.3 gpm/16.3 Lpm	**N0772045**

LINE CONDITIONERS AND UPS SYSTEMS

Damaged or compromised components, disrupted processes, lack of reliability – they all add up to frustration, broken schedules and costly downtime. The problem is caused by a host of power disturbances – some visible and many invisible – that threaten your equipment's operation every year. Power "disturbances" are simply those large and small variations in the quality of the electric power you use day in and day out. Some come from your local utility company, but most are created within your own facility as a result of the distribution and use of electrical power. These variations include high-energy voltage transients, sags and swells, electrical noise, and common mode voltage, as well as the power outages everyone witnesses when the lights go out.

Line Conditioners

Instrument Model	Description	Frequency (Hz)	Part No.
Atomic Absorption			
AAnalyst™ 100/200/300/400	520 VA Line Conditioner	60	**N9307504**
AAnalyst 100/200/300/400	750 VA Line Conditioner	50	**N9307521**
AAnalyst 600/800	5.8 kVA Line Conditioner	60	**N9307511**
AAnalyst 600/800	6.0 kVA Line Conditioner	50	**N9307523**
AAnalyst 700/PinAAcle 900 H	3.8 kVA Line Conditioner	60	**N9307509**
AAnalyst 700/PinAAcle 900 H	3.6 kVA Line Conditioner	50	**N9307522**
PinAAcle 900T/Z	5.8 kVA Line Conditioner	60	**N9307760**
PinAAcle 900T/Z	6.0 kVA Line Conditioner	50	**N9307523**
PinAAcle 900F	720 VA Line Conditioner	60	**N9307515**
PinAAcle 900F	750 VA Line Conditioner	50	**N9307521**
ICP-OES			
Optima 2x00/4x00/5x00/7x00/8x00	3.8 kVA Line Conditioner	60	**N9307512**
Optima 2x00/4x00/5x00/7x00/8x00	3.6 kVA Line Conditioner	50	**N9307522**
ICP-MS			
ELAN® 6x00/9000 Controller Side	3.8 kVA Line Conditioner	60	**N9307519**
ELAN 6x00/9000 Controller Side	3.6 kVA Line Conditioner	50	**N9307522**
ELAN 6x00/9000 RF Generator Side	5.8 kVA Line Conditioner	60	**N9307511**
ELAN 6x00/9000 RF Generator Side	6.0 kVA Line Conditioner	50	**N9307523**
NexION®	5.0 kVA Line Conditioner	60	**N0777690**
NexION	6.0 kVA Line Conditioner	50	**N9307523**

On-Line Conditioned Uninterruptable Power Supply Systems

With the Security Plus Series, you get much more protection and a higher comfort level than you get with most other UPS systems. The Security Plus Series also provides complete power conditioning and, because the Security Plus Series features on-line inverter design, added peace of mind. And regardless of input fluctuations, the Security Plus Series insures that the output remains continuous and regulated.

Instrument Model	Description	Frequency (Hz)	Part No.
UPS Systems			
PinAAcle 900F/AAnalyst 100/200/300/400	800 VA	60	**N0777681**
PinAAcle 900F/AAnalyst 100/200/300/400	800 VA	50	**N0777689**
PinAAcle 900H/AAnalyst 700/Optima	5.2 kVA	50/60	**N0777511**
PinAAcle 900H/AAnalyst 700	8.0 kVA	50/60	**N0777682**
PinAAcle 900T/Z/AAnalyst 600/800/ELAN/NexION	10 kVA	50/60	**N0777613**
PinAAcle 900T/Z/AAnalyst 600/800/ELAN	12 kVA	50/60	**N0777719**
Probes			
Power Probe	0-250 V Input	50/60	**N3151391**

TESTED AND APPROVED

Acetylene Regulator

For AA labs, this regulator includes an adapter so that the pressure regulator can be connected to cylinders requiring either CGA 300 or CGA 510 fittings and a connector for attaching the fuel hose assembly supplied with the instrument. Includes hose assembly.

Description	Part No.
Max Inlet Pressure: 400 psig	**03030106**

Air Regulator

For AA labs. Regulator to cylinder CGA no. 590. Includes hose assembly.

