



# Product Guide for PFAS Analysis

## A Methods-Based Reference to Lab Supplies for PFAS Testing

### Selecting the Right Lab Supplies for PFAS Methods

When government agencies and other research organizations developed the first PFAS analysis methods, certain per- and polyfluoroalkyl substances (PFAS) exhibited signal loss or enhancement based on how the samples were handled. These unexpected sources of error could occur anywhere in the sample pathway from collection to analysis and could lead to inaccurate quantification and reporting. Significant troubleshooting efforts from those pioneering organizations resulted in two primary observations that guide how we test these “forever chemicals” today.

1. PFAS can be found everywhere—at the sampling site, in the analytical lab (even in instruments), and anywhere in between, so it is essential to prevent background sources from contaminating samples.
2. PFAS can be “sticky”—they can adhere to certain materials that are commonly used in sampling and analysis (e.g., glass containers or pipettes), so everything in the sample flow path has to be considered for its ability to retain PFAS.

Due to these characteristics, avoiding background contamination and preventing loss due to retention are particularly important for PFAS testing. Regardless of the method you are running, best practices dictate evaluating your system and supplies prior to sample analysis to qualify them for use. In some cases, the results may warrant equipment modification or replacement of parts to ensure suitability for the analytes and LODs you are testing. The following sampling and lab supplies are often screened prior to use:

- Sample collection vessels
- Solid phase extraction (SPE) products
- SPE vacuum manifolds
- Filtration devices
- Autosampler vials and caps
- Mobile phase filters
- Mobile phase transfer lines
- PTFE tubing and filters used in UHPLC or HPLC instruments (e.g., mobile phase degasser, LC pump components, etc.)
- Mobile phase solvents and reagents
- LC columns
- anything else in the sample flow path

Table I details the lab supplies for PFAS analysis that are used in test methods from ASTM, DIN, EPA, and ISO. When selecting the right supplies, be sure to choose method-appropriate products and evaluate your system and supplies to ensure they are free of target analytes (Table II) and qualified for PFAS analysis at the levels required by the method. Restek is proud to support PFAS testing labs with clean, high-quality lab supplies and expert technical support for the analysis of legacy, alternative, and ultrashort-chain PFAS across a wide range of global testing standards.

**Table I: Lab Supplies for PFAS Analysis by Method**

	U.S. EPA 537.1	U.S. EPA 533	U.S. EPA 8327	ISO 25101	ISO 21675	ASTM D7979	ASTM D7968	DIN 38407-42
Sample Matrix	Drinking Water	Drinking Water	Various Waters & Solids (Soil, Sediment, Biota)	Drinking Water, Ground Water, Surface Water	Drinking Water, Natural Water, Wastewater*	Water, Sludge, Influent, Effluent, Wastewater	Solids (e.g., soil)	Drinking Water, Ground Water, Surface Water, Wastewater, Sludge
Analytical LC Column	Raptor C18 50 x 2.1 mm, 2.7 μm, (cat.#: 9304A52), SPP column Force C18 50 x 2.1 mm, 1.8 μm (cat.# 9634252), FPP column <i>(Refer to our PFAS Column Selection Guide [EVAR3069B-UNV] for other column choices.)</i>							
Delay Column	PFAS Delay Column (cat.#: 27854)							
Sample Prep	Resprep S-DVB SPE (cat.#: 28937)	Resprep WAX SPE (cat.#: 28470)	—	Resprep WAX SPE (cat.#: 28469, 28470)	Resprep WAX SPE (cat.#: 28469, 28470)	—	—	Resprep WAX SPE (cat.#: 28468, 28469, 28470)
Vials and Caps	Polypropylene Vials (cat.#: 23242, 23245) Polyethylene Vial Caps (cat.#: 23244, 23247)							
Vacuum Manifold	Resprep QR-12, QR-24 (cat.#: 28298-VM, 28299-VM) Replacement Parts for Resprep Quick-Release (QR) SPE Vacuum Manifolds							
Vacuum Pump	Rocker Vacuum Pumps							
Sample Reservoirs	Polypropylene Sample Reservoir (cat.#: 26015) Polypropylene Connectors (cat.#: 26007)	—	—	Polypropylene Sample Reservoir (cat.#: 26015) Polypropylene Connectors (cat.#: 26007)	—	—	—	Polypropylene Sample Reservoir (cat.#: 26015) Polypropylene Connector (cat.#: 26007)

\*Containing less than 2 g/L solid particulate material.

