

Experiment Number: S0559
Route: Inhalation
Species/Strain: Rat/Fischer 344

Toxicokinetics Data Summary
Test Compound: Carbon disulfide
CAS Number: 75-15-0

Date Report Requested: 12/27/2016
Time Report Requested: 11:51:35
Lab: NIEHS_Midwest Research Institute

	Male		
	Treatment Groups (ppm)		
	50 ^a	500 ^b	800 ^b
	Blood		
C _{max} (ug/g)	0.76	10.2	18.9
t _{1/2} (Alpha) (minute)		3.2	1.3
t _{1/2} (Beta) (minute)		58.5	84.1
k ₁₀ (minute ⁻¹)	0.07	0.11	0.24
t _{1/2(k10)} (minute)	9.3	6.5	2.9
k ₁₂ (minute ⁻¹)		0.96	0.27
k ₂₁ (minute ⁻¹)		0.024	0.018
Cl (mL/min)	0.37	0.26	0.21
V ₁ (mL)	4.9	2.4	0.86
V _{ss} (mL)	4.9	12.0	13.8
MRT (minute)	13	47	67
AUC _{inf} (ug*min/mL)	137	1960	3890

Experiment Number: S0559
Route: Inhalation
Species/Strain: Rat/Fischer 344

Toxicokinetics Data Summary
Test Compound: Carbon disulfide
CAS Number: 75-15-0

Date Report Requested: 12/27/2016
Time Report Requested: 11:51:35
Lab: NIEHS_Midwest Research Institute

LEGEND

Study Start Date: June 14, 1993

Data are displayed as mean values

MODELING METHOD & BEST FIT MODEL

^a PCNONLIN, Statistical Consultants, Lexington, KY; unweighted one-compartment model

^b PCNONLIN, Statistical Consultants, Lexington, KY; two-compartment model using an unweighted regression

ANALYTE

Free Carbon disulfide

TK PARAMETERS

C_{max} = Observed or Predicted Maximum plasma (or tissue) concentration

$t_{1/2(\alpha)}$ = Half-life for the alpha phase

$t_{1/2(\beta)}$ = Half-life for the beta phase

k_{10} = Elimination rate constant from the central compartment also k_e or k_{elim}

$t_{1/2(k_{10})}$ = Half-life for the elimination process from the central compartment

k_{12} = Distribution rate constant from first to second compartment etc.

k_{21} = Distribution rate constant from second to first compartment etc.

Cl = Clearance, includes total clearance

V_1 = Volume of distribution of the central compartment, includes V_d and V_{volume} of distribution, V_z apparent volume of distribution NCA, V_{app} apparent volume of distribution for intravenous studies

V_{ss} = Volume of distribution at steady state

MRT = Mean residence time

AUC_{inf} = Area under the plasma concentration versus time curve, AUC, extrapolated to time equals infinity

**** END OF REPORT ****