Description	Part No.
Max Inlet Pressure: 3,000 psig	**03030264**

Nitrous Oxide Regulator

For use in AA labs with gas cylinders with a CGA 326 connection. Provides pressure control from 350–520 kPA (50–75 psig) and contains an integral thermostatted heater to prevent freezing of the regulator diaphragm.

Description	Part No.
115 V	**03030204**
220 V	**03030349**

Argon/Nitrogen Regulator

For AA and ICP, this regulator can be used with argon or nitrogen and has a CGA 580 fitting. A color-coded hose with ¼" SWAGELOK® fittings is also included.

Description	Part No.
Max Inlet Pressure: 3,000 psig	**03030284**

Matheson Flashback Arrestor

Because acetylene is an extremely unstable gas, users can experience flashbacks at the instrument burner head. The flash arrestor prevents these potentially dangerous flashbacks from reaching the regulator or cylinder.

Description	Part No.
Acetylene Max Operating Pressure: 15 psig	**N9300068**

Hose Assemblies

Hose assemblies for connecting fuel, air and nitrous oxide from supply to instrument.

Description	Part No.
Acetylene, Red Neoprene, 3.7 m (12 ft)	**00570559**
Air/Argon, Black, 3.7 m (12 ft)	**00570567**
Nitrous Oxide, Blue, 3.7 m (12 ft)	**00470258**

Blower and Vent Assembly for AA and ICP

A venting system is required to remove fumes and vapors from the torch of ICP emission spectrometers. A vent is recommended for use over the power supply unit of most ICP spectrometers for removal of dissipated heat. Use exhaust venting to:

- Protect lab personnel from toxic vapors
- Protect your instrument from corrosive vapors
- Improve stability of the ICP torch

Includes Exhaust Hood, Adapter and Blower. Does not include ducting. PerkinElmer service engineers are not permitted to install this unit.

Description	Part No.
110 V	**03030447**
230 V	**03030448**

Parker Balston® 73-099 AA Gas Purifier

For AA labs, this wall-mounted system designed to purify the compressed air and acetylene gases used in atomic absorption. It consists of two independent filtration systems, one for compressed air and one for acetylene. The unit also has a flashback arrestor on the acetylene line and a pressure regulator on the compressed air line.

The 2-stage air filtration assembly consists of a Balston Grade DX coalescing filter and a Balston Grade BX coalescing filter. Together these filters remove oil, water and particulate contamination (99.99% at 0.01 micron) from the compressed air supply.

Description	Part No.
Parker Balston 73-099 AA Gas Purifier	**N9301398**

Parker Balston® Replacement Filters

Description	Cartridges Part No.	Each ($)	Seal Sets Part No.
1st Air Filter	**N9301710**	**20**	**N9301712**
2nd Air Filter	**N9301711**	**20**	**N9301712**
Acetylene Filter	**N9301714**	**16**	**N9301715**

Balston® 95A Acetylene Filter

For your AA lab, this filter includes a Balston Grade BQ filter cartridge to remove liquid and solid contaminants from the acetylene supply to 99.99% at 0.01 micron. Max working pressure: 15 psig.

Description	Part No.
Acetylene Filter	**N9301399**
Replacement Acetylene Filter Cartridge	**N9301714**

Balston® Air Filter Assembly Type A-82

For AA and ICP labs, this filter is specifically designed to remove water, oil and dirt particles down to 0.6 microns in diameter from compressed air lines. It is recommended for use with oil-type compressors and for removing moisture and dirt particles from air supplied by oil-less compressors.

Description	Part No.
Air Filter Assembly	**N0580531**
Replacement Filter Cartridge Element	**N0582251**

Air Dryer Filter Assembly with R250 Regulator

To filter compressed air for AA and ICP instrumentation. Replaces 00470652 and N0770198.

