

# NexION

1000/2000/5000 ICP-MS  
CONSUMABLES  
AND SUPPLIES



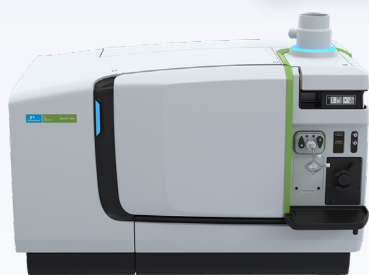
## Introduction and Overview

NexION® 1000/2000/5000 ICP-MS consumables and supplies are designed with your instrument in mind. Each part is fit to perform and manufactured with the highest quality materials available. Whether you are looking for sample introduction components or standards, we have the consumables you need to keep your NexION up and running smoothly and efficiently.



NexION® 1000  
ICP-MS

NexION® 2000  
ICP-MS



NexION® 5000  
ICP-MS

TRUST THE CONSUMABLES  
ENGINEERED FOR  
YOUR INSTRUMENTS

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## Sampler and Skimmer Cones

Precision-designed and manufactured, large-orifice sampler and skimmer cones provide superior long-term stability and resist clogging, allowing analysis under both high and low sample-uptake conditions. Nickel is a very rugged, long-lasting material for the majority of sample types, while platinum is the material of choice for more corrosive samples. They have been designed to maximize signal stability and to minimize clogging during extended runs of samples containing high dissolved solids.

### Nickel Sampler and Skimmer Cones

| Type    | Material | ICP-MS Model          | Part No. |
|---------|----------|-----------------------|----------|
| Sampler | Nickel   | NexION 1000/2000/5000 | W1033612 |
| Skimmer | Nickel   | NexION 1000/2000      | W1026356 |

### Platinum Sampler and Skimmer Cones

| Type                                            | Material | ICP-MS Model          | Part No. |
|-------------------------------------------------|----------|-----------------------|----------|
| Sampler                                         | Platinum | NexION 1000/2000/5000 | W1033614 |
| Sampler for Sulfur Based Acids/Solvents (18 mm) | Platinum | NexION 1000/2000/5000 | N8145028 |
| Skimmer                                         | Platinum | NexION 1000/2000      | W1026907 |
| Skimmer                                         | Platinum | NexION 5000           | N8161041 |

### Hyper Skimmer Cones

| Type               | Material | ICP-MS Model     | Part No. |
|--------------------|----------|------------------|----------|
| Hyper Skimmer Cone | Aluminum | NexION 1000/2000 | W1033995 |
| Hyper Skimmer Cone | Nickel   | NexION 5000      | N8160120 |



Sampler for NexION 1000/2000/5000 (W1033612) and Skimmer Cone for NexION 1000/2000 (W1026356)



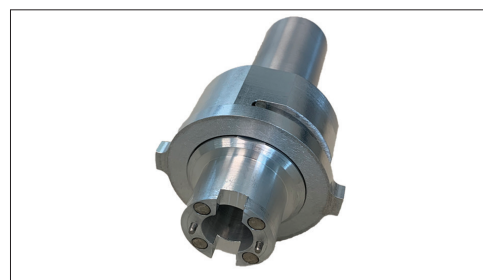
Hyper Skimmer Cone for NexION 1000/2000 (W1033995)



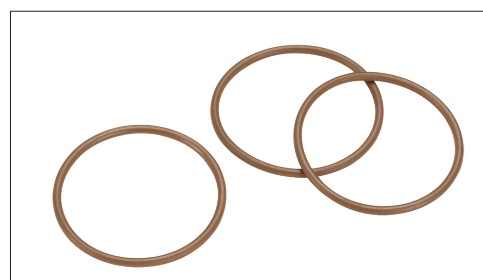
Hyper Skimmer Cone for NexION 5000 (N8160120)



Cone Removal Tool for NexION 1000/2000 (W1034694)



Hyper Skimmer Removal Tool for NexION 5000 (N8160119)



Hyper Skimmer O-Ring for NexION 1000/2000 (09902123)

## Replacement Parts

| Description                  | ICP-MS Model          | Part No. |
|------------------------------|-----------------------|----------|
| Sampler Gasket               | NexION 1000/2000/5000 | W1040148 |
| Hyper Skimmer O-Ring         | NexION 1000/2000      | 09902123 |
| Hyper Skimmer O-Ring         | NexION 5000           | 09211389 |
| Hyper Skimmer Screw          | NexION 1000/2000      | WE027484 |
| Cone Removal Tool            | NexION 1000/2000      | W1034694 |
| Sampler Skimmer Removal Tool | NexION 5000*          | N8160118 |
| Hyper Skimmer Removal Tool   | NexION 5000           | N8160119 |
| Torch Alignment Tool         | NexION 1000/2000/5000 | N8157042 |

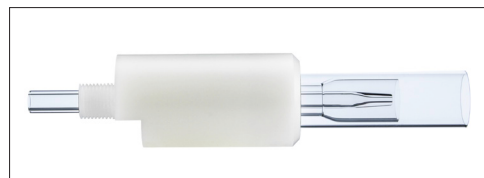
\*Hyper Skimmer Removal Tool (N8160119) also needed for NexION 5000.

## Quartz Torches

| Torch                                                      | Description                                                                                                | Part No. |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------|
| Demountable Quartz Torch (Black)                           | Demountable Quartz Torch, PVDF o-ring free holder for demountable injectors.                               | N8152379 |
| Demountable UHP Quartz Torch (Gray)                        | Demountable Ultra Pure Quartz Torch, PVDF O-Ring Free Holder for Demountable Injectors.                    | N8152448 |
| Demountable Quartz Torch (Organics)                        | Demountable Quartz Torch for Organic Analysis with PVDF oring-free holder.                                 | N8152596 |
| Fixed 2.0 mm Injector UHP Quartz Torch (White)             | One Piece Ultra Pure Quartz Torch with 2.0 mm Injector, PVDF O-Ring Free Holder for 'S' Configuration.     | N8152428 |
| Fixed 2.0 mm Injector Quartz Torch (Blue/Purple)           | One Piece Quartz Torch with 2.0 mm Injector, PVDF O-Ring Free Holder for 'B' Configuration.                | N8152472 |
| Fixed 2.5 mm Injector Quartz Torch (Green)                 | One piece quartz torch with 2.5 mm injector, PVDF o-ring free holder for "C" configuration.                | N8152473 |
| Fixed 1.5 mm Injector Quartz Torch (Blue/Blue)             | One Piece Quartz Torch with 1.5 mm Injector, PVDF O-Ring Free Holder.                                      | N8152427 |
| Fixed 1.5 mm Injector Quartz Torch (Orange)                | One Piece Quartz Torch with 1.5 mm Injector, PVDF O-Ring Free Holder for Organic Solvents.                 | N8152616 |
| Fixed 1.5 mm Injector UHP Quartz Torch (White/White)       | One Piece Ultra Pure Quartz Torch with 1.0 mm Injector, PVDF O-Ring Free Holder.                           | N8152601 |
| Fixed 1.0 mm Injector Quartz Torch (Orange/Orange)         | One Piece Quartz Torch with 1.0 mm Injector, PVDF O-Ring Free Holder for High Volatility Organic Solvents. | N8152474 |
| Fixed 1.0 mm Injector Quartz Torch (Blue/Blue/Blue)        | One Piece Quartz Torch with 1.0 mm Injector, PVDF O-Ring Free Holder                                       | N8152699 |
| Fixed 1.0 mm Injector UHP Quartz Torch (White/White/White) | One Piece Ultra Pure Quartz Torch with 1.0 mm Injector, PVDF O-Ring Free Holder                            | N8152600 |
| Torch Injector Nut                                         |                                                                                                            | N8152451 |
| Torch Injector Nut Removal Tool                            |                                                                                                            | N8152443 |
| Torch O-Ring Kit                                           | Viton O-Ring Kit Includes: 2.8 mm ID (Qty. 4), 14 mm ID (Qty. 1) and 16 mm ID (Qty. 1)                     | N8152476 |
| PTFE Torch Light Shield Disk                               |                                                                                                            | N8152377 |



Fixed SilQ 2 mm Torch (N8152428)



Fixed 1.5 mm Torch (N8152427)



One Piece Quartz Torch with 2.5 mm Injector (N8152473)



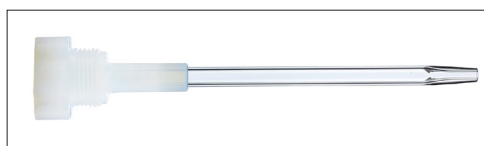
Torch Injector Nut (N8152451)



PTFE Torch Light Shield Disk (N8152377)

