

HUMAN HEALTH

ENVIRONMENTAL HEALTH

# AVIO 200 ICP-OES CONSUMABLES AND SUPPLIES



# INTRODUCTION AND OVERVIEW

Capable of handling even the most difficult, high-matrix samples without dilution, the Avio® 200 brings a whole new level of performance and flexibility to ICP.

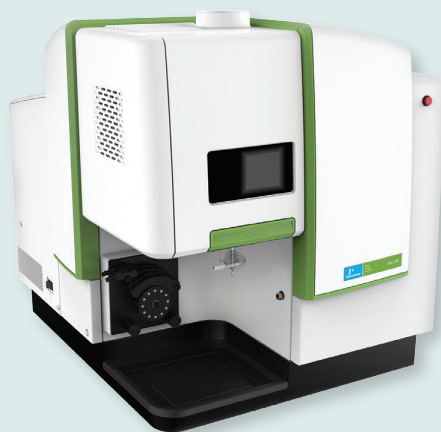
Better yet, that unprecedented performance comes with unparalleled ease-of-use. Unique hardware features and the industry's most intuitive software combine to make multielement measurements as easy as a single-element analysis.

The smallest ICP on the market, the Avio 200 offers the most efficient operation, reliable data, and lowest cost of ownership by delivering:

- The lowest argon consumption of any ICP.
- The fastest ICP startup (ready in just 10 minutes from power off).
- The best sensitivity and resolution at all wavelengths.
- The fastest analysis times with minimized sample preparation.

**Reliable. Capable. Affordable.**

**The Avio 200 is everything you're looking for in an ICP.**

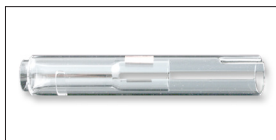


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## Demountable Torches

Demountable design using one-piece quartz tubing for plasma and auxiliary gas flow. Available in a wide range of styles from 1-3 slots, depending on your application needs. 1-slot torches are the standard torch for aqueous solutions. 3-slot torches are typically used for organic analysis.

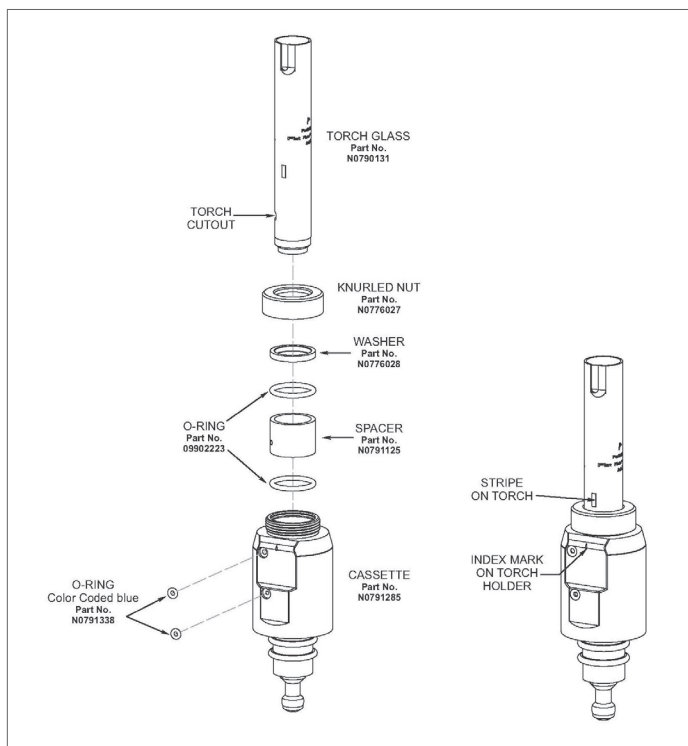


### Quartz Torches

| Description         | # of Slots | Part No. |
|---------------------|------------|----------|
| Standard            | 1          | N0790131 |
| Hybrid XLT Organics | 3          | N0790249 |

