QUASIMEME

Quality assurance of information for marine environmental monitoring

Certificate of Analysis

DSP shellfish toxins

REFERENCE MATERIAL

BT11 sample 15

WAGENINGEN
UNIVERSITY & RESEARCH

Certificate of Analysis BT11 15

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.

The results of each determinand is expressed on a wet weight basis.

Sample information

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

This BT11 sample 15 of Mussel Tissue (Mytilus Edulis) from Marine Institute, Ireland 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
2015.1	BT11	QST188BT

Consensus Values BT11

Method: Toxins(SF) - BT11

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits
AZA-1	µg/kg	413	102.6	24.8	27	395	70.5	24.7	372 - 453
AZA-2	µg/kg	92.3	14.31	15.5	26	91.8	9.65	3.51	86.5 - 98.1
AZA-total	µg AZA eq./kg	642	130.3	20.3	24	640	86.0	33.2	587 - 697
Free-DTX1	µg/kg	124	17.9	14.4	27	128	12.0	4.3	117 - 131
Free-DTX2	µg/kg	133	20.2	15.2	28	130	13.0	4.8	126 - 141
free-Okadaic-Acid	µg/kg	168	20.1	12.0	28	168	14.2	4.8	160 - 176
Total-free-OA+DTX1+DTX2	µg OA eq./kg	382	50.2	13.1	26	381	33.3	12.3	362 - 402
Total-DTX1	µg/kg	190	28.8	15.2	26	196	20.1	7.1	178 - 201
Total-DTX2	µg/kg	151	22.5	14.9	26	148	14.7	5.5	142 - 160
Total-Okadaic-Acid	µg/kg	233	46.2	19.8	26	238	31.7	11.3	214 - 251
Total-hy-OA+DTX1+DTX2	µg OA eq./kg	505	79.6	15.7	25	518	55.6	19.9	472 - 538
Total OA group + PTX group	µg OA eq./kg	494	61.7	12.5	17	518	42.9	18.7	462 - 525

Indicative Values BT11

Method: Toxins(SF) - BT11

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits
AZA-3	µg/kg	51.0	13.15	25.8	26	50.4	8.65	3.22	45.7 - 56.3
YTX	mg/kg	0.0083	0.0007	8.0	4	0.0081	0.0005	0.0004	0.0074 - 0.0092