

Disposition of Radioactivity 24 Hours Following Single Oral Gavage Administration of 10 mg/kg [^{14}C]L-BMAA to Female B6C3F₁/N Mice (Group P)^a

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^c	Cage Rinse CPDE	Feces CPDE	Volatile Organics CPDE	CO ₂ CPDE	GI Content	Total CPDE
4	0.108 ± 0.165	1.12 ± 1.08	–	0.129 ± 0.027	33.7 ± 15.1	–	35.0
8	0.170 ± 0.180	4.10 ± 1.73	–	0.270 ± 0.043	49.4 ± 14.9	–	53.9
12	0.251 ± 0.260	6.43 ± 1.59	–	0.392 ± 0.027	54.1 ± 15.0	–	61.2
24 ^b	0.884 ± 1.396	8.73 ± 1.70	4.30 ± 1.78	0.505 ± 0.021	57.4 ± 15.2	0.486 ± 0.052	73.4

Disposition in Tissues

Tissue	nmol-eq/g Mean	nmol-eq/g SD	TBR ^e Mean	TBR SD	% Recovery Mean	% Recovery SD
Blood ^d	4.57	0.68	unity	–	0.275	0.031
Adipose ^d	9.41	5.67	2.22	1.67	0.832	0.563
Muscle ^d	12.7	1.4	2.84	0.68	6.03	0.98
Skin ^d	8.82	0.84	1.95	0.22	1.79	0.09
Brain	3.79	0.92	0.822	0.093	0.101	0.023
Heart	7.60	2.79	1.63	0.51	0.0325	0.0108
Kidneys	16.6	1.6	3.66	0.25	0.227	0.018
Liver	37.5	7.7	8.49	2.93	2.44	0.73
Lung	10.1	1.1	2.23	0.19	0.0707	0.0103
Spleen	13.1	3.5	2.85	0.49	0.0268	0.0093
Adrenals	36.7	7.7	8.01	0.89	0.00689	0.00156
Thymus	16.2	1.9	3.58	0.34	0.0387	0.0094
Thyroid	34.0	2.9	7.51	0.56	0.00819	0.00082
Urinary Bladder	23.8	5.3	5.22	1.03	0.00724	0.00287
Pancreas	10.2	1.4	2.26	0.38	0.0962	0.0067
Ovaries	13.2	4.4	2.89	0.81	0.0606	0.0370
Cecum	10.8	2.5	2.40	0.69	0.0321	0.0083
Large Intestine	11.5	1.8	2.52	0.18	0.0987	0.0197
Small Intestine	11.8	1.8	2.60	0.42	0.382	0.110
Stomach	11.6	0.9	2.57	0.22	0.0819	0.0086

Disposition Summary (Dose Recovered [%])

Sample	% Recovered Mean	% Recovered SD
Urine + Cage Rinse	9.61	2.01
Urine	0.884	1.396
Cage Rinse	8.73	1.70
Feces	4.30	1.78
Volatile Organics	0.505	0.021
CO ₂	57.4	15.2
GI Content	0.486	0.052
Carcass	4.19	0.27
Tissues	12.6	2.2
Total Recovered	86.0	14.1

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 10 mg BMAA/kg.

The actual dose delivered was 9.68 ± 0.67 mg/kg (102 ± 7 μCi).

^b24 hours (h) urine collection includes urine present in the urinary bladder at study termination.

^cCumulative percent dose excreted.

^dTissue weights for the dispersed tissues were calculated using the following percentages of body weight: adipose 7.0%, blood 4.9%, muscle 38.4%, and skin 16.5% (International Life Sciences Institute 1994).

^eTBR = Tissue to blood ratio.