### Torch O-Rings and Removal Tool

| # of Slots                       | Qty | Part No. |
|----------------------------------|-----|----------|
| O-Ring Kit for Adjustable Torch  |     | N0790437 |
| <i>Includes:</i>                 |     |          |
| O-Ring – 0.799 ID 0.103 WD       | 2   | 09902223 |
| O-Ring – 0.101 ID 0.070 WD       | 2   | N0791334 |
| O-Ring Kit for Scott Injector    |     | N0790440 |
| <i>Includes:</i>                 |     |          |
| O-Ring - 8.74 ID 1.78 WD         | 2   | 09200518 |
| O-Ring - 0.239 ID 0.70 WD        | 2   | 09902207 |
| O-Ring - 0.344 ID 0.070 WD       | 2   | N0791333 |
| O-Ring Kit for Cyclonic Injector |     | N0790441 |
| <i>Includes:</i>                 |     |          |
| O-Ring - 0.239 ID 0.70 WD        | 2   | 09902207 |
| O-Ring - 0.301 ID 0.70 WD        | 2   | 09926070 |
| O-Ring - 0.344 ID 0.070 WD       | 2   | N0791333 |
| O-Ring Removal Tool              |     | 09920410 |
| Torch Cassette Complete          |     | N0790138 |



## Torch Assemblies

### Torch Assemblies

| Description                                                                                                                | Part No. |
|----------------------------------------------------------------------------------------------------------------------------|----------|
| Quick Change Torch Module -<br>Scott Spray Chamber/Cross-Flow Nebulizer                                                    | N0790606 |
| <i>Includes: GemTip Cross-Flow Nebulizer, 1-Slot Quartz Torch, 2.0 mm Alumina Injector, Scott Spray Chamber.</i>           |          |
| Quick Change Torch Module -<br>Cyclonic Spray Chamber/Concentric Nebulizer                                                 | N0790607 |
| <i>Includes: Type K1 Standard Nebulizer, 1-Slot Quartz Torch, 2.0 mm Alumina Injector, Baffled Cyclonic Spray Chamber.</i> |          |

## Nebulizers

PerkinElmer offers high-quality sample introduction components for a wide variety of applications.



### MEINHARD® Nebulizers

Provide excellent sensitivity and precision for aqueous solutions and samples with few dissolved solids (less than 1%). MEINHARD® Nebulizers are self-aspirating and must not be used with solutions containing hydrofluoric acid. All require an end cap for use with Ryton® Scott spray chambers.

| Type               | Application                        | Part No. |
|--------------------|------------------------------------|----------|
| Type K1 (standard) | Ar low-flow, High dissolved solids | N0777707 |
| Type K3            | Reduced flow, and organics         | N0681574 |

### MEINHARD® Nebulizer Parts

| Description                                                   | Part No. |
|---------------------------------------------------------------|----------|
| Liquid-End Connector Kit, 10" length by 0.020" ID x 0.062" OD | N0791018 |
| Nebulizer Clip for MEINHARD® Nebulizers                       | N0777460 |

### End Cap for Concentric Glass Nebulizers

| Description                 | Part No. |
|-----------------------------|----------|
| Scott Spray Chamber End Cap | N0680504 |



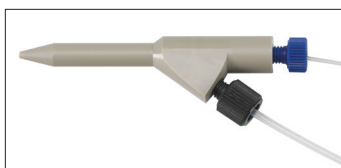
### MicroMist Nebulizers

| Air Flow Rate | Uptake Rate | Part No. |
|---------------|-------------|----------|
| 0.7 L/min     | 0.05 mL/min | N0775349 |
| 0.7 L/min     | 0.1 mL/min  | N0775348 |
| 0.7 L/min     | 0.2 mL/min  | N0775347 |
| 0.7 L/min     | 0.6 mL/min  | N0775346 |

*Requires Quick Disconnect Part No. N0770336.*

### SeaSpray Nebulizers

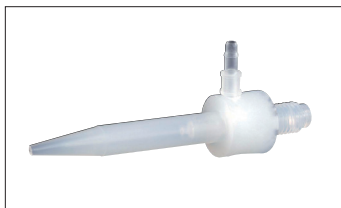
| Air Flow Rate | Uptake Rate | Part No. |
|---------------|-------------|----------|
| 0.7 L/min     | 2 mL/min    | N0775345 |



### PEEK MiraMist® Nebulizer

The MiraMist® fits regular spray chambers as a direct replacement for glass concentric nebulizers. Its features include standard pressure (45 psi), low sample flow and enhanced parallel path design.