## Demountable Injectors

| Description                                                     | Part No. |
|-----------------------------------------------------------------|----------|
| 2.5 mm Demountable Quartz Injector (Black/Green)                | N8152446 |
| 2.0 mm Demountable Quartz Injector (Black)                      | N8152376 |
| 1.5 mm Demountable Quartz Injector (Black/Orange)               | N8152445 |
| 1.0 mm Demountable Quartz Injector (Black/Orange/Orange)        | N8152444 |
| 1.0 mm Demountable Platinum Injector (Gray/Gray/Gray)           | N8152603 |
| 1.5 mm Demountable Platinum Injector (Gray/Gray)                | N8152604 |
| 2.0 mm Demountable Platinum Injector (Gray)                     | N8152429 |
| 1.5 mm Demountable Sapphire Injector (Black/Gold/Gold)          | N8152606 |
| 2.0 mm Demountable Sapphire Injector (Black/Gold)               | N8152447 |
| Platinum Shield Disc for NexION Platinum and Sapphire Injectors | N8151106 |



2 mm Demountable Quartz Injector (N8152376)



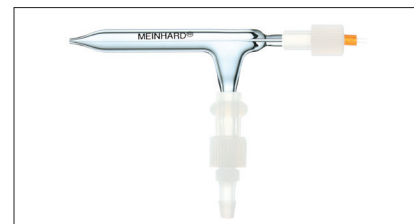
2 mm Demountable Platinum Injector (N8152429)

## Nebulizers

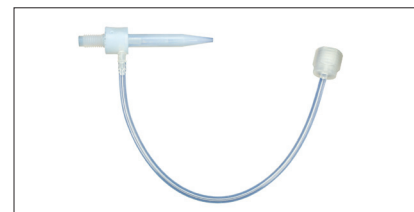
Concentric Plus Nebulizers provide low dead volume and high sensitivity with excellent detection limits and washout. Each Plus nebulizer includes the FitKit+ gas and sample quick connect fittings. The connections are made with high-purity PFA, minimizing the chance of contamination during backflow events. The gas connection fits snugly over the maria on the sidearm of the nebulizer.

| Material   | Product Name              | Description                               | Part No. |
|------------|---------------------------|-------------------------------------------|----------|
| Glass      | Concentric Type CT R +    | High performance glass                    | N8152373 |
| Quartz     | Concentric Type CT Q +    | High performance quartz                   | N8152372 |
| UHP Quartz | Concentric Type CT SilQ + | High performance ultra-high purity quartz | N8152384 |
| PFA        | PFA ST3                   | High performance, HF resistant            | N8152378 |
| PFA        | PFA LC Microflow          | For coupling LC ICP-MS                    | N8152477 |

\*See page 8 for Nebulizer Fittings and Capillaries



SilQ Plus Quartz Nebulizer (N8152384)

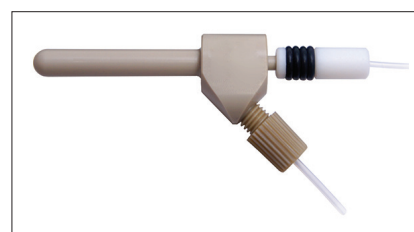


PFA ST3 Nebulizer Assembly (N8152378)

## DuraMist Nebulizers

The DuraMist concentric nebulizer is an economical nebulizer for high precision analyses involving samples digested in HF.

| Material | Uptake Rate | Part No. |
|----------|-------------|----------|
| PEEK     | 0.4 mL/min  | N8151077 |
| PEEK     | 1.0 mL/min  | N8151078 |



DuraMist Nebulizer (N8121046)

## MicroMist Nebulizers

The MicroMist micro-uptake glass concentric nebulizer offers high performance for limited sample volumes. Direct Connection (DC) Nebulizers are fitted with a UniFit connector and an Argon connector. MicroMist Nebulizers include a Gas Fitting with ratchet connector (**N8151079**).

| Material | Uptake Rate | Part No. |
|----------|-------------|----------|
| Glass    | 0.05 mL/min | N8151076 |
| Glass    | 0.1 mL/min  | N8151075 |
| Glass    | 0.2 mL/min  | N8151074 |
| Glass    | 0.4 mL/min  | N8151073 |



MicroMist Nebulizer (N8151076)

## SeaSpray Nebulizers

The SeaSpray concentric nebulizer is ideal for samples with high dissolved solids and offers outstanding nebulization efficiency for trace level analysis. Direct Connection (DC) Nebulizers are fitted with a UniFit connector and an Argon connector. SeaSpray Nebulizers include a Gas Fitting with ratchet connector (**N8151079**).

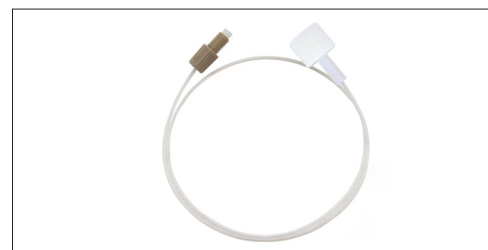
| Material | Uptake Rate | Part No. |
|----------|-------------|----------|
| Glass    | 0.4 mL/min  | N8151070 |
| Quartz   | 1.0 mL/min  | N8151072 |
| Glass    | 2.0 mL/min  | N8151071 |



SeaSpray Nebulizer (N8151070)

## Direct Connection Nebulizer Gas Fitting

| Description                                                   | Part No. |
|---------------------------------------------------------------|----------|
| 1/8 Gas Fitting with Ratchet Nebulizer Connector (DC)         | N8151079 |
| 1/8 Gas Fitting with Ratchet Nebulizer Connector (DC) Pkg. 10 | N8151107 |



Ratchet Nebulizer Connector (N8151079)

## pergo Argon Humidifiers

The *pergo* 2000 improves performance of all concentric nebulizers. It maintains nebulizer efficiency – which decreases long before a clogged tip is detected – and improves sensitivity and stability by preventing unnoticed salt crystals from forming in the nebulizer tip.

| Description                                             | Part No. |
|---------------------------------------------------------|----------|
| <i>pergo</i> 1 without Nebulizer                        | N8145315 |
| <i>pergo</i> 1 with MEINHARD Type C Nebulizer           | N8145316 |
| <i>pergo</i> 1 with PFA-ST Nebulizer                    | N8150427 |
| <i>pergo</i> 2 without Nebulizer                        | N8150743 |
| <i>pergo</i> 2 with MEINHARD Type C Plus Nebulizer      | N8150428 |
| <i>pergo</i> 2 with PFA-ST Nebulizer                    | N8150429 |
| <i>pergo</i> 1 NexION 1000/2000 Gas Line Conversion Kit | N8152683 |
| <i>pergo</i> 2 NexION 1000/2000 Gas Line Conversion Kit | N8152692 |
| <i>pergo</i> Gas Extensions                             | N8152688 |
| <i>pergo</i> 2000                                       | N8150499 |
| <i>pergo</i> 2000 AMS                                   | N8150498 |

### FEATURES AND BENEFITS:

- Improved RSDs
- Improved short and long-term stability
- Improved detection limits
- Faster washout
- Ability to use high-sensitivity nebulizers for high-TDS samples
- Reduce long-term drift
- Extends the length of analytical runs



pergo Argon Humidifier (N8145315)

## Elegra Argon Humidifiers

The Elegra argon humidifier is used in ICP analyses involving samples with high concentrations of dissolved solids. It helps to alleviate salt deposits in the nebulizer and torch injector, allowing uninterrupted and maintenance free operation.

- Highly efficient membrane humidification technology.
- Improved signal stability for samples with high TDS.
- Elegra Dual two-channel configuration available for ICP-MS instruments using auxiliary argon.

| Description                                     | Part No. |
|-------------------------------------------------|----------|
| <i>Elegra</i> Argon Humidifier                  | N8150493 |
| <i>Elegra</i> Dual Two-Channel Argon Humidifier | N8150494 |



pergo Argon Humidifier 2000 (N8150499)



Elegra Argon Humidifier (N8150494)

## Spray Chambers

The cyclonic spray chamber relies on momentum to efficiently and quickly remove the larger droplets from the sample mist decreasing any opportunity for occlusion or agglomeration of the smaller droplets. The result is higher efficiency, better precision and faster washouts than other spray chamber designs.

