

Disposition of Radioactivity 24 Hours Following a Single 1 mg/kg Oral Gavage Administration of [14 C]L-BMAA to Male Harlan Sprague Dawley Rats (Group A)^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	1.35 $\pm$ 0.84	1.08 $\pm$ 0.57	–	0.0270 $\pm$ 0.0058	31.5 $\pm$ 1.3	–	34.0
8	3.30 $\pm$ 1.04	1.57 $\pm$ 0.53	–	0.0556 $\pm$ 0.0104	47.5 $\pm$ 2.0	–	52.4
12	4.45 $\pm$ 0.91	1.88 $\pm$ 0.65	–	0.109 $\pm$ 0.016	54.8 $\pm$ 2.2	–	61.2
24 ^c	6.47 $\pm$ 1.40	2.37 $\pm$ 0.63	3.23 $\pm$ 1.18	0.151 $\pm$ 0.017	61.3 $\pm$ 3.6	0.944 $\pm$ 0.351	74.2

Disposition in Tissues

Tissue	nmol-eq/g Mean	nmol-eq/g SD	TBR Mean	TBR SD	% Recovery Mean	% Recovery SD
Blood ^d	1.38	0.18	unity		1.09	0.18
Adipose ^d	0.800	0.277	0.603	0.243	0.603	0.243
Muscle ^d	0.847	0.124	0.633	0.069	3.68	0.77
Skin ^d	1.58	0.19	1.19	0.18	3.19	0.37
Brain	0.660	0.182	0.488	0.100	0.0401	0.0084
Heart	1.27	0.42	0.941	0.279	0.0416	0.0099
Kidneys	3.10	0.94	2.28	0.49	0.209	0.051
Liver	8.26	2.63	6.21	2.02	3.51	1.24
Lung	1.86	0.42	1.38	0.17	0.0787	0.0190
Spleen	2.29	0.80	1.69	0.51	0.0597	0.0221
Adrenals	3.32	1.21	2.44	0.61	0.00433	0.00127
Thymus	2.40	1.78	1.78	0.35	0.0505	0.0090
Thyroid	3.75	1.75	2.74	1.00	0.00109	0.00046
Urinary Bladder	1.90	1.64	1.34	0.98	0.00363	0.00069
Pancreas	1.32	0.44	1.72	0.14	0.0627	0.0214
Testes	0.683	0.185	0.512	0.135	0.0805	0.0232
Cecum	1.75	0.50	1.31	0.36	0.0343	0.0122
Large Intestine	1.63	0.37	1.22	0.25	0.0836	0.0239
Small Intestine	2.61	0.47	1.97	0.40	0.353	0.116
Stomach	2.40	1.75	1.72	1.02	0.133	0.117

Disposition Summary (Dose Recovered [%])

Sample	% Recovered Mean	% Recovered SD
Urine + Cage Rinse	8.84	1.15
Urine	6.47	1.40
Cage Rinse	2.37	0.63
Feces	3.23	1.18
Volatile Organics	0.151	0.017
CO ₂	61.3	3.6
GI Content	0.944	0.351
Carcass	0.00	0.00
Tissues	13.3	2.5
Total Recovered	87.5	5.0

^aAll values expressed as mean $\pm$ standard deviation (SD) (N = 5). The target dose was 1 mg L-BMAA/kg. The actual dose delivered was 1.1 $\pm$ 0.1 mg/kg (34.1 $\pm$ 2.1 μ Ci).

^bCPDE = Cumulative percent dose excreted

^c24 hour (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 7.4%, muscle 40.4%, and skin 19% (International Life Sciences Institute, 1994).
TBR = Tissue to blood ratio.