

Disposition of Radioactivity 24 Hours Following a Single 10 mg/kg Oral Gavage Administration of [^{14}C]L-BMAA to Male Harlan Sprague Dawley Rats (Group B)^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	1.07 $\pm$ 0.61	0.723 $\pm$ 0.258	—	0.0328 $\pm$ 0.0079	27.4 $\pm$ 5.8	—	29.2
8	2.63 $\pm$ 0.61	1.28 $\pm$ 0.34	—	0.0648 $\pm$ 0.0117	41.6 $\pm$ 8.2	—	45.8
12	3.28 $\pm$ 1.50	1.64 $\pm$ 0.42	—	0.0816 $\pm$ 0.0131	49.1 $\pm$ 6.6	—	56.7
24 ^c	4.65 $\pm$ 2.05	2.02 $\pm$ 0.37	2.76 $\pm$ 1.25	0.105 $\pm$ 0.010	54.9 $\pm$ 5.3	0.861 $\pm$ 0.504	66.4

Disposition in Tissues

Tissue	nmol-eq/g Mean	nmol-eq/g SD	TBR Mean	TBR SD	% Recovery Mean	% Recovery SD
Blood ^d	12.0	1.8	unity	—	0.895	0.514
Adipose ^d	8.35	2.42	0.715	0.222	0.567	0.370
Muscle ^d	6.73	1.02	0.577	0.106	2.71	1.56
Skin ^d	12.0	1.2	1.02	0.12	2.27	1.28
Brain	6.67	3.52	0.543	0.189	0.0569	0.0335
Heart	9.09	1.52	0.769	0.044	0.0386	0.0068
Kidneys	23.9	4.1	2.03	0.25	0.198	0.370
Liver	73.4	24.1	6.40	2.75	4.01	1.70
Lung	15.3	2.0	1.31	0.20	0.0893	0.0074
Spleen	16.1	2.5	1.37	0.20	0.0518	0.0042
Adrenals	24.2	4.2	2.08	0.45	0.00544	0.00187
Thymus	19.7	4.3	1.66	0.20	0.0414	0.0096
Thyroid	21.9	6.2	1.85	0.40	0.00112	0.00032
Urinary Bladder	15.7	6.5	1.32	0.52	0.00439	0.00191
Pancreas	16.8	2.0	1.44	0.22	0.0476	0.0062
Testes	6.11	2.02	0.508	0.090	0.0989	0.0259
Cecum	11.2	2.9	0.937	0.143	0.0322	0.0098
Large Intestine	12.0	2.5	1.00	0.08	0.0667	0.0134
Small Intestine	21.5	5.2	1.81	0.26	0.376	0.078
Stomach	12.3	1.5	1.06	0.20	0.0806	0.0166

Disposition Summary (Dose Recovered [%])

Sample	% Recovered Mean	% Recovered SD
Urine + Cage rinse	7.76	0.87
Urine	4.65	2.05
Cage Rinse	2.02	0.37
Feces	2.76	1.25
Volatile Organics	0.105	0.010
CO ₂	54.9	5.3
GI Content	0.861	0.504
Carcass	1.95	3.64
Tissues	13.4	2.0
Total Recovered	79.8	5.6

^aAll values expressed as mean $\pm$ standard deviation (SD) (N = 5). The target dose was 10 mg L-BMAA/kg. The actual dose delivered was 9.82 $\pm$ 0.46 mg/kg (35.6 $\pm$ 1.7 μCi).

^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.