- Decreased sample introduction system installation and optimization time due to the preset nature of the spray chamber/nebulizer combination
- More samples per hour due to minimal dead volume and efficient draining

| Type                                                                | Description                                                                  | Part No. |
|---------------------------------------------------------------------|------------------------------------------------------------------------------|----------|
| Glass Cyclonic High Sensitivity Spray Chamber                       | For NexION 2000 ICP-MS Base "B" Configuration                                | N8152375 |
| Glass Cyclonic High Sensitivity Spray Chamber with Matrix Gas Port  | For NexION 1000 and 2000 ICP-MS Core "C" and Productivity "P" Configurations | N8152389 |
| SilQ Cyclonic High Sensitivity Spray Chamber                        | For NexION 2000 ICP-MS Semicon "S" Configuration                             | N8152424 |
| SilQ Cyclonic Spray Chamber with Matrix Gas Port                    | For NexION 5000 ICP-MS                                                       | N8152539 |
| Quartz Cyclonic High Sensitivity Spray Chamber with Matrix Gas Port | For applications requiring low levels of Boron and Silicon detection         | N8152383 |
| PFA Barrel Spray Chamber                                            | PFA Double Pass Spray Chamber for use with HF acid                           | N8152390 |
| PFA Barrel Spray Chamber with Additional Gas Port                   | PFA Double Pass Spray Chamber for use with HF acid                           | N8150450 |

## Spray Chamber Components

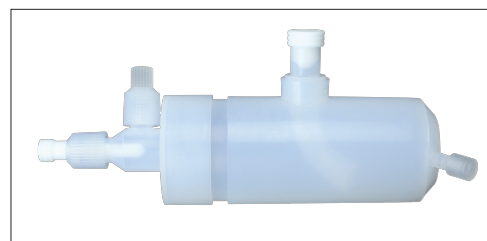
| Description                                                                                                                                      | Part No. |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| UV Light Shield for for cyclonic spray chamber NexION 1000/2000 ICP-MS "B" Configuration                                                         | N8152425 |
| UV Light Shield for UV shield for PC3X Peltier cooler/heater NexION 2000 ICP-MS "C", "P", and "S" Configurations (for use with PC <sup>3</sup> ) | N8152475 |
| Threaded Spray Chamber Drain Line 1/4 -28 Fitting                                                                                                | N8152456 |



Glass Cyclonic Chamber (N8152375)



Glass Cyclonic High Sensitivity Spray Chamber with Matrix Gas Port (N8152389)



PFA Barrel Spray Chamber with Additional Gas Port (N8150450)

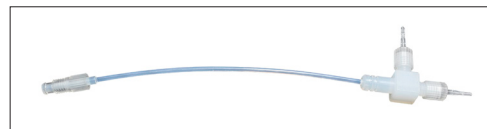


UV PC<sup>3</sup> Light Shield (N8152475)

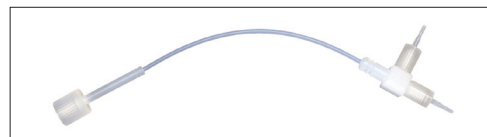


## Nebulizer Fittings and Capillaries

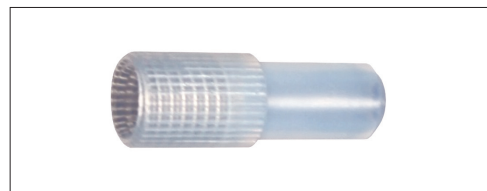
| Description                                                          | Part No. |
|----------------------------------------------------------------------|----------|
| MEINHARD® Nebulizer Internal Standard Tee                            | N8152386 |
| PFA-ST Nebulizer Internal Standard Addition Tee                      | N8152423 |
| MEINHARD® Plus Nebulizer Fitting for Concentric Nebulizer (N8152378) | N8152387 |
| Peripump Union - Male Barb CTFE Fitting                              | N8152453 |
| Peripump Union - Female Barb CTFE Fitting                            | N8152388 |
| Sample Introduction Line for PFA-ST Nebulizer                        | N8152455 |
| MEINHARD® Plus Sample Introduction Line for Concentric Nebulizer     | N8145503 |
| Concentric Nebulizer 6" Gas Line                                     | N8152385 |
| Matrix Gas Line for Oxygen Addition                                  | N8152426 |
| AMS Gas Line                                                         | N8152374 |
| Internal Standard Probe                                              | N8152452 |
| PTFE Torch Light Shield Disk                                         | N8152377 |
| Union Fittings for LC to PFA Nebulizer                               | N8152478 |
| Teflon Connection Line for PFA LC Microflow Nebulizer                | N8152479 |
| 0.15 mm ST Capillary Line for PFA Microflow Nebulizer                | N8152480 |
| 1/8 Gas Fitting with Ratchet Nebulizer Connector                     | N8151079 |



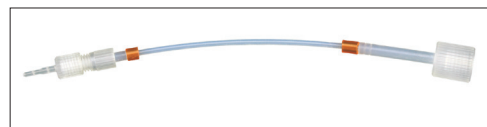
Internal Standard Tee for MEINHARD® Plus Nebulizer (N8152386)



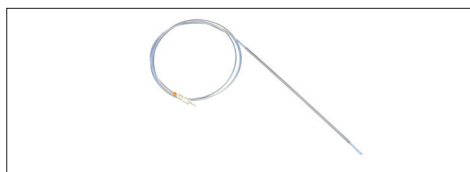
Internal Standard Addition Tee (N8152423)



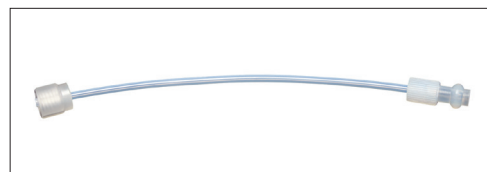
10-32 Union for MEINHARD® Plus Nebulizer (N8152387)



Sample Introduction Line for PFA-ST Nebulizer (N8152455)



Internal Standard Probe (N8152452)

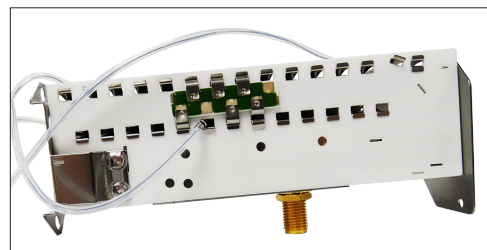


Nebulizer Gas Line (N8152385)

## Dual-Stage Detector

The dual-stage detector is an integral part of the NexION ICP-MS SimulScan™ system. This discrete dynode electron multiplier measures both high- and low-level analytes simultaneously. This conserves valuable or limited samples eliminates the need to perform time-consuming sample dilutions and allows you to quickly characterize unknown samples.

| Description         | Part No. |
|---------------------|----------|
| Dual-Stage Detector | N8151011 |



Dual-Stage Detector (N8151011)



## Autosampler Tubes

### Autosampler Tubes with Red Caps

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

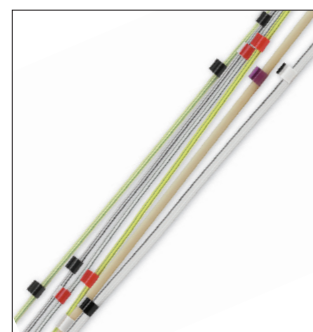


Autosampler Tubes with Red Caps

## Pump Tubing

### Peristaltic Pump Tubing for 1000/2000 B, C, S, and 5000 Configurations - Standard Pump

| Peripump Tubing Kit (Starter Pack of Tubing, includes 4 of each commonly used sizes) |               |          | Part No. N8150060 |
|--------------------------------------------------------------------------------------|---------------|----------|-------------------|
| I.D. (mm)                                                                            | Stop Colors   | Quantity | Type              |
| 0.19                                                                                 | Orange/Red    | 4        | PVC Pure          |
| 0.44                                                                                 | Green/Yellow  | 4        | PVC Pure          |
| 0.51                                                                                 | Yellow/Orange | 4        | PVC Pure          |
| 1.30                                                                                 | Gray/Gray     | 4        | Santoprene        |



Pump Tubing

### Peristaltic Pump Tubing for P Configuration - ESI Pump

| Peripump Tubing Kit (Starter Pack of Tubing, includes 4 of each commonly used sizes) |               |          | Part No. N8152380 |
|--------------------------------------------------------------------------------------|---------------|----------|-------------------|
| I.D. (mm)                                                                            | Stop Colors   | Quantity | Type              |
| 1.30                                                                                 | Gray/Gray     | 4        | Santoprene        |
| 0.76                                                                                 | Black/Black   | 4        | PVC Flared        |
| 0.51                                                                                 | Orange/Yellow | 4        | PVC Flared        |
| 0.38                                                                                 | Orange/Green  | 4        | PVC Flared        |
| 0.19                                                                                 | Orange/Red    | 4        | PVC Flared        |

### Standard Pump Tubing

| I.D. (mm) | Stop Colors   | PVC Pure (Pkg. 12) | Solvent Flex (Pkg. 12) | Santoprene (Pkg. 12) |
|-----------|---------------|--------------------|------------------------|----------------------|
| 0.19      | Orange Red    | N8152401           | N8152408               |                      |
| 0.25      | Orange Blue   | N8152402           |                        |                      |
| 0.38      | Orange Green  | N8152403           | N8152409               |                      |
| 0.44      | Green Yellow  | N8152404           | N8152410               |                      |
| 0.51      | Orange Yellow | N8152405           |                        |                      |
| 0.64      | Orange White  | N8152406           | N8152411               |                      |
| 0.76      | Black Black   | N8152407           | N8152412               |                      |
| 1.14      | Red Red       |                    | N8152413               | N8152414             |
| 1.30      | Gray Gray     |                    |                        | N8152415             |

