



December 6, 2022

**Target Reporting Limits<sup>1</sup>**  
**for LC/MS/MS analysis of Per- and Polyfluorinated Alkyl Acids by**  
**Department of Defense Quality Systems Manual (Version 5.3 or later)**

<b>Chemical Name/ Abbreviation(s)</b>	<b>GeoTracker PARLABEL</b>	<b>Chemical Abstracts Service (CAS) No.</b>	<b>Aqueous: Non-Drinking Water (ng/L)</b>	<b>Solid (ng/g)</b>
<b>Perfluoroalkyl carboxylic acids</b>				
Perfluorobutanoic acid (PFBA)	PFBTA	375-22-4	6.4	0.8
Perfluoropentanoic acid (PFPeA)	PFPA	2706-90-3	3.2	0.4
Perfluorohexanoic acid (PFHxA)	PFHA	307-24-4	1.6	0.2
Perfluoroheptanoic acid (PFHpA)	PFHPA	375-85-9	1.6	0.2
Perfluorooctanoic acid (PFOA)	PFOA	335-67-1	1.6	0.2
Perfluorononanoic acid (PFNA)	PFNA	375-95-1	1.6	0.2
Perfluorodecanoic acid (PFDA)	PFNDCA	335-76-2	1.6	0.2
Perfluoroundecanoic acid (PFUnDA, PFUda, PFUnA)	PFUNDCA	2058-94-8	1.6	0.2
Perfluorododecanoic acid (PFDoDA, PFDoA)	PFDOA	307-55-1	1.6	0.2
Perfluorotridecanoic acid (PFTrDA)	PFTRIDA	72629-94-8	1.6	0.2
Perfluorotetradecanoic acid (PFTeDA, PFTA)	PFTEDA	376-06-7	1.6	0.2
Perfluorohexadecanoic acid (PFHxDA)	PFHXDA	67905-19-5	4	1
Perfluorooctadecanoic acid (PFODA)	PFODA	16517-11-6	1.6	0.2
<b>Perfluoroalkyl sulfonic acids</b>				
Perfluorobutane sulfonic acid (PFBS)	PFBSA	375-73-5	1.6	0.2
Perfluoropentane sulfonic acid (PFPeS)	PFPEs	2706-91-4	1.6	0.2
Perfluorohexane sulfonic acid (PFHxS)	PFHXSA	355-46-4	1.6	0.2
Perfluoroheptane sulfonic acid (PFHpS)	PFHPSA	375-92-8	1.6	0.2
Perfluorooctane sulfonic acid (PFOS)	PFOS	1763-23-1	1.6	0.2
Perfluorononane sulfonic acid (PFNS)	PFNS	68259-12-1	1.6	0.2



December 6, 2022

**Target Reporting Limits<sup>1</sup>**  
**for LC/MS/MS analysis of Per- and Polyfluorinated Alkyl Acids by**  
**Department of Defense Quality Systems Manual (Version 5.3 or later)**

Chemical Name/ Abbreviation(s)	GeoTracker PARLABEL	Chemical Abstracts Service (CAS) No.	Aqueous: Non-Drinking Water (ng/L)	Solid (ng/g)
<b>Perfluoroalkyl sulfonic acids</b>				
Perfluorodecane sulfonic acid (PFDS)	PFDSA	335-77-3	1.6	0.2
Perfluorododecanesulfonic acid (PFDoS)	PFDOS	79780-39-5	4.3	1
<b>Fluorotelomer sulfonic acids</b>				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	4:2FTS	757124-72-4	6.4	0.8
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	6:2FTS	27619-97-2	6.4	0.8
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	8:2FTS	39108-34-4	6.4	0.8
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	10:2FTS	120226-60-0	7	1
<b>Perfluorooctane sulfonamides</b>				
Perfluorooctanesulfonamide (PFOSA, PFOSAm, FOSA)	PFOSA	754-91-6	1.6	0.2
N-Methyl perfluorooctane sulfonamide (MeFOSA, MeFOSAm)	MEFOSA	31506-32-8	1.6	0.2
N-Ethyl perfluorooctane sulfonamide <sup>2</sup> (EtFOSA, EtFOSAm)	ETFOSA	4151-50-2	1.6	0.2
<b>Perfluorooctane sulfonamidoacetic acids</b>				
N-Methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	NMEFOSAA	2355-31-9	1.6	0.2
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	NETFOSAA	2991-50-6	1.6	0.2
<b>Perfluorooctane sulfonamide ethanols</b>				
N-Methyl perfluorooctane sulfonamide ethanol <sup>2</sup> (MeFOSE)	MEFOSE	24448-09-7	16	2.0
N-Ethyl perfluorooctane sulfonamide ethanol (EtFOSE)	ETFOSE	1691-99-2	16	2.0
<b>Per- and Polyfluoroether carboxylic acids</b>				
Hexafluoropropylene Oxide Dimer Acid <sup>2</sup> (HFPO-DA)	HFPA-DA	13252-13-6	6.4	0.8
4,8-Dioxa-3H-perfluorononanoic acid <sup>2</sup> (ADONA)	ADONA	919005-14-4	6.4	0.8



