



QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis



Halogenated Organics in seawater

REFERENCE MATERIAL

AQ5 sample 107



Certificate of Analysis AQ5 107

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 % probability) 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 107 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
2022.1	AQ5	QOC104SW



Indicative Values AQ5

Method: PCBs&OCP - AQ5

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
a-HCH	ng/l	4.37	0.847	19.4	9	4.36	0.570	0.353	3.73	-	5.01
b-HCH	ng/l	1.54	0.295	19.2	8	1.55	0.202	0.131	1.29	-	1.78
g-HCH	ng/l	6.09	0.874	14.4	9	6.40	0.601	0.364	5.43	-	6.75
d-HCH	ng/l	1.44	0.470	32.6	8	1.45	0.350	0.208	1.06	-	1.83
HCB	ng/l	3.63	0.206	5.7	9	3.65	0.151	0.086	3.47	-	3.78
HCBD	ng/l	3.02	1.284	42.5	4	3.49	0.796	0.803	1.24	-	4.81
Aldrin	ng/l	3.45	1.086	31.5	8	3.69	0.780	0.480	2.57	-	4.34
Dieldrin	ng/l	3.76	0.321	8.5	8	3.80	0.241	0.142	3.50	-	4.03
Endrin	ng/l	2.10	0.853	40.6	7	2.19	0.657	0.403	1.34	-	2.86
Isodrin	ng/l	1.88	0.779	41.4	8	1.96	0.565	0.344	1.24	-	2.51
pp'-DDD	ng/l	1.93	0.253	13.1	7	2.00	0.200	0.120	1.70	-	2.15
pp'-DDE	ng/l	1.83	0.292	15.9	8	1.90	0.220	0.129	1.60	-	2.07
op'-DDT	ng/l	2.07	0.513	24.8	7	2.22	0.380	0.243	1.61	-	2.53
pp'-DDT	ng/l	3.44	0.398	11.6	9	3.59	0.290	0.166	3.14	-	3.74
Endosulphan-I	ng/l	0.953	0.2333	24.5	7	1.000	0.1600	0.1102	0.744	-	1.16
Endosulphan-II	ng/l	1.08	0.138	12.8	7	1.10	0.100	0.065	0.956	-	1.20
Pentachlorobenzene	ng/l	1.08	0.137	12.6	8	1.10	0.100	0.060	0.972	-	1.19
Trifluralin	ng/l	2.00	0.799	40.0	5	2.44	0.540	0.447	1.08	-	2.91
PCB28	ng/l	8.05	3.548	44.1	5	8.50	2.500	1.983	3.97	-	12.1
PCB52	ng/l	2.95	0.985	33.4	5	3.10	0.720	0.551	1.82	-	4.08
PCB101	ng/l	2.13	0.361	16.9	5	2.05	0.250	0.202	1.72	-	2.55
PCB118	ng/l	3.17	0.904	28.5	5	3.30	0.700	0.505	2.14	-	4.21
PCB138	ng/l	7.15	1.293	18.1	5	6.90	0.900	0.723	5.66	-	8.63
PCB153	ng/l	6.89	1.043	15.1	5	6.52	0.720	0.583	5.69	-	8.09
PCB180	ng/l	1.53	0.101	6.6	4	1.57	0.076	0.063	1.39	-	1.67
Heptachlor	ng/l	2.47	0.681	27.6	6	2.45	0.475	0.347	1.79	-	3.15
Heptachlorepoide	ng/l	1.21	0.442	36.5	5	1.36	0.356	0.247	0.705	-	1.72