

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Study Number: C20302B-01
Study Sex: Both
PWG Approval Date: See web page for date of PWG Approval
Version: v1.7.0

Male: Interim Males											
B6C3F1/N Mouse Male 0 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	*TOTALS
		D	D	D	D	D	D	D	D	D	
		0	0	0	0	0	0	0	0	0	
		8	8	8	8	8	8	8	8	8	
		9	9	9	9	9	9	9	9	9	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	4	0	0	
		4	4	4	4	4	4	0	4	4	
		0	0	0	0	0	0	7	0	0	
		1	2	3	4	5	6	R	8	9	

ALIMENTARY SYSTEM	
NONE	
CARDIOVASCULAR SYSTEM	
NONE	
ENDOCRINE SYSTEM	
NONE	
GENERAL BODY SYSTEM	
NONE	
HEMATOPOIETIC SYSTEM	
NONE	
HEPATOBIILIARY SYSTEM	
NONE	
IMMUNE SYSTEM	
NONE	
INTEGUMENTARY SYSTEM	
NONE	
MUSCULOSKELETAL SYSTEM	
NONE	
NERVOUS SYSTEM	
NONE	

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Interim Males												
B6C3F1/N Mouse Male 0 ppm	DAY ON TEST	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9		
		0	0	0	0	0	0	0	0	0		0
		0	0	0	0	0	4	0	0	0		0
		4	4	4	4	4	0	4	4	4		4
		0	0	0	0	0	0	7	0	0		1
	ANIMAL ID	1	2	3	4	5	6	R	8	9	0	*TOTALS
REPRODUCTIVE SYSTEM												
EPIDIDYMIS		+	+	+	+	+	+	+	+	+	10	
TESTIS		+	+	+	+	+	+	+	+	+	10	
RESPIRATORY SYSTEM												
NONE												
SPECIAL SENSES SYSTEM												
NONE												
URINARY SYSTEM												
URINARY BLADDER		+	+	+	+	+	+	+	+	+	10	

Male: Interim Males											
B6C3F1/N Mouse Male 100 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	*TOTALS
		D	D	D	D	D	D	D	D	D	
		0	0	0	0	0	0	0	0	0	
		8	8	8	8	8	8	8	8	8	
	ANIMAL ID	9	9	9	9	9	9	9	9	9	
		0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		4	4	4	4	4	4	4	4	4	
1	1	1	1	1	1	1	1	1			
1	2	3	4	5	6	7	8	9	0		
ALIMENTARY SYSTEM											
NONE											
CARDIOVASCULAR SYSTEM											
NONE											
ENDOCRINE SYSTEM											
NONE											
GENERAL BODY SYSTEM											
NONE											
HEMATOPOIETIC SYSTEM											
NONE											
HEPATOBIILIARY SYSTEM											
NONE											
IMMUNE SYSTEM											
NONE											
INTEGUMENTARY SYSTEM											
NONE											
MUSCULOSKELETAL SYSTEM											
NONE											
NERVOUS SYSTEM											
NONE											

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Interim Males											
B6C3F1/N Mouse Male 100 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	
		0	0	0	0	0	0	0	0	0	
		8	8	8	8	8	8	8	8	8	
		9	9	9	9	9	9	9	9	9	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		4	4	4	4	4	4	4	4	4	
		1	1	1	1	1	1	1	1	2	
		1	2	3	4	5	6	7	8	9	*TOTALS
REPRODUCTIVE SYSTEM											
EPIDIDYMIS		+	+	+	+	+	+	+	+	+	10
TESTIS		+	+	+	+	+	+	+	+	+	10
RESPIRATORY SYSTEM											
NONE											
SPECIAL SENSES SYSTEM											
NONE											
URINARY SYSTEM											
URINARY BLADDER		+	+	+	+	+	+	+	+	+	10

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Interim Males											
B6C3F1/N Mouse Male 200 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	*TOTALS
		D	D	D	D	D	D	D	D	D	
		0	0	0	0	0	0	0	0	0	
		8	8	8	8	8	8	8	8	8	
		9	9	9	9	9	9	9	9	9	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		4	4	4	4	4	4	4	4	4	
		2	2	2	2	2	2	2	2	3	
		1	2	3	4	5	6	7	8	9	

ALIMENTARY SYSTEM	
NONE	
CARDIOVASCULAR SYSTEM	
NONE	
ENDOCRINE SYSTEM	
NONE	
GENERAL BODY SYSTEM	
NONE	
HEMATOPOIETIC SYSTEM	
NONE	
HEPATOBIILIARY SYSTEM	
NONE	
IMMUNE SYSTEM	
NONE	
INTEGUMENTARY SYSTEM	
NONE	
MUSCULOSKELETAL SYSTEM	
NONE	
NERVOUS SYSTEM	
NONE	

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Interim Males												
B6C3F1/N Mouse Male 200 ppm	DAY ON TEST	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9	S D 0 8 9	*TOTALS	
		0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0		
		4	4	4	4	4	4	4	4	4		
		2	2	2	2	2	2	2	2	3		
	ANIMAL ID	1	2	3	4	5	6	7	8	9		
REPRODUCTIVE SYSTEM												
EPIDIDYMIS		+	+	+	+	+	+	+	+	+	10	
TESTIS		+	+	+	+	+	+	+	+	+	10	
RESPIRATORY SYSTEM												
NONE												
SPECIAL SENSES SYSTEM												
NONE												
URINARY SYSTEM												
URINARY BLADDER		+	+	+	+	+	+	+	+	+	10	

Male: Interim Males											
B6C3F1/N Mouse Male 400 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	*TOTALS
		D	D	D	D	D	D	D	D	D	
		0	0	0	0	0	0	0	0	0	
		8	8	8	8	8	8	8	8	8	
		9	9	9	9	9	9	9	9	9	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		4	4	4	4	4	4	4	4	4	
		3	3	3	3	3	3	3	3	3	
		1	2	3	4	5	6	7	8	9	
ALIMENTARY SYSTEM											
NONE											
CARDIOVASCULAR SYSTEM											
NONE											
ENDOCRINE SYSTEM											
NONE											
GENERAL BODY SYSTEM											
NONE											
HEMATOPOIETIC SYSTEM											
NONE											
HEPATOBIILIARY SYSTEM											
NONE											
IMMUNE SYSTEM											
NONE											
INTEGUMENTARY SYSTEM											
NONE											
MUSCULOSKELETAL SYSTEM											
NONE											
NERVOUS SYSTEM											
NONE											

Male: Interim Males											
B6C3F1/N Mouse Male 400 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	*TOTALS
		D	D	D	D	D	D	D	D	D	
		0	0	0	0	0	0	0	0	0	
		8	8	8	8	8	8	8	8	8	
		9	9	9	9	9	9	9	9	9	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		4	4	4	4	4	4	4	4	4	
		3	3	3	3	3	3	3	3	4	
		1	2	3	4	5	6	7	8	9	
REPRODUCTIVE SYSTEM											
EPIDIDYMIS		+	+	+	+	+	+	+	+	10	
TESTIS		+	+	+	+	+	+	+	+	10	
RESPIRATORY SYSTEM											
NONE											
SPECIAL SENSES SYSTEM											
NONE											
URINARY SYSTEM											
URINARY BLADDER		+	+	+	+	+	+	+	+	10	

