

Table of assigned values PIPF03_B

1st Edition, 18.12.2024

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Parameter	Sample	Unit	Assigned value	\pm	U (k=2)	Criterion	Criterion [%]
Perfluorobutanoic acid (PFBA) - PF4C	PF03 A	$\mu\text{g/l}$	0.0063	\pm	0.000611	0.000756	12
	PF03 B	$\mu\text{g/l}$	0.0299	\pm	0.00322	0.00449	15
Perfluoropentanoic acid (PFPeA) - PF5C	PF03 A	$\mu\text{g/l}$	0.0149	\pm	0.0014	0.00194	13
	PF03 B	$\mu\text{g/l}$	0.0657	\pm	0.00473	0.00657	10
Perfluorohexanoic acid (PFHxA) - PF6C	PF03 A	$\mu\text{g/l}$	0.00864	\pm	0.000603	0.000864	10
	PF03 B	$\mu\text{g/l}$	0.0698	\pm	0.00517	0.00768	11
Perfluoroheptanoic acid (PFHpA) - PF7C	PF03 A	$\mu\text{g/l}$	0.0168	\pm	0.00131	0.00184	11
	PF03 B	$\mu\text{g/l}$	0.0255	\pm	0.00225	0.00331	13
Perfluorooctanoic acid (PFOA) - PF8C	PF03 A	$\mu\text{g/l}$	0.0194	\pm	0.00147	0.00214	11
	PF03 B	$\mu\text{g/l}$	0.0646	\pm	0.00432	0.00646	10
Perfluorononanoic acid (PFNA) - PF9C	PF03 A	$\mu\text{g/l}$	0.0217	\pm	0.00178	0.00239	11
	PF03 B	$\mu\text{g/l}$	0.0547	\pm	0.00574	0.0082	15
Perfluorodecanoic acid (PFDA) - PF10C	PF03 A	$\mu\text{g/l}$	0.0209	\pm	0.00371	0.00522	25
	PF03 B	$\mu\text{g/l}$	0.0347	\pm	0.00694	0.00971	28
Perfluoroundecanoic acid (PFUnDA) - PF11C	PF03 A	$\mu\text{g/l}$	0.01	\pm	0.00117	0.0016	16
	PF03 B	$\mu\text{g/l}$	0.0392	\pm	0.0078	0.0102	26
Perfluorododecanoic acid (PFDoDA) - PF12C	PF03 A	$\mu\text{g/l}$	0.00749	\pm	0.00134	0.0018	24
	PF03 B	$\mu\text{g/l}$	0.0446	\pm	0.00862	0.0116	26
Perfluorotridecanoic acid (PFTrDA) - PF13C	PF03 A	$\mu\text{g/l}$	0.0172	\pm	0.00427	0.00569	33
	PF03 B*	$\mu\text{g/l}$	-	\pm	-	-	-
Perfluorotetradecanoic acid (PFTeDA) - PF14C	PF03 A*	$\mu\text{g/l}$	-	\pm	-	-	-
	PF03 B*	$\mu\text{g/l}$	-	\pm	-	-	-
Perfluorobutane sulfonic acid (PFBS) - PF4S	PF03 A	$\mu\text{g/l}$	0.0139	\pm	0.00141	0.00195	14
	PF03 B	$\mu\text{g/l}$	0.0539	\pm	0.00653	0.00916	17
Perfluoropentane sulfonic acid (PFPeS) - PF5S	PF03 A	$\mu\text{g/l}$	0.0225	\pm	0.00236	0.00338	15
	PF03 B	$\mu\text{g/l}$	0.0775	\pm	0.00964	0.0139	18
Perfluoroheptane sulfonic acid (PFHpS) - PF7S	PF03 A	$\mu\text{g/l}$	0.0147	\pm	0.0016	0.0022	15
	PF03 B	$\mu\text{g/l}$	0.0728	\pm	0.00971	0.0138	19
Perfluorononane sulfonic acid (PFNS) - PF9S	PF03 A	$\mu\text{g/l}$	0.0106	\pm	0.00262	0.00372	35
	PF03 B	$\mu\text{g/l}$	0.0253	\pm	0.00698	0.00987	39
Perfluorodecane sulfonic acid (PFDS) - PF10S	PF03 A	$\mu\text{g/l}$	0.0133	\pm	0.00455	0.00597	45
	PF03 B	$\mu\text{g/l}$	0.0306	\pm	0.00951	0.0126	41