| Description    | Uptake Rate       | Part No. |
|----------------|-------------------|----------|
| PEEK MiraMist® | 0.2 to 2.5 mL/min | N0775330 |



### MicroFlow Nebulizers

MicroFlow nebulizers are constructed entirely from chemically resistant fluoropolymers, ideal for strong acids, alkalis, organics, high salt solutions and high solid concentrations. They are resistant to clogging, are reliably self-aspirated or pumped and produce a fine aerosol for high transport efficiency and high sensitivity.

| Description                 | Part No. |
|-----------------------------|----------|
| PolyPro ST Nebulizer        | N0777219 |
| PFA-ST Nebulizer            | N0777049 |
| PFA-ST3 Microflow Nebulizer | N0777676 |

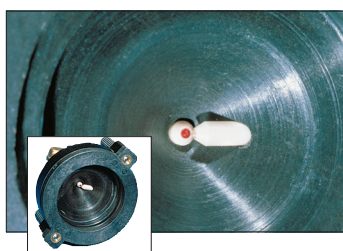
## Nebulizers, continued



## GemCone™ and GemTip™ Nebulizers

Low-Flow GemCones™ permit lower nebulizer gas flow rates, useful for spectral lines with high excitation energies and for providing a more robust plasma. GemCone™ Nebulizers require an end cap for use with Rytan Scott Spray Chambers.

| Description                                         | Part No. |
|-----------------------------------------------------|----------|
| GemCone™ Low-Flow Nebulizer                         | N0770358 |
| GemCone™ High Dissolved Solids                      | N0690670 |
| GemCone™ Sample Capillary Adapter                   | N0371505 |
| Scott Spray Chamber End Cap for GemCone™ Nebulizers | N0680504 |
| Quick Disconnect Tubing                             | N0770336 |



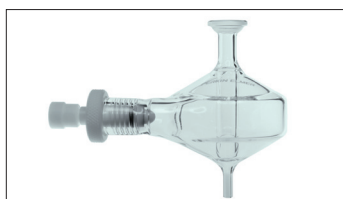
## GemTip™ Cross-Flow II Nebulizers

Excellent general purpose nebulizer for the analysis of strong mineral acids (including HF) and samples with less than 5% dissolved solids.

| Description                                                                                                         | Part No. |
|---------------------------------------------------------------------------------------------------------------------|----------|
| GemTip™ Cross-Flow II Nebulizer                                                                                     | N0780546 |
| GemTip™ Cross-Flow II Tip Kits                                                                                      | N0780676 |
| GemTip™ Cross-Flow Nebulizer O-Ring Kit                                                                             | N9300067 |
| <i>Includes: 09902001 qty. 2, 09902033 qty. 2, 09902151 qty. 3, 09921003 qty. 1, 3 cm of Teflon® sample tubing.</i> |          |

## Spray Chambers

The spray chamber is an integral part of the sample introduction system responsible for filtering the sample mist to permit the appropriate droplet size distribution to reach the plasma.



## Cyclonic Spray Chambers

| Description                                                                                       | Part No. |
|---------------------------------------------------------------------------------------------------|----------|
| Baffled Cyclonic (Standard)                                                                       | N0791352 |
| HF Resistant Cyclonic Spray Chamber<br>TFE PTFE O-Ring free, 50 mL with grounding strap included. | N0791352 |



## Scott Spray Chamber\*

The Scott Spray Chamber is corrosion-resistant and is inert to most mineral acids including HF, aqua regia and all organic solvents normally used in ICP analyses.

| Description                       | Part No. |
|-----------------------------------|----------|
| Scott Spray Chamber               | N0791499 |
| Scott Spray Chamber Clamp Adapter | N0790296 |

*\*Product image shown may vary from actual product.*

## Injectors and Injector Support Adapters



## Alumina Injectors

Alumina injectors are corrosion-resistant to all mineral acids including HF and aqua regia. They are also used with less volatile organic solvents, e.g., xylene.

