Experiment Number: S0654
Route: Gavage
Species/Strain: Rat/Sprague-Dawley

Toxicokinetics Data Summary
Test Compound: Hexachlorobenzene
CAS Number: 118-74-1

Date Report Requested: 12/27/2016
Time Report Requested: 11:22:32
Lab: Midwest Research Institute

Female

	Treatment Groups (ug/kg)							
	30 [a]	**30000 [a]**	**30 [b]**	**30000 [b]**	**30 [b]**	**30000 [b]**	**30 [b]**	**30000 [b]**
	Blood		**Fat (mesenteric)**		**Liver**		**Lung**	
C_{max}	11.4 ng/mL	6558 ng/mL	0.226 ug/g	168.4 ug/g	0.040 ug/g	16.1 ug/g	0.011 ug/g	4.4 ug/g
T_{max} (hour)	4	3	72	24	3	3	3	8
$t_{1/2}$ (day)			136	47	439	61	71	122
Alpha (hour^-1)	0.19	0.23						
$t_{1/2(Alpha)}$ (hour)	3.6	3.0						
Beta (hour^-1)	0.0002	0.0006						
$t_{1/2(Beta)}$ (day)	176	48						
k_{01} (hour^-1)	0.42	0.62						
$t_{1/2(k01)}$ (hour)	1.7	1.1						
k_{10} (hour^-1)	0.0010	0.0025						
$t_{1/2(k10)}$ (day)	28	12						
$Cl_{1(F)}$ (mL/hr*kg)	1.5	7.0						
$V_{1(F)}$ (L/kg)	1.5	2.8						
$V_{2(F)}$ (L/kg)	7.7	11.7						
MRT (hour)			198	67	632	86	105	178
AUC_{inf} (ug*hr/mL)	19.5	4269	806	2.9 X 10^5	105	9.5 X 10^3	14.2	11.3 X 10^3

LEGEND

Data are displayed as a mean values

MODELING METHOD & BEST FIT MODEL

[a] WinNonlin (Version 1, Pharsight Corporation, Cary, North Carolina); Two-compartment model with first order absorption and elimination.

[b] WinNonlin (Version 1, Pharsight Corporation, Cary, North Carolina); Model independent methods (WinNonlin) were used for these data.

ANALYTE

Hexachlorobenzene

TK PARAMETERS

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

T_{max} = Time at which C_{max} predicted or observed occurs

$t_{½}$ = Lambda$_z$ half-life, $t_{1/2}$, the terminal elimination half-life based on non-compartmental analysis

Alpha = Hybrid rate constant of the alpha phase

$t_{½(alpha)}$ = Half-life for the alpha phase

Beta = Hybrid rate constant of the beta phase

$t_{½(beta)}$ = Half-life for the beta phase

k_{01} = Absorption rate constant, k_a

$t_{1/2(k01)}$ = Half-life of the absorption process to the central compartment

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

$t_{1/2(k10)}$ = Half-life for the elimination process from the central compartment

$Cl_{1(F)}$ = Apparent clearance of the central compartment, also $Cl_{(F)}$ for gavage groups in non-compartmental model

$V_{1(F)}$ = Apparent volume of distribution for the central compartment includes $V_{d(F)}$, $V_{(F)}$ for oral groups, and $V_{c(F)}$

$V_{2(F)}$ = Apparent volume of distribution for the peripheral compartment

MRT = Mean residence time

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

** END OF REPORT **