

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

C Number: R10997
Study Gender: Both
PWG Approval Date See web page for date of PWG Approval

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F0 Males
First Terminal Sacrifice at 139 Days
Individual Survival Times (Days)

Dose = 0 ppm

Total: 23

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 23

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 1000 ppm

Total: 23

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 23

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 5000 ppm

Total: 23

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 23

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 10000 ppm

Total: 23

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 23

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F0 Males
First Terminal Sacrifice at 139 Days

Kaplan-Meier Survival Probability Estimates (%)	
Dose (ppm)	Time (Days)
	139(A)
0	100.0
1000	100.0
5000	100.0
10000	100.0

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F0 Males
First Terminal Sacrifice at 139 Days

Survival Summary Statistics				
Dose	0 ppm	1000 ppm	5000 ppm	10000 ppm
Survival At End Of Study (Kaplan-Meier)	100.0%	100.0%	100.0%	100.0%
Significance (B) (Life Table)	----	----	----	----
Mean Day Of Natural Deaths (C) (Standard Error)	. (.)	. (.)	. (.)	. (.)
Mean Life Span (D) (Standard Error)	139.0 (0.0)	139.0 (0.0)	139.0 (0.0)	139.0 (0.0)

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F0 Females
First Terminal Sacrifice at 176 Days
Individual Survival Times (Days)

Dose = 0 ppm

Total: 23 Uncensored Deaths: 2 Censored Deaths: 0 Terminal: 21

UNCENSORED DEATH DAYS

152 154

CENSORED DEATH DAYS

None

Dose = 1000 ppm

Total: 23 Uncensored Deaths: 2 Censored Deaths: 0 Terminal: 21

UNCENSORED DEATH DAYS

146 147

CENSORED DEATH DAYS

None

Dose = 5000 ppm

Total: 23 Uncensored Deaths: 3 Censored Deaths: 0 Terminal: 20

UNCENSORED DEATH DAYS

69 81 108

CENSORED DEATH DAYS

None

Dose = 10000 ppm

Total: 23 Uncensored Deaths: 1 Censored Deaths: 0 Terminal: 22

UNCENSORED DEATH DAYS

91

CENSORED DEATH DAYS

None

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F0 Females
First Terminal Sacrifice at 176 Days

Dose (ppm)	Kaplan-Meier Survival Probability Estimates (%)								
	Time (Days)								
	69	81	91	108	146	147	152	154	176(A)
0	100.0	100.0	100.0	100.0	100.0	100.0	95.7	91.3	91.3
1000	100.0	100.0	100.0	100.0	95.7	91.3	91.3	91.3	91.3
5000	95.7	91.3	91.3	87.0	87.0	87.0	87.0	87.0	87.0
10000	100.0	100.0	95.7	95.7	95.7	95.7	95.7	95.7	95.7

Study Number: R10997

Test Type: RACB

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data

Test Compound: Diisobutyl Phthalate

CAS Number: 84-69-5

Date Report Requested: 01/07/2019

Time Report Requested: 15:26:41

Lab: RTI

**F0 Females
First Terminal Sacrifice at 176 Days**

Survival Summary Statistics

Dose	0 ppm	1000 ppm	5000 ppm	10000 ppm
Survival At End Of Study (Kaplan-Meier)	91.3%	91.3%	87.0%	95.7%
Significance (B) (Life Table)	P=0.846N	P=1.000	P=1.000	P=1.000N
Mean Day Of Natural Deaths (C) (Standard Error)	153.0 (1.0)	146.5 (0.5)	86.0 (11.5)	91.0 (.)
Mean Life Span (D) (Standard Error)	174.0 (1.4)	173.4 (1.8)	164.3 (6.6)	172.3 (3.7)

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F1 Males: F1c NonParent Males
First Terminal Sacrifice at 90 Days
Individual Survival Times (Days)

Dose = 0 ppm

Total: 45

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 45

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 1000 ppm

Total: 31

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 31

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 5000 ppm

Total: 39

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 39

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 10000 ppm

Total: 40

Uncensored Deaths: 1

Censored Deaths: 0

Terminal: 39

UNCENSORED DEATH DAYS

24

CENSORED DEATH DAYS

None

Study Number: R10997

Test Type: RACB

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data

Test Compound: Diisobutyl Phthalate

CAS Number: 84-69-5

Date Report Requested: 01/07/2019

Time Report Requested: 15:26:41

Lab: RTI

**F1 Males: F1c NonParent Males
First Terminal Sacrifice at 90 Days**

Dose (ppm)	Kaplan-Meier Survival Probability Estimates (%)	
	Time (Days)	
	24	90(A)
0	100.0	100.0
1000	100.0	100.0
5000	100.0	100.0
10000	97.5	97.5

