

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

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Cage Rinse CPDE	Feces CPDE	Volatile Organics CPDE	CO ₂ CPDE	GI Content	Total CPDE
4	0.0374 ± 0.0483	0.198 ± 0.298	—	0.321 ± 0.113	36.6 ± 19.8	—	29.8
8	1.94 ± 2.74	1.48 ± 0.81	—	0.735 ± 0.246	42.7 ± 24.2	—	46.9
12	2.80 ± 3.34	2.34 ± 1.80	—	1.06 ± 0.27	48.9 ± 23.5	—	55.1
24 ^c	5.34 ± 4.28	6.64 ± 2.09	4.92 ± 3.42	1.45 ± 0.28	60.2 ± 24.2	0.486 ± 0.120	79.8

Disposition in Tissues

Tissue	nmol-eq/g Mean	nmol-eq/g SD	TBR ^e Mean	TBR SD	% Recovery Mean	% Recovery SD
Blood ^d	6.64	1.71	unity	—	0.364	0.096
Adipose ^d	4.06	0.98	0.615	0.177	0.318	0.081
Muscle ^d	5.89	1.88	0.889	0.298	2.53	0.84
Skin ^d	7.83	1.75	1.20	0.42	1.44	0.31
Brain	3.48	0.81	0.525	0.144	0.0697	0.0135
Heart	6.11	0.42	0.925	0.177	0.0316	0.0032
Kidneys	16.6	3.1	2.48	0.51	0.247	0.054
Liver	36.7	2.7	5.58	1.22	2.31	0.20
Lung	9.59	1.95	1.42	0.23	0.0642	0.0119
Spleen	10.3	6.2	1.46	0.68	0.0385	0.0358
Adrenals	30.9	20.6	4.80	3.68	0.00607	0.00113
Thymus	12.7	1.7	1.90	0.22	0.0235	0.0029
Thyroid	68.6	46.8	10.0	6.2	0.00090	0.00022
Urinary Bladder	9.92	1.83	1.48	0.20	0.00761	0.00197
Pancreas	9.83	1.20	1.49	0.32	0.0625	0.0181
Testes	4.31	1.17	0.651	0.200	0.0336	0.0101
Cecum	9.04	3.60	1.34	0.52	0.0194	0.0077
Large Intestine	13.1	1.4	1.99	0.44	0.0734	0.0195
Small Intestine	14.8	1.1	2.24	0.45	0.173	0.078
Stomach	10.7	1.3	1.64	0.44	0.0471	0.0032

Disposition Summary (Dose Recovered [%])

Sample	% Recovered Mean	% Recovered SD
Urine + Cage Rinse	12.0	3.8
Urine	5.34	4.28
Cage Rinse	6.64	2.09
Feces	4.92	3.42
Volatile Organics	1.45	0.28
CO ₂	60.2	24.2
GI Content	0.486	0.120
Carcass	0.263	0.360
Tissues	8.13	1.05
Total Recovered	88.0	26.0

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 10 mg L-BMAA/kg. The actual dose delivered was 10.5 ± 0.1 mg/kg (36.4 ± 0.5 µCi).

^bCPDE = Cumulative percent dose excreted.

^c24 hours (h) urine collection includes urine present in the urinary bladder at study termination.

^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.