Male: Core Animals																																	
B6C3F1/N Mouse Male 0 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
			7	7	6	7	7	7	6	7	7	7	7	7	3	7	6	7	7	7	7	7	7	7	4	7	7	7	7	7	7	7	7
			2	2	5	3	3	2	0	3	2	2	2	2	6	3	0	0	3	2	3	3	2	2	3	2	2	3	3	1	6	1	1
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
ALIMENTARY SYSTEM																																	
ESOPHAGUS			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
INTESTINE, LARGE, CECUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
INTESTINE, LARGE, COLON			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+
INTESTINE, LARGE, RECTUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
INTESTINE, SMALL, DUODENUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+
INTESTINE, SMALL, ILEUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
INTESTINE, SMALL, JEJUNUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+
ADENOMA			X																														
MESENTERY			+																														
PANCREAS			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
SALIVARY GLAND			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
STOMACH, FORESTOMACH			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
STOMACH, GLANDULAR			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
CARDIOVASCULAR SYSTEM																																	
AORTA			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
HEART			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
LYMPHOMA; MALIGNANT																																	
ENDOCRINE SYSTEM																																	
ADRENAL GLAND			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
PARATHYROID GLAND			+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
PITUITARY GLAND			+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
THYROID GLAND			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Male: Core Animals																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
B6C3F1/N Mouse Male 0 ppm	DAY ON TEST	S D 7 2 9	S D 7 2 9	S D 6 5 3	S D 7 3 0	S D 7 3 1	S D 7 2 9	S D 6 0 3	S D 7 2 3	S D 7 3 9	S D 7 2 0	S D 7 2 1	S D 7 2 2	S D 3 6 9	S D 7 3 0	S D 7 2 3	S D 7 3 3	S D 7 2 0	S D 7 3 3	S D 7 2 9	S D 7 2 3	S D 7 2 2	S D 4 3 0	S D 7 3 3	S D 7 2 1	S D 7 3 3	S D 7 3 1	S D 7 3 5	S D 7 2 2	S D 7 3 3	S D 7 2 1	S D 7 3 9	S D 7 2 3	S D 7 3 1	S D 7 2 3	S D 7 3 4	S D 7 2 5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	ANIMAL ID	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
GENERAL BODY SYSTEM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
CAVITY		+																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
HEMATOPOIETIC SYSTEM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
BONE MARROW		+																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
HEPATOBIILIARY SYSTEM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
GALLBLADDER		+																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
LIVER		+																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
HEPATOCELLULAR ADENOMA; MULTIPLE		X		X	X									X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</

Lab: Battelle with EPL

Male: Core Animals																																									
B6C3F1/N Mouse Male 0 ppm		DAY ON TEST																																							
		ANIMAL ID																																							
		S D 7 2 9	S D 7 2 9	S D 6 3 3	S D 7 3 1	S D 7 3 2	S D 7 6 0	S D 7 7 3	S D 7 7 9	S D 7 7 0	S D 7 7 2	S D 7 7 3	S D 7 7 9	S D 7 3 6	S D 7 7 3	S D 7 6 0	S D 7 7 2	S D 7 7 3	S D 7 7 3	S D 7 7 2	S D 7 7 3	S D 7 7 0	S D 7 4 2	S D 7 3 3	S D 7 7 0	S D 7 7 0	S D 7 7 1	S D 7 7 2	S D 7 7 3	S D 7 7 1	S D 7 7 5	S D 7 7 2	S D 7 7 3	S D 7 7 1	S D 7 7 2	S D 7 7 3	S D 7 7 2	S D 7 7 3			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7			
RESPIRATORY SYSTEM																																									
LARYNX		+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
LUNG		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
ALVEOLAR/BRONCHIOLAR ADENOMA; MULTIPLE																											X														
ALVEOLAR/BRONCHIOLAR ADENOMA					X																		X																X		
ALVEOLAR/BRONCHIOLAR CARCINOMA; MULTIPLE																														X											
ALVEOLAR/BRONCHIOLAR CARCINOMA									X												X							X				X	X	X							
HEPATOCELLULAR CARCINOMA; METASTATIC								X									X					X						X						X							
LYMPHOMA; MALIGNANT																																									
NOSE		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
TRACHEA		+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
SPECIAL SENSES SYSTEM																																									
EYE		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
HARDERIAN GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
ADENOMA									X								X			X										X	X										
URINARY SYSTEM																																									
KIDNEY		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
URINARY BLADDER		+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
SYSTEMIC LESIONS																																									
Multiple Organ																																									
LYMPHOMA																																									

Male: Core Animals															
B6C3F1/N Mouse Male 0 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		7	7	6	7	7	5	7	7	5	6	7	7	7	
		3	3	2	3	3	2	3	2	5	0	3	3	3	
	ANIMAL ID	1	0	1	0	0	0	0	9	7	6	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		3	3	4	4	4	4	4	4	4	4	4	4	5	
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS
ALIMENTARY SYSTEM															
ESOPHAGUS		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, CECUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, COLON		+	+	+	+	+	+	+	+	+	+	+	+	+	49
INTESTINE, LARGE, RECTUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, SMALL, DUODENUM		+	+	+	+	+	+	+	+	+	+	+	+	+	49
INTESTINE, SMALL, ILEUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, SMALL, JEJUNUM		+	+	+	+	+	+	+	+	+	+	+	+	+	49
ADENOMA															1
MESENTERY															2
PANCREAS		+	+	+	+	+	+	+	+	+	+	+	+	+	50
SALIVARY GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50
STOMACH, FORESTOMACH		+	+	+	+	+	+	+	+	+	+	+	+	+	49
STOMACH, GLANDULAR		+	+	+	+	+	+	+	+	+	+	+	+	+	50
CARDIOVASCULAR SYSTEM															
AORTA		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEART		+	+	+	+	+	+	+	+	+	+	+	+	+	50
LYMPHOMA; MALIGNANT											X				1
ENDOCRINE SYSTEM															
ADRENAL GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50
PARATHYROID GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	49
PITUITARY GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	49
THYROID GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 0 ppm	DAY ON TEST	S D 7 3 1	S D 7 3 0	S D 6 2 1	S D 7 3 0	S D 7 3 0	S D 5 2 0	S D 7 3 0	S D 7 2 9	S D 5 5 7	S D 6 0 6	S D 7 3 0	S D 7 3 0	S D 7 3 0	*TOTALS
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		3 8	3 9	4 0	4 1	4 2	4 3	4 4	4 5	4 6	4 7	4 8	4 9	5 0	