Access technical resources, chromatograms,  
and new lab supplies for PFAS analysis at  
[www.restek.com](http://www.restek.com)

**Table II: PFAS Compound Lists by Method**

U.S. EPA 537.1	U.S. EPA 533	U.S. EPA 8327
<ul style="list-style-type: none"> <li>• N-ethyl perfluorooctane-sulfonamidoacetic acid (NEt-FOSAA)</li> <li>• N-methyl perfluorooctane-sulfonamidoacetic acid (NMeFOSAA)</li> <li>• Perfluorobutanesulfonic acid (PFBS)</li> <li>• Perfluorodecanoic acid (PFDA)</li> <li>• Perfluorododecanoic acid (PFDoA)</li> <li>• Perfluoroheptanoic acid (PFHpA)</li> <li>• Perfluorohexanesulfonic acid (PFHxS)</li> <li>• Perfluorohexanoic acid (PFHxA)</li> <li>• Perfluorononanoic acid (PFNA)</li> <li>• Perfluorooctanesulfonic acid (PFOS)</li> <li>• Perfluorooctanoic acid (PFOA)</li> <li>• Perfluorotetradecanoic acid (PFTA)</li> <li>• Perfluorotridecanoic acid (PFTrDA)</li> <li>• Perfluoroundecanoic acid (PFUnA)</li> <li>• Hexafluoropropylene oxide dimer acid (HFPO-DA)</li> <li>• 9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)</li> <li>• 4,8-Dioxa-3H-perfluorononanoic acid (ADONA)</li> <li>• 11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)</li> </ul>	<ul style="list-style-type: none"> <li>• Perfluorobutanesulfonic acid (PFBS)</li> <li>• Perfluorodecanoic acid (PFDA)</li> <li>• Perfluorododecanoic acid (PFDoA)</li> <li>• Perfluoroheptanoic acid (PFHpA)</li> <li>• Perfluorohexanesulfonic acid (PFHxS)</li> <li>• Perfluorohexanoic acid (PFHxA)</li> <li>• Perfluorononanoic acid (PFNA)</li> <li>• Perfluorooctanesulfonic acid (PFOS)</li> <li>• Perfluorooctanoic acid (PFOA)</li> <li>• Perfluoroundecanoic acid (PFUnA)</li> <li>• Hexafluoropropylene oxide dimer acid (HFPO-DA)</li> <li>• Perfluorobutanoic acid (PFBA)</li> <li>• Perfluoropentanoic acid (PFPeA)</li> <li>• Perfluoroheptanesulfonic acid (PFHpS)</li> <li>• Perfluoropentanesulfonic acid (PFPeS)</li> <li>• 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)</li> <li>• 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)</li> <li>• 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)</li> <li>• 9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)</li> <li>• 4,8-Dioxa-3H-perfluorononanoic acid (ADONA)</li> <li>• Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)</li> <li>• Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)</li> <li>• Perfluoro-3-methoxypropanoic acid (PFMPA)</li> <li>• Perfluoro-4-methoxybutanoic acid (PFMBA)</li> <li>• 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)</li> </ul>	<ul style="list-style-type: none"> <li>• N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)</li> <li>• N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)</li> <li>• Perfluorobutanesulfonic acid (PFBS)</li> <li>• Perfluorodecanoic acid (PFDA)</li> <li>• Perfluorododecanoic acid (PFDoA)</li> <li>• Perfluoroheptanoic acid (PFHpA)</li> <li>• Perfluorohexanesulfonic acid (PFHxS)</li> <li>• Perfluorohexanoic acid (PFHxA)</li> <li>• Perfluorononanoic acid (PFNA)</li> <li>• Perfluorooctanesulfonic acid (PFOS)</li> <li>• Perfluorooctanoic acid (PFOA)</li> <li>• Perfluorotetradecanoic acid (PFTEdA)</li> <li>• Perfluorotridecanoic acid (PFTrA)</li> <li>• Perfluoroundecanoic acid (PFUdA)</li> <li>• Perfluorobutanoic acid (PFBA)</li> <li>• Perfluoropentanoic acid (PFPeA)</li> <li>• Perfluorodecanesulfonic acid (PFDS)</li> <li>• Perfluoroheptanesulfonic acid (PFHpS)</li> <li>• Perfluoropentanesulfonic acid (PFPeS)</li> <li>• Perfluoro-1-octanesulfonamide (FOSA)</li> <li>• 1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)</li> <li>• 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)</li> <li>• 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)</li> <li>• Perfluoronanesulfonic acid (PFNS)</li> </ul>