Description	Part No.
Air Dryer Filter Assembly with R250 Regulator	**N0775325**
Replacement Filter Element	**N9306067**
Float Assembly	**N0777710**

Wilkerson® Air Dryer Filter Accessories*

Description	Pre-Filter Part No.	Each ($)	Final Filter Part No.
Filter Elements	**09923464**	**16**	**09907120**
Filter Bowls	**N9302199**	**43**	**N9302199**
Bowl O-Ring Kit, Final Filter	**N9302197**	**48**	**N9301715**

* For Wilkerson Filter PerkinElmer (00470652)

ICP Filter Replacement Parts

ICP Model	Filter Element	Part No.
8x00 Side	Filter in Front of Fan	**09995098**
2x00/3x00/4x00/5x00/7x00	For Pre-Final	**09907122**
2x00/3x00/4x00/5X00/7x00	For Final Filter	**09923464**
2x00/3x00/4x00/5x00/7x00 /8x00	Water Filter	**09904845**
2x00/3x00/4x00/5x00/7x00 /8x00	Cartridge for Water Filter	**09904846**
2x00/4x00/5x00/7x00/8x00	Air Filter for the RF Generator Inlet	**N0775220**
3x00	Air Filter for the RF Generator Inlet	**02509115**

Instrument Filters

Description	Part No.
For AAnalyst 100/300/PinAAcle 900	**09995097**
For AAnalyst 200/400/600/700/800	**B0501696**
For AAnalyst 600/700/800 (80x80)	**B0502706**
For Optima 2x00/3x00/4x00/5x00/7x00/8x00	**09995098**
For NexION (left)	**W1036712**
For NexION (back right)	**W1036713**

Polyscience Replacement Air Filters

Description	Part No.
Polyscience Air Filter	**N0777359**
Polyscience Air Filter with Frame	**N0777095**
Heat Exchanger Air Filter	**N0777360**

PerkinElmer SMS 100 Mercury Analyzer

The SMS 100 is a dedicated mercury analyzer for the determination of total mercury in solid and liquid samples using the principle of thermal decomposition, amalgamation and atomic absorption described in U.S. EPA Method 7473.

The SMS 100 uses a decomposition furnace to release mercury vapor instead of the chemical reduction step used in traditional liquid-based analyzers. Both solid and liquid matrices can be loaded onto the instrument's autosampler and analyzed without acid digestion or sample preparation prior to analysis. Some of the many sample matrices applicable to SMS 100 technology include sludges, sediments, soils, wastewaters, effluents, coal, fly ash, minerals, ores, fertilizers, various foodstuffs, blood, urine and hair.

Amalgamator Tube

Catalyst Tube

Nickel Boat

SMS 100 Consumables and Supplies

Description	Part No.
Nickel Boats (Qty. 42)	**N9309017**
Quartz Combustion Boats (Qty. 10)	**N9309032**
Replacement Carbon 500 g	**N9309035**
Catalyst Tube (Packed)	**N9309036**
Autosampler Boat Shuttle	**N9309019**
Exhaust Tubing Assembly	**N9309006**
Amalgamator Tube	**N9309007**
Mercury Lamp	**N9309010**
Hg Vapor Trap Kit with Carbon Material	**N9309011**
Nafion® Drying Tube	**N9309021**
Sample Substrate 250 mL	**N9309103**
Oxygen Two Stage Regulator	**N9309004**
Oxygen, Nitrogen, Argon Supply	**N9309009**
Autosampler Boat Shuttle	**N9309019**
UV Windows ½ d x 1/16 t 10–20 w (Qty. 2)	**N9309024**
O-Ring 1/16 i.d. x 1/16 w Viton	**N9309025**
O-Ring Amalgamator ¼ i.d., ⅜ o.d. Viton	**N9309026**
O-Ring Injector ⅝ i.d., o.d. ¾	**N9309027**
O-Ring Catalyst Front Viton	**N9309028**
O-Ring .414D Catalyst Rear	**N9309030**
O-Ring Kit for SMS 100	**N9309029**
High Sensitivity Absorption Cell 5 inch	**N9309033**
Low Sensitivity Absorption Cell 1 inch	**N9309034**

Spares Kits

Description	Qty	Part No.
Basic Spares Kit		**N9309109**
Kit Includes:		
Amalgamator Tube	1	**N9309007**
Mercury Source Lamp	1	**N9309010**
Nafion® Drying Tube	1	**N9309021**
O-Ring Kit	1	**N9309029**

