



QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis



DSP shellfish toxins

REFERENCE MATERIAL

BT11 sample 31



Certificate of Analysis BT11 31

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.

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 31 of Blue Mussel (*Mytilus Edulis*) from CEFAS Weymouth, UK 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	BT11	QST319BT



Consensus Values BT11

Method: Toxins(SF) - BT11

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
AZA-1	µg/kg	70.8	13.58	19.2	39	69.8	9.68	2.72	66.4	-	75.2
AZA-2	µg/kg	18.8	3.97	21.1	32	18.4	2.65	0.88	17.4	-	20.2
AZA-total	µg AZA eq./kg	123	27.7	22.5	33	120	19.5	6.0	113	-	133
Free-DTX2	µg/kg	46.1	7.85	17.0	34	46.4	5.42	1.68	43.4	-	48.8
free-Okadaic-Acid	µg/kg	112	22.8	20.3	36	115	15.7	4.8	105	-	120
Total-free-OA+DTX1+DTX2	µg OA eq./kg	142	25.3	17.9	32	143	17.3	5.6	133	-	151
Total-DTX2	µg/kg	61.4	12.55	20.4	33	61.8	8.32	2.73	56.9	-	65.8
Total-Okadaic-Acid	µg/kg	202	37.4	18.5	35	203	25.6	7.9	189	-	215
Total-hy-OA+DTX1+DTX2	µg OA eq./kg	238	42.7	18.0	34	235	29.5	9.2	223	-	253
Total OA group + PTX group	µg OA eq./kg	235	54.3	23.1	23	233	37.2	14.2	212	-	258
YTX	mg/kg	0.0372	0.0074	20.0	18	0.0379	0.0052	0.0022	0.0336	-	0.0409



Indicative Values BT11

Method: Toxins(SF) - BT11

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
AZA-3	µg/kg	15.3	4.81	31.5	30	15.3	3.30	1.10	13.5	-	17.1
Free-DTX1	µg/kg	5.64	0.264	4.7	7	5.59	0.200	0.125	5.41	-	5.88
Total-DTX1	µg/kg	7.42	1.351	18.2	7	7.98	0.650	0.638	6.21	-	8.63
Total-YTX	mg YTX eq./kg	0.0412	0.0145	35.2	16	0.0410	0.0098	0.0045	0.0335	-	0.0489