ISO 25101	ISO 21675	ASTM D7979 & D7968	DIN 38407-42
<ul style="list-style-type: none"> <li>• Perfluoro-<i>n</i>-octanesulfonic acid</li> <li>• Perfluoro-<i>n</i>-octanoic acid (pentadecafluoro-<i>n</i>-octanoic acid)</li> </ul>	<ul style="list-style-type: none"> <li>• N-ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)</li> <li>• N-methyl perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)</li> <li>• Perfluoro-<i>n</i>-butanesulfonic acid (PFBS)</li> <li>• Perfluoro-<i>n</i>-decanoic acid (PFDA)</li> <li>• Perfluoro-<i>n</i>-dodecanoic acid (PFDoA)</li> <li>• Perfluoro-<i>n</i>-heptanoic acid (PFHpA)</li> <li>• Perfluoro-<i>n</i>-hexanesulfonic acid (PFHxS)</li> <li>• Perfluoro-<i>n</i>-hexanoic acid (PFHxA)</li> <li>• Perfluoro-<i>n</i>-nonanoic acid (PFNA)</li> <li>• Perfluoro-<i>n</i>-octanesulfonic acid (PFOS)</li> <li>• Perfluoro-<i>n</i>-octanoic acid (PFOA)</li> <li>• Perfluoro-<i>n</i>-tetradecanoic acid (PFTEdA)</li> <li>• Perfluoro-<i>n</i>-tridecanoic acid (PFTrDA)</li> <li>• Perfluoro-<i>n</i>-undecanoic acid (PFUnDA)</li> <li>• Hexafluoropropylene oxide dimer acid (HFPO-DA)</li> <li>• Perfluoro-<i>n</i>-butanoic acid (PFBA)</li> <li>• Perfluoro-<i>n</i>-pentanoic acid (PFPeA)</li> <li>• Perfluoro-<i>n</i>-decanesulfonic acid (PFDS)</li> <li>• Perfluoro-<i>n</i>-heptanesulfonic acid (PFHpS)</li> <li>• Perfluorooctanesulfonamide (FOSA)</li> <li>• 6:2 Fluorotelomer sulfonic acid (6:2 FTSA)</li> <li>• 8:2 Fluorotelomer sulfonic acid (8:2 FTSA)</li> <li>• 8:2 Fluorotelomer unsaturated carboxylic acid (8:2 FTUCA)</li> <li>• 8:2 Polyfluoroalkyl phosphate diester (8:2 diPAP)</li> <li>• N-methyl perfluorooctanesulfonamide (N-MeFOSA)</li> <li>• N-ethyl perfluorooctanesulfonamide (N-EtFOSA)</li> <li>• Perfluoro-<i>n</i>-hexadecanoic acid (PFHxDA)</li> <li>• Perfluoro-<i>n</i>-octadecanoic acid (PFOcDA)</li> <li>• 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS, aka F-53B or 6:2CL-PFESA)</li> <li>• 4,8-Dioxa-3H-perfluorononanoic acid (DONA)</li> </ul>	<ul style="list-style-type: none"> <li>• Perfluorobutylsulfonate (PFBS)</li> <li>• Perfluorodecanoate (PFDA)</li> <li>• Perfluorodecanoate (PFDoA)</li> <li>• Perfluoroheptanoate (PFHpA)</li> <li>• Perfluorohexylsulfonate (PFHxS)</li> <li>• Perfluorohexanoate (PFHxA)</li> <li>• Perfluorononanoate (PFNA)</li> <li>• Perfluorooctylsulfonate (PFOS)</li> <li>• Perfluorooctanoate (PFOA)</li> <li>• Perfluorotetradecanoate (PFTEdA)</li> <li>• Perfluorotridecanoate (PFTrA)</li> <li>• Perfluoroundecanoate (PFUdA)</li> <li>• Perfluorobutanoate (PFBA)</li> <li>• Perfluoropentanoate (PFPeA)</li> <li>• 2H-perfluoro-2-decenoic acid (FOUEA)</li> <li>• Decafluoro-4-(pentafluoroethyl)cyclohexanesulfonate (PFecHS)</li> <li>• 2-Perfluorohexyl ethanoic acid (FHEA)</li> <li>• 2-Perfluorooctyl ethanoic acid (FOEA)</li> <li>• 2-Perfluorodecyl ethanoic acid (FDEA)</li> <li>• 3-Perfluoropheptyl propanoic acid (FHpPA)</li> <li>• 2H-perfluoro-2-octenoic acid (FHUEA)</li> </ul>	<ul style="list-style-type: none"> <li>• Perfluoro-<i>n</i>-butanesulfonic acid (PFBS)</li> <li>• Perfluoro-<i>n</i>-decanoic acid (PFDA)</li> <li>• Perfluoro-<i>n</i>-heptanoic acid (PFHpA)</li> <li>• Perfluoro-<i>n</i>-hexanesulfonic acid (PFHxS)</li> <li>• Perfluoro-<i>n</i>-hexanoic acid (PFHxA)</li> <li>• Perfluoro-<i>n</i>-nonanoic acid (PFNA)</li> <li>• Perfluoro-<i>n</i>-octanesulfonic acid (PFOS)</li> <li>• Perfluoro-<i>n</i>-octanoic acid (PFOA)</li> <li>• Perfluoro-<i>n</i>-butanoic acid (PFBA)</li> <li>• Perfluoro-<i>n</i>-pentanoic acid (PFPeA)</li> </ul>



