

Disposition of Radioactivity 24 Hours Following a Single 100 mg/kg Oral Gavage Administration of [14 C]L-BMAA to Male Harlan Sprague Dawley Rats (Group C)^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	0.528 $\pm$ 0.450	0.301 $\pm$ 0.261	–	0.005 $\pm$ 0.001	13.1 $\pm$ 2.5	–	13.9
8	2.79 $\pm$ 0.63	1.15 $\pm$ 0.45	–	0.055 $\pm$ 0.001	28.3 $\pm$ 4.2	–	32.3
12	4.52 $\pm$ 0.62	1.59 $\pm$ 0.65	–	0.096 $\pm$ 0.008	36.2 $\pm$ 7.3	–	42.4
24 ^c	6.17 $\pm$ 0.93	1.59 $\pm$ 0.65	1.42 $\pm$ 0.90	0.129 $\pm$ 0.013	45.8 $\pm$ 6.5	1.05 $\pm$ 0.24	56.0

Disposition in Tissues

Tissue	nmol-eq/g Mean	nmol-eq/g SD	TBR Mean	TBR SD	% Recovery Mean	% Recovery SD
Blood ^d	111	8	unity	–	1.32	0.10
Adipose ^d	51.3	12.1	0.461	0.089	0.579	0.141
Muscle ^d	98.9	20.7	0.901	0.221	6.41	1.28
Skin ^d	133	14	1.21	0.20	4.07	0.43
Brain	106	24	0.950	0.160	0.110	0.022
Heart	104	14	0.938	0.096	0.0546	0.0085
Kidneys	344	75	3.09	0.58	0.373	0.098
Liver	738	460	6.52	4.05	4.83	2.94
Lung	149	19	1.30	0.15	0.293	0.358
Spleen	171	19	1.54	0.07	0.0671	0.0128
Adrenals	268	75	2.46	0.88	0.00500	0.00054
Thymus	214	40	1.93	0.26	0.0509	0.0171
Thyroid	431	109	3.94	1.15	0.00134	0.00079
Urinary Bladder	415	299	3.87	3.00	0.00897	0.00506
Pancreas	246	50	2.24	0.50	0.0450	0.0095
Testes	72.1	14.8	0.648	0.103	0.140	0.023
Cecum	134	25	1.20	0.17	0.0453	0.0229
Large Intestine	143	50	1.30	0.43	0.0816	0.0147
Small Intestine	206	22.3	1.87	0.25	0.450	0.098
Stomach	129	6	1.17	0.14	0.0972	0.0090

Disposition Summary (Dose Recovered [%])

Sample	% Recovered Mean	% Recovered SD
Urine + Cage Rinse	7.76	0.99
Urine	6.17	0.93
Cage Rinse	1.59	0.65
Feces	1.42	0.90
Volatile Organics	0.129	0.013
CO ₂	45.8	6.5
GI Content	1.04	0.24
Carcass	0.174	0.334
Tissues	20.2	2.8
Total Recovered	76.3	4.8

^aAll values expressed as mean $\pm$ standard deviation (SD) (N = 4). The target dose was 100 mg L-BMAA/kg. The actual dose delivered was 101 $\pm$ 2 mg/kg (35.0 $\pm$ 0.6 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.