

### Distribution of Radioactivity 24 Hours Following Oral Administration of 500 mg/kg [<sup>14</sup>C]DMAE to Female Wistar Han Rats (DMAE Study G)<sup>a</sup>

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE <sup>b</sup>	Feces CPDE	Volatile Organics <sup>c</sup> CPDE	CO <sub>2</sub> <sup>c</sup> CPDE	Total CPDE
1	d	e	0.0423 ± 0.024	0.415 ± 0.162	0.458 ± 0.161
2	d	e	0.184 ± 0.132	1.04 ± 0.43	1.23 ± 0.55
3	d	e	0.374 ± 0.284	1.59 ± 0.58	1.96 ± 0.83
4	17.9 ± 5.7	e	0.623 ± 0.405	2.04 ± 0.59	20.6 ± 5.1
6	d	e	0.703 ± 0.425	2.85 ± 0.65	21.5 ± 5.1
8	40.6 ± 9.9	0.140 ± 0.216	0.746 ± 0.432	3.70 ± 0.69	45.2 ± 9.0
12	52.5 ± 6.0	e	0.780 ± 0.437	4.74 ± 0.72	58.1 ± 5.0
24 <sup>f</sup>	63.5 ± 1.8	0.549 ± 0.147	0.818 ± 0.456	6.09 ± 0.81	70.9 ± 0.8

Distribution in Tissues (24 hours)

Tissue	nmol-eq DMAE per g Tissue	Tissue/Blood Ratio	Dose in Total Tissue (%)
Adipose <sup>g</sup>	414 ± 65	0.523 ± 0.086	0.514 ± 0.087
Urinary Bladder	3290 ± 1200	4.17 ± 1.58	0.0136 ± 0.0045
Blood <sup>g</sup>	795 ± 85	Unity	1.04 ± 0.06
Brain	1990 ± 255	2.54 ± 0.57	0.301 ± 0.035
Heart	1540 ± 294	1.97 ± 0.52	0.0977 ± 0.0186
Kidney	7570 ± 369	9.63 ± 1.43	0.886 ± 0.031
Liver	11600 ± 583	14.8 ± 2.1	7.95 ± 1.35
Lung	4220 ± 1290	5.40 ± 1.96	0.354 ± 0.055
Muscle <sup>g</sup>	1000 ± 136	1.28 ± 0.30	7.21 ± 1.29
Skin <sup>g</sup>	1140 ± 81	1.45 ± 0.22	3.85 ± 0.39
Spleen	4710 ± 800	6.05 ± 1.61	0.164 ± 0.027
Thyroid	6600 ± 4270	8.70 ± 5.68	0.00357 ± 0.00270
Uterus	4520 ± 1400	5.82 ± 2.14	0.126 ± 0.037
Stomach <sup>h</sup>	NA <sup>i</sup>	NA	0.617 ± 0.116
Small Intestine <sup>h</sup>	NA	NA	2.11 ± 0.09
Cecum <sup>h</sup>	NA	NA	0.225 ± 0.021
Large Intestine <sup>h</sup>	NA	NA	0.406 ± 0.018
Carcass <sup>j</sup>	NA	NA	1.57 ± 1.14

Disposition Summary [Dose Recovered (%)]

Tissues and GI Tract	Excreted	Total
27.4 ± 1.4	70.9 ± 0.8	98.4 ± 0.8

<sup>a</sup>All values expressed as mean ± standard deviation (SD) (N = 4). The target dose was 500 mg DMAE/kg. The actual dose delivered was 499 ± 5 mg/kg (53.4 ± 0.5 µCi/kg).

<sup>b</sup>CPDE = Cumulative percent dose excreted.

<sup>c</sup>Volatile organics (trapped by isopropanol) and CO<sub>2</sub> in exhaled breath.

<sup>d</sup>Urine was collected at 4, 8, 12, and 24 hours (h) after [<sup>14</sup>C]DMAE administration.

<sup>e</sup>Feces were collected at 8 and 24 h after [<sup>14</sup>C]DMAE administration.

<sup>f</sup>24 h urine collection includes urine present in the urinary bladder at study termination.

<sup>g</sup>Percent of dose in these tissues calculated using the following percentages of body weight: adipose 7.0%, blood 7.4%, muscle 40.4%, and skin 19.0%.

<sup>h</sup>Includes contents.

<sup>i</sup>NA = Not applicable.

<sup>j</sup>Carcass 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).