



Detection of PFAS contaminants after filtration with three different lots of hydrophilic 0.2 µm polypropylene disc filters in Swinnex® devices using modified EPA Draft 1633.

| Compound | Abbreviation(s) | Standard | RL (ppb) | MDL (ppb) | Millipore® PPHG Hydrophilic PP, 0.2 µm | | |
|--|--------------------|--|----------|-----------|--|--------------------|--------------------|
| | | | | | Lot 1 ^b | Lot 2 ^b | Lot 3 ^b |
| Perfluoroalkyl Carboxylic Acids | | | | | | | |
| Perfluoro-n-butanoic acid | PFBA | ¹³ C ₄ -PFBAa | 0.8 | 0.4 | ND | ND | ND |
| Perfluoro-n-pentanoic acid | PFPeA | ¹³ C ₅ -PFPeAa | 0.4 | 0.1 | ND | ND | ND |
| Perfluoro-n-hexanoic acid | PFHxA | ¹³ C ₅ -PFHxAa | 0.2 | 0.05 | ND | ND | ND |
| Perfluoro-n-heptanoic acid | PFHpA | ¹³ C ₄ -PFHpAa | 0.2 | 0.05 | ND | ND | ND |
| Perfluoro-n-octanoic acid | PFOA | ¹³ C ₈ -PFOAa | 0.2 | 0.05 | ND | ND | ND |
| Perfluoro-n-nonanoic acid | PFNA | ¹³ C ₉ -PFNA | 0.2 | 0.061 | ND | ND | ND |
| Perfluoro-n-decanoic acid | PFDA | ¹³ C ₆ -PFDA | 0.2 | 0.05 | ND | ND | ND |
| Perfluoro-n-undecanoic acid | PFUnDA | ¹³ C ₇ -PFUnA | 0.2 | 0.06 | ND | ND | ND |
| Perfluoro-n-dodecanoic acid | PFDoDA | ¹³ C ₂ -PFDoA | 0.2 | 0.06 | ND | ND | ND |
| Perfluoro-n-tridecanoic acid | PFTTrDA | ¹³ C ₂ -PFTTeDA / ¹³ C ₂ -PFDoA | 0.2 | 0.084 | ND | ND | ND |
| Perfluoro-n-tetradecanoic acid | PFTeDA | ¹³ C ₂ -PFTeDA | 0.2 | 0.05 | ND | ND | ND |
| Perfluoroalkyl Sulfonic Acids | | | | | | | |
| Perfluoro-n-butanesulfonic acid | PFBS | ¹³ C ³ -PFBS | 0.2 | 0.1 | ND | ND | ND |
| Perfluoro-n-pentanesulfonic acid | PFPeS | ¹³ C ₃ -PFHxS | 0.2 | 0.11 | ND | ND | ND |
| Perfluoro-n-hexanesulfonic acid | PFHxS | ¹³ C ₃ -PFHxS | 0.2 | 0.1 | ND | ND | ND |
| Perfluoro-n-heptanesulfonic acid | PFHpS | ¹³ C ₈ -PFOS | 0.2 | 0.1 | ND | ND | ND |
| Perfluoro-n-octanesulfonic acid | PFOS | ¹³ C ₈ -PFOS | 0.2 | 0.1 | ND | ND | ND |
| Perfluoro-n-nonanesulfonic acid | PFNS | ¹³ C ⁸ -PFOS | 0.2 | 0.1 | ND | ND | ND |
| Perfluoro-n-decanesulfonic acid | PFDS | ¹³ C ₈ -PFOS | 0.2 | 0.1 | ND | ND | ND |
| Perfluoro-n-dodecanesulfonic acid | PFDoS | ¹³ C ₈ -PFOS | 0.2 | 0.11 | ND | ND | ND |
| Fluorotelomer Sulfonic Acids | | | | | | | |
| 4:2 Fluorotelomer sulfonic acid | 4:2 FTS / 4:2 FTSA | ¹³ C ₂ -4:2FTS | 0.8 | 0.4 | ND | ND | ND |
| 6:2 Fluorotelomer sulfonic acid | 6:2 FTS / 6:2 FTSA | ¹³ C ₂ -6:2FTS | 0.8 | 0.4 | ND | ND | ND |
| 8:2 Fluorotelomer sulfonic acid | 8:2 FTS / 8:2 FTSA | ¹³ C ₂ -8:2FTS | 0.8 | 0.41 | ND | ND | ND |

