

Distribution of Radioactivity 72 Hours Following Dermal Administration of 10 mg/kg [¹⁴C]Butyl Paraben to Male Sprague Dawley Rats – Group 4b

Percent of Dose Recovered in Excreta

Sample	Collection Interval (h)	4b-1	4b-2	4b-3	4b-4	Mean	SD
Urine	0 to 4	1.15	1.31	1.06	1.29	1.2	0.11
Urine	4 to 8	1.45	1.77	0.05	4.85	2.03	2.02
Urine	8 to 12	3.2	2.39	8.5	5.59	4.92	2.75
Urine	12 to 24	11.3	6.03	12.4	11.8	10.4	2.94
Urine	24 to 48	11.6	6.45	12.1	18.3	12.1	4.85
Urine	48 to 72 ^a	8.12	6.46	7.51	9.94	8.01	1.46
Cage Rinse	0 to 72	8.5	10.8	7.24	3.59	7.53	3.01
-	Subtotal	45.3	35.2	48.9	55.4	46.2	8.42
Feces	0 to 24	0.56	0.82	0.32	0.3	0.5	0.24
Feces	24 to 48	0.71	0.64	0.57	0.64	0.64	0.05
Feces	48 to 72	0.51	0.64	0.46	0.55	0.54	0.07
-	Subtotal	1.78	2.1	1.35	1.49	1.68	0.33
Total	-	47.1	37.3	50.2	56.8	47.9	8.11

Distribution in Tissues (72 h)

Tissue	ng-eq/g Mean	ng-eq/g SD	TBR Mean	TBR SD	Percent Recovery Mean	Percent Recovery SD
Adipose Perirenal ^b	327	147	5.61	2.82	0.245	0.111
Muscle (hind leg) ^b	464	55	7.89	1.80	2.010	0.236
Skin (abdominal) ^b	394	77	6.68	1.79	0.802	0.161
Blood ^b	60	8	1.00	0.00	0.047	0.007
Plasma ^b	32	5	0.54	0.08	0.014	0.002
Spleen	994	50	16.90	3.01	0.025	0.003
Liver	1600	189	27.20	5.14	0.772	0.045
Kidney	3210	254	54.40	9.52	0.262	0.014
Brain	88	12	1.50	0.40	0.006	0.001
Heart	1300	260	22.20	6.72	0.059	0.012
Lung	567	24	9.62	1.67	0.031	0.001
Testes	130	7	2.19	0.26	0.018	0.001
Total	-	-	-	-	4.290	0.508

Disposition Summary – Percent of Dose Recovered

Unabsorbed Dose	4b-1	4b-2	4b-3	4b-4	Mean	SD
Dose Site Skin Wash	10.1	18.9	7.00	6.04	10.5	5.86
Gauze Wipes	5.57	9.83	6.82	3.72	6.48	2.57
Appliance	5.07	3.48	4.29	4.40	4.31	0.65
Total	20.7	32.2	18.1	14.2	21.3	7.75
Dose Site Skin	15.0	15.9	17.6	16.6	16.3	1.1
Absorbed Dose	-	-	-	-	-	-
Urine ^c	45.3	35.2	48.9	55.4	46.2	8.42
Feces	1.78	2.10	1.35	1.49	1.68	0.33
Tissues	3.84	3.86	4.73	4.73	4.29	0.51
Total	50.9	41.2	54.9	61.6	52.2	8.55
Overall Recovery	86.7	89.3	90.6	92.4	89.7	2.41

^a Includes urine present in bladder at time of sacrifice.

^b Tissue weights for dispersed tissues were calculated based on body weight as follows: adipose 7.0%, muscle 40.4%, skin 19%, blood 7.4%, and plasma 4.3%.

^c Includes Cage Rinse.