QUASIMEME

Quality assurance of information for marine environmental monitoring

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Certificate of Analysis

Halogenated Organics in seawater

REFERENCE MATERIAL

AQ5 sample 104

WAGENINGEN
UNIVERSITY & RESEARCH

Certificate of Analysis AQ5 104

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 104 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
2021.1	AQ5	QOC101SW

Indicative Values AQ5

Method: PCBs&OCP - AQ5

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits
a-HCH	ng/l	2.54	0.463	18.2	8	2.59	0.335	0.205	2.16 - 2.92
b-HCH	ng/l	1.27	0.163	12.8	8	1.33	0.116	0.072	1.14 - 1.41
g-HCH	ng/l	2.35	0.431	18.4	8	2.38	0.288	0.190	1.99 - 2.70
d-HCH	ng/l	1.43	0.427	29.8	7	1.36	0.278	0.202	1.05 - 1.81
HCB	ng/l	0.575	0.2190	38.1	7	0.539	0.1580	0.1035	0.379 - 0.771
Aldrin	ng/l	3.87	0.728	18.8	7	3.65	0.546	0.344	3.22 - 4.52
Dieldrin	ng/l	2.20	0.145	6.6	8	2.19	0.095	0.064	2.08 - 2.32
Endrin	ng/l	3.09	0.423	13.7	8	3.14	0.305	0.187	2.74 - 3.43
Isodrin	ng/l	2.29	0.073	3.2	5	2.25	0.060	0.041	2.20 - 2.37
pp'-DDD	ng/l	1.54	0.314	20.4	7	1.56	0.210	0.148	1.26 - 1.82
pp'-DDE	ng/l	1.17	0.119	10.2	8	1.17	0.079	0.053	1.07 - 1.26
op'-DDT	ng/l	1.29	0.348	27.1	6	1.34	0.230	0.178	0.938 - 1.63
pp'-DDT	ng/l	0.939	0.1852	19.7	7	0.950	0.1300	0.0875	0.774 - 1.10
Endosulphan-I	ng/l	0.899	0.1988	22.1	4	0.911	0.1299	0.1243	0.623 - 1.17
Pentachlorobenzene	ng/l	1.12	0.153	13.6	6	1.17	0.112	0.078	0.970 - 1.28
Trifluralin	ng/l	1.54	0.352	22.8	6	1.54	0.214	0.180	1.19 - 1.89
PCB28	ng/l	2.67	0.935	35.0	7	2.40	0.650	0.442	1.84 - 3.51
PCB52	ng/l	2.09	0.076	3.6	6	2.06	0.058	0.039	2.02 - 2.17
PCB101	ng/l	1.89	0.072	3.8	5	1.85	0.059	0.040	1.80 - 1.97
PCB118	ng/l	1.67	0.184	11.0	5	1.70	0.117	0.103	1.46 - 1.88
PCB138	ng/l	2.94	0.426	14.5	7	2.97	0.298	0.201	2.56 - 3.32
PCB153	ng/l	3.73	0.784	21.0	7	3.70	0.550	0.370	3.03 - 4.43
PCB180	ng/l	1.60	0.440	27.4	5	1.66	0.322	0.246	1.10 - 2.11