

ADME NTP Study S0082 p-Nitrobenzoyl chloride

The contractor used the synonym 4-nitrobenzoyl chloride and abbreviated the test article as 4-NBC.

Sex/Species: male F344 rats.

Vehicle: oral, corn oil.

CASRN 122-04-3

Radiolabeled with carbon-14 in the ring; 4-Nitro(U-ring-¹⁴C)benzoyl chloride

Studies Performed:

- Single oral administration of 40 mg/kg 4-NBC to rats fasted for 16 hours with sacrifice 48 hours postdose.
- Single oral administration of 40 mg/kg 4-NBC to rats allowed food *ad libitum* with sacrifice 48 hours postdose.
- Single oral administration of 140 mg/kg 4-NBC to rats allowed food *ad libitum* with sacrifice 48 hours postdose.

In the tables, “X” represents the mean radiolabel as percent of dose for 3-4 rats with “S” likely representing standard deviation (not specified). Excreta values are cumulative. In the fasted animals, a very small amount of radioactivity was associated with the forestomach at 48 hours that could not be rinsed off with benzene.

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Table 1

Distribution of (U-ring-¹⁴C)-4-Nitrobenzoyl
Chloride in the Tissues of Three Fasted Rats at
48 h After Oral Dosing with 40 mg/kg.

	<u>X (%)</u>	<u>S</u>
CO ₂	0.37	0.08
Forestomach	0.02	0.01
Liver	0.49	0.02
Int. Cont.	1.53	0.40
Urine	85.67	0.93
Feces	5.47	0.85
Cage	3.52	2.40
Recovery	97.00	2.50

No residual radioactivity above background was found after 48 h in any other tissue. Data represent % of dose.

Table 2

Distribution of (U-ring-¹⁴C)-4-Nitrobenzoyl
Chloride in the Tissues of Four Fed Rats at
48 h After Oral Dosing with 40 mg/kg.

	<u>X (%)</u>	<u>S</u>
CO ₂	0.23	0.19
Forestomach	0.02	0.01
Liver	0.34	0.05
Int. Cont.	1.33	1.09
St. Cont.	1.36	0.40
Urine	71.35	2.52
Feces	19.45	1.69
Cage	4.50	2.60
Recovery	99.00	3.60

No residual radioactivity above background was found after
48 h in any other tissue. Data are % of dose.

Table 3

Distribution of (U-ring-¹⁴C)-4-Nitrobenoyl
Chloride in the Tissues of Three Fed Rats at
48 h After Oral Dosing with 140 mg/kg.

	<u>X (%)</u>	<u>S</u>
CO ₂	0.33	0.03
Forestomach	0.01	0.00
Liver	0.38	0.17
Int. Cont.	1.20	0.10
St. Cont.	0.02	0.01
Brain	0.02	0.01
Lung	0.01	0.00
Small Intestine	0.01	0.00
Large Intestine	0.04	0.02
Kidney	0.04	0.00
Fat	0.05	0.02
Urine	68.91	3.38
Feces	30.59	2.81
Cage	0.38	0.04
Recovery	101.00	2.00

No residual radioactivity above background was found after 48 h in any other tissue. Data are % of dose.