

**Disposition of Radioactivity 24 Hours Following Oral Administration of 20 mg/kg
[¹⁴C] 2,2'-Dimorpholinodiethyl ether to Female Harlan Sprague Dawley Rats (Group S)^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	16.2 ± 5.5	9.40 ± 2.48	—	0.0107 ± 0.0046	0.250 ± 0.102	—	25.9
8	30.7 ± 6.8	16.5 ± 3.9	—	0.0200 ± 0.0025	0.456 ± 0.199	—	47.6
12	41.4 ± 8.4	21.1 ± 3.5	—	0.0208 ± 0.0020	0.550 ± 0.223	—	63.1
24 ^c	54.5 ± 8.0	29.0 ± 4.8	7.04 ± 2.76	0.0418 ± 0.0182	0.864 ± 0.337	1.10 ± 0.48	93.1

Disposition in Tissues

Tissue	nmol-eq/g Mean	nmol-eq/g SD	TBR Mean	TBR SD	% Recovery Mean	% Recovery SD
Blood ^d	1.96	0.77	unity	—	0.183	0.074
Adipose ^d	2.36	1.01	1.26	0.44	0.207	0.089
Muscle ^d	3.49	1.79	1.75	0.45	1.76	0.90
Skin ^d	6.67	2.52	3.58	0.90	1.58	0.58
Brain	8.69	2.27	4.88	1.64	0.106	0.026
Heart	10.8	8.6	5.35	3.08	0.0485	0.0432
Kidneys	36.6	18.8	17.6	3.9	0.325	0.162
Liver	43.0	21.8	21.1	4.0	2.32	1.12
Lung	16.6	13.0	7.98	4.36	0.125	0.097
Spleen	40.0	21.0	19.6	4.7	0.154	0.074
Adrenals	28.4	14.9	14.5	4.4	0.00655	0.00248
Thymus	9.41	3.78	4.78	0.37	0.0235	0.0099
Thyroid	26.0	15.8	12.6	4.5	0.00685	0.00273
Urinary Bladder	7.86	5.36	4.06	2.34	0.00148	0.00065
Pancreas	11.5	8.2	7.33	7.39	0.0857	0.0683
Ovaries	9.79	4.52	5.08	1.54	0.0244	0.0105
Cecum	6.66	2.68	3.64	1.30	0.0252	0.0080
Large Intestine	11.1	6.7	5.56	2.00	0.0869	0.0563
Small Intestine	7.95	3.09	4.10	0.46	0.177	0.071
Stomach	4.29	2.77	2.37	1.23	0.0312	0.0193

Disposition Summary

Sample	% Dose Recovered
Urine + Cage Rinse	83.6 ± 7.3
Urine	54.5 ± 8.0
Cage Rinse	29.0 ± 4.8
Feces	7.04 ± 2.76
Volatile Organics	0.0418 ± 0.0182
CO ₂	0.864 ± 0.337
GI Content	1.10 ± 0.48
Carcass	0.406 ± 0.488
Tissues	7.69 ± 2.80
Total Recovered	100.7 ± 3.3

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 20 mg DMDEE/kg. The actual dose delivered was 20.6 ± 0.3 mg/kg (40.2 ± 0.6 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.