| Description                                 | Part No. |
|---------------------------------------------|----------|
| 0.80 mm i.d.                                | N0791180 |
| 1.2 mm i.d.                                 | N0791181 |
| 1.2 mm i.d. (1.2 mm entire length of tube)  | N0791182 |
| 2.0 mm i.d. (standard with Avio instrument) | N0791183 |

## Injectors and Injector Support Adapters, continued



### Quartz Injectors

Quartz injectors are designed for organic solvents and non-HF matrices.

| Dimensions                                 | Part No. |
|--------------------------------------------|----------|
| 0.80 mm i.d.                               | N0791185 |
| 1.2 mm i.d.                                | N0791186 |
| 1.2 mm i.d. (1.2 mm entire length of tube) | N0791187 |
| 1.6 mm i.d.                                | N0791188 |
| 2.0 mm i.d.                                | N0791189 |
| 3.0 mm i.d.                                | N0791190 |

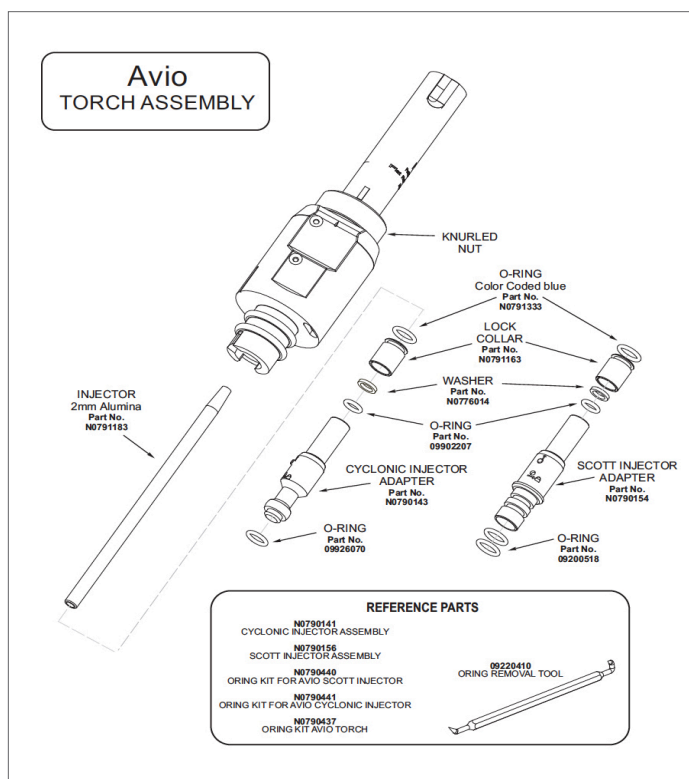
### Sapphire Injectors

Sapphire injectors are ideal for silicon applications.

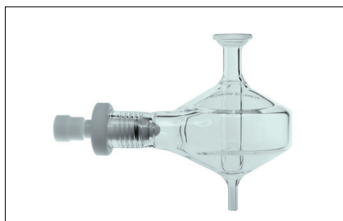
| Dimensions  | Part No. |
|-------------|----------|
| 2.0 mm i.d. | N0791184 |

### Injector Support Adapter Kits and O-Rings

| Dimensions                                                                                           | Part No. |
|------------------------------------------------------------------------------------------------------|----------|
| Injector Adapter Kit-Cyclonic (includes o-rings)                                                     | N0790141 |
| Injector Adapter Kit-Scott (includes o-rings)                                                        | N0790156 |
| Injector Adapter O-Ring Kit Cyclonic<br>(incl. 09902207 qty. 2, 09926070 qty. 2,<br>N0791333 qty. 2) | N0790441 |
| Injector Adapter O-Ring Kit Scott<br>(incl. 09902207 qty. 2, 09200518 qty. 2,<br>N0791333 qty. 2)    | N0790440 |



## Sample Introduction Kits



## Cyclonic/Concentric Kit

|                              | Part No. |
|------------------------------|----------|
| Cyclonic/Concentric Kit*     | N0790608 |
| <i>Includes:</i>             |          |
| 1 Slot Quartz Torch          | N0790131 |
| 2.0 mm i.d. Alumina Injector | N0791183 |
| Glass Cyclonic Spray Chamber | N0791352 |
| MEINHARD® Type K1 Nebulizer  | N0777707 |
| Injector Adapter             | N0790143 |

\*Includes one of each.



