

Disposition of Radioactivity 24 Hours Following 100 mg/kg Single Oral Gavage Administration of [¹⁴C]L-BMAA to Male B6C3F₁/N Mice (Group N)^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	0.00571 ± 0.00924	1.32 ± 0.75	—	0.138 ± 0.022	33.7 ± 1.4	—	35.1
8	2.81 ± 1.81	4.08 ± 2.38	—	0.283 ± 0.028	48.0 ± 2.0	—	55.2
12	4.94 ± 3.19	5.47 ± 3.34	—	0.450 ± 0.030	53.9 ± 2.2	—	64.8
24 ^c	6.33 ± 4.35	7.03 ± 2.82	2.56 ± 0.50	0.612 ± 0.064	57.7 ± 2.1	0.228 ± 0.072	74.7

Disposition in Tissues

Tissue	nmol-eq/g Mean	nmol-eq/g SD	TBR ^e Mean	TBR SD	% Recovery Mean	% Recovery SD
Blood ^d	54.2	8.1	unity	—	0.242	0.028
Adipose ^d	64.0	23.7	1.22	0.62	0.415	0.166
Muscle ^d	62.4	21.4	1.16	0.48	2.20	0.79
Skin ^d	52.6	10.7	0.945	0.184	0.792	0.146
Brain	36.7	7.2	0.653	0.069	0.0546	0.0061
Heart	69.1	28.2	1.21	0.34	0.0269	0.0035
Kidneys	203	82	3.55	0.94	0.260	0.057
Liver	691	223	12.7	4.8	3.35	1.00
Lung	110	39	1.94	0.45	0.0590	0.0052
Spleen	131	52	2.32	0.71	0.0225	0.0050
Adrenals	242	53	4.45	1.50	0.00193	0.00183
Thymus	223	133	4.07	2.61	0.0154	0.0153
Thyroid	340	83	6.21	1.81	0.00106	0.00043
Urinary Bladder	150	77	2.80	1.70	0.00638	0.00268
Pancreas	127	70	2.21	0.91	0.0605	0.0200
Testes	44.1	17.4	0.774	0.209	0.0271	0.0047
Cecum	110	43	1.95	0.53	0.0252	0.0108
Large Intestine	92.8	24.3	1.68	0.51	0.0573	0.0134
Small Intestine	123	23.8	2.21	0.47	0.235	0.097
Stomach	106	34	1.90	0.64	0.0462	0.0127

Disposition Summary (Dose Recovered [%])

Sample	% Recovered Mean	% Recovery SD
Urine + Cage Rinse	13.4	4.1
Urine	6.33	4.35
Cage Rinse	7.03	2.82
Feces	2.56	0.50
Volatile Organics	0.612	0.064
CO ₂	57.7	2.1
GI Content	0.228	0.072
Carcass	0.0881	0.0835
Tissues	7.99	1.24
Total Recovered	82.6	4.9

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 100 mg L-BMAA/kg. The actual dose delivered was 125 ± 1 mg/kg (69.2 ± 0.5 µCi/kg).

^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).

^e TBR = tissue to blood ratio.