GENERAL BODY SYSTEM	
CAVITY	1

HEMATOPOIETIC SYSTEM	
BONE MARROW	+ + + + + + + + + + + + + 50

HEPATOBIILIARY SYSTEM	
GALLBLADDER	+ + + + + + + + + + + + + 50
LIVER	+ + + + + + + + + + + + + 50
HEPATOCELLULAR ADENOMA; MULTIPLE	X 8
HEPATOCELLULAR ADENOMA	X X X X X X 15
HEPATOCELLULAR CARCINOMA; MULTIPLE	X X 4
HEPATOCELLULAR CARCINOMA	X X X 14

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 0 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST		7	7	6	7	7	5	7	7	5	6	7	7	7	7	
		3	3	2	3	3	2	3	2	5	0	3	3	3	3	
		1	0	1	0	0	0	0	9	7	6	0	0	0	0	
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		3	3	4	4	4	4	4	4	4	4	4	4	4	5	
		8	9	0	1	2	3	4	5	6	7	8	9	0		

IMMUNE SYSTEM

LYMPH NODE																2
LUMBAR; LYMPHOMA; MALIGNANT																1
RENAL; LYMPHOMA; MALIGNANT																1
LYMPH NODE, BRONCHIAL	+	+	+	+	+	+	+	N	+	+	+	+	+	+		41
LYMPHOMA; MALIGNANT																1
LYMPH NODE, MANDIBULAR	+	+	+	+	+	+	+	+	+	+	+	N	+			47
LYMPHOMA; MALIGNANT																1
LYMPH NODE, MEDIASTINAL	+	+	+	+	+	N	+	I	+	+	+	+	+			42
LYMPHOMA; MALIGNANT																1
LYMPH NODE, MESENTERIC	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50
LYMPHOMA; MALIGNANT																1
SPLEEN	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50
LYMPHOMA; MALIGNANT																1
THYMUS	+	+	+	+	+	N	+	+	+	+	+	+	+	+		46

INTEGUMENTARY SYSTEM

SKIN	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50
PLEOMORPHIC FIBROSARCOMA																1

MUSCULOSKELETAL SYSTEM

BONE, FEMUR	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50
SKELETAL MUSCLE			+						+							2

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 0 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	D	
		7	7	6	7	7	5	7	7	5	6	7	7	7	7	
		3	3	2	3	3	2	3	2	5	0	3	3	3	3	
	ANIMAL ID	1	0	1	0	0	0	0	9	7	6	0	0	0	0	*TOTALS
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		3	3	4	4	4	4	4	4	4	4	4	4	4	5	
		8	9	0	1	2	3	4	5	6	7	8	9	0		

NERVOUS SYSTEM	
BRAIN	+ + + + + + + + + + + + + 50
NERVE, SCIATIC	+ 1
NERVE, TRIGEMINAL	+ 1
SPINAL CORD	+ 1

REPRODUCTIVE SYSTEM	
COAGULATING GLAND	1
EPIDIDYMIS	+ + + + + + + + + + + + 50
LYMPHOMA; MALIGNANT	X 1
MAMMARY GLAND	N N + N N N N N N + N + N 23
PREPUTIAL GLAND	+ + + + + + + + + + N + + 49
PROSTATE	+ + + + + + + + + + + + + 49
SEMINAL VESICLE	+ + + + + + + + + + + + + 49
TESTIS	+ + + + + + + + + + + + + 50

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 0 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	
DAY ON TEST		7	7	6	7	7	5	7	7	5	6	7	7	7	
		3	3	2	3	3	2	3	2	5	0	3	3	3	
		1	0	1	0	0	0	0	9	7	6	0	0	0	
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		3	3	4	4	4	4	4	4	4	4	4	4	5	
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS

RESPIRATORY SYSTEM

LARYNX	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
LUNG	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ALVEOLAR/BRONCHIOLAR ADENOMA; MULTIPLE															1
ALVEOLAR/BRONCHIOLAR ADENOMA									X						4
ALVEOLAR/BRONCHIOLAR CARCINOMA; MULTIPLE															1
ALVEOLAR/BRONCHIOLAR CARCINOMA				X			X								8
HEPATOCELLULAR CARCINOMA; METASTATIC							X								6
LYMPHOMA; MALIGNANT										X					1
NOSE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
TRACHEA	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48

SPECIAL SENSES SYSTEM

EYE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
HARDERIAN GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ADENOMA												X			6

URINARY SYSTEM

KIDNEY	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
URINARY BLADDER	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48

SYSTEMIC LESIONS

Multiple Organ											+				1
LYMPHOMA											X				1

Species/Strain: Mouse/B6C3F1/N

PA04: Neoplasms By Individual Animal

Test Compound: alpha-Pinene

CAS Number: 80-56-8

Final

Date Report Requested: 08/08/2024

Time Report Requested: 08:56:46

Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 100 ppm		DAY ON TEST																																				
		S D 6 0 9	S D 7 2 9	S D 5 5 4	S D 7 3 0	S D 7 6 1	S D 6 8 0	S D 7 7 9	S D 7 3 1	S D 7 2 9	S D 5 6 5	S D 7 7 9	S D 7 2 0	S D 7 6 9	S D 5 5 6	S D 5 7 9	S D 7 3 1	S D 4 3 2	S D 5 4 0	S D 6 9 9	S D 7 7 3	S D 7 2 9	S D 7 7 0	S D 7 3 3	S D 7 7 9	S D 7 7 1	S D 7 7 9	S D 7 7 0	S D 7 7 9	S D 7 7 0	S D 7 7 9	S D 7 7 0	S D 7 7 9	S D 7 7 0	S D 7 7 9			
ANIMAL ID		0 0 5 1																																				
		0 0 5 1	0 0 0 2	0 0 0 3	0 0 0 4	0 0 0 5	0 0 0 6	0 0 0 7	0 0 0 8	0 0 0 9	0 0 0 0	0 0 0 1	0 0 0 2	0 0 0 3	0 0 0 4	0 0 0 5	0 0 0 6	0 0 0 7	0 0 0 8	0 0 0 9	0 0 0 0	0 0 0 1	0 0 0 2	0 0 0 3	0 0 0 4	0 0 0 5	0 0 0 6	0 0 0 7	0 0 0 8	0 0 0 9	0 0 0 0	0 0 0 1	0 0 0 2	0 0 0 3	0 0 0 4	0 0 0 5	0 0 0 6	0 0 0 7

ALIMENTARY SYSTEM

[illegible]

CARDIOVASCULAR SYSTEM

[illegible]

