

**Recovery of Radioactivity 72 Hours Following Dermal Administration
of 6.2 mg/kg [14C]Dicyclohexylcarbodiimide to Male B6C3F₁ Mice – 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
8	NS ^f	NC ^g	1.05 ± 0.43	0.08 ± 0.03	1.14 ± 0.44
24 ^d	10.5 ± 1.6	4.51 ± 0.47	1.29 ± 0.49	0.13 ± 0.04	16.4 ± 2.0
48 ^d	13.4 ± 1.8	6.57 ± 0.89	1.40 ± 0.55	0.16 ± 0.05	21.5 ± 2.2
72 ^e	22.2 ± 2.4	10.2 ± 1.3	1.51 ± 0.53	0.18 ± 0.05	34.0 ± 3.8

Distribution in Tissues (72 hours)

Tissue	ng-eq per g tissue Mean	ng-eq per g tissue SD	TBR ^h Mean	TBR SD	% Dose in Total Tissue ⁱ Mean	% Dose in Total Tissue SD
Adipose	542	105	19.9	3.7	0.8	0.1
Bladder	210.0	69.8	7.7	2.6	0.0027	0.0007
Blood	27.3	1.1	Unity	–	0.033	0.002
Brain	81.0	9.3	3.0	0.4	0.021	0.002
Heart	352	109	12.9	3.7	0.020	0.002
Kidney	253.0	29.3	9.3	0.9	0.057	0.005
Liver	488	36.2	17.9	1.3	0.43	0.07
Lung	84.3	11.6	3.1	0.4	0.008	0.002
Muscle	80.0	8.1	2.9	0.3	0.59	0.07
Skin	1050	1130	37.9	39.5	2.5	2.8
Spleen	85.0	14.5	3.1	0.6	0.0025	0.0003
Testes	83.7	10.2	3.1	0.3	0.009	0.001
Carcass ^j	NA	–	NA	–	0.0	0.0
Dose Site	403	183	14.9	6.9	3.2	1.5

Disposition Summary – Overall Percent Dose Recovered (Absorbed + Unabsorbed Dose)

Percent Dose	Mean ± SD
Absorbed Dose	–
Excreta	–
Urine	22.2 ± 2.4
Feces	10.2 ± 1.3
Exhaled CO ₂	0.2 ± 0.1
Volatile Organics	1.5 ± 0.5
Volatile Organics by charcoal	NC
Dose Site	3.2 ± 1.5
Residual Carcass ^j	0.0 ± 0.0
Collected Tissues	4.5 ± 2.8
Total % Dose Absorbed	41.2 ± 4.8
Unabsorbed Dose	–
Total % Dose Unabsorbed ^k	42.9 ± 4.8
Overall % Dose Recovered	84.1 ± 3.2

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 6.2 mg dicyclohexylcarbodiimide/kg body weight. The actual dose delivered was 6.2 ± 0.01 mg/kg (25.5 ± 1.2 µCi/animal) (0.05 mg/cm²). Animals were weighted prior to shaving ca. 24 hours prior to

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(continued)**

dosing. Because dicyclohexylcarbodiimide (DCC) readily sublimates at room temperature, dose sites were covered by nonocclusive appliances (wire mesh tissue capsule) to protect the dose site and permit recovery of volatilized [¹⁴C]DCC. The appliance was a wire mesh tissue capsule.

^bCPDE = Cumulative percent dose excreted.

^cVolatile organics and CO₂ in exhaled breath.

^dUrine values include methanol rinse of the urine flask.

^eUrine value includes cage rinse.

^fNS = no sample. No sample was acquired for this time interval.

^gNC = not collected. No collection was scheduled for this time interval.

^hTBR = Tissue/Blood ratio.

ⁱPercent Dose was calculated using the following values for the mass of total tissue, expressed as percent of body weight: adipose, 9.6%; blood, 7.6%; muscle, 45.2%; and skin, 14.7%.

^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).

^kTotal radioactivity in the appliance and skin wash, etc.