

Experiment Number: 96014 - 05
Test Type: CHRONIC
Route: DOSED WATER
Species/Strain: RATS/F344/N Tac

P11: STATISTICAL ANALYSIS OF SURVIVAL DATA
Water disinfection byproducts (Bromodichloroacetic acid)
CAS Number: 71133-14-7

Date Report Requested: 03/05/2013
Time Report Requested: 08:02:51
First Dose M/F: 10/26/06 / 10/27/06
Lab: BAT

F1_RD_Rev. 1

NTP Study Number:	C96014B		
Lock Date:	11/17/2009		
Cage Range:	ALL		
Date Range:	ALL		
Reasons For Removal:	25021 TSAC	25020 NATD	25019 MSAC
Removal Date Range:	ALL		
Treatment Groups:	Include ALL		
Study Gender:	Both		
TDMSE Version:	3.0.1.1_001		
PWG Approval Date:	NONE		

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MALE RATS

FIRST TERMINAL SACRIFICE AT **726** DAYS
INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = 0 mg/L

TOTAL 50	UNCENSORED DEATHS 31					CENSORED DEATHS 0					TERMINAL 19				
UNCENSORED DEATH DAYS															
383	477	537	544	561	568	579	580	588	589	593	602	607	608		
610	617	638	644	657	664	664	664	664	671	674	678	680	680		
683	687	719													
CENSORED DEATH DAYS															
None															

DOSE = 250 mg/L

TOTAL 50	UNCENSORED DEATHS 29					CENSORED DEATHS 0					TERMINAL 21				
UNCENSORED DEATH DAYS															
117	309	509	516	526	530	533	558	595	597	603	607	609	629		
635	638	644	667	674	680	685	687	688	691	694	702	716	719		
722															
CENSORED DEATH DAYS															
None															

DOSE = 500 mg/L

TOTAL 50	UNCENSORED DEATHS 25					CENSORED DEATHS 0					TERMINAL 25				
UNCENSORED DEATH DAYS															
442	453	493	513	585	587	587	605	611	618	621	635	646	657		
667	674	674	685	685	688	699	702	702	712	724					
CENSORED DEATH DAYS															
None															

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INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = 1000 mg/L

TOTAL 50	UNCENSORED DEATHS 31						CENSORED DEATHS 0						TERMINAL 19
UNCENSORED DEATH DAYS													
389	436	467	481	499	548	561	573	575	586	587	602	610	621
629	629	642	644	653	657	664	664	664	674	678	678	678	705
705	707	710											
CENSORED DEATH DAYS													
None													

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MALE RATS

FIRST TERMINAL SACRIFICE AT 726 DAYS

KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)										
DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	726(A)
0 mg/L	100.0	100.0	100.0	100.0	98.0	96.0	92.0	76.0	54.0	38.0
250 mg/L	100.0	98.0	98.0	96.0	96.0	96.0	86.0	78.0	66.0	42.0
500 mg/L	100.0	100.0	100.0	100.0	100.0	96.0	92.0	84.0	72.0	50.0
1000 mg/L	100.0	100.0	100.0	100.0	98.0	92.0	90.0	76.0	54.0	38.0

(A) FIRST TERMINAL SACRIFICE
(B) THE FIRST ENTRY IS THE TREND TEST (TARONE, 1975) RESULT. SUBSEQUENT ENTRIES ARE THE RESULTS OF PAIRWISE TESTS (COX, 1972). 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)

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MALE RATS

FIRST TERMINAL SACRIFICE AT 726 DAYS

SURVIVAL SUMMARY STATISTICS				
DOSE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L
SURVIVAL AT END OF STUDY (KAPLAN-MEIER)	38.0%	42.0%	50.0%	38.0%
SIGNIFICANCE (B) (LIFE TABLE)	P=1.000	P=0.648N	P=0.186N	P=1.000
MEAN DAY OF NATURAL DEATHS (C) (STANDARD ERROR)	616.5 (12.5)	602.8 (23.9)	626.6 (15.9)	610.2 (15.0)
MEAN LIFE SPAN (D) (STANDARD ERROR)	658.1 (10.8)	654.5 (16.3)	676.3 (10.6)	654.2 (12.3)

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FEMALE RATS

FIRST TERMINAL SACRIFICE AT 727 DAYS
INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = 0 mg/L

TOTAL 50 UNCENSORED DEATHS 16 CENSORED DEATHS 0 TERMINAL 34

UNCENSORED DEATH DAYS

330	432	551	608	635	635	635	641	645	673	680	689	690	694
709	714												

CENSORED DEATH DAYS

None

DOSE = 250 mg/L

TOTAL 50 UNCENSORED DEATHS 24 CENSORED DEATHS 0 TERMINAL 26

UNCENSORED DEATH DAYS

551	558	558	568	579	588	588	594	601	607	623	631	645	645
645	652	683	693	704	704	709	712	712	712				

CENSORED DEATH DAYS

None

DOSE = 500 mg/L

TOTAL 50 UNCENSORED DEATHS 43 CENSORED DEATHS 0 TERMINAL 7

UNCENSORED DEATH DAYS

334	386	429	449	494	498	533	561	561	561	564	568	574	574
588	588	594	601	609	620	623	628	631	631	635	635	641	643
643	645	645	645	650	656	656	656	656	663	663	673	698	704
715													

CENSORED DEATH DAYS

None

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FEMALE RATS

FIRST TERMINAL SACRIFICE AT 727 DAYS
INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = 1000 mg/L

TOTAL 50	UNCENSORED DEATHS 48				CENSORED DEATHS 0				TERMINAL 2				
UNCENSORED DEATH DAYS													
247	411	414	488	494	509	519	519	519	529	544	544	551	554
561	568	572	585	586	587	594	594	594	596	601	620	620	620
623	623	623	628	628	631	631	631	635	635	636	638	641	641
643	656	656	656	663	721								
CENSORED DEATH DAYS													
None													

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FIRST TERMINAL SACRIFICE AT 727 DAYS

KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)										
DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	727(A)
0 mg/L	100.0	100.0	100.0	98.0	98.0	96.0	96.0	94.0	82.0	68.0
250 mg/L	100.0	100.0	100.0	100.0	100.0	100.0	100.0	82.0	68.0	52.0
500 mg/L	100.0	100.0	100.0	98.0	96.0	92.0	86.0	64.0	22.0	14.0
1000 mg/L	100.0	100.0	98.0	98.0	94.0	94.0	76.0	50.0	6.0	4.0

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FIRST TERMINAL SACRIFICE AT 727 DAYS

SURVIVAL SUMMARY STATISTICS				
DOSE	0 mg/L	250 mg/L	500 mg/L	1000 mg/L
SURVIVAL AT END OF STUDY (KAPLAN-MEIER)	68.0%	52.0%	14.0%	4.0%
SIGNIFICANCE (B) (LIFE TABLE)	P<0.001	P=0.141	P<0.001	P<0.001
MEAN DAY OF NATURAL DEATHS (C) (STANDARD ERROR)	622.6 (26.2)	635.9 (11.6)	598.2 (12.5)	582.9 (11.5)
MEAN LIFE SPAN (D) (STANDARD ERROR)	693.6 (10.7)	683.3 (8.5)	616.2 (12.5)	588.7 (11.7)

*** END OF REPORT ***

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