

Electronic Supplementary Material (ESI)

Table S1 Concentrations of MBT, DBT and TBT determined in homogeneity test (µg Sn g⁻¹)

Species		MBT			DBT			TBT		
n	m	1	2	3	1	2	3	1	2	3
1		0.25	0.26	0.28	0.66	0.61	0.69	2.67	2.70	2.59
2		0.30	0.28	0.32	0.69	0.61	0.68	2.63	2.64	2.55
3		0.27	0.32	0.33	0.64	0.56	0.67	2.57	2.55	2.61
4		0.29	0.34	0.31	0.70	0.58	0.65	2.65	2.64	2.56
5		0.30	0.32	0.26	0.62	0.68	0.62	2.58	2.60	2.60
6		0.28	0.29	0.27	0.59	0.63	0.61	2.58	2.46	2.62
7		0.29	0.31	0.28	0.62	0.64	0.60	2.76	2.59	2.68
8		0.28	0.27	0.24	0.58	0.64	0.61	2.66	2.63	2.83
9		0.26	0.33	0.29	0.57	0.61	0.62	2.58	2.53	2.63
10		0.35	0.32	0.33	0.60	0.65	0.61	2.64	2.68	2.55
11		0.30	0.38	0.32	0.63	0.67	0.60	2.73	2.66	2.73
12		0.28	0.32	0.31	0.55	0.58	0.61	2.57	2.47	2.63
13		0.34	0.32	0.30	0.64	0.63	0.62	2.79	2.59	2.53
14		0.28	0.27	0.24	0.62	0.65	0.59	2.72	2.52	2.67
15		0.28	0.31	0.24	0.58	0.63	0.59	2.67	2.54	2.69
16		0.31	0.29	0.27	0.60	0.57	0.68	2.51	2.41	2.57

n- No. of bottles; m- No. of subsamples in each bottle.

Table S2 Concentrations of MBT, DBT and TBT determined in short-term stability test ($\mu\text{g Sn g}^{-1}$)

Species	Day	4 °C				25 °C				40 °C			
		1	2	3	4	1	2	3	4	1	2	3	4
MBT	1	0.30	0.32	0.30	0.34	0.33	0.29	0.34	0.33	0.29	0.32	0.31	0.33
	2	0.32	0.31	0.29	0.35	0.31	0.31	0.29	0.30	0.28	0.33	0.32	0.35
	4	0.34	0.32	0.32	0.33	0.32	0.34	0.33	0.35	0.32	0.30	0.33	0.35
	7	0.30	0.29	0.32	0.33	0.29	0.30	0.32	0.33	0.31	0.32	0.33	0.32
	15	0.32	0.32	0.31	0.33	0.31	0.32	0.30	0.33	0.32	0.34	0.33	0.29
DBT	1	0.61	0.64	0.63	0.60	0.67	0.60	0.57	0.68	0.58	0.63	0.62	0.66
	2	0.59	0.63	0.62	0.61	0.65	0.58	0.58	0.67	0.62	0.61	0.59	0.66
	4	0.59	0.61	0.60	0.63	0.63	0.57	0.59	0.66	0.59	0.64	0.59	0.67
	7	0.68	0.63	0.64	0.62	0.65	0.66	0.59	0.68	0.64	0.62	0.59	0.67
	15	0.62	0.65	0.61	0.63	0.65	0.60	0.60	0.65	0.58	0.62	0.61	0.58
TBT	1	2.52	2.63	2.57	2.66	2.72	2.59	2.52	2.65	2.52	2.67	2.55	2.64
	2	2.61	2.53	2.57	2.62	2.46	2.52	2.63	2.66	2.49	2.61	2.57	2.72
	4	2.56	2.49	2.63	2.53	2.65	2.69	2.55	2.71	2.57	2.62	2.71	2.65
	7	2.69	2.61	2.52	2.74	2.71	2.59	2.45	2.62	2.61	2.46	2.58	2.65
	15	2.62	2.57	2.61	2.67	2.67	2.56	2.48	2.69	2.54	2.62	2.46	2.57

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Table S3 Concentrations of MBT, DBT and TBT determined in long-term stability test ($\mu\text{g Sn g}^{-1}$)

Species	Sample No.	Month							
		0	1	3	6	12	15	18	24
MBT	1	0.27	0.37	0.29	0.28	0.24	0.28	0.26	0.28
	2	0.27	0.33	0.30	0.29	0.25	0.26	0.28	0.35
	3	0.30	0.32	0.30	0.28	0.25	0.29	0.28	0.37
	4	0.34	0.37	0.32	0.30	0.26	0.36	0.31	0.30
	5	0.30	0.32	0.34	0.33	0.27	0.33	0.32	0.29
	6	0.27	0.35	0.34	0.29	0.27	0.32	0.29	0.34
DBT	1	0.63	0.62	0.54	0.58	0.55	0.66	0.53	0.62
	2	0.60	0.70	0.57	0.58	0.55	0.63	0.56	0.57
	3	0.64	0.68	0.59	0.56	0.57	0.62	0.54	0.57
	4	0.71	0.65	0.62	0.61	0.55	0.58	0.59	0.59
	5	0.55	0.69	0.63	0.64	0.57	0.57	0.61	0.64
	6	0.51	0.69	0.66	0.59	0.57	0.60	0.60	0.67
TBT	1	2.66	2.43	2.51	2.62	2.62	2.69	2.62	2.51
	2	2.54	2.58	2.53	2.76	2.64	2.71	2.73	2.78
	3	2.7	2.56	2.61	2.61	2.64	2.57	2.59	2.70
	4	2.7	2.75	2.63	2.69	2.57	2.48	2.71	2.66
	5	2.57	2.65	2.64	2.7	2.6	2.66	2.72	2.89
	6	2.61	2.47	2.71	2.64	2.63	2.54	2.67	2.79

