



Detection of PFAS contaminants after filtration with Millex® PES and glass fiber filter devices using ASTM D8421.

Compound	Abbreviation	Standard	RL/LOQ (ppb)	MDL/DL (ppb)	Millex® SLGP 0.2 µm PES		Millex® SLPBDZ 1.0 µm glass fiber filter	
					Lot 1	Lot 2	Lot 1	Lot 2
Perfluoroalkyl Carboxylic Acids								
Perfluoro-n-butanoic acid	PFBA	¹³ C ₄ -PFBA	50	3.2	ND	ND	ND	ND
Perfluoro-n-pentanoic acid	PFPeA	¹³ C ₅ -PFPeA	50	5.1	ND	ND	ND	ND
Perfluoro-n-hexanoic acid	PFHxA	¹³ C ₅ -PFHxA	10	4.7	ND	ND	ND	ND
Perfluoro-n-heptanoic acid	PFHpA	¹³ C ₄ -PFHpA	10	4.4	ND	ND	ND	ND
Perfluoro-n-octanoic acid	PFOA	¹³ C ₈ -PFOA	10	3.9	ND	ND	ND	ND
Perfluoro-n-nonanoic acid	PFNA	¹³ C ₉ -PFNA	10	4.3	ND	ND	ND	ND
Perfluoro-n-decanoic acid	PFDA	¹³ C ₆ -PFDA	10	2.8	ND	ND	ND	ND
Perfluoro-n-undecanoic acid	PFUnDA	¹³ C ₇ -PFUnA	10	2.7	ND	ND	ND	ND
Perfluoro-n-dodecanoic acid	PFDoDA	¹³ C ₂ -PFDoA	10	2.7	ND	ND	ND	ND
Perfluoro-n-tridecanoic acid	PFTeDA	¹³ C ₂ -PFDoA	10	2.7	ND	ND	ND	ND
Perfluoro-n-tetradecanoic acid	PFTeDA	¹³ C ₂ -PFTeDA	50	4.0	ND	ND	ND	ND
Perfluoroalkyl Sulfonic Acids								
Perfluoro-n-buthanesulfonic acid	PFBS	¹³ C ₃ -PFBS	10	3.8	ND	ND	ND	ND
Perfluoro-n-pentanesulfonic acid	PFPeS	¹³ C ₃ -PFPeS	10	4.8	ND	ND	ND	ND
Perfluoro-n-hexanesulfonic acid	PFHxS	¹³ C ₃ -PFHxS	10	3.2	ND	ND	ND	ND
Perfluoro-n-heptanesulfonic acid	PFHpS	¹³ C ₃ -PFHxS	10	3.4	ND ^L	ND ^L	ND ^L	ND ^L
Perfluoro-n-octanesulfonic acid	PFOS	¹³ C ₈ -PFOS	10	3.2	ND	ND	ND	ND
Perfluoro-n-nonanesulfonic acid	PFNS	¹³ C ₈ -PFOS	10	3.8	ND	ND	ND	ND
Perfluoro-n-decanesulfonic acid	PFDS	¹³ C ₈ -PFOS	10	3.8	ND	ND	ND	ND
Perfluoro-n-dodecanesulfonic acid	PFDoS	¹³ C ₈ -PFOS	50	5.5	ND	ND	ND	ND
Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid	4:2 FTS/ 4:2 FTSA	¹³ C ₂ -4:2FTS	10	2.6	ND	ND	ND	ND
6:2 Fluorotelomer sulfonic acid	6:2 FTS/ 6:2 FTSA	¹³ C ₂ -6:2FTS	20	7.8	ND	ND	ND	ND
8:2 Fluorotelomer sulfonic acid	8:2 FTS/ 8:2 FTSA	¹³ C ₂ -8:2FTS	10	3.0	ND	ND	ND	ND
Fluorotelomer Carboxylic Acids								
3-Perfluoropropyl propanoic acid	3:3 FTCA	¹³ C ₅ -PFPeA	40	2.9	ND	ND	ND	ND

