

Study Number: C11054B-01
Test Type: TOX
Route: Dosing in Water
Species/Strain: Rat/Harlan Sprague Dawley

PA11: Statistical Analysis of Survival Data (Chronic Animals)
Test Compound: Sulfolane
CAS Number: 126-33-0

Date Report Requested: 04/21/2022
Time Report Requested: 08:21:21
Lab: Battelle

Study Number: C11054B-01
Study Sex: Both
PWG Approval Date: See web page for date of PWG Approval
Version: v1.4.1
Stat Version: S

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**F1 Males: F1 Core Animals
First Terminal Sacrifice at 732 Days
Individual Survival Times (Study Days)**

Dose = 0 mg/L

Total: 50

Uncensored Deaths: 34

Censored Deaths: 0

Terminal: 16

UNCENSORED DEATH DAYS

286	398	421	435	475	536	539	565	567	597	602	603	606	611
645	648	653	657	660	660	664	668	673	678	680	685	702	703
708	718	718	723	725	731								

CENSORED DEATH DAYS

None

Dose = 30 mg/L

Total: 50

Uncensored Deaths: 33

Censored Deaths: 0

Terminal: 17

UNCENSORED DEATH DAYS

196	339	445	461	464	478	484	497	504	532	535	542	546	550
564	567	573	579	600	604	614	615	624	629	635	643	645	646
665	681	689	690	711									

CENSORED DEATH DAYS

None

Dose = 100 mg/L

Total: 50

Uncensored Deaths: 35

Censored Deaths: 0

Terminal: 15

UNCENSORED DEATH DAYS

202	262	326	327	375	491	522	525	527	555	580	606	612	613
635	645	645	653	655	655	658	658	660	679	681	681	683	694
695	703	703	703	709	729	731							

CENSORED DEATH DAYS

None

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**F1 Males: F1 Core Animals
First Terminal Sacrifice at 732 Days
Individual Survival Times (Study Days)**

Dose = 300 mg/L

Total: 50

Uncensored Deaths: 33

Censored Deaths: 0

Terminal: 17

UNCENSORED DEATH DAYS

330	415	470	476	477	490	508	509	537	541	543	574	590	612
615	630	634	642	642	672	673	677	679	680	683	687	688	692
696	698	717	723	730									

CENSORED DEATH DAYS

None

Dose = 1000 mg/L

Total: 50

Uncensored Deaths: 40

Censored Deaths: 0

Terminal: 10

UNCENSORED DEATH DAYS

322	371	385	424	432	456	461	470	481	482	485	493	504	519
521	536	539	542	547	555	555	578	580	582	591	629	649	649
653	654	656	671	686	687	688	694	712	715	715	723		

CENSORED DEATH DAYS

None

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F1 Males: F1 Core Animals
First Terminal Sacrifice at 732 Days

Dose (mg/L)	Kaplan-Meier Survival Probability Estimates (%)									
	Time (Study Days)									
	90	180	270	365	425	485	545	605	665	732(A)
0	100.0	100.0	100.0	98.0	94.0	90.0	86.0	76.0	58.0	32.0
30	100.0	100.0	98.0	96.0	96.0	86.0	76.0	60.0	42.0	34.0
100	100.0	100.0	96.0	92.0	90.0	90.0	82.0	78.0	54.0	30.0
300	100.0	100.0	100.0	98.0	96.0	90.0	78.0	74.0	62.0	34.0
1000	100.0	100.0	100.0	98.0	92.0	78.0	64.0	50.0	38.0	20.0

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F1 Males: F1 Core Animals
First Terminal Sacrifice at 732 Days

Survival Summary Statistics					
Dose	0 mg/L	30 mg/L	100 mg/L	300 mg/L	1000 mg/L
Survival At End Of Study (Kaplan-Meier)	32.0%	34.0%	30.0%	34.0%	20.0%
Significance (B) (Life Table)	P=0.034	P=0.835	P=0.835	P=0.835N	P=0.158
Mean Day Of Natural Deaths (C) (Standard Error)	614.8 (22.4)	569.9 (18.5)	592.0 (25.2)	604.7 (23.0)	570.5 (19.3)
Mean Life Span (D) (Standard Error)	650.1 (18.9)	619.8 (18.8)	636.1 (18.2)	647.5 (16.8)	603.4 (18.7)

