

**Distribution of Radioactivity 24 Hours Following Oral Administration of 100 mg/kg
[¹⁴C]DMAE to Female B6C3F₁ Mice (DMAE Study N)^a**

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Feces CPDE	Volatile Organics ^c CPDE	CO ₂ ^c CPDE	Total CPDE
1	d	e	0.112 ± 0.013	1.44 ± 0.31	1.55
2	d	e	0.267 ± 0.056	2.64 ± 0.31	2.90
3	d	e	0.412 ± 0.110	3.96 ± 0.18	4.37
4 ^d	5.41 ± 3.15	e	0.580 ± 0.092	5.27 ± 0.43	11.3
6	NA ^f	e	0.756 ± 0.107	7.12 ± 0.78	7.88
8 ^e	10.0 ± 3.5	0.989 ± 1.025	0.935 ± 0.126	9.27 ± 1.26	21.2
12	12.6 ± 3.0	NA	1.10 ± 0.15	11.3 ± 1.3	14.6
24 ^g	17.9 ± 3.9	1.10 ± 0.41	1.27 ± 0.16	15.5 ± 0.6	37.1

Distribution in Tissues (24 hours)

Tissue	nmol-eq DMAE/g Mean	nmol-eq DMAE/g SD	TBR ^k Mean	TBR SD	Dose in Total Tissue (%) Mean	Dose in Total Tissue (%) SD
Blood ^h	133	9	Unity	–	0.627	0.048
Adipose ^h	223	55	1.69	0.43	1.51	0.38
Muscle ^h	265	58	2.00	0.45	9.76	2.00
Skin ^h	242	48	1.84	0.44	3.82	0.64
Brain	2100	3180	15.5	23.0	0.0042	0.0007
Heart	580	174	4.36	1.22	0.0370	0.0089
Kidneys	1900	210	14.3	1.8	9.44	0.69
Liver	1360	270	10.2	1.6	0.846	0.106
Lung	323	30	2.44	0.24	0.617	0.033
Spleen	941	201	7.11	1.59	0.253	0.012
Thyroid	547	85	4.12	0.62	0.245	0.021
Urinary Bladder	2270	210	17.1	1.4	2.66	0.21
Testes/Ovaries	729	133	5.45	0.67	0.371	0.108
Stomach ⁱ	17.9	3.2	0.134	0.016	0.732	0.167
Small Intestine ⁱ	122	13	0.923	0.132	5.02	0.54
Cecum ⁱ	13.7	4.6	0.103	0.032	0.534	0.096
Large Intestine ⁱ	22.5	10.8	0.171	0.087	0.850	0.471
Carcass ^j	NA	–	NA	–	7.17	3.12

Disposition Summary [Dose Recovered (%)]

Tissues and GI Tract	Excreted	Total
44.5 ± 1.7	37.1 ± 4.6	81.6 ± 4.4

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 100 mg DMAE/kg. The actual dose delivered was 96.0 ± 4.0 mg/kg (92.7 ± 3.9 µCi).

^bCPDE = Cumulative percent dose excreted.

^cVolatile organics (trapped by isopropanol) in exhaled breath.

^dThe first urine collection was 0–4 hours (h).

^eThe first feces collection was 0–8 h.

^fNA = Not applicable.

^g24 h urine collection includes urine present in the urinary bladder at study termination.

^hPercent of dose in these tissues calculated using the following percentages of body weight: adipose 7.0%, blood 7.4%, muscle 40.4%, and skin 19%.

ⁱIncludes contents.

^jCarcass values are based on the residual digested carcass after the removal of the listed tissues (i.e., percent dose measured in skin, adipose, blood, and muscle was subtracted from the total percent dose measured in the carcass).

^kTBR = Tissue to blood ratio.