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F1 Males: F1c NonParent Males
First Terminal Sacrifice at 90 Days

Survival Summary Statistics				
Dose	0 ppm	1000 ppm	5000 ppm	10000 ppm
Survival At End Of Study (Kaplan-Meier)	100.0%	100.0%	100.0%	97.5%
Significance (B) (Life Table)	P=0.387	-----	-----	P=1.000
Mean Day Of Natural Deaths (C) (Standard Error)	. (.)	. (.)	. (.)	24.0 (.)
Mean Life Span (D) (Standard Error)	90.0 (0.0)	90.0 (0.0)	90.0 (0.0)	85.9 (4.1)

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F1 Females: F1c NonParent Female
First Terminal Sacrifice at 90 Days
Individual Survival Times (Days)

Dose = 0 ppm

Total: 28

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 28

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 1000 ppm

Total: 32

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 32

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 5000 ppm

Total: 40

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 40

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 10000 ppm

Total: 32

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 32

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F1 Females: F1c NonParent Female
First Terminal Sacrifice at 90 Days

Kaplan-Meier Survival Probability Estimates (%)	
Dose (ppm)	Time (Days)
	90(A)
0	100.0
1000	100.0
5000	100.0
10000	100.0

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F1 Females: F1c NonParent Female
First Terminal Sacrifice at 90 Days

Survival Summary Statistics				
Dose	0 ppm	1000 ppm	5000 ppm	10000 ppm
Survival At End Of Study (Kaplan-Meier)	100.0%	100.0%	100.0%	100.0%
Significance (B) (Life Table)	----	----	----	----
Mean Day Of Natural Deaths (C) (Standard Error)	. (.)	. (.)	. (.)	. (.)
Mean Life Span (D) (Standard Error)	90.0 (0.0)	90.0 (0.0)	90.0 (0.0)	90.0 (0.0)

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F1 Males: F1c Parental Males
First Terminal Sacrifice at 213 Days
Individual Survival Times (Days)

Dose = 0 ppm

Total: 40

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 40

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 1000 ppm

Total: 40

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 40

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 5000 ppm

Total: 40

Uncensored Deaths: 3

Censored Deaths: 0

Terminal: 37

UNCENSORED DEATH DAYS

134 135 138

CENSORED DEATH DAYS

None

Dose = 10000 ppm

Total: 40

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 40

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F1 Males: F1c Parental Males
First Terminal Sacrifice at 213 Days

Dose (ppm)	Kaplan-Meier Survival Probability Estimates (%)			
	134	135	138	213(A)
0	100.0	100.0	100.0	100.0
1000	100.0	100.0	100.0	100.0
5000	97.5	95.0	92.5	92.5
10000	100.0	100.0	100.0	100.0

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F1 Males: F1c Parental Males
First Terminal Sacrifice at 213 Days

Survival Summary Statistics				
Dose	0 ppm	1000 ppm	5000 ppm	10000 ppm
Survival At End Of Study (Kaplan-Meier)	100.0%	100.0%	92.5%	100.0%
Significance (B) (Life Table)	P=0.940	-----	P=0.718	-----
Mean Day Of Natural Deaths (C) (Standard Error)	. (.)	. (.)	135.7 (1.2)	. (.)
Mean Life Span (D) (Standard Error)	213.0 (0.0)	213.0 (0.0)	206.9 (3.3)	213.0 (0.0)

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F1 Females: F1c Parental Females
First Terminal Sacrifice at 222 Days
Individual Survival Times (Days)

Dose = 0 ppm

Total: 40 Uncensored Deaths: 2 Censored Deaths: 0 Terminal: 38

UNCENSORED DEATH DAYS

171 180

CENSORED DEATH DAYS

None

Dose = 1000 ppm

Total: 40 Uncensored Deaths: 0 Censored Deaths: 0 Terminal: 40

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 5000 ppm

Total: 40 Uncensored Deaths: 5 Censored Deaths: 0 Terminal: 35

UNCENSORED DEATH DAYS

111 126 144 165 165

CENSORED DEATH DAYS

None

Dose = 10000 ppm

Total: 40 Uncensored Deaths: 0 Censored Deaths: 0 Terminal: 40

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F1 Females: F1c Parental Females
First Terminal Sacrifice at 222 Days

Dose (ppm)	Kaplan-Meier Survival Probability Estimates (%)						
	Time (Days)						
	111	126	144	165	171	180	222(A)
0	100.0	100.0	100.0	100.0	97.5	95.0	95.0
1000	100.0	100.0	100.0	100.0	100.0	100.0	100.0
5000	97.5	95.0	92.5	87.5	87.5	87.5	87.5
10000	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Study Number: R10997

