

Recovery of Radioactivity 72 Hours Following Oral Gavage Administration
of 10.4 mg/kg [¹⁴C]o-Chloropyridine to Male F344 Rats (Study A)^a

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Feces CPDE	Volatile Organics ^c CPDE	CO ₂ ^c CPDE	Total
6	16.3 ± 3.8	NC ^e	0.954 ± 0.298	4.38 ± 0.61	21.6 ± 4.0
12	26.0 ± 2.5	3.43 ± 4.70	1.06 ± 0.31	9.36 ± 1.04	39.8 ± 4.7
24	32.0 ± 1.8	25.0 ± 2.3	1.11 ± 0.33	11.3 ± 1.2	69.4 ± 2.6
48	34.8 ± 1.5	28.0 ± 2.6	1.13 ± 0.33	12.1 ± 1.2	76.0 ± 2.8
72 ^d	35.9 ± 1.6	28.4 ± 2.5	1.14 ± 0.33	12.5 ± 1.2	78.0 ± 3.0

Distribution in Tissues (72 hours)

Tissue	ng-eq/g Tissue Mean	ng-eq/g Tissue SD	TBR ^f Mean	TBR SD	Dose in Total Tissue (%) Mean ^g	Dose in Total Tissue (%) SD
Adipose ^h	140	84	0.417	0.270	0.0910	0.0545
Bladder	524	57	1.53	0.25	0.00185	0.00038
Blood	346	35	unity	–	0.167	0.018
Brain	101	10	0.293	0.033	0.00646	0.00134
Heart	364	39	1.06	0.16	0.0110	0.0014
Kidney	2500	309	7.27	0.94	0.176	0.007
Liver	3660	471	10.6	1.5	1.47	0.15
Lung	442	34	1.29	0.15	0.0158	0.0014
Muscle ^h	153	18	0.445	0.056	0.682	0.083
Skin, Ears	291	34	0.845	0.110	0.459	0.055
Spleen	506	35	1.48	0.19	0.0108	0.0014
Testes	139	7	0.404	0.039	0.0158	0.0010
Small Intestine ⁱ	NA ^k	–	NA	NA	0.106	0.007
Large Intestine ⁱ	NA	–	NA	NA	0.0652	0.0144
Cecum ⁱ	NA	–	NA	NA	0.0826	0.0087
Stomach ⁱ	NA	–	NA	NA	0.0636	0.0072
Carcass ^j	NA	–	NA	NA	0.485	0.093

Disposition Summary [Dose Recovered (%)]

Excreta	Residual Carcass ^j	Tissues	Total
78.0 ± 3.0	0.485 ± 0.093	3.43 ± 0.20	81.9 ± 2.9

^a Values are mean ± standard deviation (SD) for five rats. The average oral dose was 10.4 mg/kg (ca. 12.1 μ Ci/rat).

^b CPDE = Cumulative percent dose excreted.

^c Volatile organics and CO₂ in exhaled breath.

^d 72 hour (h) urine includes cage rinse.

^e NC = No collection was scheduled for this time interval.

^f TBR = Tissue/Blood ratio.

^g Percent dose was calculated using the following values for the mass of total tissue, expressed as percent of body weight taken from Caster et al., 1956; Lutz et al., 1977; Adolph, 1949; Supplee et al., 1952; Bischoff et al., 1971; and Donaldson, 1919: adipose, 7.0%; blood, 5.2%; muscle, 48.0%; skin, 17% and plasma, 52.0% of blood.

^h Adipose and muscle values are averaged results for two sampling locations.

ⁱ Includes contents.

^j Carcass 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.)

^k NA = Not applicable