Male: Core Animals																																			
B6C3F1/N Mouse Male 100 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
			6	7	5	7	7	6	7	7	7	5	7	7	6	5	5	7	4	5	6	7	7	7	7	7	7	5	6	7	7	7	7	7	
			0	2	5	3	3	8	2	3	2	6	2	3	0	0	1	3	3	4	9	3	2	2	3	3	2	3	9	7	2	9	0	0	0
			9	9	4	0	1	0	9	1	9	5	9	0	9	6	9	1	2	0	9	0	9	9	0	0	9	1	9	0	9	4	2	1	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3
ENDOCRINE SYSTEM																																			
ADRENAL GLAND			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
HISTIOCYTIC SARCOMA																																			
PHEOCHROMOCYTOMA; COMPLEX, MALIGNANT																																			
PARATHYROID GLAND			+	+	+	+	+	+	+	+	+	+	+	N	N	+	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	N	+	+	+
PITUITARY GLAND			N	N	+	+	+	+	+	+	N	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
HISTIOCYTIC SARCOMA																																			
THYROID GLAND			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
GENERAL BODY SYSTEM																																			
CAVITY																																			
HEMATOPOIETIC SYSTEM																																			
BONE MARROW			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

Species/Strain: Mouse/B6C3F1/N

PA04: Neoplasms By Individual Animal

Test Compound: alpha-Pinene

CAS Number: 80-56-8

Final

Date Report Requested: 08/08/2024

Time Report Requested: 08:56:46

Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 100 ppm																																					
DAY ON TEST	S D 6 0 9	S D 7 2 9	S D 5 3 4	S D 7 3 0	S D 7 7 1	S D 6 8 0	S D 7 7 9	S D 7 3 1	S D 7 7 9	S D 5 2 5	S D 7 6 9	S D 7 3 0	S D 6 5 9	S D 7 5 6	S D 5 7 1	S D 4 3 2	S D 5 4 0	S D 6 6 9	S D 7 7 3	S D 7 2 9	S D 7 7 0	S D 7 3 3	S D 7 7 9	S D 7 2 1	S D 6 7 9	S D 6 9 4	S D 7 5 7	S D 6 7 2	S D 7 5 0	S D 6 7 0	S D 7 7 3	S D 7 3 9					
	ANIMAL ID	0 0 0 5 1	0 0 0 5 2	0 0 0 5 3	0 0 0 5 4	0 0 0 5 5	0 0 0 5 6	0 0 0 5 7	0 0 0 5 8	0 0 0 5 9	0 0 0 6 0	0 0 0 6 1	0 0 0 6 2	0 0 0 6 3	0 0 0 6 4	0 0 0 6 5	0 0 0 6 6	0 0 0 6 7	0 0 0 6 8	0 0 0 6 9	0 0 0 7 0	0 0 0 7 1	0 0 0 7 2	0 0 0 7 3	0 0 0 7 4	0 0 0 7 5	0 0 0 7 6	0 0 0 7 7	0 0 0 7 8	0 0 0 7 9	0 0 0 8 0	0 0 0 8 1	0 0 0 8 2	0 0 0 8 3	0 0 0 8 4	0 0 0 8 5	0 0 0 8 6

HEPATOBIILIARY SYSTEM

[illegible]

Male: Core Animals																																		
B6C3F1/N Mouse Male 100 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S		
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
			6	7	5	7	7	6	7	7	7	5	7	7	6	5	5	7	4	5	6	7	7	7	7	7	5	6	7	7	7	7	7	
			0	2	5	3	3	8	2	3	2	6	2	3	0	0	1	3	3	4	9	3	2	2	3	3	2	3	9	7	5	6	7	7
			9	9	4	0	1	0	9	1	9	5	9	0	9	6	9	1	2	0	9	0	9	9	0	0	9	7	4	2	2	1	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	

IMMUNE SYSTEM																													
LYMPH NODE			+																										
LUMBAR; HEPATOCELLULAR CARCINOMA; METASTATIC																													
RENAL; HEPATOCELLULAR CARCINOMA; METASTATIC																													
PANCREATIC; SQUAMOUS CELL CARCINOMA; METASTATIC			X																										
LYMPH NODE, BRONCHIAL			+	+	N	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC			X																										
CARCINOMA; METASTATIC																													
HEPATOCHOLANGIOCARCINOMA; METASTATIC																													
HISTIOCYTIC SARCOMA																													
LYMPH NODE, MANDIBULAR			+	+	+	+	+	N	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+
HISTIOCYTIC SARCOMA																													
LYMPH NODE, MEDIASTINAL			+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N	+
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC			X X																										
HEPATOCELLULAR CARCINOMA; METASTATIC																													
HISTIOCYTIC SARCOMA																													
LYMPH NODE, MESENTERIC			+	+	N	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+
HISTIOCYTIC SARCOMA																													
SPLEEN			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
HEMANGIOSARCOMA			X																										

			Male: Core Animals																																	
B6C3F1/N Mouse Male 100 ppm			DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S			
					D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
					6	7	5	7	7	6	7	7	7	5	7	7	6	5	5	7	4	5	6	7	7	7	7	7	7	7	5	6	7	5	6	7
					0	2	5	3	3	8	2	3	2	6	2	3	0	0	1	3	3	4	9	3	2	2	3	3	2	3	9	7	2	9	0	0
					9	9	4	0	1	0	9	1	9	5	9	0	9	6	9	0	9	0	9	0	9	0	9	4	2	1	0	0	0	0		
					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8		
					1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0		
HISTIOCYTIC SARCOMA																																				
THYMUS			+ N + + + + + + + + + + + N + + N + + + + N + + + + N + + + +																																	
HISTIOCYTIC SARCOMA																																				
INTEGUMENTARY SYSTEM																																				
SKIN			+ +																																	
MUSCULOSKELETAL SYSTEM																																				
BONE																																				
RIB; HEPATOCHOLANGIOCARCINOMA; METASTATIC																																				
BONE, FEMUR			+ +																																	
SKELETAL MUSCLE			N																																	
NERVOUS SYSTEM																																				
BRAIN			+ +																																	
NERVE																																				
NERVE, SCIATIC																																				
SPINAL CORD, LUMBAR																																				
REPRODUCTIVE SYSTEM																																				
EPIDIDYMIS			+ A + + + + +																																	
HISTIOCYTIC SARCOMA																																				
MAMMARY GLAND			+ + + N + + + + + + N + + N + + N + + N + + N + + + + + + + + + +																																	
PREPUTIAL GLAND			+ N + + + + + + + + + +																																	
PROSTATE			+ +																																	
SEMINAL VESICLE			+ +																																	
TESTIS			+ A + + + + + + + +																																	

