



Lab Supplies for PFAS Analysis

Methods-Based Reference to Lab Supplies for PFAS Testing

Choosing the right lab supplies for PFAS analysis can be harder than it sounds. PFAS “forever chemicals” are everywhere in the environment, but they also turn up in the lab supplies and instruments you rely on, so keeping background sources from contaminating your samples is essential. PFAS can also be “sticky,” clinging to materials commonly used in sampling and analysis (e.g., glass containers and pipettes). That means every part of your sample flow path must be considered for whether it might add background PFAS or hold onto the PFAS already in your sample.

Contamination and retention aren’t the only complications. With so many methods available and each calling for different sample preparation and analysis products, it’s easy to lose time figuring out what fits your workflow. It gets tougher still when you’re measuring trace levels of PFAS that current government methods don’t yet list, such as short- and ultrashort-chain compounds.

Finding suitable products can be simplified using the tables below. They lay out the lab supplies for PFAS analysis suited to widely accepted test methods from around the world, including U.S. agencies (CDC, EPA, FDA, and USDA); European agencies (DIN); and international standards (ASTM and ISO). Once you’ve selected method-appropriate products, remember to verify that your system and supplies are free of target analytes and qualified for PFAS analysis at the levels your method requires.

Restek supports PFAS testing labs with clean, high-quality supplies and expert technical guidance for analyzing legacy, alternative, and ultrashort-chain PFAS across a wide range of global standards. Visit www.restek.com/PFAS to explore our full range of PFAS solutions and resources. In addition, if you want to see results before setting foot in the lab, you can model PFAS methods in minutes from your desk using our free, online Pro EZLC chromatogram modeler. Visit ez.restek.com to learn more.

Analytical LC Columns and Guard Columns

	EPA 537.1	EPA 533	EPA 1633A	EPA OTM 45	EPA 8327	USDA CLG-PFAS 2.04	CDC 6304.09	US FDA C-010.03	DIN EN 17892*	DIN 38407-42	ISO 21675:2019	ISO 23702-1:2023	ASTM D7968-23	ASTM D7979-20	ASTM D8421-22
C18 PHASE COLUMNS															
PFAS delay column: 5 µm, 50 x 2.1 mm (cat.# 27854)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PFAS delay column: 5 µm, 50 x 3.0 mm (cat.# 580959 [custom product])	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Force C18 FPP column: 1.8 µm, 50 x 2.1 mm (cat.# 9634252)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Raptor C18 SPP column: 2.7 µm, 50 x 2.1 mm (cat.# 9304A52)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
More C18 column dimensions are available at www.restek.com															
SPECIALTY PHASE COLUMNS															
Raptor Polar X: 2.7 µm, 50 x 2.1 mm (cat.# 9311A52)	Ideal for ultrashort-chain (C1-C3) PFAS analysis with isocratic methods.														
Ultra IBD Inert: 3 µm, 100 x 2.1 mm (cat.# 9175312-T)	Ideal for ultrashort-, short-, mid-, and long-chain PFAS analysis (C1 - C14) with gradient methods.														
GUARD COLUMNS															
UltraShield UHPLC precolumn filter: 0.2 µm frit (cat.# 25809)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EXP direct connect holder for EXP guard cartridges (cat.# 25808)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Raptor C18 EXP guard column cartridge: 2.7 µm, 5 x 2.1 mm (cat.# 9304A0252)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

NOTE: Some products shown above may not exactly match the product description in the methods.

*DIN EN 17892 lists columns of the following dimensions in the appendix: Force C18 FPP column: 1.8 µm, 100 x 3.0 mm (cat.# 963421E) and Raptor C18 SPP column: 2.7 µm, 100 x 2.1 mm (cat.# 9304A12).

Certified Reference Materials (CRMs)

For detailed compound lists, view these products on www.restek.com.