### Peristaltic Pump Tubing for PerkinElmer HTS System

| I.D. (mm) | Stop Colors          | PVC Pure (Pkg. 12) |
|-----------|----------------------|--------------------|
| 0.19      | Orange/Red           | N8152401           |
| 0.44      | Green/Yellow         | N8152404           |
| 0.51      | Yellow/Orange        | N8152405           |
| 1.30      | Santoprene Gray/Gray | N8152415           |

ESI MP<sup>2</sup> Two-Stop Peristaltic Pump Tubing

| i.d. (mm) | Stop Colors   | Slope<br>(L/min per RPM) | PVC 2-Stop | Non-Flared           |              | Flared     |              |
|-----------|---------------|--------------------------|------------|----------------------|--------------|------------|--------------|
|           |               |                          |            | Santoprene<br>2-Stop | Solva 2-Stop | PVC 2-Stop | Solva 2-Stop |
| 0.13      | Orange Black  | 0.6                      | N8145145   |                      |              | N8145194   | N8145208     |
| 0.19      | Orange Red    | 1.3                      | N8145146   |                      |              | N8145195   | N8145209     |
| 0.27      | Orange Blue   | 2.7                      | N8145147   |                      |              | N8145196   | N8145210     |
| 0.38      | Orange Green  | 4.7                      | N8145148   | N8145171             |              | N8145197   | N8145211     |
| 0.44      | Green Yellow  | 7.6                      | N8145149   |                      |              | N8145198   | N8145212     |
| 0.51      | Orange Yellow | 9.5                      | N8145150   |                      |              | N8145199   | N8145213     |
| 0.57      | White Yellow  | 11                       | N8145151   |                      |              | N8145200   | N8145214     |
| 0.64      | Orange White  | 14                       | N8145152   |                      |              | N8145201   | N8145215     |
| 0.76      | Black Black   | 19                       | N8145153   | N8145172             | N8145176     | N8145202   | N8145216     |
| 0.89      | Orange Orange | 24                       | N8145154   |                      | N8145177     | N8145203   | N8145217     |
| 0.95      | White Black   | 28                       | N8145155   |                      | N8145178     | N8145204   | N8145218     |
| 1.02      | White White   | 31                       | N8145156   |                      | N8145179     | N8145205   | N8145219     |
| 1.09      | White Red     | 33                       | N8145157   |                      | N8145180     | N8145206   | N8145220     |
| 1.14      | Red Red       | 35                       | N8145158   |                      | N8145181     | N8145207   |              |
| 1.22      | Red Grey      | 46                       | N8145159   |                      | N8145182     |            |              |
| 1.3       | Grey Grey     | 47                       | N8145160   | N8145173             | N8145183     |            |              |
| 1.42      | Yellow Yellow | 50                       | N8145161   |                      | N8145184     |            |              |
| 1.52      | Yellow Blue   | 51                       | N8145162   | N8145174             | N8145185     |            |              |
| 1.65      | Blue Blue     | 55                       | N8145163   |                      | N8145186     |            |              |
| 1.75      | Blue Green    | 58                       | N8145164   |                      | N8145187     |            |              |
| 1.85      | Green Green   | 61                       | N8145165   |                      | N8145188     |            |              |
| 2.06      | Purple Purple | 64                       | N8145166   |                      | N8145189     |            |              |
| 2.2       | Purple Black  | 65                       | N8145167   |                      | N8145190     |            |              |
| 2.54      | Purple Orange | 67                       | N8145168   |                      | N8145191     |            |              |
| 2.79      | Purple White  | 69                       | N8145169   |                      | N8145192     |            |              |
| 3.17      | Black White   | 70                       | N8145170   | N8145175             | N8145193     |            |              |

## Additional Tubing

| Description                   | Part No. |
|-------------------------------|----------|
| Sample Uptake Tubing (per cm) | WE024375 |
| Drain Tubing (per foot)       | 02506495 |
| Torch Box Drain Assembly      | N8140506 |

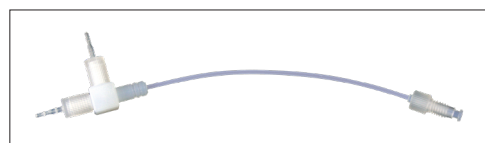
## Internal Standard Components

Internal Standard Spares for MEINHARD® Nebulizer

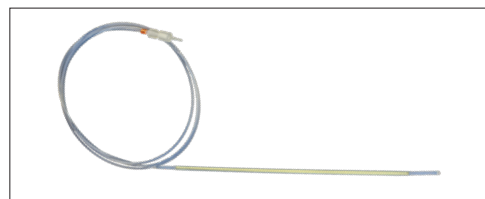
| Description             | Part No. |
|-------------------------|----------|
| PFA Tee                 | N8152386 |
| Nebulizer Fitting       | N8152387 |
| Internal Standard Probe | N8152452 |

Internal Standard Spares for PFA Nebulizer

| Description                                       | Part No. |
|---------------------------------------------------|----------|
| PFA Tee                                           | N8152423 |
| Internal Standard Probe with Carbon Fiber Support | N8152452 |



Internal Standard Addition Tee (N8152386)



Internal Standard Probe (N8152452)

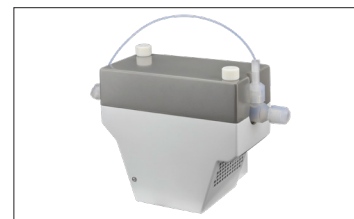
## Temperature Controlled Spray Chambers

The PC<sup>3x</sup> is a compact Peltier heated or cooled inlet system that controls the spray chamber temperature and improves long-term stability. In cooling mode, water or solvent is removed from the aerosol, reducing water or solvent loading on the plasma. In heating mode, sensitivity is increased and volatility-related sample transport effects can be reduced or eliminated.

PCH is a Peltier cooler/heater for the high performance PFA spray chamber. It is a temperature controlled inlet system that offers the advantages of low memory effects, rapid wash-out, and high sample transport efficiency for HF containing samples. In heating mode, sensitivity can be improved for low-flow applications. Temperature control is available from -10 °C to +80 °C.



PC<sup>3x</sup> Sample Introduction (N8152382)



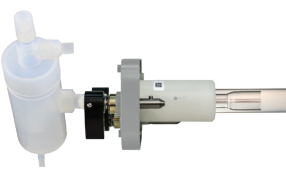
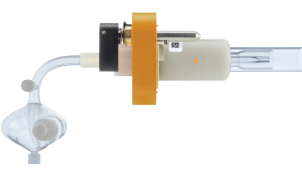
PCH Peltier cooler/heater thermally stabilized inlet system (N8150445)

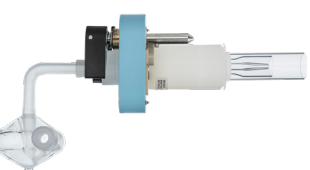
### PC<sup>3</sup> Peltier Coolers

| Description                                                                                                 | Part No. |
|-------------------------------------------------------------------------------------------------------------|----------|
| PC <sup>3x</sup> Sample Introduction Kit (Spray Chamber not included)                                       | N8152382 |
| PCH Peltier cooler/heater thermally stabilized inlet system with PFA spray chamber and PFA-ST nebulizer     | N8150446 |
| PCH Peltier cooler/heater thermally stabilized inlet system with PFA spray chamber (Nebulizer not included) | N8150445 |

## Sample Introduction Kits for NexION 1000/2000/5000

NexION SMARTintro sample introduction solutions are tested as a complete unit to ensure intra- and inter-laboratory performance. Each system utilizes specific combinations of sample introduction components and the kits are color-coded according to the application of the user.

