

Per- and polyfluoroalkyl substances (PFAS) analysis

PFAS have been used in industry and consumer products since the 1940s. Their chain of strong fluorine-carbon bonds makes these chemicals persistent and bio-accumulative over long-term exposure—linking them to health hazards in humans and wildlife.* What's more, PFAS have been widely detected in drinking water, wastewater, ground and surface water, soil, and other complex matrices.

In response, regulatory agencies worldwide are implementing more stringent requirements for monitoring and identifying PFAS. For example:

- The EU water framework directive lists PFOS (a subclass of PFAS) as priority hazardous substances that pose a “significant risk to the aquatic environment.”
- The USEPA has established a drinking water advisory level, and has recently announced more stringent standards. Further, many states in the U.S. have regulatory limits for PFAS in water at low ng/L levels, and many countries in Asia including Japan, South Korea, and Australia have guidelines for monitoring PFAS in water too.

You can achieve uncompromising accuracy for rigorous regulatory methods with Agilent PFAS analysis solutions. Our InfinityLab PFC-free HPLC conversion kit includes everything you need to ensure your 1290 Infinity II instruments and 1290 Infinity II high-speed pump are free of PFAS contaminants:

- Tubing
- Inline filter
- Wash bottle head assembly
- Delay column with InfinityLab Quick Connect LC fitting

Agilent's PFAS solution includes products for sample preparation, HPLC columns and solvents as well as PFC-free sample containment and other HPLC supplies you would need to ensure reproducible results with highest quality while eliminating PFAS contamination and reduced the risk of false positive results.



*L. Ahrens, M. Bundschuh. Fate and effects of poly- and perfluoroalkyl substances in the aquatic environment: A review. *Environ. Toxicol. Chem.*, 2014, 33, 1921–1929.

Easy Selection and Ordering Information

This guide provides recommendations for Agilent products by regulatory method, so you can find what you're looking for quickly. To add items to your "My Favorites"* list at the Agilent online store, simply click the MyList links in each header below. Then, enter the quantities for the products you need. Your list will remain under "My Favorites" for your use with future orders.

EPA 537 or similar: Determination of PFAS in drinking water by SPE and LC/MS/MS (EPA 537.1 or similar)

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Product Category	Description	Part Number
Sample preparation	Bond Elut LMS cartridge, 500 mg, 6 mL, 30/pk	12255021
	Collection rack and funnel set for 12 or 15 mL conical tubes, for Vac Elut SPS 24 manifold	12234027
	Vac Elut SPS 24 manifold with collection rack for 10 x 75 mm test tubes	12234003
Guard column	ZORBAX RRHD Eclipse Plus C18 2.1 x 5 mm, 1.8 µm guard	821725-901
Separation column	ZORBAX RRHD Eclipse Plus C18, 2.1 x 100 mm, 1.8 µm	959758-902
PFC-free HPLC conversion kit w/delay column	Agilent InfinityLab PFC-free HPLC conversion kit**	5004-0006
Delay column	InfinityLab PFC Delay Column, 4.6 x 30 mm (replacement)	5062-8100
Other LC supplies	InfinityLab Quick Connect assembly, 0.12 x 105 mm, for column inlet connection on UHPLC	5067-5957
	InfinityLab Quick Connect assembly, 0.17 x 105 mm, for column inlet connection on UHPLC	5067-6166
	InfinityLab Quick Turn fitting, for column outlet	5067-5966
	Quick Turn capillary 0.12 x 280 mm, for connecting column to detector	5500-1191
	Kit of Stay Safe waste caps GL45 with 4 ports and waste can (6 L)	5043-1221
	Charcoal filter with time strip for waste container	5043-1193
	InfinityLab solvent filtration assembly: includes glass funnel (250 mL), membrane holder glass base, glass flask (1 L), and aluminum clamp	5191-6776
	Regenerated cellulose filter membrane (47 mm, 0.20 µm, 100/pk)	5191-4340
Sample containment	Stainless steel solvent inlet filter, 12–14 µm pore size	01018-60025
	Clear snap caps with polyethylene membrane septa (100/pk)	5182-0542
Solvents	Polypropylene vials (no caps) 100/pk	5182-0567
	InfinityLab ultrapure LC/MS water	5191-4498

*First time using "My Favorites"? You will be asked to enter your email address for account verification. If you have an existing Agilent account, you will be able to log in. If you don't have a registered Agilent account, you will need to [register for one](#). This feature is valid only in regions that are e-commerce enabled. All items can also be ordered through your regular sales and distributor channels.