## Scott/Cross-Flow II Kit

|                                 | Part No. |
|---------------------------------|----------|
| Scott/Cross-Flow II Kit*        | N0790609 |
| <i>Includes:</i>                |          |
| 1 Slot Quartz Torch             | N0790131 |
| 2.0 mm i.d. Alumina Injector    | N0791183 |
| Scott Spray Chamber*            | N0791499 |
| GemTip™ Cross-Flow II Nebulizer | N0780546 |
| Injector Adapter                | N0790156 |

\*Includes one of each.

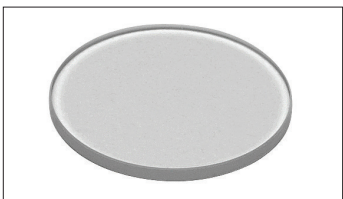


## Organics Kit

|                                 | Qty. | Part No. |
|---------------------------------|------|----------|
| Organics Kit*                   |      | N0790610 |
| <i>Includes:</i>                |      |          |
| 3 Slot Quartz Torch             | 2    | N0790249 |
| 1.2 mm i.d. Alumina Injector    | 2    | N0791181 |
| Baffled Cyclonic Spray Chamber  | 1    | N0791352 |
| GemTip™ Cross-Flow II Nebulizer | 1    | N0770358 |
| Cyclonic Spray Chamber Adapter  | 1    | N0790141 |

\*Includes one of each.

## Purge Windows

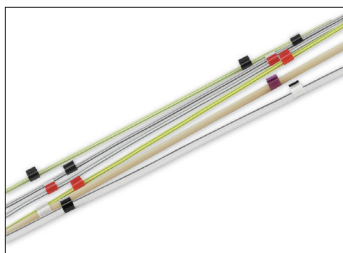


## Purge Extension Windows

| ICP Model                               | View         | Part No. |
|-----------------------------------------|--------------|----------|
| Avio 200                                | Axial        | 09992731 |
| Avio 200                                | Radial*      | N0690672 |
| Optical Kit (incl. Windows and O-Rings) | Axial/Radial | N0790439 |
| Axial Flat Mirror Kit                   | Axial        | N0790196 |

\*Product image shown may vary from actual product.

## Pump Tubing



| i.d.<br>(mm) | Stop Colors   | Standard<br>PVC<br>(Pkg 12) | Flared<br>PVC<br>(Pkg 12) | Solvent<br>Flex<br>(Pkg 12) | Viton®<br>(Pkg 12) | Santoprene®<br>(Pkg 12) | Silicone<br>(Pkg 6) |
|--------------|---------------|-----------------------------|---------------------------|-----------------------------|--------------------|-------------------------|---------------------|
| 0.19         | orange red    | N0695476                    | N0773111                  |                             |                    |                         |                     |
| 0.25         | orange blue   | N0773117                    | N0773112                  |                             |                    |                         |                     |
| 0.38         | orange green  | N0777110                    | N0777042                  | N0773113                    |                    |                         |                     |
| 0.44         | green yellow  |                             | N0773113                  |                             |                    |                         |                     |
| 0.51         | orange yellow |                             | N0777476                  |                             | N0777446           |                         |                     |
| 0.64         | orange white  |                             | N0777711                  |                             |                    |                         |                     |
| 0.76         | black black   | 09908587                    | N0777043                  | 00473550                    | N0773118           |                         | 00473552            |
| 1.02         | white white   |                             |                           |                             | N0777442           |                         | N0777441            |
| 1.14         | red red       | 09908585                    |                           | 09923037                    | N0773115           | N0773119                | N0691595            |
| 1.30         | gray gray     |                             |                           |                             | N0777445           | N0777444                | N0777443            |
| 1.42         | yellow yellow | N0777521                    |                           |                             |                    |                         |                     |
| 1.52         | yellow blue   | 09923536                    |                           |                             |                    |                         |                     |
| 1.65         | blue blue     |                             |                           |                             | N0777447           |                         |                     |
| 1.85         | green green   | N0777518                    |                           |                             |                    | N0773116                |                     |
| 2.06         | purple purple | N0777561                    |                           |                             |                    |                         |                     |
| 2.79         | purple white  |                             |                           | 02508080                    |                    |                         | 09923448            |
| 3.18         | black white   | N8122012                    |                           |                             |                    |                         |                     |