| SMARTintro Sample Introduction Kit                                                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Part No. |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|  | <b>PFA-Platinum HF-Resistant Sample Introduction Kit — Kit Includes:</b><br>PFA Spray Chamber with PFA End Cap (N8150450), Cyclonic Spray Chamber Adapter (N8152551), Demountable SilQ Torch (N8152448), Platinum 2 mm Injector (N8152429), Plasma Light Shield (N8152377), Cassette Only Platinum (N8152434), Gas Line Addition (N8152449), Spray Chamber Drain Line 1/4-28 Fitting (N8152456), PFA-200 PFA MicroFlow Nebulizer (N8152420), Torch Injector Nut Removal Tool (N8152443), Torch Injector Nut (N8152451)                                                                                                                                                                                  | N8150033 |
|  | <b>Organics Sample Introduction Kit (Orange) — Kit Includes:</b><br>Quartz Nebulizer Type C (N8152372), Cyclonic Quartz Spray Chamber (N8152383), Quartz 1.5 mm Organics Torch One-Piece (N8152616), MEINHARD Nebulizer Sample Line (N8145503), Plasma Light Shield (N8152377), MEINHARD Internal Standard Nebulizer Tee (N8152386), Spray Chamber Light Shield (N8152425), Gas Line Addition (N8152426), Cassette Only Orange (N8152435), Torch Injector Nut Removal Tool (N8152443), Torch Injector Nut (N8152451), Internal Standard Probe Qty. 2 (N8152452), PeriPump Union Male Fitting (N8152453), Spray Chamber Drain Line 1/4-28 Fitting (N8152456)                                             | N8150031 |
|  | <b>Geological Sample Introduction Kit (Gold) — Kit Includes:</b><br>PeriPump Tubing Starter Kit (N8150060), PFA Spray Chamber with PFA End Cap (N8150450), Plasma Light Shield (N8152377), PFA Nebulizer (N8152378), Quartz Torch (N8152379), Internal Standard Addition Tee for PFA-ST Nebulizer (N8152423), Torch Injector Nut Removal Tool (N8152443), Sapphire 2 mm Injector (N8152447), Gas Line Addition (N8152449), Torch Injector Nut (N8152451), Internal Standard Probe Qty. 2 (N8152452), Sample Introduction Line for PFA-ST Nebulizer (N8152455), Spray Chamber Drain Line 1/4-28 Fitting (N8152456), PC <sup>3</sup> Spray Chamber Light Shield (N8152475), Cassette Only Gold (N8152532) | N8150040 |
|  | <b>Sample Introduction Kit for NexION 1000 ICP-MS (Purple) — Kit Includes:</b><br>MEINHARD Nebulizer Sample Line (N8145503), PeriPump Tubing Starter Kit (N8150060), Glass Nebulizer Type C (N8152373), Matrix Gas Line 9 in. (N8152374), Plasma Light Shield (N8152377), Glass Cyclonic C3 High Sensitivity Spray Chamber with Matrix Port (N8152389), Spray Chamber Light Shield (N8152425), Torch Injector Nut Removal Tool (N8152443), Torch Injector Nut (N8152451), Internal Standard Probe Qty. 2 (N8152452), PeriPump Union Male Fitting (N8152453), Spray Chamber Drain Line 1/4-28 Fitting (N8152456), One Piece 2.0 mm Quartz Torch (N8152472), Cassette Only Purple (N8152533)              | N8150038 |

| SMARTintro Sample Introduction Kit                                                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Part No.        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
|    | <b>Sample Introduction Kit for NexION 2000 Base Configuration (Blue) — Kit Includes:</b><br>Glass Nebulizer Type C (N8152373), Glass Cyclonic Spray Chamber (N8152375), One Piece 2.0 mm Quartz Torch (N8152472), MEINHARD Nebulizer Sample Line (N8145503), PeriPump Tubing Starter Kit (N8150060), Plasma Light Shield (N8152377), MEINHARD Internal Standard Nebulizer Tee (N8152386), Spray Chamber Light Shield (N8152425), Cassette Only Blue (N8152430), Torch Injector Nut Removal Tool (N8152443), Internal Standard Probe Qty. 2 (N8152452), PeriPump Union Male Fitting (N8152453), Spray Chamber Drain Line 1/4-28 Fitting (N8152456), Torch Injector Nut (N8152451)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>N8150034</b> |
|    | <b>Sample Introduction Kit for NexION 2000 Core Configuration (Green) — Kit Includes:</b><br>Glass Nebulizer Type C (N8152373), Glass Cyclonic C3 High Sensitivity Spray Chamber with Matrix Port (N8152389), Quartz Torch (N8152473), MEINHARD Nebulizer Sample Line (N8145503), PeriPump Tubing Starter Kit (N8150060), Matrix Gas Line 9 in. (N8152374), Plasma Light Shield (N8152377), PC3 Peltier Cooler (N8152382), MEINHARD Internal Standard Nebulizer Tee (N8152386), Spray Chamber Light Shield (N8152425), Cassette Only Green (N8152431), Torch Injector Nut Removal Tool (N8152443), Internal Standard Probe Qty. 2 (N8152452), PeriPump Union Male Fitting (N8152453), Spray Chamber Drain Line 1/4-28 Fitting (N8152456), PC <sup>3</sup> Spray Chamber Light Shield (N8152475), Torch Injector Nut (N8152451)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>N8150035</b> |
|   | <b>Sample Introduction Kit for NexION 2000 Productivity Configuration (Black)</b><br><b>Kit Includes:</b><br>PFA Nebulizer (N8152378), Quartz Torch (N8152379), Glass Cyclonic C3 High Sensitivity Spray Chamber with Matrix Port (N8152389), Cyclonic Peltier Cooler (N8152382), CTFE Liquid Fitting Female (N8145018), FAST 1 Valve (N8152359), MP <sup>2</sup> Micro Peristaltic Pump with Single FAST Valve (N8152364), Matrix Gas Line 9 in. (N8152374), 2 mm Demountable Quartz Injector (N8152376), Plasma Light Shield (N8152377), FAST Pump Tubing Starter Kit (N8152380), Spray Chamber Light Shield (N8152425), Cassette Only Black (N8152433), Torch Injector Nut Removal Tool (N8152443), PFA-ST Nebulizer Sample Introduction Line (N8152455), Spray Chamber Drain Line 1/4-28 Fitting (N8152456), Spray Chamber Light Shield (N8152475), Nuts/Ferrules 1/4-28 for HF Valve Qty.10 (N0777283), Sample Loop for Ports 1 and 4, 0.5 mL (N0777289), HF Ferrule/Nut Set, 1/4-28 Qty.10 (N0777297), 0.8 mm ID Sample Loop PTFE, 300 µL (N0777430), 2 mL Sample Loop (N0777479), 4 mL Sample Loop (N0777480), 1 mL Loop 1 mm ID (N0777664), 1.5 mL Loop 1 mm ID (N0777665), 0.5 mL Loop 1 mm ID (N0777666), L 3 mL Loop 1 mm ID (N0777667), Holder with FAST Bottles (N0777777), RS485 Serial Cable – Power/Communication (N2024191), CTFE Female Barb Fitting (N8145018), Waste Line for SC-FAST (N8145536), FAST 1 Valve with P7 (N8152359), Torch Injector Nut (N8152451) | <b>N8150036</b> |
|  | <b>Sample Introduction Kit for NexION 2000 Semi-Conductor Configuration (White)</b><br><b>Kit Includes:</b><br>PFA Nebulizer (N8152378), Quartz SilQ Spray Chamber (N8152424), Quartz Fixed Torch (N8152428), Cyclonic Peltier Cooler (N8152382), CTFE Liquid Fitting Female (N8145018), PeriPump Tubing Starter Kit (N8150060), Plasma Light Shield (N8152377), Internal Standard Addition Tee for PFA ST Nebulizer (N8152423), Cassette Only White (N8152432), Torch Injector Nut Removal Tool (N8152443), Internal Standard Probe Qty. 2 (N8152452), PFA-ST Nebulizer Sample Introduction Line (N8152455), Spray Chamber Drain Line 1/4-28 Fitting (N8152456), Spray Chamber Light Shield (N8152475)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>N8150037</b> |
|  | <b>Sample Introduction Kit for NexION 5000 (White/Green)</b><br><b>Kit Includes:</b><br>CTFE Barbed Fittings, Small Female Qty.1 (N0777829), PeriPump Tubing Starter Kit (N8150060), Plasma Light Shield (N8152377), PFA Nebulizer (N8152378), Spray Chamber Light Shield (N8152425), Quartz Fixed Torch (N8152428), Torch Injector Nut Removal Tool (N8152443), Torch Injector Nut (N8152451), PFA-ST Nebulizer Sample Introduction Line (N8152455), Spray Chamber Drain Line 1/4-28 Fitting (N8152456), 0.25 mm ID Self-aspirating Probe 80 cm (N8152512), 0.30 mm ID Self-aspirating Probe 80 cm (N8152513), SilQ Spray Chamber with Matrix Gas Port (N8152539), White Torch Cassette with Green Stripe (N8161009)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>N8160020</b> |
|  | <b>Sample Introduction Kit for NexION 1000G ICP-MS (Light Blue)</b><br><b>Kit Includes:</b><br>Sample Line with Fit for MEINHARD Plus Nebulizer (N8145503), Peripump Starter Tubing Kit (N8150060), MEINHARD Type CT R + Nebulizer (N8152373), Matrix Gas Line (N8152374), Plasma Light Shield (N8152377), Glass Cyclonic Spray Chamber with AMS (N8152389), UV Light Shield (N8152425), Torch Injector Nut Removal Tool (N8152443), Torch Injector Nut (N8152451), Internal Standards Probe (N8152452), Peripump Union Male (N8152453), Threaded Spray Chamber Drain Line (N8152456), Fixed 2.0 mm Injector Quartz Torch Blue (N8152472), Light Blue Cassette (N8991010)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>N8990039</b> |

## SMARTintro Sample Introduction Modules and Cassettes

SMARTintro Sample Introduction Modules and Cassettes include Cassettes, Torch, PTFE Torch Light Shield and Torch Injector Removal Tool.

