

**Distribution of Radioactivity 72 Hours Following Dermal Application of 2% [¹⁴C]Hydroquinone
to Male Harlan Sprague Dawley Rats with Covered Dose Sites – Group 19**

Percent of Dose Recovered in Excreta

Sample	Collection Interval (h)	19_01	19_02	19_03	Mean	SD
Urine	0 to 8	0.39	1.40	0.54	0.78	0.55
Urine	8 to 24	3.88	6.78	3.57	4.74	1.77
Urine	24 to 48	5.67	6.32	8.20	6.73	1.31
Urine	48 to 72 ^a	3.67	3.36	3.31	3.45	0.20
-	Subtotal	13.6	17.9	15.6	15.7	2.2
Cage Rinse	0 to 8	0.25	0.83	0.33	0.47	0.31
Cage Rinse	8 to 24	0.54	1.01	0.35	0.63	0.34
Cage Rinse	24 to 48	0.61	1.12	0.91	0.88	0.26
Cage Rinse	48 to 72	0.79	0.66	0.30	0.58	0.25
-	Subtotal	2.19	3.62	1.89	2.57	0.92
Urine + Cage Rinse	Subtotal	15.8	21.5	17.5	18.3	2.9
Feces	0 to 24	0.04	0.08	0.04	0.05	0.02
Feces	24 to 48	0.08	0.07	0.05	0.07	0.02
Feces	48 to 72	0.04	0.07	0.04	0.05	0.02
-	Subtotal	0.16	0.22	0.13	0.17	0.05
Total	-	16.0	21.7	17.6	18.4	2.9

Distribution in Tissues (72 h)

Tissue ^b	ng-eq/g Mean	ng-eq/g SD	TBR Mean	TBR SD	Percent Recovery Mean	Percent Recovery SD
Adipose Perirenal	9.06	1.48	0.59	0.19	0.0069	0.0008
Bladder	391	154	27.6	15.5	0.0018	0.0011
Muscle (hind leg)	BLOD	-	0.25	0.02	BLOQ	-
Skin (abdominal)	17.2	1.8	1.16	0.20	0.0359	0.0045
Blood	16.2	0.2	1.00	0.00	0.0133	0.0006
Plasma	23.8	2.1	1.61	0.22	0.0002	<0.0001
Spleen	9.27	0.38	0.63	0.10	0.0002	<0.0001
Liver	13.7	1.6	0.93	0.08	0.0066	0.0012
Kidney	85.2	5.8	5.78	0.86	0.0075	0.0005
Brain	5.97	1.35	0.40	0.04	0.0004	0.0001
Heart	6.91	1.27	0.46	0.06	0.0003	0.0000
Lung	12.0	1.5	0.80	0.05	0.0007	0.0001
Stomach	11.4	8.1	0.80	0.59	0.0010	0.0001
Cecum	30.6	4.3	2.07	0.39	0.0008	0.0000
Large Intestine	17.9	7.0	1.17	0.33	0.0012	0.0007
Small Intestine	30.6	16.7	2.02	0.96	0.0052	0.0026
Thyroid	43.2	25.2	3.10	2.31	<0.0001	<0.0001
Femur	6.9	-	0.45	0.04	<0.0001	<0.0001
Marrow	BLOQ (12)	(2)	0.82	0.22	BLOQ	-
Pancreas	12.9	2.0	0.87	0.05	0.0006	0.0002
Testes	3.5	0.6	0.24	0.05	0.0005	0.0001
Total	-	-	-	-	0.098	0.009

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Disposition Summary – Percent of Dose Recovered

Sample	19_01	19_02	19_03	Mean	SD
Absorbed	-	-	-	-	-
Urine ^{a, c}	15.8	21.5	17.5	18.3	2.9
Feces	0.16	0.22	0.13	0.17	0.05
Tissues	0.098	0.107	0.090	0.098	0.008
GI Tract Contents	0.06	0.04	0.02	0.04	0.02
Subtotal	16.1	21.9	17.7	18.6	3.0
Unabsorbed	-	-	-	-	-
Gauze	21.8	16.1	13.9	17.3	4.1
Appliance	8.89	31.6	35.6	25.4	14.4
Dose site skin rinse	20.6	10.6	11.9	14.4	5.4
Subtotal	51.3	58.3	61.4	57.0	5.2
Dose site	27.3	17.2	21.0	21.8	5.1
Total	94.7	97.4	100.1	97.4	2.7

^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%, and blood 7.4%.

^c Includes cage rinse.

BLOQ = Below the limit of quantitation. Aliquot DPM were less than 3 times background DPM. Background DPM typically <20 DPM.

BLOD = Below the limit of detection. Aliquot DPM were less than background DPM.

SD = standard deviation.

TBR = Tissue to blood ratio.

2% dermal dose approximately equivalent to 10 mg/kg.