

PFOA, PFOS ANALYSES BY LC/MS/MS

FACT SHEET - 2016

WHAT ARE PFCs?

PFCs are classified as emerging environmental contaminants based on increasing regulatory interest, potential risk to human health and the environment, and evolving regulatory standards. PFCs are a class of fluorinated chemicals used in many industrial and consumer products often for their anti-stick properties such as in Teflon, textiles, firefighting foams, metal plating, semi-conductors, paper and packaging, coating additives, cleaning products and pesticides. They are persistent and bio accumulative in the environment.

SCREENING LEVELS

EPA's Office of Water established a provisional health advisory (PHA) of 0.07 µg/L for PFOS and PFOA to protect against the potential risk from exposure of these chemical through drinking water (EPA 2016).

EPA Region 4 recommended a residential soil screening level of 6 mg/kg for PFOS and 16 mg/kg for PFOA (EPA 2009c).

The State of New Jersey has established a preliminary drinking water guidance value of 0.04 µg/L for PFOA (NJDEP 2007).

The State of New Jersey has established an Interim GWQ Criterion of 0.01 ug/l for PFNA (NJDEP 2016).



REPORT PARAMETERS

SGS Accutest in Orlando, FL currently analyzes PFOA/PFOS in water and soil by LC/MS/MS and SGS in Wilmington, NC can support water only. Parameters reported include PFOA/PFOS, as well as 24 additional PFCs.

SAMPLE CONTAINERS/PRESERVATIVE/ HOLDING TIME

SAMPLE CONTAINER:
Samples should be collected in either 125ml or 250ml wide mouth polyethylene (HDPE) bottles fitted with an unlined (no Teflon), polyethylene screw cap.

PRESERVATIVE:

Sample must be shipped at <10°C.

HOLDING TIME:

14 days collection to extraction and 28 days from extraction to analysis.

ADDITIONAL INFO:

All sources of Teflon should be avoided during collection and storage. These are potential sources of PFC interference. Glass containers should also be avoided due to potential loss of analyte through adsorption.

CURRENT LIST OF REPORTABLE ANALYTES

Name	Acronym	CAS #
PERFLUOROALKYLCARBOXYLIC ACIDS		
Perfluorobutanoic acid	PFBA	375-22-4
Perfluoropentanoic acid	PFPeA	2706-90-3
Perfluorohexanoic acid	PFHxA	307-24-4
Perfluoroheptanoic acid	PFHpA	375-85-9
Perfluorooctanoic acid	PFOA	335-67-1
Perfluorononanoic acid	PFNA	375-95-1
Perfluorodecanoic acid	PFDA	335-76-2
Perfluoroundecanoic acid	PFUnDA or PFUnA	2058-94-8
Perfluorododecanoic acid	PFDoDA or PFDoA	307-55-1
Perfluorotridecanoic acid	PFTTrDA	72629-94-8
Perfluorotetradecanoic acid	PFTeDA	376-06-7
PERFLUOROALKYLSULFONATES		
Perfluorobutanesulfonic acid	PFBS	375-73-5
Perfluorohexanesulfonic acid	PFHxS	355-46-4
Perfluoroheptanesulfonic acid	PFHpS	375-92-8
Perfluorooctanesulfonic acid	PFOS	1763-23-1
Perfluorodecanesulfonic acid	PFDS	335-77-3
PERFLUOROCTANESULFONAMIDES		
Perfluorooctane sulfonamide	FOSA or PFOSA	754-91-6
N-Methyl perfluorooctane sulfonamide	N-MeFOSA	31056-32-8
N-Ethyl perfluorooctane sulfonamide	N-EtFOSA	4151-50-2
PERFLUOROCTANESULFONAMIDOACETIC ACIDS		
Perfluoro-1-octanesulfonamidoacetic acid	FOSAA	2806-24-8
N-Methyl perfluorooctanesulfonamidoacetic acid	N-MeFOSAA	2355-31-9
N-Ethyl perfluorooctanesulfonamidoacetic acid	N-EtFOSAA	2991-50-6
PERFLUOROCTANESULFONAMIDOETHANOLS		
N-Methyl perfluorooctane sulfonamidoethanol	N-MeFOSE	24448-09-7
N-Ethyl perfluorooctane sulfonamidoethanol	N-EtFOSE	1691-99-2
FLUOROTELOMER SULFONATES		
6:2 Fluorotelomer sulfonate	6:2 FTS	27619-97-2
8:2 Fluorotelomer sulfonate	8:2 FTS	39108-34-4



FOR ADDITIONAL INFORMATION PLEASE
CONTACT YOUR LOCAL
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