**Although the kit is customer-installable, Agilent offers supplemental installation by a service professional. To add this service to your order, use part number H5949A.

EPA 533 or similar: Determination of PFAS in drinking water by SPE and LC/MS/MS (short-chain PFAS) [View MyList](#)

Product Category	Description	Part Number
Sample preparation	WAX polymer box, 6mL tubes, 150 mg, 30 µm particle size, 30/pk)*	5982-3667
	Collection rack and funnel set for 12 or 15 mL conical tubes, for Vac Elut SPS 24 manifold	12234027
	Vac Elut SPS 24 manifold with collection rack for 10 x 75 mm test tubes	12234003
Guard column	ZORBAX RRHD Eclipse Plus C18 2.1 x 5 mm, 1.8 µm guard	821725-901
Separation column	ZORBAX RRHD Eclipse Plus C18, 2.1 x 50 mm, 1.8 µm	959757-902
PFC-free HPLC conversion kit w/delay column	Agilent InfinityLab PFC-free HPLC conversion kit**	5004-0006
Delay column	InfinityLab PFC Delay Column, 4.6 x 30 mm column (replacement)	5062-8100
Other LC supplies	InfinityLab Quick Connect assembly, 0.12 x 105 mm, for column inlet connection on UHPLC	5067-5957
	InfinityLab Quick Connect assembly, 0.17 x 105 mm, for column inlet connection on UHPLC	5067-6166
	InfinityLab Quick Turn fitting, for column outlet	5067-5966
	Quick Turn capillary 0.12 x 280 mm, for connecting column to detector	5500-1191
	Kit of Stay Safe waste caps GL45 with 4 ports and waste can (6 L)	5043-1221
	Charcoal filter with time strip for waste container	5043-1193
	InfinityLab solvent filtration assembly: includes glass funnel (250 mL), membrane holder glass base, glass flask (1 L), and aluminum clamp	5191-6776
	Regenerated cellulose filter membrane (47 mm, 0.20 µm, 100/pk)	5191-4340
Sample containment	Stainless steel solvent inlet filter, 12–14 µm pore size	01018-60025
	Clear snap caps with polyethylene membrane septa (100/pk)	5182-0542
Solvents	Polypropylene vials (no caps) 100/pk	5182-0567
	InfinityLab ultrapure LC/MS water	5191-4498

*For greater recovery rinse cartridge with 10 mL elution solvent (2% NH4OH in MeOH) before conditioning with phosphate buffer.

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EPA 8327: Determination of PFAS in groundwater, surface water, and wastewater samples using direct injection and LC/MS/MS [View MyList](#)

Product Category	Description	Part Number
Sample preparation	Captiva premium syringe filter, polypropylene housing, regenerated cellulose (RC) membrane, 25 mm diameter, 0.2 µm pore size, 100/pk	5190-5110
	Captiva disposable syringe, 10 mL, 100/pk	9301-6474
Guard column	ZORBAX RRHD StableBond C18, 2.1 mm, 1.8 µm, UHPLC guard (3/pk)	821725-902
Separation column	ZORBAX RRHD StableBond C18, 2.1 x 100 mm and 1.8 µm particle size	858700-902
PFC-free HPLC conversion kit w/delay column	Agilent InfinityLab PFC-free HPLC conversion kit*	5004-0006
Delay column	InfinityLab PFC Delay Column, 4.6 x 30 mm (replacement)	5062-8100
Other LC supplies	InfinityLab Quick Connect assembly, 0.12 x 105 mm, for column inlet connection on UHPLC	5067-5957
	InfinityLab Quick Connect assembly, 0.17 x 105 mm, for column inlet connection on UHPLC	5067-6166
	InfinityLab Quick Turn fitting, for column outlet	5067-5966
	Quick Turn capillary 0.12 x 280 mm, for connecting column to detector	5500-1191
	Kit of Stay Safe waste caps GL45 with 4 ports and waste can (6 L)	5043-1221
	Charcoal filter with time strip for waste container	5043-1193
	InfinityLab solvent filtration assembly: includes glass funnel (250 mL), membrane holder glass base, glass flask (1 L), and aluminum clamp	5191-6776
	Regenerated cellulose filter membrane (47 mm, 0.20 µm, 100/pk)	5191-4340
Sample containment	Stainless steel solvent inlet filter, 12–14 µm pore size	01018-60025
	Clear snap caps with polyethylene membrane septa (100/pk)	5182-0542
Sample containment	Polypropylene vials (no caps) 100/pk	5182-0567
	Solvents	InfinityLab ultrapure LC/MS water

