

Emerging Contaminants: Per- and Polyfluorinated Alkyl Substances (PFAS)

Why is testing for Per- and Polyfluoroalkyl Substances (PFAS) important? Because they are chemically and biologically persistent in the environment and have been detected in 98% of the U.S. population. Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) have received the most attention because of their widespread use in non-stick cookware, textiles, and fire-fighting foams (AFFF or FFF). These foams, while serving an important need, have also been a global source of PFOS releases to the environment. PFOA and PFOS are extremely persistent in the environment, and PFOS has been shown to bio-accumulate and bio-magnify in wildlife.

Our team started analyzing for PFAS in human serum, in 2007, for a select group of clients. Since then, we have validated methods to quantify an ever-expanding group of compounds in water, soil, sludge and tissue matrices. Vista's continued focus on testing in difficult matrices ensures that we have your projects covered. One of our main enhancements to Method 537 is the optimization of the Solid-Phase Extraction (SPE) to minimize interferences. Vista's QA/QC exceeds 537 requirements, with the utilization of additional isotopically-labeled compounds, to yield accurate loss-corrected sample results.

In coordination with expert engineers, our instruments have been modified to resolve any residual instrument background PFAS levels, however minute, from sample PFAS. Our extractions laboratory has formed a "lab within a lab" with the goal of identifying and removing PFOA and PFOS compounds from PTFE laboratory equipment to ensure clean laboratory blanks and eliminate false positives.

Analyte	Aqueous (ng/L)	Solid (ng/g)	Tissue (ng/g)
Perfluorobutanoic acid (PFBA)	8.0	3.0	3.0
Perfluorobutanesulfonic acid (PFBS)	8.0	3.0	3.0
Perfluoroheptanoic acid (PFHpA)	8.0	3.0	3.0
Perfluorohexanesulfonic acid (PFHxS)	8.0	3.0	3.0
Perfluorooctanesulfonic acid (PFOS)	8.0	3.0	3.0
Perfluorooctanoic acid (PFOA)	8.0	3.0	3.0
Perfluorononanoic acid (PFNA)	8.0	3.0	3.0
Perfluoroheptanesulfonate (PFHpS)	8.0	3.0	3.0
Perfluorodecanesulfonate (PFDS)	30.0	15	3.0
Perfluorooctanesulfonamide (FOSA)	8.0	3.0	3.0
Perfluoropentanoic acid (PFPeA)	8.0	3.0	3.0
Perfluorohexanoic acid (PFHxA)	8.0	3.0	3.0
Perfluorodecanoic acid (PFDA)	8.0	3.0	3.0
Perfluoroundecanoic acid (PFUDA)	8.0	3.0	3.0
Perfluorododecanoic acid (PFDoA)	8.0	3.0	3.0
Perfluorododecanoic acid (PFTrDA)	10.0	15.0	15.0
Perfluorotridecanoic acid (PFTeDA)	8.0	3.0	3.0
N-Ethyl-heptadecafluorooctane Sulfonamide (N-EtFOSA)	50.0	15	15
Perfluorohexadecanoic acid (PFHxDA)	8.0	3.0	3.0
6:2 Fluorotelomer sulfonate	8.0	3.0	3.0
N-methylperfluorooctane sulfonamide (N-MeFOSA)	50.0	15.0	15.0
N-methylperfluorooctane sulfonamidoethanol (N-MeFOSE)	50.0	15.0	15.0
N-ethylperfluorooctane sulfonamidoethanol (N-EtFOSE)	50.0	15.0	15.0
8:2 Fluorotelomer sulfonate (8:2-FTS)	8.0	3.0	3.0
N-Ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	10.0	3.00	3.00
N-Methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	10.0	3.00	3.00

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Call us to experience why Vista Analytical is clearly superior.

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