## Distribution of Radioactivity 72 Hours Following Dermal Application of 2% [$^{14}$C]Hydroquinone Without Appliance to Male Harlan Sprague Dawley Rats – Group 27

Percent of Dose Recovered in Excreta

| Sample | Collection Interval (h) | 27_01 | 27_02 | 27_03 | 27_04 | Mean | SD |
|---|---|---|---|---|---|---|---|
| Urine | 0 to 8 | 22.0 | 2.23 | 21.1 | 9.53 | 13.7 | 9.53 |
| Urine | 8 to 24 | 17.8 | 29.1 | 23.5 | 24.3 | 23.7 | 4.63 |
| Urine | 24 to 48 | 7.03 | 9.07 | 7.79 | 9.15 | 8.26 | 1.03 |
| Urine | 48 to 72[a] | 3.04 | 6.35 | 3.23 | 4.07 | 4.17 | 1.52 |
| **-** | **Subtotal** | **49.9** | **46.8** | **55.6** | **47.1** | **49.9** | **4.08** |
| Cage Rinse | 0 to 8 | 11.9 | 1.01 | 8.88 | 4.78 | 6.64 | 4.76 |
| Cage Rinse | 8 to 24 | 2.35 | 3.91 | 3.25 | 5.41 | 3.73 | 1.29 |
| Cage Rinse | 24 to 48 | 0.84 | 0.85 | 0.76 | 1.31 | 0.94 | 0.25 |
| Cage Rinse | 48 to 72 | 1.47 | 1.49 | 0.92 | 2.27 | 1.54 | 0.56 |
| **-** | **Subtotal** | **16.6** | **7.26** | **13.8** | **13.8** | **12.9** | **3.96** |
| **Urine + Cage Rinse** | **Subtotal** | **66.5** | **54.1** | **69.4** | **60.9** | **62.7** | **6.76** |
| Feces | 0 to 24 | 2.89 | 1.53 | 2.59 | 1.77 | 2.2 | 0.65 |
| Feces | 24 to 48 | 1.46 | 1.81 | 1.87 | 2.29 | 1.86 | 0.34 |
| Feces | 48 to 72 | 0.68 | 1.4 | 1.07 | 2.02 | 1.29 | 0.57 |
| **-** | **Subtotal** | **5.03** | **4.74** | **5.53** | **6.08** | **5.35** | **0.59** |
| **Total** | **-** | **71.5** | **58.8** | **74.9** | **67.0** | **68.1** | **6.98** |

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 | BLOQ | - | BLOQ | - | 0.0172 | 0.0017 |
| Bladder | 215 | 176 | 12.4 | 8.95 | 0.0009 | 0.0006 |
| Muscle (hind leg) | BLOQ | - | BLOQ | - | 0.0525 | 0.0224 |
| Skin (abdominal) | 180 | 96.1 | 10.5 | 4.61 | 0.359 | 0.187 |
| Blood | 17.1 | 2.9 | 1 | 0 | 0.0133 | 0.0021 |
| Plasma | 33.1 | 8.1 | 1.91 | 0.161 | 0.0002 | <0.0001 |
| Spleen | 16.5 | 2.6 | 0.975 | 0.131 | 0.0003 | <0.0001 |
| Liver | 46.5 | 7.1 | 2.73 | 0.11 | 0.0176 | 0.0025 |
| Kidney | 132 | 18.3 | 7.75 | 0.86 | 0.0109 | 0.0015 |
| Brain | 9.7 | 0.8 | 0.584 | 0.129 | 0.0007 | <0.0001 |
| Heart | 10.1 | 1.6 | 0.591 | 0.04 | 0.0003 | <0.0001 |
| Lung | 17.8 | 3 | 1.04 | 0.095 | 0.0009 | 0.0002 |
| Stomach | 189 | 58.5 | 10.9 | 2.05 | 0.0113 | 0.0033 |
| Cecum | 630 | 323 | 36.1 | 15.4 | 0.0123 | 0.0046 |
| Large Intestine | 190 | 77.3 | 11 | 3.16 | 0.0129 | 0.0048 |
| Small Intestine | 152 | 46 | 8.74 | 1.23 | 0.0283 | 0.0089 |
| Thyroid | 107 | 84.2 | 6.49 | 5.56 | <0.0001 | 0.0001 |
| Testes | 8.3 | 1.4 | 0.486 | 0.042 | 0.0011 | 0.0002 |
| Pancreas | 28.2 | 6.5 | 1.66 | 0.381 | 0.0012 | 0.0002 |
| Femur | 19.8 | 2.7 | 1.16 | 0.085 | 0.0003 | <0.0001 |
| Marrow | BLOQ | - | BLOQ | - | <0.0001 | <0.0001 |
| **Total** | **-** | **-** | **-** | **-** | **0.542** | **0.198** |

## Distribution of Radioactivity 72 Hours Following Dermal Application of 2% [$^{14}$C]Hydroquinone Without Appliance to Male Harlan Sprague Dawley Rats – Group 27

Disposition Summary – Percent of Dose Recovered

| Sample | 27_01 | 27_02 | 27_03 | 27_04 | Mean | SD |
|---|---|---|---|---|---|---|
| **Absorbed** | - | - | - | - | - | - |
| Urine[a, c] | 66.5 | 54.1 | 69.4 | 60.9 | 62.7 | 6.76 |
| Feces | 5.03 | 4.74 | 5.53 | 6.08 | 5.35 | 0.59 |
| Tissues | 0.38 | 0.544 | 0.424 | 0.82 | 0.542 | 0.198 |
| GI Tract Contents | 0.34 | 0.52 | 0.35 | 0.41 | 0.41 | 0.08 |
| **Subtotal** | **72.3** | **59.9** | **75.7** | **68.2** | **69.0** | **6.8** |
| **Unabsorbed** | - | - | - | - | - | - |
| Gauze | 4.41 | 5.82 | 3.3 | 1.73 | 3.82 | 1.73 |
| Dose site skin rinse | 2.85 | 3.45 | 1.36 | 1.89 | 2.39 | 0.94 |
| **Subtotal** | **7.26** | **9.27** | **4.69** | **3.62** | **6.21** | **2.55** |
| Dose site | 9.05 | 16.9 | 8.15 | 12.4 | 11.6 | 3.96 |
| **Total** | **88.6** | **86.1** | **88.5** | **84.2** | **86.9** | **2.1** |

[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.
SD = standard deviation.
TBR = Tissue to blood ratio.
2% dermal dose approximately equivalent to 10 mg/kg.