## Autosampler Tubes



### Autosampler Graduated Tubes with Red Caps

| Capacity | Size           | Type                 | Qty            | Part No. |
|----------|----------------|----------------------|----------------|----------|
| 15 mL*   | 17 mm x 120 mm | Conical Bottom       | 500/50 per bag | B0193233 |
| 50 mL*   | 28 mm x 115 mm | Conical/Freestanding | 500/25 per bag | B0193234 |

### Autosampler Tubes

| Capacity | Size           | Type                                  | Qty                                | Part No. |
|----------|----------------|---------------------------------------|------------------------------------|----------|
| 8 mL     | 13 mm x 100 mm | Round Bottom                          | 1,200 bulk                         | N0777156 |
| 15 mL    | 17 mm x 100 mm | Round Bottom                          | 1,200 bulk                         | N0777167 |
|          |                | Plugs for N0777167 (blue) Plugs Only  | 1,200 bulk                         | N0777599 |
| 15 mL*   | 17 mm x 100 mm | Round Bottom                          | 2,000 bulk                         | N0777071 |
|          |                | Plugs for N0777071 (white) Plugs Only | 1,000 bulk                         | N0777072 |
| 50 mL*   | 30 mm x 115 mm | Conical                               | 500 bulk with teal flat caps       | N0777693 |
| 50 mL*   | 30 mm x 115 mm | Conical                               | 500/50 per bag with teal flat caps | N0777691 |

\*Graduated tubes



## PerkinElmer Pure Standards



## Single-Element Standards – 1,000 µg/mL

Whatever your application, you can depend on PerkinElmer Pure Standards to yield reliable, accurate results. PerkinElmer offers a wide selection of atomic spectroscopy calibration standards. Each solution is supplied with a comprehensive Certificate of Analysis that documents the quality and reliability. Please visit our website for a complete listing of Atomic Spectroscopy Standards.

| Element  | Symbol | Matrix               | 125 mL Part No. | 500 mL Part No. |
|----------|--------|----------------------|-----------------|-----------------|
| Aluminum | Al     | 2% HNO <sub>3</sub>  | N9300184        | N9300100        |
| Cadmium  | Cd     | 2% HNO <sub>3</sub>  | N9300176        | N9300107        |
| Calcium  | Ca     | 2% HNO <sub>3</sub>  | N9303763        | N9300108        |
| Chromium | Cr     | 2% HNO <sub>3</sub>  | N9300173        | N9300112        |
| Copper   | Cu     | 2% HNO <sub>3</sub>  | N9300183        | N9300114        |
| Iron     | Fe     | 2% HNO <sub>3</sub>  | N9303771        | N9300126        |
| Lead     | Pb     | 2% HNO <sub>3</sub>  | N9300175        | N9300128        |
| Mercury  | Hg     | 10% HNO <sub>3</sub> | N9300174        | N9300133        |
| Sodium   | Na     | 2% HNO <sub>3</sub>  | N9303785        | N9300152        |
| Zinc     | Zn     | 2% HNO <sub>3</sub>  | N9300178        | N9300168        |

## Universal Data Acquisition Standards Kit

| Matrix                                                        | Contents                                                                                                                  | Vol.   | Part No. |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------|----------|
| Solution Kit (Includes items listed below – 1 bottle of each) |                                                                                                                           |        | N9306225 |
| 5% HNO <sub>3</sub>                                           | 10 µg/mL: Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sm, Sc, Tb, Th, Tm, Y, Yb                                               | 125 mL | N9300232 |
| 5% HNO <sub>3</sub>                                           | 10 µg/mL: 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, V, U, Zn | 125 mL | N9300233 |
| 10% HCl/ 1% HNO <sub>3</sub>                                  | 10 µg/mL: Au, Hf, Ir, Pd, Pt, Rh, Ru, Te, Sb, Sn                                                                          | 125 mL | N9300234 |
| 5% HNO <sub>3</sub>                                           | 10 µg/mL: Hg                                                                                                              | 125 mL | N9300253 |
| H <sub>2</sub> O/tr HF                                        | 10 µg/mL B, Ge, Mo, Nb, P, Re, S, Si, Ta, Ti, W, Zr                                                                       | 125 mL | N9300235 |

