



# QUASIMEME

Quality assurance of information  
for marine environmental monitoring

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## Certificate of Analysis



PSP shellfish toxins

REFERENCE MATERIAL

BT12 sample 25

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## Certificate of Analysis BT12 25

### 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 BT12 sample 25 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	BT12	QST322BT



### Consensus Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
GTX-2	µmol/kg	1.17	0.132	11.3	11	1.20	0.101	0.050	1.08	-	1.25
GTX-5	µmol/kg	0.201	0.0243	12.1	24	0.200	0.0180	0.0062	0.191	-	0.211
STX	µmol/kg	1.23	0.164	13.3	39	1.25	0.112	0.033	1.18	-	1.29
Total toxicity	µgSTXdiHCleq./kg	916	173.6	19.0	39	928	123.7	34.7	860	-	972
GTX-2,3	µmol/kg	1.20	0.236	19.6	27	1.23	0.167	0.057	1.11	-	1.30



### Indicative Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits	
C1	µmol/kg	0.937	0.2817	30.0	9	0.900	0.2100	0.1174	0.725	- 1.15
C-1,2	µmol/kg	0.899	0.3246	36.1	27	0.910	0.2229	0.0781	0.771	- 1.03
C2	µmol/kg	0.250	0.0774	31.0	9	0.262	0.0490	0.0322	0.191	- 0.308
dc-GTX2	µmol/kg	0.0997	0.0589	59.1	5	0.1000	0.0468	0.0329	0.0320	- 0.167
dc-GTX-2,3	µmol/kg	0.0945	0.0214	22.6	9	0.1030	0.0137	0.0089	0.0784	- 0.111
dc-STX	µmol/kg	0.123	0.0574	46.7	25	0.132	0.0400	0.0143	0.0992	- 0.147
GTX-3	µmol/kg	0.369	0.0751	20.4	11	0.397	0.0566	0.0283	0.319	- 0.419
GTX-1,4	µmol/kg	0.396	0.2740	69.3	15	0.437	0.2034	0.0884	0.245	- 0.546