	EPA 537.1	EPA 533	EPA 1633A	EPA OTM 45	EPA 8327	USDA CLG-PFAS 2.04	CDC 6304.09	US FDA C-010.03	DIN EN 17892	DIN 38407-42	ISO 21675:2019	ISO 23702-1:2023	ASTM D7968-23	ASTM D7979-20	ASTM D8421-22
PFAS 24 calibration standard: 1 µg/mL, methanol (1 mM KOH) (cat.# 30733)	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
PFAS 28 calibration standard: 1 µg/mL, methanol (1 mM KOH) (cat.# 30734)	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-
PFAS EPA Method 537.1 Analyte Primary Dilution Standard (PDS) 2 µg/mL, Methanol (1 mM NaOH)/2-Propanol (98:2), 1 mL/ampul (cat. 30841)	X	-	-	-	X	-	-	-	-	-	-	-	-	-	-
PFAS EPA Method 533 Analyte Primary Dilution Standard (PDS) 2 µg/mL, Methanol (1 mM NaOH)/2-Propanol (98:2), 1 mL/ampul (cat. 30840)	-	X	-	-	X	-	-	-	-	X	-	-	-	-	-

NOTE: Some products shown above may not exactly match the product description in the methods.

Sample Handling

Product Category	Description	EPA 537.1	EPA 533	EPA 1633A	EPA OTM 45	EPA 8327	USDA CLG-PFAS 2.04	CDC 6304.09	US FDA C-010.03	DIN EN 17892	DIN 38407-42	ISO 21675:2019	ISO 23702-1:2023	ASTM D7968-23	ASTM D7979-20	ASTM D8421-22
PRESCREENING OR FILTRATION OF PARTICULATE-CONTAINING SAMPLES																
Syringe filters	30 mm syringe filter: 0.45 µm, nylon (cat.# 23981)	-	-	X	-	X	-	-	X	-	X	X	-	-	-	-
	30 mm syringe filter: 0.22 µm, nylon (cat.# 23980)	-	-	X	-	X	-	-	X	-	X	X	-	-	-	-
	25 mm syringe filter: 0.22 µm, polypropylene (cat.# 28935)	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X
Glass wool	Deactivated borosilicate glass wool (cat.# 20789)	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-
Looking for filter vials? Browse available materials and formats at www.restek.com																
SAMPLE COLLECTION, TRANSFER, AND EXTRACTION																
SPE (WAX)	Resprep PFAS SPE cartridge: 6 mL, WAX 150 mg/GCB 50 mg (cat.# 28930)	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-
	Resprep PFAS SPE cartridge with filter aid: 6 mL, filter aid 2000 mg/WAX 150 mg/GCB 50 mg (cat.# 28931)	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-
	Resprep polymeric SPE cartridge: WAX, 6 mL/500 mg, 30 µm (cat.# 28268)	-	X	X	X	-	-	-	X	X	X	X	-	-	-	-
	Resprep polymeric SPE cartridge: WAX, 6 mL/200 mg, 30 µm (cat.# 28292)	-	X	X	X	-	-	-	X	X	X	X	-	-	-	-
	Resprep polymeric SPE cartridge: WAX, 3 mL/60 mg, 30 µm (cat.# 28468)	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-
More WAX SPE configurations are available at www.restek.com																
SPE (S-DVB)	Resprep S-DVB SPE cartridge: 6 mL/500 mg (cat.# 28937)	X	-	-	-	-	-	*	-	X	-	-	-	-	-	-
Polypropylene sample reservoir	Polypropylene sample reservoir: 75 mL (cat.# 26015)	X	X	X	-	-	-	-	-	X	X	X	-	-	-	-
Polypropylene connectors	Polypropylene connectors (cat.# 26007)	X	X	X	-	-	-	-	-	X	X	X	-	-	-	-
QuEChERS extraction salts	Q-sep QuEChERS extraction salt packets only, unbuffered FDA method: 6 g MgSO ₄ , 1.5 g NaCl (cat.# 28898)	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-
More QuEChERS products available at www.restek.com																
Resin	Clean SDVB Resin (cat.# 24230)	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-
Vacuum manifold	Resprep QR-24 vacuum manifold (cat.# 28299-VM)	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Resprep QR-12 vacuum manifold (cat.# 28298-VM)	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
Vacuum pumps	Chemker 300 PTFE vacuum pump: 20 L/min, AC110 V, 60 Hz (cat.# 27426)	X	X	X	X	X	X	*	X	X	X	X	X	-	-	-
	Chemker 300 PTFE vacuum pump: 18 L/min, AC220 V, 50 Hz (cat.# 27427)	X	X	X	X	X	X	*	X	X	X	X	X	-	-	-

NOTE: Some products shown above may not exactly match the product description in the methods.