## Multi-Element Standards

| Matrix                                   | Contents                                                                                                                                                     | Vol.   | Part No. |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|
| Multi-Element Solution 1                 |                                                                                                                                                              |        |          |
| 2% HNO <sub>3</sub>                      | 10 µg/mL: Be, Bi, Ce, Co, In, Mg, Ni, Pb, U                                                                                                                  | 125 mL | N9300231 |
| Multi-Element Solution 2                 |                                                                                                                                                              |        |          |
| 5% HNO <sub>3</sub>                      | 10 µg/mL: 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 <sub>3</sub>                      | 10 µg/mL: 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 *Supplied in separate bottle. | 125 mL | N9300233 |
| Multi-Element Solution 3 without Mercury |                                                                                                                                                              |        |          |
| Multi-Element Solution 4                 |                                                                                                                                                              |        |          |
| 5% HCl/1% HNO <sub>3</sub>               | 10 µg/mL: Au, Hf, Ir, Pd, Pt, Rh, Ru, Sb, Sn, Te                                                                                                             | 125 mL | N9300234 |
| Multi-Element Solution 5                 |                                                                                                                                                              |        |          |
| H <sub>2</sub> O/tr HF                   | 10 µg/mL: B, Ge, Mo, Nb, P, Re, S, Si, Ta, Ti, W, Zr                                                                                                         | 125 mL | N9300235 |

## PerkinElmer Pure Standards, continued

## Multi-Element Standards, continued

| Matrix                | Contents                                                                                                                                                                                                           | Vol.   | Part No. |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|
| PerkinElmer Pure I    |                                                                                                                                                                                                                    |        |          |
| 5% HNO <sub>3</sub>   | 400 µg/mL: Tl<br>200 µg/mL: Bi, In, Pb<br>150 µg/mL: Ga<br>100 µg/mL: Al<br>50 µg/mL: Ag, Ni<br>25 µg/mL: Cr<br>20 µg/mL: Cd, Co, Cu, Zn<br>15 µg/mL: B, Fe<br>5 µg/mL: Ba, Mn<br>1 µg/mL: Be, Sr                  | 125 mL | N9303940 |
| PerkinElmer Pure IV   |                                                                                                                                                                                                                    |        |          |
| 10% HNO <sub>3</sub>  | 1000 µg/mL: Ag, Al, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, In, 125 mL K, Li, Mg, Mn, Na, Ni, Pb, Sr, Tl, Zn                                                                                                        | 125 mL | N9303941 |
| PerkinElmer Pure VIII |                                                                                                                                                                                                                    |        |          |
| 5% HNO <sub>3</sub>   | 100 µg/mL: Al, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, 125 mL Li, Mg, Mn, Na, Ni, Pb, Se, Sr, Te, Tl, Zn                                                                                                     | 125 mL | N9303942 |
| PerkinElmer Pure IX   |                                                                                                                                                                                                                    |        |          |
| 5% HNO <sub>3</sub>   | 100 µg/mL: As, Be, Pb, Cd, Cr, Ni, Se, Tl                                                                                                                                                                          | 125 mL | N9303943 |
| Mercury               | 100 µg/mL                                                                                                                                                                                                          |        |          |
| 5% HNO <sub>3</sub>   | 100 µg/mL: Mercury in 5% HNO <sub>3</sub>                                                                                                                                                                          | 125 mL | N9300223 |
| PerkinElmer Pure X    |                                                                                                                                                                                                                    |        |          |
| 2% HNO <sub>3</sub>   | 35,000 µg/L: Ca<br>15,000 µg/L: Mg<br>8,000 µg/L: Na<br>3,000 µg/L: K<br>100 µg/L: B, Fe, Mo, Sr<br>50 µg/L: As, Ba, Ni, V, Zn<br>30 µg/L: Mn<br>25 µg/L: Co, Pb<br>20 µg/L: Be, Cd, Cr, Cu<br>10 µg/L: Bi, Se, Tl | 125 mL | N9303944 |
| Mercury               | 8 µg/mL                                                                                                                                                                                                            |        |          |
| 5% HNO <sub>3</sub>   | 8 µg/mL: Mercury in 5% HNO <sub>3</sub>                                                                                                                                                                            | 125 mL | N9303954 |
| PerkinElmer Pure XI   |                                                                                                                                                                                                                    |        |          |
| 5% HNO <sub>3</sub>   | 2500 µg/mL: Zn<br>900 µg/mL: Cr, Pb<br>800 µg/mL: Cu<br>200 µg/mL: Ni<br>10 µg/mL: Cd                                                                                                                              | 125 mL | N9303945 |
| Mercury               | 5 µg/mL                                                                                                                                                                                                            |        |          |
| 5% HNO <sub>3</sub>   | 5 µg/mL: Mercury in 5% HNO <sub>3</sub>                                                                                                                                                                            | 125 mL | N9303949 |
| PerkinElmer Pure XIII |                                                                                                                                                                                                                    |        |          |
| 5% HNO <sub>3</sub>   | 500 µg/mL: Al<br>250 µg/mL: V<br>100 µg/mL: As, Be, Co, Cr, Cu, Fe, Mn, Ni, Pb, Zn<br>25 µg/mL: Cd, Se                                                                                                             | 125 mL | N9303946 |
| PerkinElmer Pure XVII |                                                                                                                                                                                                                    |        |          |
| 15% HCL/trace HF      | 100 µg/mL: Hf, Ir, Sb, Sn, Ta, Ti, Zr                                                                                                                                                                              | 125 mL | N9303948 |