### Sample Introduction Modules

| Color                                                                               |                                                                               | Part No. |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------|
|    | Blue Colored Cassette, One-Piece Quartz Torch, 2.0 mm Quartz Injector         | N8152437 |
|    | Green Colored Cassette, One-Piece Quartz Torch, 2.5 mm Quartz Injector        | N8152438 |
|    | White Colored Cassette, One-Piece SiIQ Torch, 2.0 mm Quartz Injector          | N8152439 |
|    | Black Colored Cassette, Demountable Quartz Torch, 2.0 mm Quartz Injector      | N8152440 |
|    | Purple Colored Cassette, One-piece Quartz Torch, 2.0 mm Quartz Injector       | N8152536 |
|   | Platinum Colored Cassette, Demountable Quartz Torch, 2.0 mm Platinum Injector | N8152441 |
|  | Orange Colored Cassette, One-Piece Quartz Torch, 1.5 mm Quartz Injector       | N8152442 |
|  | Gold Colored Cassette, One-Piece Quartz Torch, 2.0 mm Quartz Injector         | N8152535 |
|  | White/Green Colored Cassette, One-Piece SiIQ Torch, 2.0 mm Quartz Injector    | N8161013 |
|  | Light Blue Colored Cassette, One-Piece Quartz Torch, 2.0 mm Quartz Injector   | N8991011 |

### Sample Introduction Cassettes Only

| Color                                                                               |                                                                            | Part No. |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------|
|    | Blue<br>(Included with NexION 2000 ICP-MS Base 'B' Configuration)          | N8152430 |
|    | Green<br>(Included with NexION 2000 ICP-MS Core 'C' Configuration)         | N8152431 |
|    | White<br>(Included with NexION 2000 ICP-MS High Purity 'S' Configuration)  | N8152432 |
|    | Black<br>(Included with NexION 2000 ICP-MS Productivity 'P' Configuration) | N8152433 |
|    | Purple<br>(included with NexION 1000 ICP-MS)                               | N8152533 |
|   | Platinum<br>(High Purity/HF Resistant)                                     | N8152434 |
|  | Orange<br>(Organic Solvents)                                               | N8152435 |
|  | Gold<br>(For Geological Samples)                                           | N8152532 |
|  | White/Green Stripe<br>(Organic Solvents)                                   | N8161009 |
|  | Light Blue<br>(included with the NEXION 1000G ICP-MS)                      | N8991010 |

## Reference Standards

| Matrix                                                       | Contents                                                     | Vol.              | Part No. |
|--------------------------------------------------------------|--------------------------------------------------------------|-------------------|----------|
| NexION 1000/2000 ICP-MS Solution Kit                         |                                                              |                   | N8140504 |
| Solution Kit                                                 | NexION Wash Solution                                         | 250 mL            | N8145050 |
|                                                              | NexION Setup Solution                                        | 500 mL            | N8145051 |
|                                                              | NexION Standard/Reaction Mode Detection Limit Blank Solution | 100 mL            | N8145055 |
|                                                              | NexION Standard/Reaction Mode Detection Limit Solution       | 100 mL            | N8145056 |
|                                                              | NexION Dual Detector Solution                                | 100 mL            | N8145059 |
|                                                              | NexION Collision Setup Solution                              | 250 mL/<br>100 mL | N8145052 |
|                                                              | NexION ICP-MS Cell Stability Solution                        | 500 mL            | N8145054 |
|                                                              | NexION Collision Mode Detection Limit Blank Solution         | 100 mL            | N8145057 |
|                                                              | NexION Collision Mode Detection Limit Solution               | 100 mL            | N8145058 |
| NexION 5000 ICP-MS Solution Kit                              |                                                              |                   | N8160029 |
| Solution Kit                                                 | NexION Wash Solution                                         | 250 mL            | N8145050 |
|                                                              | NexION 5000 Setup Solution                                   | 500 mL            | N8162301 |
|                                                              | NexION 5000 Stability Solution                               | 500 mL            | N8162302 |
|                                                              | NexION 5000 DRC NH <sub>3</sub> and Standard Detection Limit | 125 mL            | N8162303 |
|                                                              | NexION 5000 DRC O <sub>2</sub> Detection Limit Solution      | 125 mL            | N8162304 |
|                                                              | Water Blank ASTM® Type I Water, 18 megohm                    | 250 mL<br>x 2     | N9303813 |
| NexION 5000 Setup Solution                                   |                                                              |                   |          |
| 1% HNO <sub>3</sub>                                          | 200 ng/L: Be, Ce, Fe, In, Li, Mg, Pb, U                      | 500 mL            | N8162301 |
| NexION 5000 Stability Solution                               |                                                              |                   |          |
| 1% HNO <sub>3</sub>                                          | 200 ng/L: Cd, Cr, Fe, Li, Mg, Pb<br>1 µg/L Cu                | 500 mL            | N8162302 |
| NexION 5000 DRC NH <sub>3</sub> and Standard Detection Limit |                                                              |                   |          |
| 2% HNO <sub>3</sub>                                          | 20 ng/L: Al, Be, Ca, Cr, Cu, Fe, In, K, Mn, Ni, U, Zn        | 125 mL            | N8162303 |
| NexION 5000 DRC O <sub>2</sub> Detection Limit Solution      |                                                              |                   |          |
| H <sub>2</sub> O                                             | 200 ng/L: Al, Be, Ca, Cr, Cu, Fe, In, K, Mn, Ni, U, Zn       | 125 mL            | N8162304 |
| NexION 5000 Dual Detector Solution                           |                                                              |                   |          |
| 2% HNO <sub>3</sub>                                          | 20 µg/L: Al, Ba, Ce, Co, In, Li, Mg, Mn, Ni, Pb, Tb, U, Zn   | 100 mL            | N8162305 |
| NexION Setup Solution                                        |                                                              |                   |          |
| 1% HNO <sub>3</sub>                                          | 1 µg/L: Be, Ce, Fe, In, Li, Mg, Pb, U                        | 500 mL            | N8145051 |
| NexION Collision Setup Solution                              |                                                              |                   |          |
| 1% HCl                                                       | 10 µg/L: Co                                                  | 250 mL            | N8145052 |
|                                                              | 1 µg/L: Ce                                                   | 100 mL            | N8145056 |
| NexION ICP-MS Non-Cell Stability Solution                    |                                                              |                   |          |
| 1% HNO <sub>3</sub>                                          | 1 µg/L: Cd, Cu, Mg, Pb                                       | 500 mL            | N8145053 |

| Matrix                                                       | Contents                                                                                                                 | Vol.   | Part No. |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------|----------|
| NexION ICP-MS Cell Stability Solution                        |                                                                                                                          |        |          |
| 1% HNO <sub>3</sub>                                          | 1 µg/L: Cd, Cr, Fe, In, Mg, Pb<br>10 µg/L: Co, Cu, Se (without Se N8151033)                                              | 500 mL | N8145054 |
| NexION Standard/Reaction Mode Detection Limit Blank Solution |                                                                                                                          |        |          |
| 0.5% HNO <sub>3</sub>                                        |                                                                                                                          | 100 mL | N8145055 |
| NexION Standard/Reaction Mode Detection Limit Solution       |                                                                                                                          |        |          |
| 0.5% HNO <sub>3</sub>                                        | 1 µg/L: Be, Ca, Co, Fe, In, U                                                                                            | 100 mL | N8145056 |
| NexION Collision Mode Detection Limit Blank Solution         |                                                                                                                          |        |          |
| 1% HCl                                                       |                                                                                                                          | 100 mL | N8145057 |
| NexION Collision Mode Detection Limit Solution               |                                                                                                                          |        |          |
| 1% HCl                                                       | 10 µg/L: V, As, Se                                                                                                       | 100 mL | N8145058 |
| NexION Dual Detector Solution                                |                                                                                                                          |        |          |
| 2% HNO <sub>3</sub>                                          | 200 µg/L: Al, Ba, Ce, Co, Cu, In, Li, Mg, Mn, Ni, Pb, Tb, U, Zn                                                          | 100 mL | N8145059 |
| NexION AFT Single-Element Solution                           |                                                                                                                          |        |          |
| 2% HNO <sub>3</sub>                                          | 2 µg/L: Fe                                                                                                               | 100 mL | N8145060 |
| NexION AFT Multi-Element Solution                            |                                                                                                                          |        |          |
| 2% HNO <sub>3</sub>                                          | 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 |
| NexION AFT Single-Element Solution (H/He)                    |                                                                                                                          |        |          |
| 2% HNO <sub>3</sub>                                          | 10 µg/L: Se                                                                                                              | 125 mL | N8151037 |
| NexION AFT Multi-Element Solution (H/He)                     |                                                                                                                          |        |          |
| 2% HNO <sub>3</sub>                                          | 10 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 | 125 mL | N8151038 |
| NexION Wash Solution                                         |                                                                                                                          |        |          |
| 1% HNO <sub>3</sub>                                          |                                                                                                                          | 250 mL | N8145050 |
| Internal Standard Mix                                        |                                                                                                                          |        |          |
| 5-10% HNO <sub>3</sub>                                       | 10 µg/mL: 6Li, Sc, Ge, Y, In, Tb, Bi                                                                                     | 125 mL | N9303832 |
| Multi-Element Internal Standard                              |                                                                                                                          |        |          |
| 2% HNO <sub>3</sub>                                          | 10 µg/mL: Bi, Ho, In, 6Li, Sc, Tb, Y                                                                                     | 125 mL | N9303834 |
| Quality Control Standard – 21 Elements                       |                                                                                                                          |        |          |
| 5% HNO <sub>3</sub> /tr Tartaric Acid/tr HF                  | 100 µg/mL: As, Be, Ca, Cd, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn                             | 125 mL | N9300281 |
| Instrument Calibration Standard 2                            |                                                                                                                          |        |          |
| 5% HNO <sub>3</sub> /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 |
| Cold Plasma Solution                                         |                                                                                                                          |        |          |
| 0.1% HNO <sub>3</sub>                                        | 1 µg/L: Li, Co, Rb, In, Cs, Pb                                                                                           | 250 mL | N8151032 |



