

**Distribution of Radioactivity 24 Hours Following Oral Administration of 500 mg/kg
[¹⁴C]DMAE to Male B6C3F₁ Mice (DMAE Study J-1)^a**

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Feces CPDE	Volatile Organics ^c CPDE	CO ₂ CPDE	Total CPDE
1	NA ^d	e	0.142 ± 0.042	2.09 ± 0.38	2.23
2	NA	e	0.312 ± 0.074	3.91 ± 0.498	4.22
3	NA	e	0.552 ± 0.143	5.32 ± 0.46	5.88
4	8.08 ± 9.31	e	0.822 ± 0.213	7.34 ± 0.43	12.2
6	NA	e	1.05 ± 0.277	9.02 ± 0.27	10.1
8	15.5 ± 11.3	7.86 ± 11.6	1.32 ± 0.283	10.8 ± 0.6	38.0
12	20.1 ± 16.4	NA	1.56 ± 0.298	13.4 ± 0.6	26.3
24 ^f	27.1 ± 20.0	13.7 ± 14.9	1.75 ± 0.319	17.8 ± 1.1	60.4

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
Adipose ^g	851	467	1.15	0.740	1.06	0.57
Urinary Bladder	2720	460	3.54	0.49	0.034	0.003
Blood ^g	801	131	Unity	—	0.697	0.098
Brain	1330	93	1.74	0.23	0.341	0.028
Heart	2200	349	2.87	0.35	0.167	0.005
Kidney	15100	5516	20.2	10.8	2.66	0.67
Liver	9760	2089	12.7	2.3	9.09	2.06
Lung	6450	1602	8.28	0.68	0.539	0.063
Muscle ^g	1170	458	1.56	0.760	6.75	4.60
Skin ^g	1030	29	1.36	0.26	4.31	2.11
Spleen	3980	1717	5.00	1.14	0.148	0.012
Thyroid	9230	8011	12.0	11.6	0.004	0.002
Testes	1690	477	2.16	0.33	0.257	0.026
Stomach ^h	NA	—	NA	—	0.568	0.068
Small Intestine ^h	NA	—	NA	—	3.06	0.44
Cecum ^h	NA	—	NA	—	0.296	0.002
Large Intestine ^h	NA	—	NA	—	0.469	0.050
Carcass ⁱ	NA	—	NA	—	1.31	1.44

Disposition Summary [Dose Recovered (%)]

Tissues and GI Tract	Excreted	Total
31.8 ± 1.5	60.4 ± 12.9	92.1 ± 13.6

^aAll values expressed as mean ± standard deviation (SD) (N = 3). The target dose was 500 mg DMAE/kg. The actual dose delivered was 509 ± 5 mg/kg (51.3 ± 0.5 µCi). Study J-1 was conducted to confirm the results of Study J because one of the mice from Study J was an outlier. The results between the studies were consistent, confirming that animal J004 was an outlier.

^bCPDE = Cumulative percent dose excreted.

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

^dNA = Not applicable.

^eThe first feces collection was 0–8 hours (h).

^f24 h urine collection includes urine present in the urinary bladder at study termination.

^gPercent of dose in these tissues calculated using the following percentages of body weight: adipose 7.0%, blood 4.9%, muscle 38.4%, and skin 16.5%.

^hIncludes contents.

ⁱCarcass 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.