## PerkinElmer Pure Standards, continued

## Interference Check Standards

| Matrix                                      | Contents                                                                                                         | Vol.   | Part No. |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------|----------|
| Interferents A                              |                                                                                                                  |        |          |
| 5% HNO <sub>3</sub>                         | 5,000 µg/mL: Al, Ca, Mg<br>2,000 µg/mL: Fe                                                                       | 500 mL | N9300226 |
| Alternate Interferents A                    |                                                                                                                  |        |          |
| 5% HNO <sub>3</sub>                         | 1,000 µg/mL: Cr, Cu, Mn, Ni, Ti, V                                                                               | 500 mL | N9300228 |
| Analytes B                                  |                                                                                                                  |        |          |
| 5% HNO <sub>3</sub> /tr Tartaric Acid/tr HF | 100 µg/mL: Cd, Ni, Zn<br>60 µg/mL: Sb<br>50 µg/mL: Ba, Be, Co, Cr, Cu, Mn, V<br>20 µg/mL: Ag<br>10 µg/mL: As, Tl | 125 mL | N9300227 |
| Alternate Analytes B                        |                                                                                                                  |        |          |
| 5% HNO <sub>3</sub> /tr Tartaric Acid/tr HF | 100 µg/mL: Al, As, B, Mo, Na, Sb, Se, Tl<br>10 µg/mL: Ca, Fe, Mg, Si                                             | 125 mL | N9300229 |

## Instrument Setup Solutions

| Matrix                       | Contents                                                       | Vol.   | Part No. |
|------------------------------|----------------------------------------------------------------|--------|----------|
| Vis Wavecal Solution         |                                                                |        |          |
| 2% HNO <sub>3</sub>          | 50 µg/mL: K<br>10 µg/mL: La, Li, Mn, Na, Sr<br>1 µg/mL: Ba, Ca | 250 mL | N9302946 |
| UV Wavecal Solution          |                                                                |        |          |
| 5% HCl                       | 100 µg/mL: K, P, S<br>20 µg/mL: As, La, Li, Mn, Mo, Na, Ni, Sc | 125 mL | N0681470 |
| 5% HCl                       | 100 µg/mL: K, P, S<br>20 µg/mL: As, La, Li, Mn, Mo, Na, Ni, Sc | 500 mL | N0582152 |
| Low UV Standard              |                                                                |        |          |
| 2% HNO <sub>3</sub>          | 10 µg/mL: Al, P, S                                             | 250 mL | N0691580 |
| Calcium Stray Light Standard |                                                                |        |          |
| H <sub>2</sub> O             | 10,000 µg/mL: Ca                                               | 125 mL | N0691581 |

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