## Other Replacement Parts

| Description                           | Part No. |
|---------------------------------------|----------|
| Metal Spill Tray for Vacuum Pump      | N8145022 |
| Vacuum Fluid Pump – Fomblin® GV80 1 L | N8145003 |
| NexION Sample Tray                    | N8141206 |
| Instrument Filter (Left)              | N8152167 |
| Instrument Filter (Right)             | N8152136 |
| NexION Sample Spill Tray              | N8152157 |

## NexION 1000/2000/5000 ICP-MS Consumable Kits

Typical one year's supply of consumables. Consists of the following parts:

| Configurations                                                     |      |          | 5000     | 2000 B   | 2000 C   | 2000 P   | 2000 S   | 1000     |
|--------------------------------------------------------------------|------|----------|----------|----------|----------|----------|----------|----------|
| Description                                                        | Qty. | Part No. | N8160027 | N8150054 | N8150055 | N8150056 | N8150057 | N8150058 |
| Fixed 2.0 mm Injector Quartz Torch (Blue/Purple Mark)              | 2    | N8152472 |          | ✓        |          |          |          | ✓        |
| Fixed 2.5 mm Injector Quartz Torch (Green Mark)                    | 2    | N8152473 |          |          | ✓        |          |          |          |
| Demountable Quartz Torch PVDF                                      | 2    | N8152379 |          |          |          | ✓        |          |          |
| 2.0 mm Demountable Quartz Injector                                 | 2    | N8152376 |          |          |          | ✓        |          |          |
| Fixed 2.0 mm Injector UHP Quartz Torch                             | 2    | N8152428 | ✓        |          |          |          | ✓        |          |
| Glass Cyclonic High Sensitivity Spray Chamber                      | 1    | N8152375 |          | ✓        |          |          |          |          |
| Glass Cyclonic High Sensitivity Spray Chamber with Matrix Gas Port | 1    | N8152389 |          |          | ✓        | ✓        |          | ✓        |
| SilQ Cyclonic High Sensitivity Spray Chamber                       | 1    | N8152424 |          |          |          |          | ✓        |          |
| SilQ Cyclonic Spray Chamber with Matrix Gas Port                   | 1    | N8152539 | ✓        |          |          |          | ✓        |          |
| Threaded Spray Chamber Drain Line                                  | 2    | N8152456 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        |
| Nickel Skimmer Cone                                                | 2    | W1026356 |          | ✓        | ✓        | ✓        |          | ✓        |
| Platinum Skimmer Cone for NexION 5000                              | 2    | N8161041 | ✓        |          |          |          |          |          |
| Nickel Sampler Cone                                                | 2    | W1033612 |          | ✓        | ✓        | ✓        |          | ✓        |
| Platinum Skimmer Cone                                              | 2    | W1026907 |          |          |          |          | ✓        |          |
| Platinum Sampler Cone                                              | 2    | W1033614 | ✓        |          |          |          | ✓        |          |
| Hyper Skimmer Cone for NexION 1000/2000                            | 1    | W1033995 |          | ✓        | ✓        | ✓        | ✓        | ✓        |
| Hyper Skimmer Cone for NexION 5000                                 | 1    | N8160120 | ✓        |          |          |          |          |          |
| Sampler Cone Gasket                                                | 3    | W1040148 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        |
| Hyper Skimmer O-Ring                                               | 2    | 09902123 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        |
| Gray/Gray Pump Tubing                                              | 2    | N8152415 | ✓        | ✓        | ✓        |          | ✓        | ✓        |
| Gray/Gray Pump Tubing MP2                                          | 2    | N8145173 |          |          |          | ✓        |          |          |
| Flared PVC 0.51 mm Orange/Yellow Pump Tubing                       | 4    | N8152405 | ✓        | ✓        | ✓        |          | ✓        | ✓        |
| Flared PVC 0.51 mm Orange/Yellow Pump Tubing MP2                   | 4    | N8145150 |          |          |          | ✓        |          |          |
| Drain Tubing (feet)                                                | 6    | 02506495 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        |
| Sample Uptake Tubing                                               | 12   | WE024375 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        |
| Sample Introduction Line for PFA-ST Nebulizer                      | 1    | N8152455 | ✓        |          |          | ✓        | ✓        |          |
| Sample Introduction Line for Concentric Nebulizer                  | 1    | N8145503 |          | ✓        | ✓        |          |          | ✓        |
| Female Barb CTFE Fitting                                           | 4    | N8152388 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        |
| Male Barb CTFE Fitting                                             | 4    | N8152453 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        |
| Instrument Filter (Left)                                           | 2    | N8152167 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        |
| Instrument Filter (Right)                                          | 2    | N8152136 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        |
| Instrument Filter (Rear)                                           | 2    | N8152465 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        |
| Torch Injector Nut                                                 | 2    | N8152451 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        |



## Pharmaceutical Analysis Standards

### USP Standards

As a part of our United States Pharmacopeia (USP) compliant offering, we provide calibration and check standards for the analysis of metals in drugs, pharmaceutical substances and raw materials to verify Oral Daily Dose PDE, Parenteral Component Limit and Parenteral Daily Dose PDE.

Our trace metal USP standards can be used to calibrate Arsenic, Cadmium, Lead and Mercury, the four toxic metals as part of the USP regulations. When you couple our accurate and reliable USP standards with your ICP-MS you will remain compliant with the new and changing regulations.

### ICH Standards

In conjunction with our United States Pharmacopeia (USP) calibration standards, we offer six calibration standards for the analysis of metals in pharmaceutical materials and products following the International Conference on Harmonization (ICH) guidelines.

The ICH standards verify Elemental Impurities, Precious Metals Impurities and Parenteral Elemental Impurities. Couple our accurate and reliable ICH standards with your ICP-MS and you will remain compliant with the new and changing regulations.

### USP and ICH Standards

| Matrix                                                              | Content                                                                                                                                  | Volume | Part No. |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|
| ICH Elemental Impurities Standards Kit – Oral PDEs<br>Kit Includes: |                                                                                                                                          |        | N9304361 |
| 5% HNO <sub>3</sub> /<br>2% HCl                                     | ICH Class 1 Elements + TI<br>– Oral PDE:<br>30 µg/mL Hg<br>15 µg/mL As<br>8 µg/mL TI<br>5 µg/mL Cd, Pb                                   | 125 mL | N9304362 |
| 2% HNO <sub>3</sub>                                                 | ICH Class 2A Elements –<br>Oral and Parenteral PDEs:<br>200 µg/mL Ni<br>100 µg/mL V<br>50 µg/mL Co                                       | 125 mL | N9304363 |
| 2% HCl                                                              | 100 µg/mL Au                                                                                                                             | 125 mL | N9303728 |
| 15% HCl                                                             | ICH Class 2B Precious Metal<br>Elements (no Os) – All PDEs:<br>100 µg/mL Ir, Pd, Pt, Rh, Ru                                              | 125 mL | N9304364 |
| 2% HNO <sub>3</sub>                                                 | ICH Class 2B Se and Ag<br>– Oral PDE:<br>150 µg/mL Ag, Se                                                                                | 125 mL | N9304365 |
| 5% HNO <sub>3</sub> /trace<br>Tartaric Acid/<br>trace HF            | ICH Class 3 Elements – Oral<br>PDEs:<br>1100 µg/mL Cr<br>600 µg/mL Sn<br>300 µg/mL Cu, Mo<br>140 µg/mL Ba<br>120 µg/mL Sb<br>55 µg/mL Li | 125 mL | N9304366 |
| 2% HNO <sub>3</sub>                                                 | Internal Standards – All PDEs:<br>50 µg/mL Ge<br>20 µg/mL Ga<br>1 µg/mL In, Tb                                                           | 125 mL | N9304367 |