* This CDC method is based on automated online SPE using C8 or C18 SPE materials. The product shown here is recommended for off-line SPE.

X A regenerated cellulose filter is mentioned in the method. However, nylon and polypropylene are widely accepted filter membrane materials for PFAS analysis.

X A glass fiber filter is mentioned in the method. However, nylon and polypropylene are widely accepted filter membrane materials for PFAS analysis.

General Lab Supplies

	EPA 537.1	EPA 533	EPA 1633A	EPA OTM-45	EPA 8327	USDA CLG-PFAS 2.04	CDC 6304.09	US FDA C-010.03	DIN EN 17892	DIN 38407-42	ISO 21675:2019	ISO 23702-1:2023	ASTM D7968-23	ASTM D7979-20	ASTM D8421-22
Polypropylene vials: 100-pk. (cat.# 23243)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Polypropylene vials: 1000-pk. (cat.# 23246)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Polyethylene vial caps: 100-pk. (cat.# 23244)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Polyethylene vial caps: 1000-pk. (cat.# 23247)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Centrifuge tubes: 50 mL, 50-pk. (cat.# 25846)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Centrifuge tubes: 50 mL, 500-pk. (cat.# 28290)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Norm-Ject plastic syringe: 10 mL Luer Lock tip (cat.# 22775)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Norm-Ject plastic syringe: 5 mL Luer Lock tip (cat.# 22774)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

NOTE: Some products shown above may not exactly match the product description in the methods.

X ASTM methods refer to the use of a glass syringe. Norm-Ject plastic syringes are made from polypropylene/polyethylene and can be used as an alternative.

Recommended Products for Volatile Fluorinated Compounds (VFCs) Analysis by U.S. EPA OTM-50 (GC-MS)

	EPA OTM-50
SAMPLE COLLECTION/TRANSPORT	
SilcoCan Air Sampling Canister, 6 L, with 3-Port Siltek-Treated RAVE+ Valve with Gauge (cat.# 27309)	X
SilcoCan Air Sampling Canister, 6 L, with 2-Port Siltek-Treated RAVE+ Valve (cat.# 27307)	X
SilcoCan Air Sampling Canister, 6 L, No Valve (cat.# 22092)	X
TO-Can air sampling canister, 6 L, with 3-port RAVE+ valve with gauge (cat.# 27319)	X
TO-Can air sampling canister, 6 L, with 2-port RAVE+ valve (cat.# 27318)	X
TO-Can air sampling canister, 6 L, no valve (cat.# 22096)	X

