

TDMS No. 88006-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

P11: STATISTICAL ANALYSIS OF SURVIVAL DATA

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: RENNE, R.

Final 1 Rats

Date Report Requested: 11/29/2005

Time Report Requested: 13:42:07

First Dose M/F: 08/06/01 / 08/06/01

Lab: BNW

C Number: C88006B

Lock Date: 03/26/2004

Cage Range: 1 - 9999

Date Range: 1-JAN-1940 to 17-SEP-2040

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

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MALE RATS

FIRST TERMINAL SACRIFICE AT 729 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = CONTROL

TOTAL 50	UNCENSORED DEATHS 23				CENSORED DEATHS 0				TERMINAL 27				
UNCENSORED DEATHS													
345	495	522	548	554	587	590	603	618	624	642	646	660	666
671	673	681	682	688	688	702	702	718					
CENSORED DEATHS	None												

DOSE = 100 PPM

TOTAL 50	UNCENSORED DEATHS 18				CENSORED DEATHS 0				TERMINAL 32				
UNCENSORED DEATHS													
529	562	579	603	612	624	633	637	646	660	663	684	684	700
705	708	723	726										
CENSORED DEATHS	None												

DOSE = 300 PPM

TOTAL 50	UNCENSORED DEATHS 26				CENSORED DEATHS 1				TERMINAL 23				
UNCENSORED DEATHS													
558	560	563	565	596	618	618	619	649	652	656	657	674	674
674	674	680	681	684	688	688	698	705	708	716	716		
CENSORED DEATHS	210												

DOSE = 1000 PPM

TOTAL 50	UNCENSORED DEATHS 27				CENSORED DEATHS 1				TERMINAL 22				
UNCENSORED DEATHS													
367	401	519	558	562	562	565	579	586	600	628	646	653	656
660	668	669	684	688	688	701	702	702	709	709	714	722	

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CENSORED DEATHS

200

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MALE RATS

FIRST TERMINAL SACRIFICE AT 729 DAYS

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Lab: BNW

KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)

DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	729(A)
CONTROL	100.0	100.0	100.0	98.0	98.0	98.0	94.0	84.0	74.0	54.0
100 PPM	100.0	100.0	100.0	100.0	100.0	100.0	98.0	92.0	78.0	64.0
300 PPM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.8	75.5	46.9
1000 PPM	100.0	100.0	100.0	100.0	95.9	95.9	93.9	79.6	69.4	44.9

SURVIVAL SUMMARY STATISTICS

DOSE	CONTROL	100 PPM	300 PPM	1000 PPM
SURVIVAL AT END OF STUDY (KAPLAN-MEIER)	54.0%	64.0%	46.9%	44.9%
SIGNIFICANCE (B) (LIFE TABLE)	P=0.182	P=0.327N	P=0.767	P=0.529
MEAN DAY OF NATURAL DEATHS (C) (STANDARD ERROR)	622.0 (17.9)	648.8 (13.4)	652.7 (9.8)	625.9 (17.5)
MEAN LIFE SPAN (D) (STANDARD ERROR)	679.8 (11.2)	700.1 (7.3)	679.0 (12.1)	662.7 (15.2)

(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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Lab: BNW

FEMALE RATS

FIRST TERMINAL SACRIFICE AT 730 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = CONTROL

TOTAL 50	UNCENSORED DEATHS 21				CENSORED DEATHS 2				TERMINAL 27					
UNCENSORED DEATHS														
9	439	460	508	521	568	579	585	607	618	638	640	660	662	
687	688	702	712	714	718	722								
CENSORED DEATHS														
16	176													

DOSE = 100 PPM

TOTAL 50	UNCENSORED DEATHS 26				CENSORED DEATHS 0				TERMINAL 24					
UNCENSORED DEATHS														
435	495	537	537	557	561	590	600	610	621	642	649	652	660	
662	663	682	683	684	688	694	704	712	715	721	722			
CENSORED DEATHS														
None														

DOSE = 300 PPM

TOTAL 50	UNCENSORED DEATHS 14				CENSORED DEATHS 0				TERMINAL 36					
UNCENSORED DEATHS														
477	495	562	600	603	614	626	646	647	677	683	689	705	726	
CENSORED DEATHS														
None														

DOSE = 1000 PPM

TOTAL 50	UNCENSORED DEATHS 24				CENSORED DEATHS 0				TERMINAL 26					
UNCENSORED DEATHS														
458	509	534	543	569	581	585	610	619	652	660	662	663	668	
668	668	687	688	690	701	702	718	722	723					
CENSORED DEATHS														

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Pathologist: RENNE, R.

FEMALE RATS

FIRST TERMINAL SACRIFICE AT **730** DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

Date Report Reqsted: 11/29/2005

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First Dose M/F: 08/06/01 / 08/06/01

Lab: BNW

CENSORED DEATHS

None

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FEMALE RATS

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First Dose M/F: 08/06/01 / 08/06/01

Lab: BNW

KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)

DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	730(A)
CONTROL	98.0	98.0	98.0	98.0	98.0	93.8	89.7	83.4	70.9	56.3
100 PPM	100.0	100.0	100.0	100.0	100.0	98.0	92.0	84.0	68.0	48.0
300 PPM	100.0	100.0	100.0	100.0	100.0	98.0	96.0	90.0	82.0	72.0
1000 PPM	100.0	100.0	100.0	100.0	100.0	98.0	92.0	86.0	74.0	52.0

SURVIVAL SUMMARY STATISTICS

DOSE	CONTROL	100 PPM	300 PPM	1000 PPM
SURVIVAL AT END OF STUDY (KAPLAN-MEIER)	56.3%	48.0%	72.0%	52.0%
SIGNIFICANCE (B) (LIFE TABLE)	P=0.948	P=0.582	P=0.147N	P=0.901
MEAN DAY OF NATURAL DEATHS (C) (STANDARD ERROR)	592.2 (34.5)	633.7 (14.8)	625.0 (19.8)	636.7 (14.9)
MEAN LIFE SPAN (D) (STANDARD ERROR)	646.8 (23.6)	679.9 (10.3)	700.6 (8.6)	685.2 (9.7)

*** END OF REPORT ***

(A) FIRST TERMINAL SACRIFICE

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

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