Description	Qty	Part No.
Extended Spares Parts Kit		**N9309110**
Kit Includes:		
Amalgamator Tube	2	**N9309007**
Sample Gas Tubing Assembly	1	**N9309008**
Mercury Source Lamp	1	**N9309010**
Injector Fork Assembly	1	**N9309012**
CVAAS Tubing Kit	1	**N9309013**
Amalgamator Heater Coil	1	**N9309066**
6 g Krytox® Tube Grease	1	**N9309108**
Nafion® Drying Tube	1	**N9309021**
Quartz Windows	6	**N9309024**
O-Ring Kits	2	**N9309029**
Window End Caps	8	**N9309031**
5 inch Optical Cells	2	**N9309033**
1 inch Optical Cell	1	**N9309034**

Sample Preparation Blocks

The SPB series of block digestion systems offers the latest in graphite block technology in many different packages. Graphite blocks are Teflon® coated to resist aggressive corrosive attack for guaranteed long life in harsh laboratory environments.

Better laboratory practices demand modern techniques in sample preparation. In the past, hot plates were used to digest samples where common digestion problems involve rusting, cross contamination of digestion system to sample, and poor sample temperature control. With no exposed metal components and an outer shell manufactured from Kydex plastic, the SPB blocks reduce the chances of sample contamination.

Each system is constructed with a solid, Teflon-coated, graphite block where a flat heater covers 95% of the block's base. This guarantees temperature uniformity and eliminates hot spots found in hot plates.

Features and Benefits

- Ideal for any digestion/heating method which requires a temperature below 180 °C
- Provides uniform temperature (+/- 1.0 °C across the block)
- Delivers even sample evaporation results
- Teflon® Coated Graphite block resists aggressive, corrosive attack
- Choose from 6 different SPB blocks

Description	Capacity	Part No.
SPB 50-24, (115 V/ 230V)	24 Tubes/50 ml	**N9308019**
SPB 100-12, (115 V/ 230V)	12 Tubes/100 ml	**N9308010**
SPB 50-48, (115 V/ 230V)	48 Tubes/50 ml	**N9308004**
SPB 100-30, (115 V/ 230V)	30 Tubes/100 ml	**N9308012**
SPB 50-72, (230V)	72 Tubes/50 ml	**N9308005**
SPB 100-42, (230V)	42 Tubes/100 ml	**N9308014**

Controllers

Our sample blocks operate with either a SPB Digital Controller or SPB Touch Controller. The user friendly SPB Digital Controller includes programmable features such as: temperature set-point to 0.1 °C, even sample heating and evaporation results, timer shutdown option, and programmable alarm for end of cycle.

The SPB Touch Controller includes all of the SPB Digital Controller features and more. Added features include: a graphical representation of the heating profile in real-time to identify the current stage of the method heating program. Safety features include the ability of the controller to monitor the heating cycle of the block to prevent run away situations. The controller allows for the SPB Probe to be calibrated to meet your SOP requirements.

The SPB Probe, used with either the Digital or Touch models, can directly monitor and control the block's heating rate via sample temperature feedback to the controller.

Description	Part No.
SPB Digital Controller	**N9308006**
SPB Touch Controller	**N9308007**

Start Up Kits

PerkinElmer provides SPB Start Up kits containing all consumable items required to operate the system including: RackLock *Digi* TUBEs, disposable watch glasses, *Digi* FILTERs, watch glasses, 24 position RackLock rack and storage racks.

Description	Part No.
Start Up Kit for SPB 50-24	**N9308017**
Start Up Kit for SPB 100-12	**N9308011**
Start Up Kit for SPB 50-48	**N9308002**
Start Up Kit for SPB 100-30	**N9308013**
Start Up Kit for SPB 50-72	**N9308025**
Start Up Kit for SPB 100-42	**N9308015**

Automatic Shut-Off System

Designed to shut-off SPB systems with no lab supervision. Ideal for overnight digestions and evaporations where samples require volume reductions (volume control ±2.5 mL). Increase lab efficiency by automatically digesting samples off-hours. Select appropriate Probe for Tube use

Description	Qty	Part No.
TempSET, without Probe	1	**N9308020**
TempSET Probe for 50 mL Tubes	1	**N9308023**
TempSET Probe for 100 mL Tubes	1	**N9308029**
TempSET Probe Holder for 100 mL Tubes	1	**N9308065**

Temperature Probes

The SPB Probe provides direct control and monitoring of actual sample temperature via a corrosion-resistant, PFA-coated temperature probe. Each probe is supplied with 5 Probe Watch Glasses and a probe holder.

