Study Number:	I11054B
Study Gender:	Both
PWG Approval Date:	See web page for date of PWG Approval
Version:	v1.3.2
Stat Version:	v2.7.2A

Study Number: I11054B
Test Type: TOX
Route: Dosing in Water
Species/Strain: Rat/Harlan Sprague Dawley

PA46s: Summary of Gross Pathology
Test Compound: Sulfolane
CAS Number: 126-33-0

Date Report Requested: 09/14/2021
Time Report Requested: 13:48:57
Lab: BRT with EPL

F1 Male: Immunopath

	Treatment Groups (mg/L)					
	0	30	100	300	1000	15 mg/kg CPS
Disposition Summary						
Animals Initially In Study	12	12	12	12	12	8
Censored						
Early Deaths						
Survivors						
Scheduled Sacrifice, Terminal	12	12	12	12	12	8
Number of Animals Examined	12	12	12	12	12	8

F1 Male: Immunopath

	Treatment Groups (mg/L)					
	0	**30**	**100**	**300**	**1000**	**15 mg/kg CPS**
ALIMENTARY SYSTEM						
INTESTINE, LARGE, COLON	(12)	(12)	(12)	(12)	(12)	(0)
FOCUS; WHITE			1 (8.3%)			
LIVER	(12)	(12)	(12)	(12)	(12)	(8)
ACCESSORY LOBE; DEFORMITY						1 (12.5%)
LOBE, LATERAL, RIGHT; DEFORMITY				2 (16.7%)		
LOBE, LEFT; DEFORMITY; TAN				1 (8.3%)		
LOBE, LEFT; DEFORMITY			1 (8.3%)	1 (8.3%)		2 (25.0%)
CAUDATE LOBE; DISCOLORATION; BLACK, DIFFUSE, MODERATE					1 (8.3%)	
CAUDATE LOBE; FOCUS; BLACK			1 (8.3%)			
LOBE, LEFT; FOCUS; RED						1 (12.5%)
FOCUS				1 (8.3%)		
MALFORMATION				1 (8.3%)		
CAUDATE LOBE; NODULE; BROWN				1 (8.3%)		
CAUDATE LOBE; NODULE; BROWN, DARK				1 (8.3%)	1 (8.3%)	
NODULE						1 (12.5%)
CAUDATE LOBE; SMALL				2 (16.7%)	1 (8.3%)	
PANCREAS	(12)	(12)	(12)	(12)	(12)	(0)
FOCUS; DARK					1 (8.3%)	
NODULE; MOTTLED					1 (8.3%)	
STOMACH, FORESTOMACH	(12)	(12)	(12)	(12)	(12)	(8)
DIVERTICULUM	1 (8.3%)		2 (16.7%)	1 (8.3%)		
CARDIOVASCULAR SYSTEM						
HEART	(12)	(12)	(12)	(12)	(12)	(0)
DISCOLORATION; MILD, MULTIFOCAL			1 (8.3%)			

F1 Male: Immunopath

	Treatment Groups (mg/L)					
	0	**30**	**100**	**300**	**1000**	**15 mg/kg CPS**
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
None						
HEMATOLYMPHOID SYSTEM						
SPLEEN	(12)	(12)	(12)	(12)	(12)	(8)
DEFORMITY			1 (8.3%)			
FOCUS; RED					1 (8.3%)	
SMALL; MARKED						1 (12.5%)
SMALL; MODERATE	0					7 (87.5%) **
THYMUS	(0)	(0)	(0)	(0)	(0)	(8)
SMALL; MARKED	0					8 (100.0%) **
INTEGUMENTARY SYSTEM						
SUBCUTIS	(12)	(12)	(12)	(12)	(12)	(8)
THORACIC; MASS; FIRM	1 (8.3%)					
TAIL	(12)	(12)	(12)	(12)	(12)	(8)
DEFORMITY	1 (8.3%)					
MUSCULOSKELETAL SYSTEM						
None						
NERVOUS SYSTEM						
None						

F1 Male: Immunopath

	Treatment Groups (mg/L)					
	0	**30**	**100**	**300**	**1000**	**15 mg/kg CPS**
RESPIRATORY SYSTEM						
LUNG	(12)	(12)	(12)	(12)	(12)	(8)
APICAL LOBE; RIGHT; DISCOLORATION; DIFFUSE, MILD, RED						1 (12.5%)
NODULE; BROWN, DARK				1 (8.3%)	1 (8.3%)	
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
KIDNEY, RIGHT	(12)	(12)	(12)	(12)	(12)	(0)
MASS; FIRM	0 **				4 (33.3%) *	
MASS; SOFT	0 *				2 (16.7%)	