Lab: Battelle with EPL

x

Male: Core Animals																																						
B6C3F1/N Mouse Male 100 ppm		DAY ON TEST																																				
		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S			
		D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
		6	7	5	7	7	6	7	7	7	5	7	7	6	5	5	7	4	5	6	7	7	7	7	7	7	7	7	7	5	6	7	7	7	7	7		
		0	2	5	3	3	8	2	3	2	6	2	3	0	0	1	3	3	4	9	3	2	2	3	3	2	3	2	3	9	9	7	6	7	5	6	7	7
ANIMAL ID		9	9	4	0	1	0	9	1	9	5	9	0	9	6	9	1	2	0	9	0	9	9	0	0	9	1	9	0	9	4	2	1	0	0	9	4	2
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7
URINARY SYSTEM																																						
KIDNEY		+																																				
CARCINOMA																																						
HEPATOCELLULAR CARCINOMA; METASTATIC																																						
HISTIOCYTIC SARCOMA																																						
SQUAMOUS CELL CARCINOMA; METASTATIC		X																																				
URINARY BLADDER		A + + + + A + + + + + + A + + A + A + + + + + + + + + + I A + + + + + + + +																																				
SYSTEMIC LESIONS																																						
Multiple Organ		+																																				
HEMANGIOSARCOMA		X																																				
HISTIOCYTIC SARCOMA																																						

Male: Core Animals															
B6C3F1/N Mouse Male 100 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		3	7	6	6	7	6	7	7	7	7	7	7	7	6
		6	3	5	4	2	0	3	3	3	2	3	3	3	2
	ANIMAL ID	5	1	5	7	9	2	0	0	0	9	0	0	0	6
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	1	
		8	8	9	9	9	9	9	9	9	9	9	9	9	0
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS
ALIMENTARY SYSTEM															
ESOPHAGUS		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, CECUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, COLON		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, RECTUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, SMALL, DUODENUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, SMALL, ILEUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HISTIOCYTIC SARCOMA														X	1
INTESTINE, SMALL, JEJUNUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
MESENTERY															1
PANCREAS		+	+	+	+	+	+	+	+	+	+	+	+	+	50
ACINUS; SQUAMOUS CELL CARCINOMA; METASTATIC															1
SALIVARY GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50
STOMACH, FORESTOMACH		+	+	+	+	+	+	+	+	+	+	+	+	+	49
SQUAMOUS CELL CARCINOMA															1
STOMACH, GLANDULAR		+	+	+	+	+	+	+	+	+	+	+	+	+	50
CARDIOVASCULAR SYSTEM															
AORTA		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEART		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEPATOCHOLANGIOCARCINOMA; METASTATIC								X							1

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 100 ppm		DAY ON TEST														*TOTALS	
				S	S	S	S	S	S	S	S	S	S	S	S		S
				D	D	D	D	D	D	D	D	D	D	D	D		D
				3	7	6	6	7	6	7	7	7	7	7	7		6
				6	3	5	4	2	0	3	3	3	2	3	3		2
ANIMAL ID		5	1	5	7	9	2	0	0	0	0	9	0	0	6		
		0	0	0	0	0	0	0	0	0	0	0	0	0			
		0	0	0	0	0	0	0	0	0	0	0	0	1			
		8	8	9	9	9	9	9	9	9	9	9	9	0			
		8	9	0	1	2	3	4	5	6	7	8	9	0			
*TOTALS																	
ENDOCRINE SYSTEM																	
ADRENAL GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50		
HISTIOCYTIC SARCOMA														X	1		
PHEOCHROMOCYTOMA; COMPLEX, MALIGNANT															1		
PARATHYROID GLAND		+	N	N	+	N	+	+	+	+	+	+	+	N	42		
PITUITARY GLAND		N	+	+	+	+	+	+	+	+	+	+	+	+	45		
HISTIOCYTIC SARCOMA														X	1		
THYROID GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50		
GENERAL BODY SYSTEM																	
CAVITY															2		
HEMATOPOIETIC SYSTEM																	
BONE MARROW		+	+	+	+	+	+	+	+	+	+	+	+	+	50		

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

PA04: Neoplasms By Individual Animal
 Test Compound: alpha-Pinene
 CAS Number: 80-56-8
 Final

Date Report Requested: 08/08/2024
 Time Report Requested: 08:56:46
 Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male
 100 ppm

DAY ON TEST

ANIMAL ID

S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
3	7	6	6	7	6	7	7	7	7	7	7	7	7	7	6
6	3	5	4	2	0	3	3	3	2	3	3	3	3	2	
5	1	5	7	9	2	0	0	0	9	0	0	0	0	6	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
8	8	9	9	9	9	9	9	9	9	9	9	9	9	0	
8	9	0	1	2	3	4	5	6	7	8	9	0			

*TOTALS

HEPATOBIILIARY SYSTEM

GALLBLADDER

+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----

LIVER

+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----

ALVEOLAR/BRONCHIOLAR
 CARCINOMA; METASTATIC

1

HEMANGIOMA

1

HEPATOCELLULAR ADENOMA;
 MULTIPLE

X

X

X

X

17

HEPATOCELLULAR ADENOMA

X

X

X

9

HEPATOCELLULAR CARCINOMA;
 MULTIPLE

X

X

X

X

10

HEPATOCELLULAR CARCINOMA

X

X

X

16

HEPATOCHOLANGIOCARCINOMA;
 MULTIPLE

1

HEPATOCHOLANGIOCARCINOMA

X

1

HISTIOCYTIC SARCOMA

X

1

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 100 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST	ANIMAL ID	3	7	6	6	7	6	7	7	7	7	7	7	6	
		6	3	5	4	2	0	3	3	3	2	3	3	2	
		5	1	5	7	9	2	0	0	0	9	0	0	6	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	1	
		8	8	9	9	9	9	9	9	9	9	9	9	0	
		8	9	0	1	2	3	4	5	6	7	8	9	0	

IMMUNE SYSTEM

LYMPH NODE	+														2
LUMBAR; HEPATOCELLULAR CARCINOMA; METASTATIC	X														1
RENAL; HEPATOCELLULAR CARCINOMA; METASTATIC	X														1
PANCREATIC; SQUAMOUS CELL CARCINOMA; METASTATIC															1
LYMPH NODE, BRONCHIAL	+	+	+	+	+	+	N	+	+	+	+	+	+	+	45
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC															1
CARCINOMA; METASTATIC	X														1
HEPATOCHOLANGIOCARCINOMA; METASTATIC	X														1
HISTIOCYTIC SARCOMA														X	1
LYMPH NODE, MANDIBULAR	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
HISTIOCYTIC SARCOMA														X	1
LYMPH NODE, MEDIASTINAL	+	+	+	+	+	N	N	+	+	+	N	+	+		44
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC															2
HEPATOCELLULAR CARCINOMA; METASTATIC	X														1
HISTIOCYTIC SARCOMA														X	1
LYMPH NODE, MESENTERIC	N	+	N	+	+	+	+	+	+	+	+	+	+	+	45
HISTIOCYTIC SARCOMA														X	1
SPLEEN	N	+	+	+	+	+	+	+	+	+	+	+	+	+	49
HEMANGIOSARCOMA															1

