



QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis



PSP shellfish toxins

REFERENCE MATERIAL

BT12 sample 33



Certificate of Analysis BT12 33

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, the 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 8 results and a maximum relative uncertainty of 6.25%. Indicative Values are based on a maximum relative uncertainty of 35% and a minimum of 4 and maximum of 7 results, or a relative uncertainty greater than 6.25% when there are at least 8 results.

For each determinand, the following parameters are given: mean, standard deviation, coefficient of variation, number of results, median, MAD (Median of Absolute Deviation), the uncertainty of the mean (consensus or indicative) value and the relative uncertainty.

Please note: Most WEPAL-QUASIMEME reference materials are found to be stable over the long term (>10 years) for most determinand/matrix combinations. There are a few exceptions known to us as being less stable over the long term. These are organotins in sediment (MS6), ASP in shellfish (BT7), some PAHs and PCBs in sediment (SETOC) and N-NH₄ (as N) in clay soils (ISE).

The results of each measurand 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 BT12 sample 33 of Mussel tissue from CEFAS, Weymouth, United Kingdom 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
2025.2	BT12	QST385BT



Consensus Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
STX	μmol/kg	2.75	0.624	22.7	34	2.76	0.423	0.134	4.87
Total toxicity	μgSTXdiHCleq./kg	1495	394	26.3	33	1508	239	85.7	5.73



Indicative Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
GTX-2	µmol/kg	0.297	0.076	25.6	12	0.326	0.025	0.027	9.23
GTX-3	µmol/kg	0.092	0.015	16.7	11	0.093	0.004	0.006	6.29
GTX-5	µmol/kg	1.19	0.378	31.7	30	1.22	0.228	0.086	7.24
C1	µmol/kg	0.499	0.152	30.5	10	0.539	0.121	0.060	12.0
C2	µmol/kg	0.120	0.053	44.3	9	0.135	0.039	0.022	18.5
dc-STX	µmol/kg	0.811	0.323	39.8	30	0.839	0.238	0.074	9.08
dc-GTX2	µmol/kg	0.161	0.043	26.8	8	0.176	0.022	0.019	11.8
GTX-2,3	µmol/kg	0.382	0.117	30.5	18	0.402	0.074	0.034	8.99
C-1,2	µmol/kg	0.473	0.155	32.7	18	0.491	0.086	0.046	9.63
dc-GTX-2,3	µmol/kg	0.128	0.042	32.9	10	0.137	0.028	0.017	13.0