| Compound | Abbreviation(s) | Standard | RL (ppb) | MDL (ppb) | Millipore® PPHG Hydrophilic PP, 0.2 µm | | |
|---|------------------|---------------------------------------|----------|-----------|--|--------------------|--------------------|
| | | | | | Lot 1 ^b | Lot 2 ^b | Lot 3 ^b |
| 3-Perfluoropropyl propanoic acid | 3:3 FTCA | ¹³ C ₅ -PFPeA | 1 | 0.5 | ND | ND | ND |
| 2H,2H,3H,3H-Perfluorooctanoic acid | 5:3 FTCA | ¹³ C ₅ -PFHxA | 5 | 1 | ND | ND | ND |
| n-3-Perfluoroheptyl propanoic acid | FHpPA / 7:3 FTCA | ¹³ C ₅ -PFHxA | 5 | 1 | ND | ND | ND |
| Perfluorooctane Sulfonamides | | | | | | | |
| Perfluorooctanesulfonamide | PFOSA / FOSA | ¹³ C ₈ -PFOSA | 0.2 | 0.1 | ND | ND | ND |
| N-methyl-perfluorooctanesulfonamide | N-MeFOSA | D ₃ -NMeFOSA | 0.2 | 0.1 | ND | ND | ND |
| N-ethyl-perfluorooctanesulfonamide | N-EtFOSA | D ₅ -NEtFOSA | 0.2 | 0.1 | ND | ND | ND |
| Perfluorooctane Sulfonamidoacetic Acids | | | | | | | |
| N-methyl Perfluorooctane sulfonamidoacetic acid | N-MeFOSAA | D ₃ -NMeFOSAA | 0.2 | 0.1 | ND | ND | ND |
| N-ethyl Perfluorooctane sulfonamidoacetic acid | N-EtFOSAA | D ₅ -NEtFOSAA | 0.2 | 0.13 | ND | ND | ND |
| Perfluorooctane Sulfonamido Ethanols | | | | | | | |
| N-methyl perfluorooctane sulfonamidoethanol | N-MeFOSE | D ₇ -NMeFOSE | 2 | 1 | ND | ND | ND |
| N-ethyl perfluorooctane sulfonamidoethanol | N-EtFOSE | D ₉ -NEtFOSE | 2 | 1 | ND | ND | ND |
| Per and Polyfluoroether Carboxylic Acids | | | | | | | |
| Hexafluoropropylene oxide dimer acid | GenX / HFPO-DA | ¹³ C ₃ -HFPO-DA | 0.8 | 0.2 | ND | ND | ND |
| 4,8-Dioxa-3H-perfluorononanoic acid | ADONA / DONA | ¹³ C ₃ -HFPO-DA | 0.8 | 0.2 | ND | ND | ND |
| Perfluoro-3-methoxypropanoic acid | PFMBA | ¹³ C ₅ -PFPeA | 0.4 | 0.1 | ND | ND | ND |
| Perfluoro-4-methoxybutanoic acid | PFMBA | ¹³ C ₅ -PFPeA | 0.4 | 0.11 | ND | ND | ND |
| Nonafluoro-3,6-dioxaheptanoic acid | NFDHA | ¹³ C ₅ -PFHxA | 0.4 | 0.12 | ND | ND | ND |
| Per and Polyfluoroether Sulfonic Acids | | | | | | | |
| Chlorohexadecafluoro-3-oxanone-1-sulfonic acid | 9CI-PF3ONS | ¹³ C ₃ -HFPO-DA | 0.8 | 0.2 | ND | ND | ND |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | 11CI-PF3OUdS | ¹³ C ₃ -HFPO-DA | 0.8 | 0.2 | ND | ND | ND |
| Perfluoro(2-ethoxyethane) sulfonic acid | PFEESA | ¹³ C ₅ -PFHxA | 0.4 | 0.1 | ND | ND | ND |

^aExtracted internal standard (EIS), five total

^bThree replicate devices per lot tested; thus, date is the mean ± standard deviation of n=3 devices. No PFAS compound detected in any device above RL or MDL

Abbreviations: RL = reporting limit; MDL = minimum detection limit; PP = polypropylene; philic = hydrophilic; phobic = hydrophobic; ND = not detected

To place an order or receive technical assistance

In Europe, please call Customer Service:

France: 0825 045 645

Germany: 069 86798021

Italy: 848 845 645

Spain: 901 516 645 Option 1

Switzerland: 0848 645 645

United Kingdom: 0870 900 4645

For other countries across Europe, please call: +44 (0) 115 943 0840

Or visit: [MerckMillipore.com/offices](https://www.MerckMillipore.com/offices)

For Technical Service visit: [MerckMillipore.com/techservice](https://www.MerckMillipore.com/techservice)

[MerckMillipore.com](https://www.MerckMillipore.com)

We have built a unique collection of life science brands with unrivalled experience in supporting your scientific advancements.

Millipore® **Sigma-Aldrich®** **Supelco®** **Milli-Q®** **SAFC®** **BioReliance®**

Merck KGaA
Frankfurter Strasse 250
64293 Darmstadt, Germany