28937

### Resprep S-DVB SPE Cartridge (Reversed Phase)

- High-purity material with highest reproducibility and lowest blank values due to an optimized manufacturing process.
- Excellent recovery rates, especially for the enrichment of pharmaceuticals and active ingredients due to the spherical particle shape, homogeneous surface, and optimized pore structure.
- Hydrophobic styrene-divinylbenzene (SDVB) copolymer, pH stability 1–14.
- Ideal for EPA Method 537.1 PFAS in drinking water; meets method performance requirements

Description	Packing	Volume	qty.	cat.#
Resprep S-DVB	500 mg spherical styrene-divinylbenzene (SDVB) copolymer	6 mL	30-pk.	28937



28468

### Resprep Polymeric SPE Cartridges (Reversed Phase)

- Silica-free, bonded polymeric material—no unwanted secondary silica interactions, even with basic compounds.
- High surface area—higher loading capacity compared to silica-based sorbents.
- Stable over a wide pH range (0–14)—won't hydrolyze under extreme conditions.
- Water-wettable—streamlined conditioning and equilibration steps drastically reduce solvent usage and sample prep time.

Description	Packing	Recommended Analytes	Volume	qty.	cat.#
Resprep	WAX (Mixed-Mode, Weak Anion Exchange)	Strong acids	3 mL, 60 mg	50-pk.	28468
Polymeric	WAX (Mixed-Mode, Weak Anion Exchange)	Strong acids	6 mL, 150 mg	30-pk.	28469
SPE Cartridge	WAX (Mixed-Mode, Weak Anion Exchange)	Strong acids	6 mL, 500 mg	30-pk.	28470



25845

### Carbon SPE for U.S. DoD samples

### Resprep CarboPrep Plus SPE Cartridges

- Designed specifically for the cleanup of sample extracts for organochlorine pesticides analysis.
- Excellent alternative to Florisil products, especially for the removal of nonvolatile matrix components that contaminate GC inlets and columns.
- Proprietary treatment renders the carbon consistent and clean, ensuring the same selectivity tube to tube, and lot to lot with no interfering background.
- Uses the same hardware, solvents, and solvent volumes as traditional Florisil cleanup, so switching is simple.

Description	Packing	Volume	qty.	cat.#
Resprep CarboPrep Plus SPE Cartridges	CarboPrep Plus	3 mL, 95 mg	30-pk.	25845



23242

23244

### Limited-Volume 2.0 mL, 9 mm Screw-Thread Polypropylene Vials

- Limited-volume design fits all 2.0 mL, 12 x 32 mm, vial-based autosamplers.
- PTFE-free—ideal for PFAS analysis (e.g., EPA 537) and other PFAS-sensitive methods.