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Perfluoroundecane sulfonic acid (PFUnDS) - PF11S	PF03 A	µg/l	0.0247	± 0.00749	0.00986	40	
	PF03 B	µg/l	0.0424	± 0.0103	0.0136	32	
Perfluorododecane sulfonic acid (PFDs) - PF12S	PF03 A*	µg/l	-	± -	-	-	-
	PF03 B	µg/l	0.0366	± 0.0121	0.0146	40	
Perfluorotridecane sulfonic acid (PFTrDS) - PF13S	PF03 A*	µg/l	-	± -	-	-	-
	PF03 B*	µg/l	-	± -	-	-	-
N-Ethyl-perfluorooctane sulfonamidoacetic acid (N-EtFOSAA)	PF03 A*	µg/l	-	± -	-	-	-
	PF03 B*	µg/l	-	± -	-	-	-
4:2 Fluorotelomer sulfonate (4:2 FTS)	PF03 A	µg/l	0.0063	± 0.00121	0.00151	24	
	PF03 B	µg/l	0.0574	± 0.0127	0.0155	27	
6:2 Fluorotelomer sulfonate (6:2 FTS)	PF03 A	µg/l	0.0117	± 0.00128	0.00175	15	
	PF03 B	µg/l	0.027	± 0.00381	0.00513	19	
8:2 Fluorotelomer sulfonate (8:2 FTS)	PF03 A	µg/l	0.0125	± 0.00207	0.00275	22	
	PF03 B	µg/l	0.0436	± 0.011	0.0144	33	
Perfluoro-4,8-dioxa-3H-nonanoic acid (DONA)	PF03 A	µg/l	0.0075	± 0.00063	0.00075	10	
	PF03 B	µg/l	0.0385	± 0.00326	0.00385	10	
2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy)propanoic acid (GenX)	PF03 A	µg/l	0.0361	± 0.00492	0.00723	20	
	PF03 B	µg/l	0.118	± 0.0104	0.013	11	
9-Chlorohexadecafluoro-3-oxanone sulfonic acid (main component F-53B)	PF03 A*	µg/l	-	± -	-	-	-
	PF03 B*	µg/l	-	± -	-	-	-
Total PFHxS	PF03 A	µg/l	0.0159	± 0.00076	0.00159	10	
	PF03 B	µg/l	0.0929	± 0.00431	0.00929	10	
Total PFOS	PF03 A	µg/l	0.0279	± 0.00459	0.00643	23	
	PF03 B	µg/l	0.0727	± 0.0125	0.0174	24	
linear Perfluorooctane sulfonic acid (n-PFOS)	PF03 A*	µg/l	-	± -	-	-	-
	PF03 B*	µg/l	-	± -	-	-	-
linear Perfluorohexane sulfonic acid (n-PFHxS)	PF03 A*	µg/l	-	± -	-	-	-
	PF03 B*	µg/l	-	± -	-	-	-
branched Perfluorohexane sulfonic acid isomers (brPFHxS (sum))	PF03 A*	µg/l	-	± -	-	-	-
	PF03 B*	µg/l	-	± -	-	-	-
branched Perfluorooctane sulfonic acid isomers PFOS (br-PFOS (sum))	PF03 A*	µg/l	-	± -	-	-	-

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branched Perfluorooctane sulfonic acid isomers PFOS (br-PFOS (sum))	PF03 B*	µg/l		- ±	-	-	-

*For the following substances, the calculated mean values MV +/- SD(2s) based on the data of the laboratories (n) after outlier removal are listed for information.