References

- Restek Corporation, Guide to PFAS testing methods, a global survey of PFAS testing methods and guidelines, Technical article, EVAR3552C-UNV, 2024. <https://www.restek.com/articles/guide-to-pfas-testing-methods>
- S.H., Liang, J. A. Steimling, M. Chang Analysis of ultrashort-chain and short-chain (C1 to C4) per- and polyfluorinated substances in potable and non-potable waters. J. Chromatogr. Open 4 (100098) (2023) <https://doi.org/10.1016/j.jcoa.2023.100098>
- U.S. Environmental Protection Agency, EPA Method 537.1, Determination of selected per- and polyfluorinated alkyl substances in drinking water by solid phase extraction and liquid chromatography/tandem mass spectrometry (LC/MS/MS), November 2018. https://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=537290&Lab=NERL
- U.S. Environmental Protection Agency, EPA Method 533, Determination of per- and polyfluoroalkyl substances in drinking water by isotope dilution anion exchange solid phase extraction and liquid chromatography/tandem mass spectrometry, November 2019. <https://www.epa.gov/sites/default/files/2019-12/documents/method-533-815b19020.pdf>
- U.S. Environmental Protection Agency, EPA Method 1633, Revision A, Analysis of per- and polyfluoroalkyl substances (pfas) in aqueous, solid, biosolids, and tissue samples by LC-MS/MS, December 2024. www.epa.gov/system/files/documents/2024-12/method-1633a-december-5-2024-508-compliant.pdf
- U.S. Environmental Protection Agency, Other Test Method-45 (OTM-45), Measurement of selected per- and polyfluorinated alkyl substances from stationary sources, January 13, 2021. https://www.epa.gov/sites/default/files/2021-01/documents/otm_45_semi-volatile_pfas_1-13-21.pdf
- U.S. Environmental Protection Agency, EPA Method 8327, Per- and polyfluoroalkyl substances (PFAS) by liquid chromatography/tandem mass spectrometry (LC/MS/MS), July 2021. <https://www.epa.gov/system/files/documents/2021-07/8327.pdf>
- U.S. Department of Agriculture, Food Safety and Inspection Service, Chemistry Laboratory Guidebook, CLG-PFAS 2.04, Screening, determination, and confirmation of PFAS by UHPLC-MS-MS, February 28, 2023. https://www.fsis.usda.gov/sites/default/files/media_file/documents/CLG-PFAS2.04.pdf
- U.S. Centers for Disease Control and Prevention, CDC 6304.09, Perfluoroalkyl and polyfluoroalkyl substances, February 2019. <https://www.cdc.gov/nchs/data/nhanes/public/2019/labmethods/PFAS-K-Met-508.pdf>
- U.S. Food and Drug Administration, FDA C-010.02, Determination of 30 per and polyfluoroalkyl substances (PFAS) in food and feed using liquid chromatography-tandem mass spectrometry (LC-MS/MS), April 12, 2024. <https://www.fda.gov/media/131510/download>
- DIN EN 17892, Water quality-Determination of the sum of perfluorinated substances (Sum of PFAS) in drinking water - Method using liquid chromatography/mass spectrometry (LC/MS), September 2021.
- DIN 38407-42, German standard methods for the examination of water, waste water and sludge-Jointly determinable substances (group F)-Part 42: determination of selected polyfluorinated compounds (PFC) in water-Method using high performance liquid chromatography and mass spectrometric detection (HPLC/MS-MS)after solid-liquid extraction (F 42), March 2011.
- ISO 21675:2019, Water quality—Determination of perfluoroalkyl and polyfluoroalkyl substances (PFAS) in water—Method using solid phase extraction and liquid chromatography-tandem mass spectrometry (LC-MS/MS), 2019. <https://www.iso.org/standard/71338.html>
- ASTM D7968-23, Standard test method for determination of polyfluorinated compounds in soil by liquid chromatography tandem mass spectrometry (LC/MS/MS), November 6, 2023. <https://www.astm.org/d7968-23.html>
- ASTM D7979-20, Standard test method for determination of per- and polyfluoroalkyl substances in water, sludge, influent, effluent, and wastewater by liquid chromatography tandem mass spectrometry (LC/MS/MS), September 3, 2020. <https://www.astm.org/d7979-20.html>
- ASTM D8421-22, Standard test method for determination of per- and polyfluoroalkyl substances (PFAS) in aqueous matrices by co-solvation followed by liquid chromatography tandem mass spectrometry (LC/MS/MS) <https://www.astm.org/d8421-22.html>
- U.S. Environmental Protection Agency, Other Test Method-50, OTM-50, Sampling and analysis of volatile fluorinated compounds from stationary sources using passivated stainless-steel canisters, January 2025. <https://www.epa.gov/system/files/documents/2025-01/otm-50-release-1-r1.pdf>



For information on Restek patents and trademarks, visit www.restek.com/patents-trademarks To unsubscribe from future Restek communications or to update your preferences, visit www.restek.com/subscribe To update your status with an authorized Restek distributor or instrument channel partner, please contact them directly.

© 2026 Restek Corporation. All rights reserved.

www.restek.com



Lit. Cat.#EVAR3498K-UNV