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 100 ppm		DAY ON TEST		ANIMAL ID		S	S	S	S	S	S	S	S	S	S	S	*TOTALS	
						D	D	D	D	D	D	D	D	D	D	D		D
						3	7	6	6	7	6	7	7	7	7	7		7
						6	3	5	4	2	0	3	3	3	2	3		3
						5	1	5	7	9	2	0	0	0	0	0		0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	1			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		8	8	9	9	9	9	9	9	9	9	9	9	9	0			
		8	9	0	1	2	3	4	5	6	7	8	9	0	0			
HISTIOCYTIC SARCOMA		X														1		
THYMUS		+	+	N	N	+	N	+	+	+	+	+	+	+	+	42		
HISTIOCYTIC SARCOMA		X														1		
INTEGUMENTARY SYSTEM																		
SKIN		+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
MUSCULOSKELETAL SYSTEM																		
BONE		+														2		
RIB; HEPATOCHOLANGIOCARCINOMA; METASTATIC		X														1		
BONE, FEMUR		+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
SKELETAL MUSCLE																		
NERVOUS SYSTEM																		
BRAIN		+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
NERVE																1		
NERVE, SCIATIC																1		
SPINAL CORD, LUMBAR																1		
REPRODUCTIVE SYSTEM																		
EPIDIDYMIS		+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
HISTIOCYTIC SARCOMA		X														1		
MAMMARY GLAND		N	+	+	+	+	+	+	+	+	+	N	+	+	+	41		
PREPUTIAL GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
PROSTATE		+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
SEMINAL VESICLE		+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
TESTIS		+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 100 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST	ANIMAL ID	3	7	6	6	7	6	7	7	7	7	7	7	7	6	
		6	3	5	4	2	0	3	3	3	2	3	3	2		
		5	1	5	7	9	2	0	0	0	9	0	0	6		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	1		
		8	8	9	9	9	9	9	9	9	9	9	9	0		
		8	9	0	1	2	3	4	5	6	7	8	9	0		

RESPIRATORY SYSTEM

LARYNX	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
LUNG	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ALVEOLAR/BRONCHIOLAR ADENOMA; MULTIPLE															1
ALVEOLAR/BRONCHIOLAR ADENOMA									X						7
ALVEOLAR/BRONCHIOLAR CARCINOMA; MULTIPLE															1
ALVEOLAR/BRONCHIOLAR CARCINOMA															5
HEPATOCELLULAR CARCINOMA; METASTATIC				X				X					X		10
HEPATOCHOLANGIOCARCINOMA; METASTATIC							X								2
HISTIOCYTIC SARCOMA														X	1
SQUAMOUS CELL CARCINOMA; METASTATIC															1
NOSE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
HISTIOCYTIC SARCOMA														X	1
TRACHEA	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48

SPECIAL SENSES SYSTEM

EYE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
HARDERIAN GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ADENOCARCINOMA															1
BILATERAL; ADENOMA									X						2
ADENOMA			X							X		X			7

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 100 ppm		DAY ON TEST														*TOTALS
		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D		
		3	7	6	6	7	6	7	7	7	7	7	7	6		
		6	3	5	4	2	0	3	3	3	2	3	3	2		
		5	1	5	7	9	2	0	0	0	9	0	0	6		
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	1			
		8	8	9	9	9	9	9	9	9	9	9	0			
		8	9	0	1	2	3	4	5	6	7	8	9	0		
URINARY SYSTEM																
KIDNEY		+	+	+	+	+	+	+	+	+	+	+	+	+	50	
CARCINOMA																1
HEPATOCELLULAR CARCINOMA; METASTATIC		X														1
HISTIOCYTIC SARCOMA																1
SQUAMOUS CELL CARCINOMA; METASTATIC																1
URINARY BLADDER		+	+	+	+	+	+	+	+	+	+	+	+	+	43	
SYSTEMIC LESIONS																
Multiple Organ																2
HEMANGIOSARCOMA																1
HISTIOCYTIC SARCOMA		X														1

			Male: Core Animals																															
B6C3F1/N Mouse Male 200 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
			7	7	7	7	7	7	5	7	7	7	7	7	7	1	7	6	7	7	7	7	6	7	7	7	6	7	7	6	7	7	7	7
			2	3	1	2	3	3	2	3	2	3	3	2	2	9	3	2	2	3	2	6	3	2	3	3	0	8	3	0	2	8	2	3
	9	1	6	9	0	0	9	0	2	1	1	9	9	4	0	4	9	0	9	7	0	9	0	8	9	1	0	8	9	5	9	1	2	3
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
			0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3
			1	2	3	4	5	6	7	8	9	0	1	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
ALIMENTARY SYSTEM																																		
ESOPHAGUS			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
INTESTINE, LARGE, CECUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N
ADENOCARCINOMA			X																															
ADENOMA																																		
LYMPHOMA; MALIGNANT			X																															
INTESTINE, LARGE, COLON			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
INTESTINE, LARGE, RECTUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
INTESTINE, SMALL, DUODENUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
INTESTINE, SMALL, ILEUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N
LYMPHOMA; MALIGNANT																																		
INTESTINE, SMALL, JEJUNUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
ADENOCARCINOMA			X																															
LYMPHOMA; MALIGNANT			X																															
MESENTERY			+																															
PANCREAS			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
SALIVARY GLAND			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
STOMACH, FORESTOMACH			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
PAPILLOMA			X																															
STOMACH, GLANDULAR			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Species/Strain: Mouse/B6C3F1/N

PA04: Neoplasms By Individual Animal

Test Compound: alpha-Pinene

CAS Number: 80-56-8

Final

Date Report Requested: 08/08/2024

Time Report Requested: 08:56:46

Lab: Battelle with EPL

Male: Core Animals

[illegible]

CARDIOVASCULAR SYSTEM

[illegible]

ENDOCRINE SYSTEM

ADRENAL GLAND	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+		
HEPATOCHOLANGIOCARCINOMA; METASTATIC																																X		
PANCREATIC ISLET																																+		
PARATHYROID GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
PITUITARY GLAND	+	+	+	+	N	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	N	+	+	+	+
THYROID GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+
FOLLICULAR CELL; ADENOMA																																X	X	

GENERAL BODY SYSTEM

[illegible]

HEMATOPOIETIC SYSTEM

[illegible]