PF03 B Perfluorotridecanoic acid (PFTrDA) - PF13C: MV (n=7) +/- SD(2s): 0.0839 +/- 0.0839 µg/l

PF03 A Perfluorotetradecanoic acid (PFTeDA) - PF14C: MV (n=3) +/- SD(2s): 0.0122 +/- 0.00416 µg/l

PF03 B Perfluorotetradecanoic acid (PFTeDA) - PF14C: MV (n=4) +/- SD(2s): 0.0252 +/- 0.0203 µg/l

PF03 A Perfluorododecane sulfonic acid (PFDoS) - PF12S: MV (n=7) +/- SD(2s): 0.0268 +/- 0.0285 µg/l

PF03 A Perfluorotridecane sulfonic acid (PFTrDS) - PF13S: MV (n=7) +/- SD(2s): 0.0223 +/- 0.0307 µg/l

PF03 B Perfluorotridecane sulfonic acid (PFTrDS) - PF13S: MV (n=7) +/- SD(2s): 0.0439 +/- 0.0631 µg/l

PF03 A N-Ethyl-perfluorooctane sulfonamidoacetic acid (N-EtFOSAA): MV (n=2) +/- SD(2s): 0.0123 +/- 0.00185 µg/l

PF03 B N-Ethyl-perfluorooctane sulfonamidoacetic acid (N-EtFOSAA): MV (n=3) +/- SD(2s): 0.0388 +/- 0.0193 µg/l

PF03 A 9-Chlorohexadecafluoro-3-oxanone sulfonic acid (main component F-53B): MV (n=3) +/- SD(2s): 0.00449 +/- 0.00342 µg/l

PF03 B 9-Chlorohexadecafluoro-3-oxanone sulfonic acid (main component F-53B): MV (n=2) +/- SD(2s): 0.0346 +/- 0.0101 µg/l

PF03 A linear Perfluorooctane sulfonic acid (n-PFOS): MV (n=4) +/- SD(2s): 0.0226 +/- 0.0034 µg/l

PF03 B linear Perfluorooctane sulfonic acid (n-PFOS): MV (n=4) +/- SD(2s): 0.0596 +/- 0.0111 µg/l

PF03 A linear Perfluorohexane sulfonic acid (n-PFHxS): MV (n=5) +/- SD(2s): 0.0137 +/- 0.00249 µg/l

PF03 B linear Perfluorohexane sulfonic acid (n-PFHxS): MV (n=5) +/- SD(2s): 0.078 +/- 0.00704 µg/l

PF03 A branched Perfluorohexane sulfonic acid isomers (brPFHxS (sum)): MV (n=5) +/- SD(2s): 0.00272 +/- 0.0012 µg/l

PF03 B branched Perfluorohexane sulfonic acid isomers (brPFHxS (sum)): MV (n=5) +/- SD(2s): 0.0159 +/- 0.00667 µg/l

PF03 A branched Perfluorooctane sulfonic acid isomers PFOS (br-PFOS (sum)): MV (n=4) +/- SD(2s): 0.0067 +/- 0.000665 µg/l

PF03 B branched Perfluorooctane sulfonic acid isomers PFOS (br-PFOS (sum)): MV (n=5) +/- SD(2s): 0.0175 +/- 0.00451 µg/l

Legend:

Assigned value Target value for proficiency assessment of the participants (3 significant digits)

U (k=2) Expanded uncertainty (k=2) of the assigned value (3 significant digits)

Criterion Specified value for the determination of the z-score in the given unit (3 significant digits)

Criterion [%] Specified value for the determination of the z-score in % of the assigned value (2 significant digits)

SD(2s) Standard deviation (2s) (3 significant digits)