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**F1 Females: F1 Core Animals
First Terminal Sacrifice at 734 Days
Individual Survival Times (Study Days)**

Dose = 0 mg/L

Total: 50

Uncensored Deaths: 29

Censored Deaths: 0

Terminal: 21

UNCENSORED DEATH DAYS

250	380	407	548	549	555	582	616	630	631	632	636	640	651
654	658	660	661	663	671	682	682	688	700	701	714	719	723
724													

CENSORED DEATH DAYS

None

Dose = 30 mg/L

Total: 50

Uncensored Deaths: 24

Censored Deaths: 0

Terminal: 26

UNCENSORED DEATH DAYS

342	360	484	551	565	580	588	603	606	614	651	654	655	663
681	688	690	692	697	702	703	706	708	712				

CENSORED DEATH DAYS

None

Dose = 100 mg/L

Total: 50

Uncensored Deaths: 24

Censored Deaths: 0

Terminal: 26

UNCENSORED DEATH DAYS

425	442	458	470	501	522	549	554	558	572	579	600	601	613
633	648	654	665	681	690	713	715	725	732				

CENSORED DEATH DAYS

None

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**F1 Females: F1 Core Animals
First Terminal Sacrifice at 734 Days
Individual Survival Times (Study Days)**

Dose = 300 mg/L

Total: 50

Uncensored Deaths: 23

Censored Deaths: 0

Terminal: 27

UNCENSORED DEATH DAYS

217	319	332	371	423	424	534	544	564	576	584	616	616	631
643	644	646	653	654	677	677	697	703					

CENSORED DEATH DAYS

None

Dose = 1000 mg/L

Total: 50

Uncensored Deaths: 31

Censored Deaths: 0

Terminal: 19

UNCENSORED DEATH DAYS

220	332	362	487	503	521	527	527	557	561	579	588	604	612
630	630	633	635	647	656	657	672	695	700	701	702	707	709
709	730	733											

CENSORED DEATH DAYS

None

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**F1 Females: F1 Core Animals
First Terminal Sacrifice at 734 Days**

Dose (mg/L)	Kaplan-Meier Survival Probability Estimates (%)									
	Time (Study Days)									
	90	180	270	365	425	485	545	605	665	734(A)
0	100.0	100.0	98.0	98.0	94.0	94.0	94.0	86.0	62.0	42.0
30	100.0	100.0	100.0	96.0	96.0	94.0	94.0	84.0	72.0	52.0
100	100.0	100.0	100.0	100.0	98.0	92.0	88.0	74.0	64.0	52.0
300	100.0	100.0	98.0	94.0	88.0	88.0	84.0	78.0	62.0	54.0
1000	100.0	100.0	98.0	94.0	94.0	94.0	84.0	74.0	58.0	38.0

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F1 Females: F1 Core Animals
First Terminal Sacrifice at 734 Days

Survival Summary Statistics					
Dose	0 mg/L	30 mg/L	100 mg/L	300 mg/L	1000 mg/L
Survival At End Of Study (Kaplan-Meier)	42.0%	52.0%	52.0%	54.0%	38.0%
Significance (B) (Life Table)	P=0.204	P=0.567N	P=0.567N	P=0.567N	P=0.567
Mean Day Of Natural Deaths (C) (Standard Error)	634.4 (15.2)	627.2 (20.5)	598.0 (20.7)	564.8 (26.3)	599.6 (26.5)
Mean Life Span (D) (Standard Error)	670.5 (14.7)	679.6 (14.5)	668.3 (13.2)	654.4 (19.5)	651.2 (17.1)

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LEGEND

(A) First Terminal Sacrifice

(B) The first entry is the trend test result, subsequent entries are the results of pairwise tests. Trend and pairwise tests used a Cox proportional hazards model with litter as a random effect. 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).

Survival at end of study is calculated as the number of animals alive at the first terminal sacrifice day / number of animals in the dose group.

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

Uncensored deaths include all early removals (prior to first terminal sacrifice day) due to either death or moribundity. Censored deaths include all early removals for reasons other than death or moribundity.

For this report, Study Days are defined for the F1 generation as days after the 28-day weaning period.

**** END OF REPORT ****