

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P11: STATISTICAL ANALYSIS OF SURVIVAL DATA

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:23:30

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

F1_M3

C Number: C60311
Lock Date: 12/03/2008
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 2.4.2.1_003
PWG Approval Date: NONE

MALE MICE

FIRST TERMINAL SACRIFICE AT 729 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = control

TOTAL 50	UNCENSORED DEATHS 11	CENSORED DEATHS 0	TERMINAL 39							
UNCENSORED DEATH DAYS										
561	638	646	646	651	682	684	692	704	708	716
CENSORED DEATH DAYS										
None										

DOSE = 1.25 mg/m3

TOTAL 50	UNCENSORED DEATHS 19	CENSORED DEATHS 0	TERMINAL 31										
UNCENSORED DEATH DAYS													
457	551	571	589	611	617	617	618	621	631	639	660	684	698
713	715	717	721	723									
CENSORED DEATH DAYS													
None													

DOSE = 2.5 mg/m3

TOTAL 50	UNCENSORED DEATHS 21	CENSORED DEATHS 0	TERMINAL 29										
UNCENSORED DEATH DAYS													
361	382	394	460	460	533	562	597	617	627	631	647	652	652
660	683	692	697	706	719	723							
CENSORED DEATH DAYS													
None													

DOSE = 5.0 mg/m3

TOTAL 50	UNCENSORED DEATHS 25	CENSORED DEATHS 0	TERMINAL 25										
UNCENSORED DEATH DAYS													
227	425	476	537	554	562	571	575	586	586	593	617	618	635
649	660	678	681	691	691	698	706	708	712	716			
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	100.0	100.0	100.0	100.0	98.0	90.0	78.0
1.25 mg/m3	100.0	100.0	100.0	100.0	100.0	98.0	98.0	92.0	76.0	62.0
2.5 mg/m3	100.0	100.0	100.0	98.0	94.0	90.0	88.0	84.0	70.0	58.0
5.0 mg/m3	100.0	100.0	98.0	98.0	96.0	94.0	92.0	78.0	68.0	50.0

(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	1.25 mg/m3	2.5 mg/m3	5.0 mg/m3
SURVIVAL AT END OF STUDY (KAPLAN-MEIER)	78.0%	62.0%	58.0%	50.0%
SIGNIFICANCE (B) (LIFE TABLE)	P=0.004	P=0.102	P=0.035	P=0.003
MEAN DAY OF NATURAL DEATHS (C) (STANDARD ERROR)	666.2 (13.4)	639.6 (16.0)	593.1 (25.3)	606.1 (22.0)
MEAN LIFE SPAN (D) (STANDARD ERROR)	715.2 (4.7)	695.0 (8.6)	671.9 (14.2)	667.5 (14.0)

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FEMALE MICE

FIRST TERMINAL SACRIFICE AT 731 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = control

TOTAL 50	UNCENSORED DEATHS 14	CENSORED DEATHS 0	TERMINAL 36										
UNCENSORED DEATH DAYS													
223	383	400	499	523	583	599	649	649	655	697	698	701	725
CENSORED DEATH DAYS													
None													

DOSE = 1.25 mg/m3

TOTAL 50	UNCENSORED DEATHS 15	CENSORED DEATHS 0	TERMINAL 35										
UNCENSORED DEATH DAYS													
391	505	506	537	537	614	638	649	656	661	671	681	698	712
730													
CENSORED DEATH DAYS													
None													

DOSE = 2.5 mg/m3

TOTAL 50	UNCENSORED DEATHS 23	CENSORED DEATHS 0	TERMINAL 27										
UNCENSORED DEATH DAYS													
457	533	537	551	562	571	571	587	593	593	593	616	626	646
646	677	677	698	698	703	709	709	712					
CENSORED DEATH DAYS													
None													

DOSE = 5.0 mg/m3

TOTAL 50	UNCENSORED DEATHS 24	CENSORED DEATHS 0	TERMINAL 26										
UNCENSORED DEATH DAYS													
354	478	505	506	533	542	554	562	571	593	604	610	618	618
642	645	660	660	663	673	684	684	709	713				
CENSORED DEATH DAYS													
None													

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KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)										
DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	731(A)
control	100.0	100.0	98.0	98.0	94.0	94.0	90.0	86.0	80.0	72.0
1.25 mg/m3	100.0	100.0	100.0	100.0	98.0	98.0	90.0	90.0	80.0	70.0
2.5 mg/m3	100.0	100.0	100.0	100.0	100.0	98.0	94.0	78.0	70.0	54.0
5.0 mg/m3	100.0	100.0	100.0	98.0	98.0	96.0	88.0	78.0	62.0	52.0

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SURVIVAL SUMMARY STATISTICS				
DOSE	control	1.25 mg/m3	2.5 mg/m3	5.0 mg/m3
SURVIVAL AT END OF STUDY (KAPLAN-MEIER)	72.0%	70.0%	54.0%	52.0%
SIGNIFICANCE (B) (LIFE TABLE)	P=0.019	P=1.000	P=0.110	P=0.061
MEAN DAY OF NATURAL DEATHS (C) (STANDARD ERROR)	570.3 (39.6)	612.4 (24.8)	620.2 (14.6)	599.2 (17.3)
MEAN LIFE SPAN (D) (STANDARD ERROR)	686.0 (14.9)	695.4 (10.6)	680.0 (10.3)	667.7 (12.5)

*** END OF REPORT ***

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