| Matrix                                                                    | Content                                                                                                                                              | Volume | Part No. |
|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|
| ICH Elemental Impurities Standards Kit – Parenteral PDEs<br>Kit Includes: |                                                                                                                                                      |        | N9304368 |
| 5% HNO <sub>3</sub> /<br>2% HCl                                           | ICH Class 1 Elements<br>+ TI – Parenteral PDE:<br>15 µg/mL As<br>8 µg/mL TI<br>5 µg/mL Pb<br>3 µg/mL Hg<br>2 µg/mL Cd                                | 125 mL | N9304369 |
| 2% HNO <sub>3</sub>                                                       | ICH Class 2A Elements –<br>Oral and Parenteral PDEs:<br>200 µg/mL Ni<br>100 µg/mL V<br>50 µg/mL Co                                                   | 125 mL | N9304363 |
| 2% HCl                                                                    | 100 µg/mL Au                                                                                                                                         | 125 mL | N9303728 |
| 15% HCl                                                                   | ICH Class 2B Precious Metal<br>Elements (no Os) – All PDEs:<br>100 µg/mL Ir, Pd, Pt, Rh, Ru                                                          | 125 mL | N9304364 |
| 2% HNO <sub>3</sub>                                                       | ICH Class 2B Se and Ag –<br>Parenteral PDE:<br>80 µg/mL Se<br>10 µg/mL Ag                                                                            | 125 mL | N9304372 |
| 2% HNO <sub>3</sub> /trace<br>Tartaric Acid/<br>trace HF                  | ICH Class 3 Elements –<br>Parenteral PDEs:<br>150 µg/mL Mo<br>110 µg/mL Cr<br>60 µg/mL Sn<br>30 µg/mL Cu<br>70 µg/mL Ba<br>25 µg/mL Li<br>9 µg/mL Sb | 125 mL | N9304373 |



## USP and ICH Standards continued

| Matrix                                                                      | Content                                                                                                      | Volume | Part No. |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------|----------|
| ICH Elemental Impurities Standards Kit – Inhalational PDEs<br>Kit Includes: |                                                                                                              |        | N9304375 |
| 2% HNO <sub>3</sub>                                                         | Internal Standards – All PDEs:<br>50 µg/mL Ge<br>20 µg/mL Ga<br>1 µg/mL In, Tb                               | 125 mL | N9304367 |
| 5% HNO <sub>3</sub> /<br>2% HCl                                             | ICH Class 1 Elements + TI –<br>Inhalational PDE:<br>8 µg/mL TI<br>5 µg/mL Pb<br>2 µg/mL As, Cd<br>1 µg/mL Hg | 125 mL | N9304376 |
| 2% HNO <sub>3</sub>                                                         | ICH Class 2A Elements –<br>Inhalational PDEs:<br>5 µg/mL Ni<br>3 µg/mL Co<br>1 µg/mL V                       | 125 mL | N9304377 |
| 2% HCl                                                                      | 100 µg/mL Au                                                                                                 | 125 mL | N9303728 |
| 15% HCl                                                                     | ICH Class 2B Precious Metal<br>Elements (no Os) – All PDEs:<br>100 µg/mL Ir, Pd, Pt, Rh, Ru                  | 125 mL | N9304364 |
| 2% HNO <sub>3</sub>                                                         | ICH Class 2B Se and Ag –<br>Inhalational PDE:<br>130 µg/mL Se<br>7 µg/mL Ag                                  | 125 mL | N9304379 |

| Matrix                                                                      | Content                                                                                                                                               | Volume | Part No. |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|
| ICH Elemental Impurities Standards Kit – Inhalational PDEs<br>Kit Includes: |                                                                                                                                                       |        | N9304375 |
| 2% HNO <sub>3</sub> /trace<br>Tartaric Acid/<br>trace HF                    | ICH Class 3 Elements –<br>Inhalational PDEs:<br>300 µg/mL Ba<br>60 µg/mL Sn<br>30 µg/mL Cu<br>25 µg/mL Li<br>20 µg/mL Sb<br>10 µg/mL Mo<br>3 µg/mL Cr | 125 mL | N9304380 |
| 2% HNO <sub>3</sub>                                                         | Internal Standards – All PDEs:<br>50 µg/mL Ge<br>20 µg/mL Ga<br>1 µg/mL In, Tb                                                                        | 125 mL | N9304367 |

| Matrix                                          | Content                                                                                 | Volume | Part No.        |
|-------------------------------------------------|-----------------------------------------------------------------------------------------|--------|-----------------|
| ICH Class 2B Precious Metal Elements – All PDEs |                                                                                         |        |                 |
| 15% HCl                                         | ICH Class 2B Precious Metal<br>Elements – All PDEs:<br>100 µg/mL Ir, Os, Pd, Pt, Rh, Ru | 125 mL | <b>N9304382</b> |

| Matrix  | Content      | Volume | Part No. |
|---------|--------------|--------|----------|
| Osmium  |              |        |          |
| 15% HCl | 100 µg/mL Os | 125 mL | N9304383 |

## Gold Nanoparticle Standards

Fully characterized gold nanospheres designed for Single Particle-ICP-MS. These particle standards have a nearly perfect spherical shape, narrow size (CV < 5%) and particle number distributions (CV < 5%).

| Description                                              | Diameter (nm) | Volume (mL) | Part No. |
|----------------------------------------------------------|---------------|-------------|----------|
| Ultra Uniform Gold Nanospheres                           | 30            | 25 mL       | N8151034 |
| Particle Standard 1e7 particles/mL, PEG Carboxyl 0.8 kDa |               |             |          |
| Ultra Uniform Gold Nanospheres                           | 50            | 25 mL       | N8151035 |
| Particle Standard 1e7 particles/mL, PEG Carboxyl 0.8 kDa |               |             |          |
| Ultra Uniform Gold Nanospheres                           | 100           | 25 mL       | N8151036 |
| Particle Standard 1e7 particles/mL, PEG Carboxyl 0.8 kDa |               |             |          |

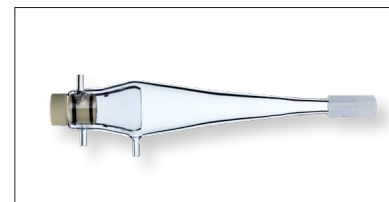


Nanoparticle Standard

## Single Cell Sample Introduction Kit

The Single Cell Application Module within PerkinElmer's Syngistix™ for ICP-MS software is the ideal tool for laboratories analyzing metal content in cells, either from uptake of metals or metallic nanoparticles in solution or measuring the intrinsic metal content of the cell. This unique software module allows the differentiation and quantification between the dissolved and cellular fractions of the same analyte. In a single analysis, cell metal or particulate content, cell-containing metal concentration, mass per cell, and mass distribution can all be determined without the need for subsequent data processing. Coupled with the NexION series ICP-MS, the Syngistix Single Cell Application Module is the world's first single cell ICP-MS dedicated software, delivering speed, flexibility, automation, and ease-of-use.

| Description                                                                            | Qty. | Part No. |
|----------------------------------------------------------------------------------------|------|----------|
| Single Cell Kit for NexION 1000/2000                                                   |      | N8150032 |
| Kit Includes:                                                                          |      |          |
| Asperon™ Spray Chamber                                                                 | 1    | N8152493 |
| Spray Chamber Drain Line                                                               | 1    | N8152494 |
| Spray Chamber Addition Gas Tee 1/8 Fitting                                             | 1    | N8152495 |
| Nebulizer HEN                                                                          | 1    | N8152496 |
| Sample Line for HEN MEINHARD® Nebulize                                                 | 1    | N8152489 |
| UV Light Shield                                                                        | 1    | N8152497 |
| Plasma Light Shield                                                                    | 1    | N8152377 |
| Fixed 2.0 mm Injector UHP Quartz Torch                                                 | 1    | N8152428 |
| Torch Cassette White                                                                   | 1    | N8152432 |
| Torch Injector Nut                                                                     | 1    | N8152451 |
| Syngistix Single Cell Software                                                         | 1    | N8150321 |
| CTFE Male Barb Fitting                                                                 | 2    | N8145017 |
| CTFE Female Barb Fitting                                                               | 2    | N8145018 |
| Orange/Red 0.19 mm i.d. PVC Pkg.12                                                     | 1    | N8152401 |
| MP2 PVC Flared 0.19mm Orange/Red Pkg.12                                                | 1    | N8145195 |
| Autosampler Probe 0.15 mm                                                              | 1    | N0777221 |
| Description                                                                            |      | Part No. |
| Single Cell Automation Kit for NexION 1000/2000                                        |      | N8150039 |
| Kit Includes:                                                                          |      |          |
| Includes Single Cell Micro DX Autosampler. Does not include Single Cell Kit (N8150032) |      |          |



Asperon Spray Chamber (N8152493)



Single Cell Micro DX Autosampler (N8150039)

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