Description	Qty	Part No.
SPB 6" Probe for 50 mL Tubes	1	**N9308018**
SPB 6" Probe for 100 mL Tubes	1	**N9308009**
SPB Probe Watch Glass (replacement) for 50 mL Tubes	25	**N9308041**
SPB Probe Watch Glass (replacement) for 100 mL Tubes	25	**N9308073**
SPB PROBE Holder for DigiTUBES 50 mL	1	**N9308044**
SPB PROBE Holder for DigiTUBES 100 mL	1	**N9308045**

*Digi*FILTER™

The vacuum assisted *Digi*FILTER assembly provides a quick and easy way to filter samples prior to analysis. Increase lab productivity by filtering particulates from digested samples in a matter of seconds directly from the digestion tube. Available with a 0.45 or 1.0 micron hydrophilic Teflon® membrane.

Description	Qty	Part No.
*Digi*FILTER 0.45 micron for 50 mL *Digi*TUBEs	100	**N9308031**
*Digi*FILTER 1.0 micron for 50 mL *Digi*TUBEs	100	**N9308032**
Field Filtration Kit 0.45 for 50 mL *Digi*TUBEs[1]	1	**N9308033**
*Digi*FILTER Manifold	1	**N9308034**

[1] Contains : 25 *Digi*FILTERs, 30 *Digi*TUBEs, 1x 6 ml eyedropper bottle to dispense 2 to 3 drops of (1+1) PlasmaPURE Nitric acid, 1 storagerack, 1 Sharpie pen and 2x 60 ml plastic syringes to create a vacuum to filter samples from the collection vessel to the sample tube.

Tubes, Caps & Watch Glasses

PerkinElmer offers 50 and 100 ml, disposable, sample digestion tubes with easy-to-read graduations. Accurate 50 or 100 ml graduation is calibrated to meet Class A specifications to allow normalization directly in the tube. RackLock design allows for easy, one-handed closure of leak-free screw cap.

Description	Qty	Part No.
Tubes		
*Digi*TUBEs 50 mL with RackLock (incl./Caps)	750	**N9308008**
*Digi*TUBEs 100 mL with RackLock (incl./Caps)	300	**N9308016**
*Digi*TUBEs 50 mL non-RackLock (incl./Caps)	750	**N9308037**
*Digi*TUBEs 100 mL non-RackLock (incl./Caps)	300	**N9308066**
*Digi*TUBEs 50 mL RackLock (no Caps)	750	**N9308340**
Teflon Digestion Tubes 50 mL (incl./Caps)	6	**N9308024**

Caps		
Screw Caps, Orange, for *Digi*TUBEs	250	**N9308058**
Screw Caps, Red, for *Digi*TUBEs	250	**N9308059**
Screw Caps, Clear, for *Digi*TUBEs	250	**N9308060**
Screw Caps, Yellow, for *Digi*TUBEs	250	**N9308056**
Teflon Screw Caps for Teflon Tubes, N9308024 Replaces Blue Cap Supplied	6	**N9308027**

Watch Glasses		
Disposable Watch Glasses, 50 mL	1,000	**N9308003**
Disposable Watch Glasses, 100 mL	500	**N9308030**
Racks		
Rack for SPB-100-12, 100 mL	1	**N9308067**
Rack for SPB-100-30, 100 mL	1	**N9308068**
Rack for SPB-100-42, 100 mL	1	**N9308069**
Rack for SPB-50-24, 50 mL	1	**N9308070**
Rack for SPB-50-48 and SPB-50-72, 50 mL	1	**N9308042**
Accessories		
Fume Hood SPB 50-24/100-12/50-48/100-30		**N9308000**
Fume Hood SPB 50-72/100-42		**N9308001**
Filter for SPB Fume Hoods		**N9308078**
SPBVAC™ Evacuation Hood SPB 50-48/SPB 100-30		**N9308021**
Autosampler Fume Hood		**N9308036**
SPB Blower Unit (all systems)115/230V		**N9308022**
Vacuum Pump 20L/min 115V		**N9308035**
Vacuum Pump 60L/min115V		**N9308063**
Vacuum Pump 17L/min 230V		**N9308331**
Vacuum Pump 58L/min 230V		**N9308332**