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ASTM D7979: Determination of PFAS in water sludge, influent, effluent, and wastewater using LC/MS/MS

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Product Category	Description	Part Number
Sample preparation	Captiva premium syringe filter, polypropylene housing, regenerated cellulose (RC) membrane, 25 mm diameter, 0.2 µm pore size, 100/pk	5190-5110
	Captiva disposable syringe, 10 mL, 100/pk	9301-6474
Guard column A*	ZORBAX RRHD StableBond Aq, 2.1 mm, 1.8 µm, UHPLC guard (3/pk)	821725-936
Separation column A*	ZORBAX RRHD StableBond Aq, 2.1 x 150 mm, 1.8 µm	859700-914
Guard column B	ZORBAX RRHD Eclipse Plus C18, 2.1 mm, 1.8 µm, UHPLC guard (3/pk)	821725-901
Separation column B	ZORBAX RRHD Eclipse Plus C18, 2.1 x 100 mm, 1.8 µm	959758-902
PFC-free HPLC conversion kit w/delay column	Agilent InfinityLab PFC-free HPLC conversion kit**	5004-0006
Delay column	InfinityLab PFC Delay Column, 4.6 x 30 mm (replacement)	5062-8100
Other LC supplies	InfinityLab Quick Connect assembly, 0.12 x 105 mm, for column inlet connection on UHPLC	5067-5957
	InfinityLab Quick Connect assembly, 0.17 x 105 mm, for column inlet connection on UHPLC	5067-6166
	InfinityLab Quick Turn fitting, for column outlet	5067-5966
	Quick Turn capillary 0.12 x 280 mm, for connecting column to detector	5500-1191
	Kit of Stay Safe waste caps GL45 with 4 ports and waste can (6 L)	5043-1221
	Charcoal filter with time strip for waste container	5043-1193
	InfinityLab solvent filtration assembly: includes glass funnel (250 mL), membrane holder glass base, glass flask (1 L), and aluminum clamp	5191-6776
	Regenerated cellulose filter membrane (47 mm, 0.20 µm, 100/pk)	5191-4340
	Stainless steel solvent inlet filter, 12–14 µm pore size	01018-60025
Sample containment	Clear snap caps with polyethylene membrane septa (100/pk)	5182-0542
	Polypropylene vials (no caps) 100/pk	5182-0567
Solvents	InfinityLab ultrapure LC/MS water	5191-4498

*Use guard and separation column A (Agilent ZORBAX RRHD StableBond Aq) if a charged surface is required for early eluters. This column is sensitive to large injection volumes and strong sample solvents. Otherwise, use guard and separation column B.