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Table S4 Concentrations of ERM-CE477 determined by participated laboratories in value assignment campaign ($\mu\text{g Sn g}^{-1}$ d.w.)

Lab No.	MBT			DBT			TBT		
	Means	SD ^a	RSD ^b (%)	Mean	SD	RSD (%)	Mean	SD	RSD (%)
Lab1	1.04	0.10	0.10	0.80	0.03	0.04	0.91	0.05	0.05
Lab2	0.86	0.03	0.04	0.78	0.03	0.03	0.89	0.04	0.04
Lab3-1 ^c	1.03	0.10	0.10	0.72	0.07	0.01	0.93	0.08	0.01
Lab3-2 ^d	1.06	0.08	0.08	0.75	0.03	0.00	0.94	0.02	0.00
Lab4	1.02	0.10	0.10	0.76	0.04	0.01	0.88	0.05	0.01
Lab5	0.90	0.04	0.04	0.82	0.03	0.04	0.93	0.08	0.09
Lab6	1.09	0.13	0.12	0.76	0.06	0.08	0.95	0.05	0.05
Reference values	1.02	0.19	0.19	0.79	0.06	0.08	0.91	0.08	0.09

^a-standard deviation; ^b-relative standard deviation; ^c-data determined by ethylation; ^d- data determined by propylation

Table S5 Results of value assignment for all laboratories participated ($\mu\text{g Sn g}^{-1}$)

Lab No.	Species	Sample No.											
		1	2	3	4	5	6	7	8	9	10	11	12
Lab1	MBT	0.28	0.35	0.37	0.30	0.29	0.34	0.32	0.33	0.30	0.27	0.31	0.31
	DBT	0.62	0.57	0.57	0.59	0.64	0.67	0.68	0.58	0.59	0.62	0.66	0.62
	TBT	2.51	2.78	2.70	2.66	2.89	2.79	2.74	2.66	2.68	2.54	2.46	2.63
Lab2	MBT	0.31	0.32	0.31	0.34	0.35	0.36	0.34	0.34	0.33	0.31	0.32	0.33
	DBT	0.60	0.66	0.62	0.63	0.66	0.66	0.62	0.68	0.64	0.63	0.61	0.61
	TBT	2.62	2.68	2.59	2.45	2.49	2.53	2.50	2.64	2.54	2.50	2.45	2.54
Lab3-1 ^a	MBT	0.48	0.46	0.43	0.37	0.39	0.39	0.33	0.29	0.34			
	DBT	0.58	0.56	0.61	0.56	0.53	0.54	0.55	0.57	0.57			
	TBT	2.64	2.65	2.67	2.55	2.71	2.76	2.68	2.66	2.55			
Lab3-2 ^b	MBT	0.43	0.44	0.45	0.40	0.38	0.36	0.41	0.44	0.40	0.41	0.30	0.35
	DBT	0.71	0.71	0.73	0.65	0.63	0.61	0.70	0.76	0.68	0.81	0.68	0.69
	TBT	2.60	2.59	2.65	2.63	2.57	2.54	2.68	2.88	2.64	3.18	2.85	2.84
Lab4	MBT	0.28	0.26	0.29	0.36	0.33	0.32	0.28	0.25	0.27	0.30	0.31	0.32
	DBT	0.66	0.63	0.62	0.58	0.57	0.60	0.64	0.67	0.69	0.57	0.59	0.63
	TBT	2.69	2.71	2.57	2.48	2.66	2.54	2.81	2.73	2.69	2.92	2.82	2.77

Lab5	MBT	0.28	0.26	0.29	0.36	0.33	0.32	0.28	0.25	0.27	0.30	0.31	0.32
	DBT	0.66	0.63	0.62	0.58	0.57	0.60	0.64	0.67	0.69	0.57	0.59	0.63
	TBT		2.55	2.55	2.48	2.49	2.50	2.45	2.45	2.53	2.44	2.52	2.47
Lab6	MBT	0.28	0.26	0.29	0.36	0.33	0.32	0.28	0.25	0.27	0.30		
	DBT	0.66	0.63	0.62	0.58	0.57	0.60	0.64	0.67	0.69	0.57		
	TBT	2.57	2.83	2.45	2.68	2.97	2.87	2.30	2.78	2.80	2.75		

^a-data determined by ethylation; ^b- data determined by propylation