			Male: Core Animals																																	
B6C3F1/N Mouse Male 200 ppm			DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S				
					D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
					7	7	7	7	7	7	5	7	7	7	7	7	7	1	7	6	7	7	7	7	6	7	7	7	6	7	7	6	7	7	7	
					2	3	1	2	3	3	2	3	2	3	3	2	3	2	2	9	3	2	2	3	2	6	3	2	3	3	8	3	0	8	3	0
					9	1	6	9	0	0	9	0	2	1	1	9	9	4	0	4	9	0	9	7	0	9	0	8	9	1	1	0	8	9	1	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
			0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3				
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0				
IMMUNE SYSTEM																																				
LYMPH NODE																																				
RENAL; LYMPHOMA; MALIGNANT																																				
LYMPH NODE, BRONCHIAL			+	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	N	+	N		
HISTIOCYTIC SARCOMA																																				
LYMPHOMA; MALIGNANT																																				
LYMPH NODE, MANDIBULAR			+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+
LYMPHOMA; MALIGNANT																																				
LYMPH NODE, MEDIASTINAL			+	+	+	+	+	N	+	+	N	+	+	+	+	+	+	N	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	N	+	+
HEPATOCHOLANGIOCARCINOMA; METASTATIC																																				
LYMPHOMA; MALIGNANT																																				
LYMPH NODE, MESENTERIC			+	+	+	+	+	+	+	N	+	+	+	+	N	+	+	+	+	+	+	N	+	+	+	+	+	+	N	+	+	+	+	+	N	
HISTIOCYTIC SARCOMA																																				
LYMPHOMA; MALIGNANT																																				
SPLEEN			+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+
HEMANGIOSARCOMA																																				
HISTIOCYTIC SARCOMA																																				
LYMPHOMA; MALIGNANT																																				
THYMUS			+	+	+	+	+	N	+	+	N	+	+	+	+	+	+	+	+	+	N	+	N	+	+	N	+	+	N	+	+	+	+	+	+	+
HEPATOCHOLANGIOCARCINOMA; METASTATIC																																				
INTEGUMENTARY SYSTEM																																				
SKIN			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

Species/Strain: Mouse/B6C3F1/N

PA04: Neoplasms By Individual Animal

Test Compound: alpha-Pinene

CAS Number: 80-56-8

Final

Date Report Requested: 08/08/2024

Time Report Requested: 08:56:46

Lab: Battelle with EPL

Male: Core Animals

[illegible]

MUSCULOSKELETAL SYSTEM

[illegible]

NERVOUS SYSTEM

[illegible]

REPRODUCTIVE SYSTEM

[illegible]

Male: Core Animals																																			
B6C3F1/N Mouse Male 200 ppm		DAY ON TEST																																	
		ANIMAL ID																																	
		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
		7	7	7	7	7	7	5	7	7	7	7	7	7	1	7	6	7	7	7	6	7	7	7	6	7	7	6	7	7	1	7	7	7	7
		2	3	1	2	3	3	2	3	2	3	3	2	2	9	3	2	2	3	2	6	3	2	3	3	2	3	8	3	0	2	8	2	3	3
		9	1	6	9	0	0	9	0	2	1	1	9	9	4	0	4	9	0	9	7	0	9	0	8	9	1	1	0	8	9	5	9	1	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	
RESPIRATORY SYSTEM																																			
LARYNX		+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
LUNG		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
ALVEOLAR/BRONCHIOLAR ADENOMA; MULTIPLE						X																		X											
ALVEOLAR/BRONCHIOLAR ADENOMA			X	X																										X				X	
ALVEOLAR/BRONCHIOLAR CARCINOMA; MULTIPLE									X			X										X													
ALVEOLAR/BRONCHIOLAR CARCINOMA					X	X	X				X		X	X								X							X						
HEPATOCELLULAR CARCINOMA; METASTATIC								X		X			X					X	X											X	X		X		
HEPATOCHOLANGIOCARCINOMA; METASTATIC																											X								
HISTIOCYTIC SARCOMA																																			
NOSE		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
TRACHEA		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	
SPECIAL SENSES SYSTEM																																			
EYE		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	
HEPATOCHOLANGIOCARCINOMA; METASTATIC																											X								
HARDERIAN GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
ADENOCARCINOMA																											X						X		
BILATERAL; ADENOMA																																			
ADENOMA			X	X	X										X	X							X					X							

Male: Core Animals

B6C3F1/N Mouse Male 200 ppm																																	
		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S				
		D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D				
		7	7	7	7	7	7	5	7	7	7	7	7	1	7	6	7	7	7	6	7	7	7	6	7	7	6	7	7				
		2	3	1	2	3	3	2	3	2	3	3	2	2	9	3	2	2	3	2	6	3	2	3	3	2	3	8	3	0			
DAY ON TEST		9	1	6	9	0	0	9	0	2	1	1	9	9	4	0	4	9	0	9	7	0	9	0	8	9	1	1	0				
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3				
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9			
URINARY SYSTEM																																	
KIDNEY		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
HEPATOCHOLANGIOCARCINOMA; METASTATIC		X																															
URINARY BLADDER		+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+				
SYSTEMIC LESIONS																																	
Multiple Organ		+				+																+				+				+			
HEMANGIOSARCOMA		X																															
HISTIOCYTIC SARCOMA		X				X																											
LYMPHOMA		X																				X				X							

Male: Core Animals															
B6C3F1/N Mouse Male 200 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		5	1	7	7	7	7	7	5	3	7	7	7	7	
		7	9	2	3	2	2	2	5	2	3	3	3	2	
	ANIMAL ID	6	4	9	1	9	9	9	8	4	0	0	0	9	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	
		3	3	4	4	4	4	4	4	4	4	4	4	5	
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS
ALIMENTARY SYSTEM															
ESOPHAGUS		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, CECUM		+	+	+	+	+	+	+	+	+	+	+	+	+	49
ADENOCARCINOMA								X							2
ADENOMA												X			1
LYMPHOMA; MALIGNANT															1
INTESTINE, LARGE, COLON		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, RECTUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, SMALL, DUODENUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, SMALL, ILEUM		+	+	+	+	+	+	+	+	+	+	+	+	+	49
LYMPHOMA; MALIGNANT						X									1
INTESTINE, SMALL, JEJUNUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
ADENOCARCINOMA													X		2
LYMPHOMA; MALIGNANT															1
MESENTERY							+								2
PANCREAS		+	+	+	+	+	+	+	+	+	+	+	+	+	50
SALIVARY GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50
STOMACH, FORESTOMACH		+	+	+	+	+	+	+	+	+	+	+	+	+	50
PAPILLOMA															2
STOMACH, GLANDULAR		+	+	+	+	+	+	+	+	+	+	+	+	+	50

Male: Core Animals															
B6C3F1/N Mouse Male 200 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		5	1	7	7	7	7	7	5	3	7	7	7	7	
		7	9	2	3	2	2	2	5	2	3	3	3	2	
	ANIMAL ID	6	4	9	1	9	9	9	8	4	0	0	0	9	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	
		3	3	4	4	4	4	4	4	4	4	4	4	5	
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS
CARDIOVASCULAR SYSTEM															
AORTA		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEART		+	+	+	+	+	+	+	+	+	+	+	+	+	49
HEPATOCHOLANGIOCARCINOMA; METASTATIC															1
ENDOCRINE SYSTEM															
ADRENAL GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	48
HEPATOCHOLANGIOCARCINOMA; METASTATIC															1
PANCREATIC ISLET															1
PARATHYROID GLAND		N	+	+	+	+	+	+	+	+	+	+	+	+	48
PITUITARY GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	46
THYROID GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	49
FOLLICULAR CELL; ADENOMA															2
GENERAL BODY SYSTEM															
ADIPOSE TISSUE															1
LIPOMA															1
CAVITY		+													3
HEMATOPOIETIC SYSTEM															
BONE MARROW		+	+	+	+	+	+	+	+	+	+	+	+	+	50