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					Lot 1	Lot 2	Lot 1	Lot 2
2H,2H,3H,3H-Perfluorooctanoic acid	5:3 FTCA	¹³ C ₈ -PFHxA	40	5.8	ND	ND	ND	ND
n-3-Perfluoroheptyl propanoic acid	FHpPA/ 7:3 FTCA	¹³ C ₈ -PFHxA	40	5.8	ND	ND	ND	ND
Perfluorooctane Sulfonamides								
Perfluorooctanesulfonamide	PFOSA/ FOSA	¹³ C ₈ -PFOSA	10	3.2	ND	ND	ND	ND
N-methyl-perfluorooctanesulfonamide	N-MeFOSA	D ₃ -NMeFOSA	10	2.0	ND	ND	ND	ND
N-ethyl-perfluorooctanesulfonamide	N-EtFOSA	D ₅ -NEtFOSA	10	1.8	ND	ND	ND	ND
Perfluorooctane Sulfonamidoacetic Acids								
N-methyl Perfluorooctanesulfon-amidoacetic acid	N-MeFOSAA	D ₃ -NMeFOSAA	10	3.7	ND	ND	ND	ND
N-ethyl Perfluorooctanesulfon-amidoacetic acid	N-EtFOSAA	D ₅ -N-EtFOSAA	10	5.1	ND	ND	ND	ND
Perfluorooctane Sulfonamido Ethanols								
N-methyl perfluorooctanesulfon-amidoethanol	N-MeFOSE	D ₇ -NMeFOSE	10	6.2	ND	ND	ND	ND
N-ethyl perfluorooctanesulfon-oamidoethanol	N-EtFOSE	D ₉ -NEtFOSE	10	2.0	ND	ND	ND	ND
Per and Polyfluoroether Carboxylic Acids								
Hexafluoropropylene oxide dimer acid	GenX/ HFPO-DA	¹³ C ₃ -HFPO-DA	10	3.2	ND	ND	ND	ND
4,8-Dioxa-3 h-perfluoro-nonanoic acid	ADONA/ DONA	¹³ C ₃ -PFHxS	10	4.1	ND	ND	ND	ND
Perfluoro-3-methoxypropanoic acid	PFMPA	¹³ C ₄ -PFBA	10	2.7	ND	ND	ND	ND
Perfluoro-4-methoxybutanoic acid	PFMBA	¹³ C ₅ -PFPeA	10	2.8	ND	ND	ND	ND
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	¹³ C ₅ -PFHxA	10	4.8	ND	ND	ND	ND
Per and Polyfluoroether Sulfonic Acids								
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid	9Cl-PF3ONS	¹³ C ₈ -PFOS	10	3.2	ND	ND	ND	ND
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	¹³ C ₈ -PFOS	10	4.0	ND	ND	ND	ND
Perfluoro(2-ethoxyethane) sulfonic acid	PFEESA	¹³ C ₃ -PFBS	10	3.1	ND	ND	ND	ND
ASTM 8421-Specific Compounds								
2H-perfluoro-2-decanoic acid	FOUEA	¹³ C ₉ -PFNA	10	3.2	ND	ND	ND	ND
2H-perfluoro-2-octanoic acid	FHUEA	¹³ C ₄ -PFHpA	10	3.3	ND	ND	ND	ND
Lithium bis(trifluoromethane) sulfonimide	HQ-115	¹³ C ₂ -6:2FTS	10	1.5	ND	ND	ND	ND
Pentafluoropropanoic acid	PFPrA	¹³ C ₄ -PFBA	200	7.5	8.5 ^{BJ,d}	8.6 ^{BJ,e}	12.0 ^{Bj}	11.7 ^{Bj}

B = Detected in method blank; J = Estimated result (between RL/MDL); L = LCS/LCSD failure; d = rep 1 only; e = rep 3 only

Abbreviations: LOQ = limit of quantitation (also called RL, reporting limit), DL = detection limit (also called MDL, minimum detection limit), LCS = laboratory control sample, LCSD = laboratory control sample duplicate, ND = not detected



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