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ISO 21675:2019: Determination of PFAS in nonfiltrated waters (drinking, natural, and wastewater) containing < 2 g/L solid particulate material, using LC/MS/MS [View MyList](#)

Product Category	Description	Part Number
Sample preparation	WAX polymer box, 6mL tubes, 150 mg, 30 µm particle size, 30/pk*	5982-3667
	Collection rack and funnel set for 12 or 15 mL conical tubes, for Vac Elut SPS 24 manifold	12234027
Guard column	Polaris C18 A, MetaGuard, 3 µm, 2.0 mm, 3/pk	A2001MG2
Separation column	Polaris C18 A, 2.0 x 50 mm, 3 µm	A2001050X020
PFC-free HPLC conversion kit w/delay column	Agilent InfinityLab PFC-free HPLC conversion kit**	5004-0006
Delay column	InfinityLab PFC Delay Column, 4.6 x 30 mm (replacement)	5062-8100
Other LC supplies	InfinityLab Quick Connect assembly, 0.12 x 105 mm, for column inlet connection on UHPLC	5067-5957
	InfinityLab Quick Connect assembly, 0.17 x 105 mm, for column inlet connection on UHPLC	5067-6166
	InfinityLab Quick Turn fitting, for column outlet	5067-5966
	Quick Turn capillary 0.12 x 280 mm, for connecting column to detector	5500-1191
	Kit of Stay Safe waste caps GL45 with 4 ports and waste can (6 L)	5043-1221
	Charcoal filter with time strip for waste container	5043-1193
	InfinityLab solvent filtration assembly: includes glass funnel (250 mL), membrane holder glass base, glass flask (1 L), and aluminum clamp	5191-6776
	Regenerated cellulose filter membrane (47 mm, 0.20 µm, 100/pk)	5191-4340
	Stainless steel solvent inlet filter, 12–14 µm pore size	01018-60025
Sample containment	Clear snap caps with polyethylene membrane septa (100/pk)	5182-0542
	Polypropylene vials (no caps) 100/pk	5182-0567
Solvents	InfinityLab ultrapure LC/MS water	5191-4498

*For greater recovery rinse cartridge with 10 mL elution solvent (2% NH4OH in MeOH) before conditioning with phosphate buffer.

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A single-extraction method for simultaneous quantitation of 53 legacy and emerging PFAS in aqueous matrices was performed on an Agilent 1290 Infinity II HPLC, coupled to an Agilent 6495B tandem mass spectrometer (MS/MS). Please reference application note [5994-0919EN](#).

Application note 5994-0919EN: Analysis of >50 Legacy and Emerging PFAS in Water Using the Agilent 6495B Triple Quadrupole LC/MS [View MyList](#)

Product Category	Description	Part Number
Sample preparation	WAX polymer box, 6mL tubes, 150 mg, 30 µm particle size, 30/pk*	5982-3667
	Collection rack and funnel set for 12 or 15 mL conical tubes, for Vac Elut SPS 24 manifold	12234027
	Vac Elut SPS 24 manifold with collection rack for 10 x 75 mm test tubes	12234003
Guard column	ZORBAX RRHD Eclipse Plus C18, 2.1 mm, 1.8 µm, UHPLC guard (3/pk)	821725-901
Separation column	ZORBAX RRHD Eclipse Plus C18, 2.1 x 50 mm, 1.8 µm	959757-902
PFC-free HPLC conversion kit w/delay column	Agilent InfinityLab PFC-free HPLC conversion kit**	5004-0006
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	InfinityLab solvent filtration assembly: includes glass funnel (250 mL), membrane holder glass base, glass flask (1 L), and aluminum clamp	5191-6776
	Regenerated cellulose filter membrane (47 mm, 0.20 µm, 100/pk)	5191-4340
	Stainless steel solvent inlet filter, 12–14 µm pore size	01018-60025
Sample containment	Clear snap caps with polyethylene membrane septa (100/pk)	5182-0542
	Polypropylene vials (no caps) 100/pk	5182-0567
Solvents	InfinityLab ultrapure LC/MS water	5191-4498

*For greater recovery rinse cartridge with 10 mL elution solvent (2% NH4OH in MeOH) before conditioning with phosphate buffer.

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Agilent CrossLab services

CrossLab is an Agilent capability that integrates services and consumables to support workflow success and important outcomes like improved productivity and operational efficiency. Through CrossLab, Agilent strives to provide insight in every interaction to help you achieve your goals. CrossLab offers method optimization, flexible service plans, and training for all skill levels. We have many other products and services to help you manage your instruments and your lab for best performance.

Learn more about Agilent CrossLab, and see examples of insight that leads to great outcomes, at www.agilent.com/crosslab

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