**Target Reporting Limits<sup>1</sup>**  
**for LC/MS/MS analysis of Per- and Polyfluorinated Alkyl Acids by**  
**Department of Defense Quality Systems Manual (Version 5.3 or later)**

<b>Chemical Name/ Abbreviation(s)</b>	<b>GeoTracker PARLABEL</b>	<b>Chemical Abstracts Service (CAS) No.</b>	<b>Aqueous: Non-Drinking Water (ng/L)</b>	<b>Solid (ng/g)</b>
<b>Per- and Polyfluoroether carboxylic acids</b>				
Perfluoro-3-methoxypropanoic acid <sup>2</sup> (PFMPA)	PFMPA	377-73-1	3.2	0.4
Perfluoro-4-methoxybutanoic acid <sup>2</sup> (PFMBA)	PFMBA	863090-89-5	3.2	0.4
Nonafluoro-3,6-dioxaheptanoic acid <sup>2</sup> (NFDHA)	NFDHA	151772-58-6	3.2	0.4
<b>Ether sulfonic acids</b>				
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid <sup>2</sup> (9-CI-PF3ONS)	9CIPF3ONS	756426-58-1	6.4	0.8
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid <sup>2</sup> (11-CI-PF3OUdS)	11CIPF3OUdS	763051-92-9	6.4	0.8
Perfluoro(2-ethoxyethane) sulfonic acid <sup>2</sup> (PFEESA)	PFEESA	113507-82-7	3.2	0.4
<b>Fluorotelomer carboxylic acids</b>				
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	3:3FTCA	356-02-5	8.0	1.0
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	5:3FTCA	914637-49-3	40	5.0
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	7:3FTCA	812-70-4	40	5.0

**Abbreviations:**

ng/L = nanogram per liter

ng/g = nanogram per gram

**Notes:**

- The laboratory must use the minimum standard data qualifiers provided in the DoD QSM. These data qualifiers must be included in the analytical electronic data format (EDF) submittal into GeoTracker. Refer to GeoTracker's [data dictionary](#) for the valid values for data qualifiers. A quick search option for data qualifiers (EDF/LNOTE), and other fields within the EDF submittal is available [here](#).

1. These are the target reporting limits for the California Water Board Investigatory Orders and represent the highest reporting limits acceptable for reporting purposes. If a laboratory's reporting limit is lower than the target reporting limits listed, then the laboratory should report data using the laboratory's reporting limit.
2. The acceptable quality control limits for these analytes are not listed in Table C-44 Method PFAS by LCMSMS Compliant with QSM Table B-15 Aqueous Matrix or Table C-45 Method PFAS by LCMSMS Compliant with QSM Table B-15 Solid Matrix of the [DoD Quality Systems Manual \(QSM\), Version 5.3](#). If a Water Board regulatory directive requires the analysis of these analytes, the laboratory must use in-house acceptance criteria for control samples for these analytes per the DoD QSM.

**The list of PFAS analytes on this table is a compilation of all compounds that could be included in a California Water Board Investigatory Order or another Water Board regulatory directive. Please refer to the specific order or directive for the required list of PFAS analytes.**