

**TDMS No.** 96011-05  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/F 344

**P11: STATISTICAL ANALYSIS OF SURVIVAL DATA**  
CUMENE  
**CAS Number:** 98-82-8  
**Pathologist:** PIERCE, J. - RENNE, R.  
F 1 R2

**Date Report Reqsted:** 01/12/2006  
**Time Report Reqsted:** 9:52:37  
**First Dose M/F:** 06/04/01 / 06/04/01  
**Lab:** BNW

<b>C Number:</b>	C96011		
<b>Lock Date:</b>	01/28/2004		
<b>Cage Range:</b>	1 - 9999		
<b>Date Range:</b>	1-JAN-1940 to 17-SEP-2040		
<b>Reasons For Removal:</b>	ALL		
<b>Removal Date Range:</b>	JAN /1 /1940 - SEP /17 /2040		
<b>Treatment Groups:</b>	Include 1 CONTROL	Include 2 CONTROL	Include 3 250 PPM
	Include 4 250 PPM	Include 5 500 PPM	Include 6 500 PPM
	Include 7 1000 PPM	Include 8 1000 PPM	

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MALE RATS

FIRST TERMINAL SACRIFICE AT 729 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = CONTROL

TOTAL 50	UNCENSORED DEATHS 24	CENSORED DEATHS 0	TERMINAL 26
UNCENSORED DEATHS			
296 467 495	558 562 571 599	600 607 613 620 622 628	632
647 674 689	694 702 708 710	712 714 719	
CENSORED DEATHS			
None			

DOSE = 250 PPM

TOTAL 50	UNCENSORED DEATHS 27	CENSORED DEATHS 0	TERMINAL 23
UNCENSORED DEATHS			
445 480 519	528 536 541 565	565 575 589 596 613 618	618
624 632 639	643 665 669 670	674 674 683 686 705 711	
CENSORED DEATHS			
None			

DOSE = 500 PPM

TOTAL 50	UNCENSORED DEATHS 23	CENSORED DEATHS 0	TERMINAL 27
UNCENSORED DEATHS			
213 460 495	523 554 554 569	600 625 626 634 638 639	645
646 648 670	670 674 679 688	695 702	
CENSORED DEATHS			
None			

DOSE = 1000 PPM

TOTAL 50	UNCENSORED DEATHS 26	CENSORED DEATHS 0	TERMINAL 24
UNCENSORED DEATHS			

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INDIVIDUAL SURVIVAL TIMES (DAYS)

453	515	541	554	584	600	618	624	628	635	635	642	650	660
667	674	677	677	677	688	705	711	717	718	720	726		

CENSORED DEATHS

None

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First Dose M/F: 06/04/01 / 06/04/01

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	96.0	94.0	84.0	70.0	52.0
250 PPM	100.0	100.0	100.0	100.0	100.0	96.0	88.0	78.0	62.0	46.0
500 PPM	100.0	100.0	98.0	98.0	98.0	96.0	92.0	84.0	68.0	54.0
1000 PPM	100.0	100.0	100.0	100.0	100.0	98.0	94.0	88.0	72.0	48.0

(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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Lab: BNW

**FEMALE RATS**

FIRST TERMINAL SACRIFICE AT 730 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

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<b>SURVIVAL SUMMARY STATISTICS</b>				
<b>DOSE</b>	<b>CONTROL</b>	<b>250 PPM</b>	<b>500 PPM</b>	<b>1000 PPM</b>
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	52.0%	46.0%	54.0%	48.0%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P=0.994N	P=0.511	P=1.000N	P=0.946
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	618.3 (19.9)	609.7 (13.4)	602.0 (22.3)	642.2 (13.4)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	675.9 (12.3)	664.6 (11.1)	670.6 (13.6)	683.8 (9.3)

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FEMALE RATS

FIRST TERMINAL SACRIFICE AT 730 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = CONTROL

TOTAL 50	UNCENSORED DEATHS 29	CENSORED DEATHS 0	TERMINAL 21
UNCENSORED DEATHS			
374 485 492	501 519 547 558 596	613 618 628 635 660	662
662 663 668	674 676 688 702 705	710 716 716 716 716	718
722			
CENSORED DEATHS			
None			

DOSE = 250 PPM

TOTAL 50	UNCENSORED DEATHS 23	CENSORED DEATHS 0	TERMINAL 27
UNCENSORED DEATHS			
16 514 536	547 562 571 591 598	628 635 655 660 663	670
673 688 696	697 702 704 709 716	717	
CENSORED DEATHS			
None			

DOSE = 500 PPM

TOTAL 50	UNCENSORED DEATHS 19	CENSORED DEATHS 0	TERMINAL 31
UNCENSORED DEATHS			
339 516 528	530 530 579 611 612	624 625 645 660 661	673
676 689 704	715 722		
CENSORED DEATHS			
None			

DOSE = 1000 PPM

TOTAL 50	UNCENSORED DEATHS 18	CENSORED DEATHS 0	TERMINAL 32
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FIRST TERMINAL SACRIFICE AT 730 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

UNCENSORED DEATHS

267	400	411	542	607	618	619	625	628	638	659	674	683	688
695	696	696	704										

CENSORED DEATHS

None

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KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)

DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	730(A)
CONTROL	100.0	100.0	100.0	100.0	98.0	96.0	90.0	84.0	68.0	42.0
250 PPM	98.0	98.0	98.0	98.0	98.0	98.0	94.0	84.0	74.0	54.0
500 PPM	100.0	100.0	100.0	98.0	98.0	98.0	90.0	88.0	74.0	62.0
1000 PPM	100.0	100.0	98.0	98.0	94.0	94.0	92.0	92.0	78.0	64.0

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Lab: BNW

SURVIVAL SUMMARY STATISTICS

DOSE	CONTROL	250 PPM	500 PPM	1000 PPM
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	42.0%	54.0%	62.0%	64.0%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P=0.061N	P=0.357N	P=0.109N	P=0.071N
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	632.4 (16.6)	615.1 (30.2)	612.6 (21.4)	602.8 (28.9)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	673.4 (11.8)	677.2 (16.0)	685.4 (11.4)	684.2 (13.4)

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

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