

**Distribution of Radioactivity 72 Hours Following Oral Administration of 500 mg/kg
[¹⁴C]DMAE to Female B6C3F₁ Mice (DMAE Study F)^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
4	13.4 ± 18.0	d	0.147 ± 0.046	2.59 ± 0.57	16.1 ± 18.4
8	31.4 ± 21.2	0.343 ± 0.558	0.332 ± 0.092	4.95 ± 0.95	37.0 ± 22.1
12	47.9 ± 4.0	d	0.459 ± 0.072	7.33 ± 1.09	56.0 ± 4.8
24	50.4 ± 3.6	1.08 ± 1.51	0.590 ± 0.104	10.9 ± 1.27	63.0 ± 4.6
32	e	d	0.729 ± 0.122	13.7 ± 1.5	66.0 ± 4.6
48	52.0 ± 3.8	1.92 ± 1.33	0.848 ± 0.126	16.9 ± 1.6	71.6 ± 4.8
56	e	d	1.03 ± 0.16	18.4 ± 2.0	73.3 ± 4.7
72 ^f	53.8 ± 3.9	2.24 ± 1.31	1.08 ± 0.19	21.0 ± 2.2	78.3 ± 4.7

Distribution in Tissues (72 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	1582	580	3.56	1.63	1.84	0.69
Urinary Bladder	1964	109	4.80	2.59	0.0259	0.0092
Blood ^g	509	280	Unity		0.681	0.216
Brain	1181	211	2.75	1.19	0.412	0.228
Heart	1791	354	4.12	1.74	0.141	0.023
Kidney	4338	583	10.1	4.2	1.49	1.35
Liver	3808	1911	7.84	1.70	2.97	0.96
Lung	3112	1199	6.78	2.37	0.314	0.096
Muscle ^g	855	213	2.06	1.01	5.44	1.43
Skin ^g	872	211	1.94	0.57	2.38	0.58
Spleen	2425	803	5.34	1.84	0.119	0.027
Thyroid	4850	2164	11.0	5.2	0.0036	0.0015
Uterus	1858	841	3.73	0.94	0.174	0.098
Stomach ^h	NA ⁱ	—	NA	—	0.311	0.092
Small Intestine ^h	NA	—	NA	—	1.56	0.52
Cecum ^h	NA	—	NA	—	0.177	0.040
Large Intestine ^h	NA	—	NA	—	0.292	0.036
Carcass ^j	NA	—	NA	—	0.97	1.04

Disposition Summary [Dose Recovered (%)]

Tissues and GI Tract	Excreted	Total
19.0 ± 3.7	78.3 ± 4.7	97.2 ± 6.4

^aAll values expressed as mean ± standard deviation (SD) (N = 4). The target dose was 500 mg DMAE/kg. The actual dose delivered was 539 ± 13 mg/kg (117 ± 3 µCi/kg).

^bCPDE = Cumulative percent dose excreted.

^cVolatile organics (trapped by isopropanol) and CO₂ (trapped by 1 N NaOH in H₂O) (N = 3, F001, F004, F005) or ethylene glycol monomethyl ether and ethanolamine (7:3) (N = 1, F006) in exhaled breath.

^dFeces were collected at 8, 24, 48, and 72 hours (h) after [¹⁴C]DMAE administration.

^eUrine was collected at 4, 8, 12, 24, 48, and 72 h after [¹⁴C]DMAE administration.

^f72 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. \$

ⁱNA = Not applicable.

^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.