

Experiment Number: 20515 - 03
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: RATS/Wistar Han

P11: STATISTICAL ANALYSIS OF SURVIVAL DATA
Metal working fluids (CIMSTAR 3800)
CAS Number: CIMSTAR3800

Date Report Requested: 02/19/2013
Time Report Requested: 13:45:43
First Dose M/F: 04/14/08 / 04/14/08
Lab: BNW

F1_RE

NTP Study Number: C20515
Lock Date: 01/12/2011
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
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 729 DAYS
INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = Control

TOTAL 50 UNCENSORED DEATHS 17 CENSORED DEATHS 0 TERMINAL 33
UNCENSORED DEATH DAYS
345 494 520 535 597 597 599 607 612 619 627 653 704 704
710 715 718
CENSORED DEATH DAYS
None

DOSE = 10 mg/m3

TOTAL 50 UNCENSORED DEATHS 16 CENSORED DEATHS 0 TERMINAL 34
UNCENSORED DEATH DAYS
286 429 439 505 547 562 564 603 620 633 637 653 677 704
704 717
CENSORED DEATH DAYS
None

DOSE = 30 mg/m3

TOTAL 50 UNCENSORED DEATHS 16 CENSORED DEATHS 0 TERMINAL 34
UNCENSORED DEATH DAYS
309 564 564 620 639 646 653 684 700 704 704 704 711 722
722 726
CENSORED DEATH DAYS
None

DOSE = 100 mg/m3

TOTAL 50 UNCENSORED DEATHS 17 CENSORED DEATHS 0 TERMINAL 33
UNCENSORED DEATH DAYS
202 395 457 478 504 595 611 627 635 646 675 695 704 704
704 722 725
CENSORED DEATH DAYS
None

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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)
Control	100.0	100.0	100.0	98.0	98.0	98.0	92.0	86.0	76.0	66.0
10 mg/m3	100.0	100.0	100.0	98.0	98.0	94.0	92.0	84.0	76.0	68.0
30 mg/m3	100.0	100.0	100.0	98.0	98.0	98.0	98.0	94.0	86.0	68.0
100 mg/m3	100.0	100.0	98.0	98.0	96.0	92.0	90.0	88.0	80.0	66.0

(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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FIRST TERMINAL SACRIFICE AT 729 DAYS

SURVIVAL SUMMARY STATISTICS				
DOSE	Control	10 mg/m3	30 mg/m3	100 mg/m3
SURVIVAL AT END OF STUDY (KAPLAN-MEIER)	66.0%	68.0%	68.0%	66.0%
SIGNIFICANCE (B) (LIFE TABLE)	P=1.000	P=1.000N	P=0.818N	P=1.000N
MEAN DAY OF NATURAL DEATHS (C) (STANDARD ERROR)	609.2 (23.5)	580.0 (29.5)	648.3 (26.2)	592.9 (34.6)
MEAN LIFE SPAN (D) (STANDARD ERROR)	688.3 (11.3)	681.3 (13.6)	703.2 (9.8)	682.7 (14.8)

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FEMALE RATS

FIRST TERMINAL SACRIFICE AT 731 DAYS
INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = Control

TOTAL 50	UNCENSORED DEATHS 15							CENSORED DEATHS 0				TERMINAL 35		
UNCENSORED DEATH DAYS														
402	499	586	599	610	610	619	619	645	690	698	703	703	709	
712														
CENSORED DEATH DAYS														
None														

DOSE = 10 mg/m3

TOTAL 50	UNCENSORED DEATHS 17							CENSORED DEATHS 1				TERMINAL 32		
UNCENSORED DEATH DAYS														
481	530	530	568	603	619	627	633	633	653	681	683	683	684	
687	703	729												
CENSORED DEATH DAYS														
544														

DOSE = 30 mg/m3

TOTAL 50	UNCENSORED DEATHS 14							CENSORED DEATHS 0				TERMINAL 36		
UNCENSORED DEATH DAYS														
563	598	603	642	646	660	673	681	683	684	690	705	708	719	
CENSORED DEATH DAYS														
None														

DOSE = 100 mg/m3

TOTAL 50	UNCENSORED DEATHS 21							CENSORED DEATHS 0				TERMINAL 29		
UNCENSORED DEATH DAYS														
523	586	630	633	635	639	645	663	670	673	681	691	703	703	
715	717	719	722	725	725	730								
CENSORED DEATH DAYS														
None														

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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)
Control	100.0	100.0	100.0	100.0	98.0	98.0	96.0	92.0	82.0	70.0
10 mg/m3	100.0	100.0	100.0	100.0	100.0	98.0	94.0	89.9	79.7	65.4
30 mg/m3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.0	88.0	72.0
100 mg/m3	100.0	100.0	100.0	100.0	100.0	100.0	98.0	96.0	84.0	58.0

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SURVIVAL SUMMARY STATISTICS				
DOSE	Control	10 mg/m3	30 mg/m3	100 mg/m3
SURVIVAL AT END OF STUDY (KAPLAN-MEIER)	70.0%	65.4%	72.0%	58.0%
SIGNIFICANCE (B) (LIFE TABLE)	P=0.380	P=0.738	P=0.926N	P=0.416
MEAN DAY OF NATURAL DEATHS (C) (STANDARD ERROR)	626.9 (22.4)	631.0 (16.8)	661.1 (12.3)	672.8 (11.6)
MEAN LIFE SPAN (D) (STANDARD ERROR)	699.8 (9.4)	693.3 (9.3)	711.4 (5.6)	706.5 (6.3)

*** END OF REPORT ***

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