F1 Male: SRBC

	Treatment Groups (mg/L)					
	0	**30**	**100**	**300**	**1000**	**15 mg/kg CPS**
Disposition Summary						
Animals Initially In Study	**12**	**12**	**12**	**12**	**12**	**8**
Censored						
Early Deaths						
Survivors						
Scheduled Sacrifice, Terminal	**12**	**12**	**12**	**12**	**12**	**8**
Number of Animals Examined	**12**	**12**	**12**	**12**	**12**	**8**
ALIMENTARY SYSTEM						
None						
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
None						

F1 Male: SRBC

	Treatment Groups (mg/L)					
	0	**30**	**100**	**300**	**1000**	**15 mg/kg CPS**
HEMATOLYMPHOID SYSTEM						
SPLEEN	(12)	(12)	(12)	(12)	(12)	(8)
DEFORMITY; DEPRESSED, MILD, ONE				1 (8.3%)		
SMALL; MILD			2 (16.7%)			2 (25.0%)
SMALL; MODERATE	0					6 (75.0%) **
THYMUS	(12)	(12)	(12)	(12)	(12)	(8)
SMALL; MARKED	0					8 (100.0%) **
SMALL; MILD			2 (16.7%)			
INTEGUMENTARY SYSTEM						
None						
MUSCULOSKELETAL SYSTEM						
None						
NERVOUS SYSTEM						
None						
RESPIRATORY SYSTEM						
None						
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
KIDNEY, LEFT	(12)	(12)	(12)	(12)	(12)	(8)
CYST; CLEAR, TWO	1 (8.3%)					
KIDNEY, RIGHT	(12)	(12)	(12)	(12)	(12)	(0)
CYST; CLEAR, MILD, TWO				1 (8.3%)		
CYST; CLEAR, ONE				1 (8.3%)		

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F1 Female: Immunopath

	Treatment Groups (mg/L)					
	0	30	100	300	1000	15 mg/kg CPS
Disposition Summary						
Animals Initially In Study	12	12	12	12	12	8
Censored						
Early Deaths						
Survivors						
Scheduled Sacrifice, Terminal	12	12	12	12	12	8
Number of Animals Examined	12	12	12	12	12	8

F1 Female: Immunopath

	Treatment Groups (mg/L)					
	0	**30**	**100**	**300**	**1000**	**15 mg/kg CPS**
ALIMENTARY SYSTEM						
LIVER	(12)	(12)	(12)	(12)	(12)	(8)
LOBE, LATERAL, RIGHT; DEFORMITY				1 (8.3%)		
LOBE, LEFT; DEFORMITY			1 (8.3%)	1 (8.3%)	2 (16.7%)	
DEFORMITY	1 (8.3%)	1 (8.3%)				
ENLARGED; MODERATE		1 (8.3%)				
CAUDATE LOBE; FOCUS; BROWN, DARK		1 (8.3%)				
CAUDATE LOBE; FOCUS; BROWN, DARK, ONE		1 (8.3%)				
CAUDATE LOBE; FOCUS; DARK, RED					1 (8.3%)	
CAUDATE LOBE; FOCUS; MOTTLED		1 (8.3%)				
CAUDATE LOBE; FOCUS; RED				1 (8.3%)		
LEFT; LOBE, LATERAL; FOCUS; WHITE				1 (8.3%)		
LOBE, LEFT; FOCUS; RED					1 (8.3%)	
LOBE, LEFT; FOCUS; WHITE					1 (8.3%)	
LOBE, MEDIAN; FOCUS; WHITE					1 (8.3%)	
FOCUS; BROWN, DARK		1 (8.3%)				1 (12.5%)
FOCUS; RED					1 (8.3%)	
CAUDATE LOBE; CAPSULE; LESION		1 (8.3%)				
LOBE, MEDIAN; MASS; FIRM, TAN						1 (12.5%)
CAUDATE LOBE; NODULE; BROWN, DARK		1 (8.3%)		1 (8.3%)	1 (8.3%)	
CAUDATE LOBE; NODULE; BROWN, DARK, ONE			1 (8.3%)			
CAUDATE LOBE; NODULE; FIRM			1 (8.3%)			
CAUDATE LOBE; NODULE		1 (8.3%)				
LOBE, LEFT; NODULE; BROWN, DARK					1 (8.3%)	
LOBE, LEFT; NODULE					1 (8.3%)	
LOBE, MEDIAN; RIGHT; NODULE; TAN				1 (8.3%)		
LOBE, MEDIAN; NODULE; FIRM, TAN						1 (12.5%)
LOBE, MEDIAN; NODULE					1 (8.3%)	

F1 Female: Immunopath

	Treatment Groups (mg/L)					
	0	**30**	**100**	**300**	**1000**	**15 mg/kg CPS**
CAUDATE LOBE; SMALL		1 (8.3%)			1 (8.3%)	1 (12.5%)
SMALL; MILD						2 (25.0%)
SMALL; MODERATE						1 (12.5%)
STOMACH, FORESTOMACH	(12)	(12)	(12)	(12)	(12)	(8)
DEFORMITY			1 (8.3%)			
DIVERTICULUM	3 (25.0%)	1 (8.3%)	2 (16.7%)	1 (8.3%)		2 (25.0%)
CARDIOVASCULAR SYSTEM						
HEART	(12)	(12)	(12)	(12)	(12)	(0)
FOCUS; DARK				1 (8.3%)		
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
PERITONEUM	(12)	(12)	(12)	(12)	(12)	(0)
CYST					1 (8.3%)	
GENITAL SYSTEM						
None						

