QUASIMEME

Quality assurance of information for marine environmental monitoring

Certificate of Analysis

DSP shellfish toxins

REFERENCE MATERIAL

BT11 sample 23

WAGENINGEN
UNIVERSITY & RESEARCH

Certificate of Analysis BT11 23

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 23 of Blue mussel homogenate (Mytilus edulis) from Marine Institute, Galway, 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
2023.2	BT11	QST345BT
2020.2	BT11	QST291BT
2018.1	BT11	QST247BT

Consensus Values BT11

Method: Toxins(SF) - BT11

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits
free-Okadaic-Acid	µg/kg	87.4	23.15	26.5	112	88.1	14.45	2.73	83.0 - 91.7
Free-DTX2	µg/kg	480	101.4	21.1	108	477	65.4	12.2	461 - 500
Total-free-OA+DTX1+DTX2	µg OA eq./kg	386	77.1	19.9	99	385	51.7	9.7	371 - 402
Total-Okadaic-Acid	µg/kg	197	45.4	23.0	108	196	27.4	5.5	188 - 206
Total-DTX2	µg/kg	729	163.1	22.4	104	730	100.3	20.0	697 - 761
Total-hy-OA+DTX1+DTX2	µg OA eq./kg	635	128.3	20.2	100	643	75.6	16.0	610 - 661
AZA-1	µg/kg	73.0	12.79	17.5	113	73.4	8.17	1.50	70.6 - 75.4
AZA-2	µg/kg	23.7	5.38	22.7	98	24.0	3.40	0.68	22.7 - 24.8
AZA-3	µg/kg	25.0	4.91	19.7	95	25.3	3.30	0.63	24.0 - 26.0
AZA-total	µg AZA eq./kg	146	26.8	18.3	105	144	17.4	3.3	141 - 152
Total OA group + PTX group	µg OA eq./kg	641	115.9	18.1	76	641	75.0	16.6	615 - 667