Description	Type	Volume	Color	Size	qty.	cat.#
Limited-Volume 2.0 mL, 9 mm Screw-Thread Polypropylene Vials	9 mm Screw-Thread	1.5 mL	Clear	12 x 32 mm	100-pk.	23242
	9 mm Screw-Thread	1.5 mL	Clear	12 x 32 mm	1000-pk.	23245

### 2.0 mL, 9 mm Solid-Top Polyethylene Caps

- Molded, 10 mil, solid, pierceable cap.
- PTFE-free—ideal for PFAS analysis (e.g., EPA 537) and other PFAS-sensitive methods.

Description	Type	Cap Size	Color	qty.	cat.#
2.0 mL, 9 mm Solid-Top Polyethylene Caps	Screw-Thread	9 mm	Clear	100-pk.	23244
	Screw-Thread	9 mm	Clear	1000-pk.	23247

Note: Polypropylene vials and caps prevent sample contamination from PTFE-coated septa. However, since polypropylene caps do not reseal, evaporation occurs after injection. Multiple injections from the same vial are therefore not possible.

## Resprep SPE Tube Parts & Accessories

Resprep tubes, frits, caps, and connectors for your method development needs.

Description	Material	Porosity	Volume	qty.	cat.#
Empty Tubes	polypropylene		sample reservoir, 75 mL	12-pk.	26015
Connectors	polypropylene		1, 3, 6, 10, or 15 mL	15-pk.	26007



26007

## Resprep Quick-Replace SPE Vacuum Manifolds (12- or 24-Port)

- Disposable, quick-replace valve liners ensure a clean flow path and eliminate cross-contamination of samples extracted on the same port.
- Individual screw-type valves in each SPE port provide precise flow control.
- Easily modified sample collection rack supports a wide variety of collection vessels.
- Screw-type, solvent-resistant vacuum gauge and bleed valve offer better sealing and vacuum control.
- Compatible with any standard male luer end SPE cartridge.



28298-VM

Description	qty.	cat.#
<b>Resprep QR-12 Quick-Replace vacuum manifold</b> Includes: cover with 12 flow control valves & gasket; glass basin with vacuum gauge & valve assembly; collection rack (base, 3 support rods, center plate, 10 mm test tube plate, 12 clips); plate for 16 mm test tubes; 12 test tubes (10 x 75 mm); 12 liner guides (stainless steel); 100 quick-replace disposable liners (PTFE)	kit	28298-VM
<b>Resprep QR-24 Quick-Replace vacuum manifold</b> Includes: cover with 24 flow control valves & gasket; glass basin with vacuum gauge & valve assembly; collection rack (base, 2 support rods, center plate, 10 mm test tube plate, 8 clips); plate for 16 mm test tubes; 24 test tubes (10 x 75 mm); 24 liner guides (stainless steel); 100 quick-replace disposable liners (PTFE)	kit	28299-VM

## Replacement Parts for Resprep Quick-Replace SPE Vacuum Manifolds

Description	Size	qty.	cat.#
Cover with flow control valves & gasket for Resprep QR-12	for QR-12	ea.	28316-VM
Gasket for Resprep QR-12	for QR-12	2-pk.	28317-VM
Collection rack for Resprep QR-12	for QR-12	ea.	28318-VM
Plate for 16 mm test tubes for Resprep QR-12	for QR-12	ea.	28319-VM
Plate for 2 mL autosampler vials for Resprep QR-12	for QR-12	ea.	28320-VM
Plate for 20 mL scintillation vials for Resprep QR-12	for QR-12	ea.	28321-VM
Splash guard for Resprep QR-12	for QR-12	ea.	28322-VM
Cover with flow control valves & gasket for Resprep QR-24	for QR-24	ea.	28323-VM
Gasket for Resprep QR-24	for QR-24	2-pk.	28324-VM
Collection rack for Resprep QR-24	for QR-24	ea.	28325-VM
Plate for 16 mm test tubes for Resprep QR-24	for QR-24	ea.	28326-VM
Plate for 2 mL autosampler vials for Resprep QR-24	for QR-24	ea.	28327-VM
Valve stem for Resprep Quick-Replace vacuum manifolds	for QR-12 and QR-24	24-pk.	28308-VM
Quick-replace disposable liners (PTFE) for Resprep Quick-Replace vacuum manifolds	for QR-12 and QR-24	100-pk.	28310-VM
Quick-replace flow control valves for Resprep Quick-Replace vacuum manifolds	for QR-12 and QR-24	2-pk.	28311-VM
Liner guides (stainless steel) for Resprep Quick-Replace vacuum manifolds	for QR-12 and QR-24	12-pk.	28312-VM
Vacuum gauge and bleed valve for Resprep Quick-Replace vacuum manifolds	for QR-12 and QR-24	ea.	28313-VM
Retaining clips for collection racks for Resprep Quick-Replace vacuum manifolds	for QR-12 and QR-24	12-pk.	28314-VM
Test tubes (10 x 75 mm) for Resprep Quick-Replace vacuum manifolds	for QR-12 and QR-24	12-pk.	28315-VM