F1 Female: Immunopath

	Treatment Groups (mg/L)					
	0	**30**	**100**	**300**	**1000**	**15 mg/kg CPS**
HEMATOLYMPHOID SYSTEM						
SPLEEN	(12)	(12)	(12)	(12)	(12)	(8)
DEFORMITY	1 (8.3%)					
ENLARGED; MODERATE				1 (8.3%)		
NODULE	1 (8.3%)	2 (16.7%)		1 (8.3%)		
SMALL; MARKED						1 (12.5%)
SMALL; MILD		1 (8.3%)				2 (25.0%)
SMALL; MODERATE	0			1 (8.3%)		5 (62.5%) **
THYMUS	(12)	(12)	(12)	(12)	(12)	(8)
DISCOLORATION; MILD, MOTTLED		1 (8.3%)				
ENLARGED; MODERATE				1 (8.3%)		
SMALL; MARKED	0					5 (62.5%) **
SMALL; MILD	0					3 (37.5%) *
INTEGUMENTARY SYSTEM						
TAIL	(12)	(12)	(12)	(12)	(12)	(8)
DEFORMITY	1 (8.3%)	6 (50.0%) *	3 (25.0%)	3 (25.0%)	1 (8.3%)	
MUSCULOSKELETAL SYSTEM						
None						
NERVOUS SYSTEM						
None						

F1 Female: Immunopath

	Treatment Groups (mg/L)					
	0	**30**	**100**	**300**	**1000**	**15 mg/kg CPS**
RESPIRATORY SYSTEM						
LUNG	(12)	(12)	(12)	(12)	(12)	(8)
ADHESION; MILD	1 (8.3%)	1 (8.3%)				
ADHESION	1 (8.3%)					
DISCOLORATION; DIFFUSE, MILD, RED			1 (8.3%)			
DISCOLORATION; DIFFUSE, MODERATE, RED			1 (8.3%)			
SMALL; MILD						2 (25.0%)
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
KIDNEY, RIGHT	(12)	(12)	(12)	(12)	(12)	(0)
CYST; CLEAR, ONE				1 (8.3%)		
CYST; CLEAR, THREE			1 (8.3%)		1 (8.3%)	
CYST; CLEAR, TWO					1 (8.3%)	
ENLARGED; MODERATE		1 (8.3%)				

F1 Female: SRBC

	Treatment Groups (mg/L)					
	0	**30**	**100**	**300**	**1000**	**15 mg/kg CPS**
Disposition Summary						
Animals Initially In Study	**12**	**12**	**12**	**12**	**12**	**8**
Censored						
Early Deaths						
Survivors						
Scheduled Sacrifice, Terminal	**12**	**12**	**12**	**12**	**12**	**8**
Number of Animals Examined	**12**	**12**	**12**	**12**	**12**	**8**
ALIMENTARY SYSTEM						
None						
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
None						
HEMATOLYMPHOID SYSTEM						
SPLEEN	(12)	(12)	(12)	(12)	(12)	(8)
DEFORMITY; MILD	1 (8.3%)	1 (8.3%)				
SMALL; MILD						1 (12.5%)
SMALL; MODERATE	0					7 (87.5%) **
THYMUS	(0)	(0)	(0)	(0)	(0)	(8)
SMALL; MARKED	0					8 (100.0%) **

F1 Female: SRBC

	Treatment Groups (mg/L)					
	0	**30**	**100**	**300**	**1000**	**15 mg/kg CPS**
INTEGUMENTARY SYSTEM						
None						
MUSCULOSKELETAL SYSTEM						
None						
NERVOUS SYSTEM						
None						
RESPIRATORY SYSTEM						
None						
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
None						

LEGEND

Censored animals are scheduled for sacrifice prior to the end of the study. The censored animals are included in the pathology data.

Number of animals examined for each tissue shown in parentheses. If none of the animals examined have the specific lesion then there is a blank for that dose group for that specific lesion. The exception to this is if statistical significance is found for a lesion and the control group has no animals with the lesion then a 0 is included for the control group on the table for that lesion.

Number (percent) of animals affected given for each observation

Statistical analysis for the positive control group compared to the vehicle control group was performed using the Fisher Exact test.

All trend and pairwise p-values are reported as one-sided.

Statistical significance for the control group indicates a significant trend test

Statistical significance for a treatment group indicates a significant pairwise test compared to the vehicle control group

* Statistically significant at P <= 0.05

** Statistically significant at P <= 0.01

CPS = Cyclophosphamide

** END OF REPORT **