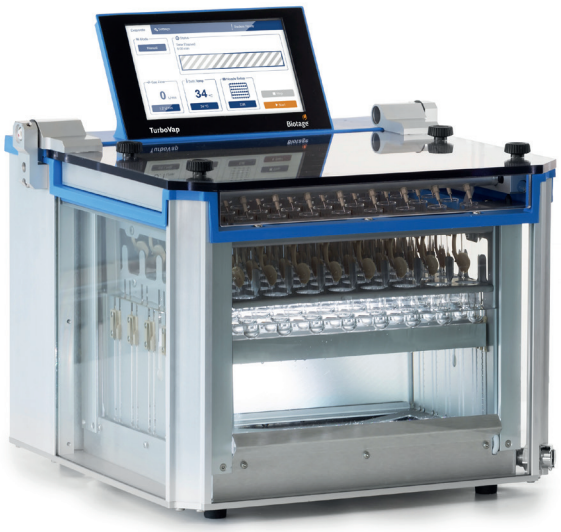
Recommended Procedures for the Preparation of PFAS Compounds According to DIN 38407-42

Procedure for 250 mL Samples Using 500 mg Bed Mass

Step	Amount	Reagent / Description	Flow Rate (mL/min)	Elute To	Notes
Pre-Treat	Varies	Glacial Acetic Acid		Waste	Adjust pH to 3
Condition	10 mL	0.1% (v/v) NH_4OH in Methanol	10	Waste	Do not let the column go dry
Condition	10 mL	Methanol	10	Waste	Do not let the column go dry
Equilibrate	10 mL	Reagent Water	10	Waste	Do not let the column go dry
Load	250 mL	Sample	5	Waste	
Wash	10 mL	Acetate Buffer	5	Waste	Rinse the sample container
Wash	10 mL	Reagent Water	5	Waste	Rinse the sample container
Dry		Using air under -10 to -15 in. Hg vacuum for 5 min.			
Elute	5 mL	Methanol	2	Collect	
Elute	5 mL	0.1% (v/v) NH_4OH in Methanol	2	Collect	Rinse the sample container
Evaporate		Bring to 1 mL. See concentration procedure.			
Analyze		Analyze on LC-MS/MS.			

Procedure for 50 mL Samples Using 60 mg Bed Mass

Step	Amount	Reagent / Description	Flow Rate (mL/min)	Elute To	Notes
Pre-Treat	Varies	Glacial Acetic Acid			Adjust pH to 7–8
Condition	2 mL	0.1% (v/v) NH3 in Methanol	10	Waste	Do not let the column go dry
Condition	2 mL	Methanol	10	Waste	Do not let the column go dry
Equilibrate	2 mL	Reagent Water	10	Waste	Do not let the column go dry
Load	50 mL	Sample	5	Waste	
Wash	2 mL	Reagent Water	5	Waste	Rinse the sample container
Wash	2 mL	Formic Acid in 1:1 Acetone/Acetonitrile	5	Waste	Rinse the sample container
Wash	2 mL	Methanol			Waste
Elute	2 mL	0.1% (v/v) NH3 in Methanol	Dropwise	Collect	Rinse the sample container. Soak for 5 min.
Evaporate		Bring to dryness. See concentration procedure.			
Reconstitute	1 mL	1:1 Methanol/Reagent Water			
Analyze		Analyze on LC-MS/MS.			



Concentration Procedure

Parameter	10 mL Extracts*	2 mL Extracts*
Inlet Pressure Settings	6–9 bar (0.6–0.9 MPa; 87–130 psi)	
Bath Temperature	60 °C	60 °C
Evaporation Mode	Method (Ramp Gradient)	Method (Ramp Gradient)
Manifold Setup	48 Positions	48 Positions
Step 1	2.5 L/min for 15 min	2.0 L/min for 6 min.
Step 2	3.0 L/min for 15 min	2.5 L/min for 12 min.
Step 3	3.5 L/min for 45 min	NA

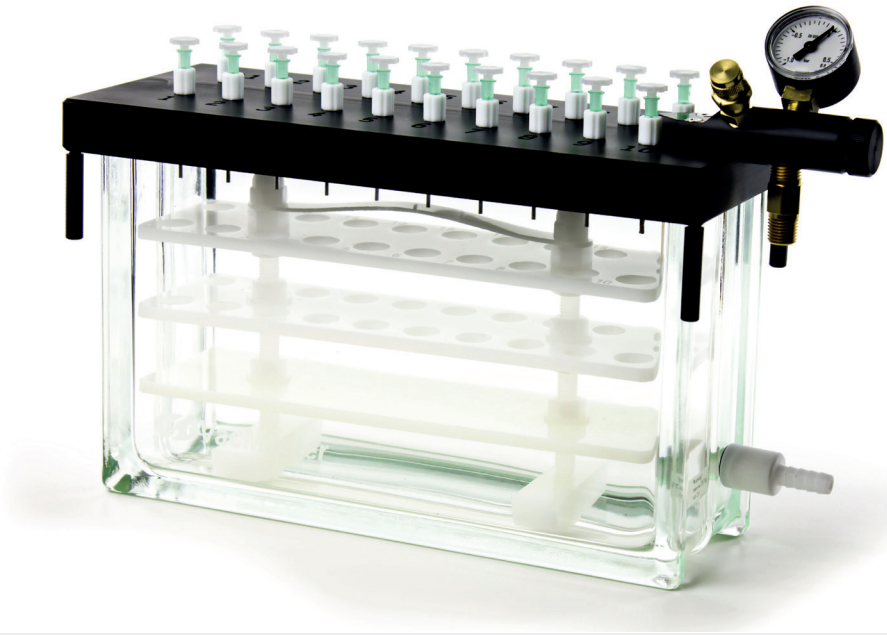
*All concentration steps used 15 mL Centrifuge Tubes. Further optimization may be done to shorten overall runtimes if desired.

For even more information on the procedure above, visit Biotage.com for the full application note.

Biotage®

Ordering Information

Part Number	Description	Quantity
Extraction System and Accessories		
121-2015ML	Biotage® VacMaster™ 20 Sample Processing Station (With 15 mL Rack)	1
121-2190	Biotage® VacMaster™ LVE Kit (PFAS) for 1, 3, 6 mL SPE Columns	1
121-0009-PP	Polypropylene (PFAS) Stopcocks	10
120-1111	ISOLUTE® Column Adapters (PFAS) 1, 3, 6 mL Columns	10
121-2195	Biotage® VacMaster™ Trap Kit, 10 L	1
PFAS Consumables		
614-0050-CP	EVOLUTE® PFAS 500 mg/6 mL Columns	30
614-0015-CP	EVOLUTE® PFAS 150 mg/6 mL Columns	30
614-0006-BP	EVOLUTE® PFAS 60 mg/3 mL Columns	50
19-6615	Bulk 15 mL Tubes With Leak Proof Screw Caps	100
Concentration		
415000	TurboVap® LV Automated Solvent Evaporation System	1
414964	TurboVap® LV Multi Rack (48 Positions, 10–20 mm Tubes)	1
352281SP	Pressure Regulator	1



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