Test Type: RACB

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data

Test Compound: Diisobutyl Phthalate

CAS Number: 84-69-5

Date Report Requested: 01/07/2019

Time Report Requested: 15:26:41

Lab: RTI

**F1 Females: F1c Parental Females
First Terminal Sacrifice at 222 Days**

Survival Summary Statistics

Dose	0 ppm	1000 ppm	5000 ppm	10000 ppm
Survival At End Of Study (Kaplan-Meier)	95.0%	100.0%	87.5%	100.0%
Significance (B) (Life Table)	P=0.782N	-----	P=0.718	-----
Mean Day Of Natural Deaths (C) (Standard Error)	175.5 (4.5)	. (.)	142.2 (10.7)	. (.)
Mean Life Span (D) (Standard Error)	220.0 (1.4)	222.0 (0.0)	212.0 (4.1)	222.0 (0.0)

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F2 Males
First Terminal Sacrifice at 21 Days
Individual Survival Times (Days)

Dose = 0 ppm

Total: 160

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 160

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 1000 ppm

Total: 161

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 161

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 5000 ppm

Total: 135

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 135

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 10000 ppm

Total: 122

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 122

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F2 Males
First Terminal Sacrifice at 21 Days

Kaplan-Meier Survival Probability Estimates (%)	
Dose (ppm)	Time (Days)
	21(A)
0	100.0
1000	100.0
5000	100.0
10000	100.0

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F2 Males
First Terminal Sacrifice at 21 Days

Survival Summary Statistics				
Dose	0 ppm	1000 ppm	5000 ppm	10000 ppm
Survival At End Of Study (Kaplan-Meier)	100.0%	100.0%	100.0%	100.0%
Significance (B) (Life Table)	----	----	----	----
Mean Day Of Natural Deaths (C) (Standard Error)	. (.)	. (.)	. (.)	. (.)
Mean Life Span (D) (Standard Error)	21.0 (0.0)	21.0 (0.0)	21.0 (0.0)	21.0 (0.0)

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F2 Females
First Terminal Sacrifice at 21 Days
Individual Survival Times (Days)

Dose = 0 ppm

Total: 146

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 146

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 1000 ppm

Total: 178

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 178

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 5000 ppm

Total: 137

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 137

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Dose = 10000 ppm

Total: 155

Uncensored Deaths: 0

Censored Deaths: 0

Terminal: 155

UNCENSORED DEATH DAYS

None

CENSORED DEATH DAYS

None

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F2 Females
First Terminal Sacrifice at 21 Days

Kaplan-Meier Survival Probability Estimates (%)	
Dose (ppm)	Time (Days)
	21(A)
0	100.0
1000	100.0
5000	100.0
10000	100.0

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

F2 Females
First Terminal Sacrifice at 21 Days

Survival Summary Statistics				
Dose	0 ppm	1000 ppm	5000 ppm	10000 ppm
Survival At End Of Study (Kaplan-Meier)	100.0%	100.0%	100.0%	100.0%
Significance (B) (Life Table)	----	----	----	----
Mean Day Of Natural Deaths (C) (Standard Error)	. (.)	. (.)	. (.)	. (.)
Mean Life Span (D) (Standard Error)	21.0 (0.0)	21.0 (0.0)	21.0 (0.0)	21.0 (0.0)

Study Number: R10997
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA11: Statistical Analysis of Survival Data
Test Compound: Diisobutyl Phthalate
CAS Number: 84-69-5

Date Report Requested: 01/07/2019
Time Report Requested: 15:26:41
Lab: RTI

LEGEND

(A) First Terminal Sacrifice

(B) Trend and pairwise analysis was done using Tarone, 1975 for all F0 animals and means and standard errors are calculated from the individual animal values. The F1 and F2 animals trend and pairwise analysis was done using a proportional hazards model with Dam ID as a random effect and the means and standard errors are calculated from the litter means. Pairwise tests included a Hommel adjustment for multiple comparisons. In cases where the model did not converge, Tarone's test was used. The first entry is the trend test result and subsequent entries are the results of the pairwise tests. Negative trends are indicated by "N".

(C) Mean of all uncensored deaths prior to terminal sacrifice.

(D) Mean of all deaths (uncensored, censored, terminal sacrifice).

Survival at end of study is calculated as the number of animals alive at the first terminal sacrifice day / number of animals in the dose group.

Pairwise p-values do not include corrections for multiple comparisons.

**** END OF REPORT ****