QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis

Halogenated Organics in seawater

REFERENCE MATERIAL

AQ5 sample 110

WAGENINGEN
UNIVERSITY & RESEARCH

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 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 10 results while the relative uncertainty is smaller than 6.25%. Indicative Values are based on a relative uncertainty of maximum 35% with at least 4 and less than 10 results or a relative uncertainty higher than 6.25%.

For each determinand the following parameters are given: mean, standard deviation, coefficient of variation, number of results, median, MAD (Median of Absolute Deviation) and the uncertainty in the assigned value. The confidence limits (at 95 % probabilty) are calculated for these determinands.

Sample information

QUASIMEME reference materials cover a range of natural SeaWater species from contaminated waters from the North Sea and/or Mediterranean.

This AQ5 sample 110 of Seawater with spike solution from North Sea 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
2023.1	AQ5	QOC107SW

Consensus Values   AQ5

Method: PCBs&OCP - AQ5

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
pp'-DDT	ng/l	3.51	0.103	2.9	11	3.50	0.060	0.039	3.44	-	3.58

Method: PCBs&OCP - AQ5

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
a-HCH	ng/l	4.24	0.953	22.5	10	4.30	0.574	0.377	3.57	-	4.91
g-HCH	ng/l	6.40	1.419	22.2	10	6.28	0.780	0.561	5.40	-	7.40
Dieldrin	ng/l	2.11	0.295	14.0	8	2.11	0.140	0.130	1.87	-	2.35
pp'-DDE	ng/l	1.57	0.086	5.5	9	1.56	0.040	0.036	1.50	-	1.63
pp'-DDD	ng/l	1.53	0.111	7.2	7	1.52	0.061	0.052	1.44	-	1.63
HCB	ng/l	5.56	0.972	17.5	8	5.50	0.515	0.430	4.76	-	6.35
Isodrin	ng/l	2.40	0.278	11.6	7	2.41	0.160	0.131	2.15	-	2.64
Endrin	ng/l	2.57	0.422	16.4	8	2.55	0.282	0.187	2.22	-	2.91
Aldrin	ng/l	2.80	0.434	15.5	8	2.79	0.190	0.192	2.44	-	3.15
op'-DDT	ng/l	4.07	0.489	12.0	9	4.07	0.290	0.204	3.71	-	4.44
b-HCH	ng/l	2.08	0.388	18.7	9	2.15	0.250	0.162	1.79	-	2.37
HCBD	ng/l	-	-	-	5	3.04	0.2	-	-	-	-
Trifluralin	ng/l	-	-	-	5	2.83	0.5	-	-	-	-
Endosulphan-I	ng/l	-	-	-	5	1.63	0.4	-	-	-	-
Endosulphan-II	ng/l	-	-	-	5	0.900	0.1	-	-	-	-
d-HCH	ng/l	1.36	0.144	10.6	8	1.38	0.090	0.064	1.24	-	1.48
Pentachlorobenzene	ng/l	2.13	0.465	21.9	8	2.07	0.285	0.205	1.75	-	2.51
PCB28	ng/l	4.00	1.661	41.5	6	3.99	1.445	0.847	2.34	-	5.66
PCB52	ng/l	3.27	0.378	11.6	6	3.25	0.280	0.193	2.89	-	3.65
PCB101	ng/l	-	-	-	5	2.10	0.5	-	-	-	-
PCB118	ng/l	4.39	0.403	9.2	6	4.30	0.175	0.206	3.98	-	4.79
PCB138	ng/l	3.62	0.736	20.3	7	3.54	0.444	0.348	2.96	-	4.28
PCB153	ng/l	3.87	0.483	12.5	6	3.93	0.315	0.247	3.38	-	4.35
PCB180	ng/l	-	-	-	5	2.65	0.8	-	-	-	-
Heptachlor	ng/l	1.76	0.390	22.2	6	1.77	0.206	0.199	1.37	-	2.15
Heptachlorepoxide	ng/l	-	-	-	4	1.12	0.1	-	-	-	-