28316-VM



27424

### Rocker Vacuum Pumps

- Oil-free vacuum pumps are piston powered, so they do not pollute the air and require minimal maintenance.
- Quiet, low-vibration units keep disturbances to a minimum.
- Built-in thermal protector automatically shuts off pump if it overheats and then restarts it once the unit is cool.
- Inlet filter traps particles and removes moisture, prolonging pump life.
- International CE and CSA certification.
- Applications include filtration for air sampling, microbiology, suspended solid test, vacuum oven, thermal desorption (TD) tubes, sampling bags, and general use. (Not intended to evacuate air canisters.)
- Two-year pump warranty.

Instrument	Flow Capacity	Used with	Voltage	Certification/ Compliance	qty.	cat.#
Rocker 300	21 L/min		AC110 V, 60 Hz	CE, CSA	ea.	27424
Rocker 300	18 L/min		AC220 V, 50 Hz	CE, CSA	ea.	27425
Rocker 300DC	25 L/min	For use with automotive type 12 V battery.	DC Power (12 V)	CE, CSA	ea.	27447
Rocker 400	37 L/min		AC110 V, 60 Hz	CE, CSA	ea.	27432
Rocker 400	34 L/min		AC220 V, 50 Hz	CE, CSA	ea.	27433
Rocker 410	23 L/min		AC110 V, 60 Hz	CE, CSA	ea.	27434
Rocker 410	20 L/min		AC220 V, 50 Hz	CE, CSA	ea.	27435
Rocker 500	28 L/min		AC110 V, 60 Hz	CE, CSA	ea.	27436
Rocker 500	23 L/min		AC220 V, 50 Hz	CE, CSA	ea.	27437



27854

### PFAS Delay Column

- Traps system-related PFAS, preventing interference and ensuring accurate trace-level analysis of PFAS in samples.
- Universal compatibility; works with
  - Any HPLC or UHPLC up to 15,000 psi (1034 bar),
  - Both FPP and SPP analytical columns,
  - All stationary phases.
- Highly retentive of system-related PFAS; no breakthrough even with extended equilibration times.
- Easy installation with standard fittings.

Particle: 5  $\mu$ m, spherical, fully porous  
 pH Range: 2.5 to 8  
 Maximum Temperature: 80 °C  
 Maximum Pressure: 1034 bar/15,000 psi

ID	Length	qty.	cat.#
<b>5 <math>\mu</math>m Particles</b>			
2.1 mm	50 mm	ea.	27854

## Raptor C18 LC Columns (USP L1)

- A traditional end-capped C18 ideal for general-purpose use in reversed-phase chromatography.
- Wide pH range (2–8) provides excellent data quality for many applications, matrices, and compounds.
- Offers the highest hydrophobic retention of any Raptor phase.
- Part of Restek's Raptor LC column line featuring 1.8, 2.7, and 5  $\mu\text{m}$  SPP core-shell silica.

ID	Length	qty.	cat.#
<b>1.8 <math>\mu\text{m}</math> Particles</b>			
2.1 mm	30 mm	ea.	9304232
	50 mm	ea.	9304252
	100 mm	ea.	9304212
	150 mm	ea.	9304262
3.0 mm	50 mm	ea.	930425E
	100 mm	ea.	930421E
<b>2.7 <math>\mu\text{m}</math> Particles</b>			
2.1 mm	30 mm	ea.	9304A32
	50 mm	ea.	9304A52
	100 mm	ea.	9304A12
	150 mm	ea.	9304A62
3.0 mm	30 mm	ea.	9304A3E
	50 mm	ea.	9304A5E
	100 mm	ea.	9304A1E
	150 mm	ea.	9304A6E
4.6 mm	30 mm	ea.	9304A35
	50 mm	ea.	9304A55
	100 mm	ea.	9304A15
<b>5 <math>\mu\text{m}</math> Particles</b>			
2.1 mm	50 mm	ea.	9304552
	100 mm	ea.	9304512
	150 mm	ea.	9304562
3.0 mm	30 mm	ea.	930453E
	50 mm	ea.	930455E
	100 mm	ea.	930451E
	150 mm	ea.	930456E
4.6 mm	50 mm	ea.	9304555
	100 mm	ea.	9304515
	150 mm	ea.	9304565
	250 mm	ea.	9304575



