Experiment Number: S0545
Route: Gavage, IV
Species/Strain: Mouse/B6C3F1

Toxicokinetics Data Summary
Test Compound: DI-n-butyl phthalate
CAS Number: 84-74-2

Date Report Requested: 12/27/2016
Time Report Requested: 11:23:05
Lab: Research Triangle Institute

Male

	Treatment Groups (mg/kg)				
	83 [a]	**166 [a]**	**332 [a]**	**30 IV [a]**	**30 IV [b]**
	Plasma				
C_{max} (ug/mL)	76.7	133	208	54.2	
T_{max} (minute)	15	30	30		
Alpha (minute^-1)					0.0668 ± 0.016
Beta (minute^-1)					0.000648 ± 0.056
$t_{1/2(Beta)}$ (minute)	101	52.4	86.2	78.1	
k_{01} (minute^-1)					0.0750 ± 0.020
k_{10} (minute^-1)					0.0566 ± 0.69
k_{12} (minute^-1)					0.0100 ± 0.69
k_{21} (minute^-1)					7.64E-4 ± 0.057
Cl (mL*min/kg)	27.0	20.5	16.6	24.2	
V_1 (L/kg)					0.478 ± 0.11
MRT (minute)	32.9	44.6	70.1	24.9	
AUC_{inf} (ug/mL*min)	2442	6492	15978	992	
F (fraction)	0.90	1.18	1.45		

LEGEND

Data are displayed as mean ± SEM

MODELING METHOD & BEST FIT MODEL

[a] Models 200 and 201, PCNONLIN software, SCI Software, Lexington, KY; Noncompartmental analysis.

[b] Compartmental modeling techniques with established models or models written to simultaneously solve IV and oral data sets (PCNONLIN); 2-compartmental model using equations derived from simultaneous fitting the IV and low oral dose data (Studies T and U).

ANALYTE

Mono-n-butyl phthalate

TK PARAMETERS

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

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

Alpha = Hybrid rate constant of 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

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

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

MRT = Mean residence time

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

F = Bioavailability, absolute bioavailability

** END OF REPORT**