QUASIMEME

Quality assurance of information for marine environmental monitoring

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Certificate of Analysis

Sediment

REFERENCE MATERIAL

Sediment sample 79

WAGENINGEN
UNIVERSITY & RESEARCH

Certificate of Analysis Sediment 79

General Information

In this report an overview is given of analytical data for this sample collected in our proficiency testing program. The consensus values are calculated using a robust statistical model. With this NDA model, the mean and standard deviation are calculated using all reported data when at least 4 results are left after removal of reported 'lower than' (<) and 0 (= zero) values. No outliers are removed.

This report is divided into two sections: Consensus Values and Indicative Values. The division is made on the reliability of the data. Consensus Values are based on at least 8 results and a maximum relative uncertainty of 6.25%. Indicative Values are based on a maximum relative uncertainty of 35% and a minimum of 4 and maximum of 7 results, or a relative uncertainty greater than 6.25% when there are at least 8 results.

For each determinand the following parameters are given: mean, standard deviation, coefficient of variation, number of results, median, MAD (Median of Absolute Deviation), the uncertainty of the mean (consensus or indicative) value and the relative uncertainty.

The results of each determinand is expressed on dried sediment.

Sample information

QUASIMEME reference materials cover a range of natural Marine sediment species from contaminated waters from the North Sea and/or Mediterranean. There is no spiking, mixing or other alterations of the samples. For sample preparation the sediment samples are dried at 40 oC and milled to pass a 0.5 mm sieve.

This Sediment sample 79 of Sylt_Oostende Spiked 2023 from North Sea Sylt + Oostende Spiked 2023 is prepared for the QUASIMEME proficiency programs. The results on which the values in this report are based were taken from the periods given in the following table.

Year.Round	Program	Sample Round Id
2024.2	MS8	QPF028MS

Consensus Values MS8

Method: Perfluorinated alkyl substances - MS8

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
n-PFOS	µg/kg	5.79	0.230	4.0	9	5.73	0.149	0.096	1.65
PFOSA	µg/kg	1.54	0.142	9.3	9	1.53	0.105	0.059	3.87
PFBA	µg/kg	0.520	0.043	8.3	8	0.526	0.027	0.019	3.69
PFPeA	µg/kg	0.965	0.086	8.9	9	0.972	0.063	0.036	3.71
PFHxA	µg/kg	0.341	0.035	10.3	10	0.342	0.022	0.014	4.08
PFOA	µg/kg	3.68	0.130	3.5	10	3.68	0.066	0.051	1.40
PFNA	µg/kg	1.15	0.043	3.8	10	1.14	0.029	0.017	1.50
PFDA	µg/kg	1.19	0.055	4.6	10	1.19	0.022	0.022	1.83
PFUnDA	µg/kg	0.567	0.053	9.4	10	0.569	0.038	0.021	3.72
PFDoA	µg/kg	1.12	0.111	9.9	9	1.13	0.059	0.046	4.11
PFTeDA	µg/kg	0.514	0.064	12.6	8	0.512	0.050	0.028	5.55
GenX	µg/kg	0.223	0.015	6.9	8	0.223	0.012	0.007	3.03
total-PFOS	µg/kg	6.62	0.443	6.7	10	6.64	0.280	0.175	2.65

Indicative Values MS8

Method: Perfluorinated alkyl substances - MS8

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
PFTrDA	µg/kg	0.370	0.065	17.7	8	0.359	0.046	0.029	7.81
n-PFBS	µg/kg	0.995	0.033	3.4	7	0.993	0.016	0.016	1.59
n-PFHps	µg/kg	0.548	0.059	10.7	7	0.553	0.023	0.028	5.06
NMeFOSAA	µg/kg	0.066	0.040	60.9	5	0.069	0.032	0.023	34.0
NEtFOSAA	µg/kg	0.088	0.041	46.0	5	0.100	0.018	0.023	25.7