Stationary Phase Category: C18, octadecylsilane (L1)  
 Ligand Type: End-capped C18  
 Particle: 1.8  $\mu\text{m}$ , 2.7  $\mu\text{m}$ , or 5  $\mu\text{m}$  superficially porous silica (SPP or "core-shell")  
 Pore Size: 90 Å  
 Carbon Load: 9% (1.8  $\mu\text{m}$ ), 7% (2.7  $\mu\text{m}$ ), 5% (5  $\mu\text{m}$ )  
 End-Cap: yes  
 Surface Area: 125 m<sup>2</sup>/g (1.8  $\mu\text{m}$ ), 130 m<sup>2</sup>/g (2.7  $\mu\text{m}$ ), or 100 m<sup>2</sup>/g (5  $\mu\text{m}$ )  
 Recommended Usage:  
 pH Range: 2.0–8.0  
 Maximum Temperature: 80 °C  
 Maximum Pressure: 1034 bar/15,000 psi\* (1.8  $\mu\text{m}$ ), 600 bar/8,700 psi (2.7  $\mu\text{m}$ ); 400 bar/5800 psi (5  $\mu\text{m}$ )  
 \* For maximum lifetime, recommended maximum pressure for 1.8  $\mu\text{m}$  particles is 830 bar/12,000 psi.

### Properties:

- Compatible with moderately acidic to neutral mobile phases (pH 2–8).
- Excellent data quality in food, environmental, bioanalytical, and other applications.

### Switch to a C18 when:

- You need a general-purpose column for reversed-phase chromatography.
- You need to increase retention of hydrophobic compounds.

## Developing new methods?

Review our PFAS Column Selection Guide for chromatograms as well as column phase and dimension recommendations optimized for different PFAS types and instrumentation.





25008

### Low-Pressure Slip-On Inlet Filter for Mobile Phase Reservoir

A 316 stainless-steel tip with a Tefzel collar seals to a corrosion-resistant 316 stainless-steel filter element. The slip-on filter easily attaches to the pump inlet line without the use of wrenches. The universal 1/8" OD tip accommodates standard PTFE tubing inner diameters. The cylindrical filter is standard 10 µm porosity. Fits Altex, ISCO, LDC, Varian, Waters, PerkinElmer, and other pumps.

Description	qty.	cat.#
Slip-On Inlet Filter	ea.	25008



25097

### Survival Kit for HPLC, Stainless Steel

For start-up and maintenance in all HPLC systems.

The stainless-steel survival kit contains a wide range of tubing, fittings, and tools necessary to set up and maintain your HPLC system: a selection of lengths and IDs of 1/16" tubing, nuts, ferrules, a ValvTool wrench, and a zero-dead-volume union.

#### Kit includes:

- HPLC Capillary Tubing, SS, 1/16" x 0.005" x 5 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.005" x 10 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.005" x 20 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.005" x 30 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.007" x 5 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.007" x 10 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.007" x 20 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.007" x 30 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.010" x 5 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.010" x 10 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.010" x 20 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.010" x 30 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.020" x 5 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.020" x 10 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.020" x 20 cm, 3-pk.
- HPLC Capillary Tubing, SS, 1/16" x 0.020" x 30 cm, 3-pk.
- 1/16" Rheodyne Style Nut, 10-pk.
- 1/16" Rheodyne Style Ferrule, 10-pk.
- ValvTool Wrench, ea.
- Ferrules, 1/16" Stainless Steel, 10-pk.
- Nuts, 1/16" Stainless Steel, 10-pk.
- Zero-Dead-Volume Internal Union, ea.

Description	qty.	cat.#
Survival Kit for HPLC	kit	25097