

**Experiment Number:** 20712 - 03

**Test Type:** Chronic PN

**Route:** DOSED FEED

**Species/Strain:** RATS/HSD

**P11: STATISTICAL ANALYSIS OF SURVIVAL DATA**

Tris(Chloropropyl)phosphate

**CAS Number:** 13674-84-5

**Date Report Requested:** 10/25/2018

**Time Report Requested:** 18:46:14

**First Dose M/F:** 12/12/11 / 12/13/11

**Lab:** BAT

Custom Rpt (Litter Based)

**NTP Study Number:** C20712  
**Lock Date:** 04/09/2018  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.5.0.0\_sfh  
**PWG Approval Date:** NONE

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MALE RATS

FIRST TERMINAL SACRIFICE AT 729 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = 0 ppm males

TOTAL 50 [25]	UNCENSORED DEATHS 25					CENSORED DEATHS 0					TERMINAL 25		
UNCENSORED DEATH DAYS													
239	314	407	483	521	541	547	554	570	571	592	592	597	599
608	615	617	633	647	653	654	674	697	720	725			
CENSORED DEATH DAYS													
None													

DOSE = 2500 ppm males

TOTAL 50 [25]	UNCENSORED DEATHS 16					CENSORED DEATHS 0					TERMINAL 34		
UNCENSORED DEATH DAYS													
400	414	518	554	563	571	588	616	629	637	642	653	687	721
721	725												
CENSORED DEATH DAYS													
None													

DOSE = 5000 ppm males

TOTAL 50 [25]	UNCENSORED DEATHS 16					CENSORED DEATHS 0					TERMINAL 34		
UNCENSORED DEATH DAYS													
270	565	566	571	613	615	657	672	674	695	696	699	713	714
721	721												
CENSORED DEATH DAYS													
None													

DOSE = 10000 ppm males

TOTAL 50 [25]	UNCENSORED DEATHS 13					CENSORED DEATHS 0					TERMINAL 37		
UNCENSORED DEATH DAYS													
171	246	277	485	556	597	614	636	682	691	710	713	725	
CENSORED DEATH DAYS													
None													

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**MALE RATS**

FIRST TERMINAL SACRIFICE AT 729 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

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**DOSE = 20000 ppm males**

TOTAL 50 [25]

UNCENSORED DEATHS 19

CENSORED DEATHS 0

TERMINAL 31

UNCENSORED DEATH DAYS

414	501	574	597	635	639	647	648	657	669	676	682	686	690
694	699	700	710	710									

CENSORED DEATH DAYS

None

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MALE RATS

FIRST TERMINAL SACRIFICE AT 729 DAYS

KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)										
DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	729(A)
0 ppm males	100.0	100.0	98.0	96.0	94.0	92.0	88.0	72.0	58.0	50.0
2500 ppm males	100.0	100.0	100.0	100.0	96.0	96.0	94.0	86.0	76.0	68.0
5000 ppm males	100.0	100.0	98.0	98.0	98.0	98.0	98.0	92.0	86.0	68.0
10000 ppm males	100.0	98.0	96.0	94.0	94.0	92.0	92.0	88.0	84.0	74.0
20000 ppm males	100.0	100.0	100.0	100.0	98.0	98.0	96.0	92.0	82.0	62.0

(A) FIRST TERMINAL SACRIFICE

(B) THE FIRST ENTRY IS THE TREND TEST RESULT. SUBSEQUENT ENTRIES ARE THE RESULTS OF PAIRWISE TESTS. NEGATIVE TRENDS ARE INDICATED BY "N". TREND AND PAIRWISE TESTS USE A PROPORTIONAL HAZARDS MODEL WITH DAMID AS A RANDOM EFFECT.

