

EMERGING CONTAMINANTS: Per- and Polyfluorinated Alkyl Substances (PFAS)



Analyte	Aqueous (ng/L)	Solid (ng/g)	Tissue (ng/g)
Perfluorobutanoic acid (PFBA)	2.0	2.0	2.0
Perfluorobutanesulfonic acid (PFBS)	2.0	2.0	2.0
Perfluoroheptanoic acid (PFHpA)	2.0	2.0	2.0
Perfluorohexanesulfonic acid (PFHxS)	2.0	2.0	2.0
Perfluorooctanesulfonic acid (PFOS)	2.0	2.0	2.0
Perfluorooctanoic acid (PFOA)	2.0	2.0	2.0
Perfluorononanoic acid (PFNA)	2.0	2.0	2.0
Perfluoroheptanesulfonate (PFHpS)	2.0	2.0	2.0
Perfluorodecane sulfonate (PFDS)	2.0	2.0	2.0
Perfluorooctanesulfonamide (PFOSA)	2.0	2.0	2.0
Perfluoropentanoic acid (PFPeA)	2.0	2.0	2.0
Perfluorohexanoic acid (PFHxA)	2.0	2.0	2.0
Perfluorodecanoic acid (PFDA)	2.0	2.0	2.0
Perfluoroundecanoic acid (PFUnA)	2.0	2.0	2.0
Perfluorododecanoic acid (PFDoA)	2.0	2.0	2.0
Perfluorododecanoic acid (PFTrDA)	2.0	2.0	2.0
Perfluorotridecanoic acid (PFTeDA)	2.0	2.0	2.0
N-Ethyl-heptadecafluorooctane Sulfonamide (N-EtFOSA)	10.0	10.0	10.0
Perfluorohexadecanoic acid (PFHxDA)	2.0	2.0	2.0
6:2 Fluorotelomer sulfonate	2.0	2.0	2.0
N-methylperfluorooctane sulfonamide (N-MeFOSA)	10.0	10.0	10.0
N-methylperfluorooctane sulfonamidoethanol (N-MeFOSE)	10.0	10.0	10.0
N-ethylperfluorooctane sulfonamidoethanol (N-EtFOSE)	10.0	10.0	10.0
8:2 Fluorotelomer sulfonate (8:2-FTS)	2.0	2.0	2.0
N-Ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	2.0	2.0	2.0
N-Methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	2.0	2.0	2.0

Per- and Polyfluoroalkyl Substances (PFAS, sometimes referred to as PFCs) are man-made substances that are chemically and biologically persistent in the environment. Data from a comprehensive NHANES study concluded that 98% of the U.S. population may have PFAS in their blood.

WHY TEST?

Due to widespread usage in consumer products, textiles and fire-fighting foams (AFFF), Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) are ubiquitous in the environment. The fire suppression foams, while serving an important need, are a global source of PFAS releases. With the research done to date, many PFAS have been shown to bio-accumulate and bio-magnify in wildlife.

DRIVING INDUSTRY STANDARDS

For decades, Teflon™ (PTFE) components have been present in the laboratory because they are inert and chemically resistant. However, to provide a viable environment for the extraction and analysis of PFAS, we have had to update our systems to be PFAS-free. Our extractions laboratory has formed a “lab within a lab” with the goal of identifying and removing PFAS sources to ensure clean laboratory blanks and the elimination of false positives. And, our experienced chemists, in coordination with factory engineers, modified our analytical instruments to resolve any residual background PFAS levels, from PFAS present in field samples.

We have also made several enhancements to EPA Method 537, expanding the scope to other matrices, which include the optimization of the Solid-Phase Extraction (SPE) to minimize interferences and the utilization of isotopically-labeled compounds, to yield accurate, loss-corrected sample results.

Please note that Vista can achieve lower reporting limits for projects with custom requirements.

EXPERIENCE. EXPERTISE. ACCURATE RESULTS.

In 2007, Vista Analytical developed a method for the analysis of PFAS in human serum. Since then, we have validated methods to quantify an ever-expanding group of compounds in water, soil, sludge and tissue matrices. Our continued focus on testing in difficult matrices ensures that we have your project needs covered.