

Study Number: C20302B-01
Test Type: TOX
Route: Whole-Body Inhalation
Species/Strain: Mouse/B6C3F1/N

PA11: Statistical Analysis of Survival Data
Test Compound: alpha-Pinene
CAS Number: 80-56-8

Date Report Requested: 11/08/2023
Time Report Requested: 10:59:32
Lab: Battelle with EPL

Study Number: C20302B-01
Study Sex: Both
PWG Approval Date: See web page for date of PWG Approval
Version: v1.6.0
Stat Version: v3.0.2A

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Males: Core Animals
First Terminal Sacrifice at 729 Days
Individual Survival Times (Study Days)

Dose = 0 ppm

Total: 50

Uncensored Deaths: 11

Censored Deaths: 0

Terminal: 39

UNCENSORED DEATH DAYS

369 420 520 557 600 603 606 621 653 705 726

CENSORED DEATH DAYS

None

Dose = 100 ppm

Total: 50

Uncensored Deaths: 20

Censored Deaths: 0

Terminal: 30

UNCENSORED DEATH DAYS

365 432 506 519 540 554 565 591 599 600 602 609 609 626
647 655 674 680 699 722

CENSORED DEATH DAYS

None

Dose = 200 ppm

Total: 50

Uncensored Deaths: 14

Censored Deaths: 2

Terminal: 34

UNCENSORED DEATH DAYS

185 324 472 529 555 558 576 624 638 667 681 708 716 722

CENSORED DEATH DAYS

194 194

Dose = 400 ppm

Total: 50

Uncensored Deaths: 19

Censored Deaths: 0

Terminal: 31

UNCENSORED DEATH DAYS

383 395 477 528 541 542 550 563 603 609 616 625 641 657
667 669 680 708 712

CENSORED DEATH DAYS

None

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Kaplan-Meier Survival Probability Estimates (%)										
Dose (ppm)	Time (Study Days)									
	90	180	270	365	425	485	545	605	665	729(A)
0	100.0	100.0	100.0	100.0	96.0	96.0	94.0	88.0	82.0	78.0
100	100.0	100.0	100.0	98.0	98.0	96.0	90.0	78.0	68.0	60.0
200	100.0	100.0	98.0	95.9	95.9	93.8	91.7	85.5	81.3	70.9
400	100.0	100.0	100.0	100.0	96.0	94.0	88.0	82.0	72.0	62.0

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Survival Summary Statistics				
Dose	0 ppm	100 ppm	200 ppm	400 ppm
Survival At End Of Study (Kaplan-Meier)	78.0%	60.0%	70.9%	62.0%
Significance (B) (Life Table)	P=0.260	P=0.194	P=0.558	P=0.258
Mean Day Of Natural Deaths (C) (Standard Error)	580.0 (33.0)	589.7 (19.6)	568.2 (41.5)	587.7 (21.8)
Mean Life Span (D) (Standard Error)	696.2 (11.3)	673.3 (12.4)	662.6 (20.5)	675.3 (12.7)

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Females: Core Animals
First Terminal Sacrifice at 731 Days
Individual Survival Times (Study Days)

Dose = 0 ppm

Total: 50

Uncensored Deaths: 17

Censored Deaths: 0

Terminal: 33

UNCENSORED DEATH DAYS

394	450	479	508	515	559	590	628	646	657	673	685	688	701
702	702	719											

CENSORED DEATH DAYS

None

Dose = 100 ppm

Total: 50

Uncensored Deaths: 21

Censored Deaths: 0

Terminal: 29

UNCENSORED DEATH DAYS

268	306	380	435	502	518	562	599	640	650	657	668	684	689
689	702	715	725	726	726	730							

CENSORED DEATH DAYS

None

Dose = 200 ppm

Total: 40

Uncensored Deaths: 16

Censored Deaths: 0

Terminal: 24

UNCENSORED DEATH DAYS

335	394	408	484	563	581	603	660	669	683	697	705	710	714
716	725												

CENSORED DEATH DAYS

None

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First Terminal Sacrifice at 731 Days
Individual Survival Times (Study Days)

Dose = 400 ppm

Total: 50

Uncensored Deaths: 25

Censored Deaths: 0

Terminal: 25

UNCENSORED DEATH DAYS

227	283	417	459	484	519	587	619	628	639	644	645	680	683
683	697	699	699	703	704	716	722	722	726	729			

CENSORED DEATH DAYS

None

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Kaplan-Meier Survival Probability Estimates (%)										
Dose (ppm)	Time (Study Days)									
	90	180	270	365	425	485	545	605	665	731(A)
0	100.0	100.0	100.0	100.0	98.0	94.0	90.0	86.0	80.0	66.0
100	100.0	100.0	98.0	96.0	94.0	92.0	88.0	84.0	78.0	58.0
200	100.0	100.0	100.0	97.5	92.5	90.0	90.0	82.5	80.0	60.0
400	100.0	100.0	98.0	96.0	94.0	90.0	88.0	86.0	76.0	50.0

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Survival Summary Statistics				
Dose	0 ppm	100 ppm	200 ppm	400 ppm
Survival At End Of Study (Kaplan-Meier)	66.0%	58.0%	60.0%	50.0%
Significance (B) (Life Table)	P=0.184	P=0.738	P=0.738	P=0.581
Mean Day Of Natural Deaths (C) (Standard Error)	605.6 (24.9)	598.6 (31.4)	602.9 (32.6)	612.6 (27.8)
Mean Life Span (D) (Standard Error)	688.4 (11.9)	675.4 (16.0)	679.8 (16.2)	671.8 (16.1)

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LEGEND

(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).

Pairwise p-values include a Hommel adjustment for multiple comparisons.

**** END OF REPORT ****