(C) MEAN OF LITTER MEANS OF ALL UNCENSORED DEATHS PRIOR TO TERMINAL SACRIFICE

(D) MEAN OF LITTER MEANS OF ALL DEATHS (UNCENSORED, CENSORED, TERMINAL SACRIFICE)

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Lab: BAT

**MALE RATS**

FIRST TERMINAL SACRIFICE AT 729 DAYS

**SURVIVAL SUMMARY STATISTICS**

DOSE	0 ppm males	2500 ppm males	5000 ppm males	10000 ppm males
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	50.0%	68.0%	68.0%	74.0%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P=0.343N	P=0.048N	P=0.033N	P=0.010N
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	570.6 (21.9)	602.4 (24.6)	627.1 (31.4)	536.1 (56.8)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	651.9 (14.1)	688.5 (9.9)	699.0 (10.1)	681.5 (16.6)

DOSE	20000 ppm males
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	62.0%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P=0.119N
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	649.6 (17.7)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	696.5 (9.1)

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(C) MEAN OF LITTER MEANS OF ALL UNCENSORED DEATHS PRIOR TO TERMINAL SACRIFICE

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Lab: BAT

FEMALE RATS

FIRST TERMINAL SACRIFICE AT 731 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = 0 ppm females

TOTAL 50 [25]	UNCENSORED DEATHS 28				CENSORED DEATHS 0				TERMINAL 22				
UNCENSORED DEATH DAYS													
241	289	329	345	368	453	473	503	526	551	564	568	575	577
593	596	596	603	614	616	630	634	661	669	673	695	709	725
CENSORED DEATH DAYS													
None													

DOSE = 2500 ppm females

TOTAL 50 [25]	UNCENSORED DEATHS 19				CENSORED DEATHS 0				TERMINAL 31				
UNCENSORED DEATH DAYS													
289	375	484	494	529	546	568	584	596	596	638	642	650	661
670	673	683	709	730									
CENSORED DEATH DAYS													
None													

DOSE = 5000 ppm females

TOTAL 50 [25]	UNCENSORED DEATHS 17				CENSORED DEATHS 0				TERMINAL 33				
UNCENSORED DEATH DAYS													
232	393	495	529	529	545	564	596	596	596	616	657	669	673
704	715	729											
CENSORED DEATH DAYS													
None													

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**FEMALE RATS**

FIRST TERMINAL SACRIFICE AT 731 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

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**DOSE = 10000 ppm female**

TOTAL 50 [25]                      UNCENSORED DEATHS 16                      CENSORED DEATHS 0                      TERMINAL 34

UNCENSORED DEATH DAYS

225	273	406	484	508	555	632	634	665	669	683	689	710	724
725	730												

CENSORED DEATH DAYS

None

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**DOSE = 20000 ppm female**

TOTAL 50 [25]                      UNCENSORED DEATHS 17                      CENSORED DEATHS 0                      TERMINAL 33

UNCENSORED DEATH DAYS

350	377	402	574	580	584	596	596	600	602	616	618	620	622
658	670	673											

CENSORED DEATH DAYS

None

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**FEMALE RATS**

FIRST TERMINAL SACRIFICE AT 731 DAYS

KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)										
DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	731(A)
0 ppm females	100.0	100.0	98.0	92.0	90.0	86.0	82.0	64.0	54.0	44.0
2500 ppm females	100.0	100.0	100.0	98.0	96.0	94.0	90.0	80.0	72.0	62.0
5000 ppm females	100.0	100.0	98.0	98.0	96.0	96.0	88.0	80.0	76.0	66.0
10000 ppm female	100.0	100.0	98.0	96.0	94.0	92.0	90.0	88.0	82.0	68.0
20000 ppm female	100.0	100.0	100.0	98.0	94.0	94.0	94.0	80.0	70.0	66.0

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FEMALE RATS

FIRST TERMINAL SACRIFICE AT 731 DAYS

SURVIVAL SUMMARY STATISTICS

DOSE	0 ppm females	2500 ppm females	5000 ppm females	10000 ppm female
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	44.0%	62.0%	66.0%	68.0%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P=0.076N	P=0.057N	P=0.023N	P=0.011N
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	542.7 (24.3)	580.2 (27.1)	575.2 (31.9)	568.9 (41.7)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	629.2 (16.3)	675.6 (15.3)	679.2 (12.8)	683.3 (15.0)

  

DOSE	20000 ppm female
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	66.0%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P=0.026N
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	567.9 (26.7)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	677.2 (12.1)

\*\*\* END OF REPORT \*\*\*

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