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 200 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		5	1	7	7	7	7	7	5	3	7	7	7	7	
		7	9	2	3	2	2	2	5	2	3	3	3	2	
		6	4	9	1	9	9	9	8	4	0	0	0	9	
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	
		3	3	4	4	4	4	4	4	4	4	4	4	5	
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS

HEPATOBIILIARY SYSTEM															
GALLBLADDER		N	+	+	+	+	+	+	+	+	+	+	+	+	48
LIVER		+	+	+	+	+	+	+	+	+	+	+	+	+	49
HEMANGIOSARCOMA															1
HEPATOCELLULAR ADENOMA; MULTIPLE				X	X	X	X				X	X	X		21
HEPATOCELLULAR ADENOMA								X						X	10
HEPATOCELLULAR CARCINOMA; MULTIPLE		X											X	X	8
HEPATOCELLULAR CARCINOMA						X	X		X						9
HEPATOCHOLANGIOCARCINOMA															2
HISTIOCYTIC SARCOMA										X					3
LYMPHOMA; MALIGNANT															2

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 200 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST	ANIMAL ID	5	1	7	7	7	7	7	5	3	7	7	7	7	7	
		7	9	2	3	2	2	2	5	2	3	3	3	3	2	
		6	4	9	1	9	9	9	8	4	0	0	0	0	9	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		3	3	4	4	4	4	4	4	4	4	4	4	4	5	
		8	9	0	1	2	3	4	5	6	7	8	9	0		

IMMUNE SYSTEM

LYMPH NODE																2
RENAL; LYMPHOMA; MALIGNANT																2
LYMPH NODE, BRONCHIAL	N	+	N	+	+	+	+	+	+	+	+	+	+	+		44
HISTIOCYTIC SARCOMA										X						1
LYMPHOMA; MALIGNANT																1
LYMPH NODE, MANDIBULAR	+	+	+	+	+	+	+	+	+	+	+	+	+	+		48
LYMPHOMA; MALIGNANT													X			1
LYMPH NODE, MEDIASTINAL	+	+	N	+	+	+	+	+	+	+	+	+	N	N		41
HEPATOCHOLANGIOCARCINOMA; METASTATIC																1
LYMPHOMA; MALIGNANT																1
LYMPH NODE, MESENTERIC	+	+	+	+	+	+	+	+	+	+	+	+	+	+		45
HISTIOCYTIC SARCOMA										X						2
LYMPHOMA; MALIGNANT													X			4
SPLEEN	+	+	+	+	+	+	+	+	+	+	+	+	+	+		48
HEMANGIOSARCOMA											X					1
HISTIOCYTIC SARCOMA										X						1
LYMPHOMA; MALIGNANT													X			3
THYMUS	+	+	N	+	+	+	+	+	+	+	+	+	+	+		43
HEPATOCHOLANGIOCARCINOMA; METASTATIC																1

INTEGUMENTARY SYSTEM

SKIN	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	----

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 200 ppm																*TOTALS
DAY ON TEST		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D		
		5	1	7	7	7	7	7	5	3	7	7	7	7		
		7	9	2	3	2	2	2	5	2	3	3	3	2		
		6	4	9	1	9	9	9	8	4	0	0	0	9		
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		1	1	1	1	1	1	1	1	1	1	1	1	1		
		3	3	4	4	4	4	4	4	4	4	4	4	5		
		8	9	0	1	2	3	4	5	6	7	8	9	0		
MUSCULOSKELETAL SYSTEM																
BONE		+													3	
BONE, FEMUR		+	+	+	+	+	+	+	+	+	+	+	+	+	50	
SKELETAL MUSCLE															1	
HEPATOCHOLANGIOCARCINOMA; METASTATIC															1	
NERVOUS SYSTEM																
BRAIN		+	+	+	+	+	+	+	+	+	+	+	+	+	49	
SPINAL CORD		+													2	
REPRODUCTIVE SYSTEM																
EPIDIDYMIS		+	+	+	+	+	+	+	+	+	+	+	+	+	50	
HISTIOCYTIC SARCOMA															2	
MAMMARY GLAND		N	+	+	N	+	+	+	+	N	+	+	+	+	32	
PREPUTIAL GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	49	
PROSTATE		+	+	+	+	+	+	+	+	+	+	+	+	+	50	
SEMINAL VESICLE		+	+	+	+	+	+	+	+	+	+	+	+	+	50	
TESTIS		+	+	+	+	+	+	+	+	+	+	+	+	+	50	

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 200 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST	ANIMAL ID	5	1	7	7	7	7	7	5	3	7	7	7	7	7	
		7	9	2	3	2	2	2	5	2	3	3	3	3	2	
		6	4	9	1	9	9	9	8	4	0	0	0	0	9	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		3	3	4	4	4	4	4	4	4	4	4	4	4	5	
		8	9	0	1	2	3	4	5	6	7	8	9	0		

RESPIRATORY SYSTEM

LARYNX	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
LUNG	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ALVEOLAR/BRONCHIOLAR ADENOMA; MULTIPLE						X										3
ALVEOLAR/BRONCHIOLAR ADENOMA					X						X	X				7
ALVEOLAR/BRONCHIOLAR CARCINOMA; MULTIPLE																3
ALVEOLAR/BRONCHIOLAR CARCINOMA					X		X					X	X			11
HEPATOCELLULAR CARCINOMA; METASTATIC									X							9
HEPATOCHOLANGIOCARCINOMA; METASTATIC																1
HISTIOCYTIC SARCOMA										X						1
NOSE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
TRACHEA	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

SPECIAL SENSES SYSTEM

EYE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
HEPATOCHOLANGIOCARCINOMA; METASTATIC																1
HARDERIAN GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ADENOCARCINOMA														X		3
BILATERAL; ADENOMA					X											1
ADENOMA	X				X	X										10

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 200 ppm		S	S	S	S	S	S	S	S	S	S	S	S	S		
		D	D	D	D	D	D	D	D	D	D	D	D	D		
		5	1	7	7	7	7	7	5	3	7	7	7	7		
		7	9	2	3	2	2	2	5	2	3	3	3	2		
		6	4	9	1	9	9	9	8	4	0	0	0	9		
DAY ON TEST		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		1	1	1	1	1	1	1	1	1	1	1	1	1		
		3	3	4	4	4	4	4	4	4	4	4	4	5		
		8	9	0	1	2	3	4	5	6	7	8	9	0		
		*TOTALS														
URINARY SYSTEM																
KIDNEY		+	+	+	+	+	+	+	+	+	+	+	+	+		50
HEPATOCHOLANGIOCARCINOMA; METASTATIC																1
URINARY BLADDER		+	+	+	+	+	+	+	+	+	+	+	+	+		48
SYSTEMIC LESIONS																
Multiple Organ																10
HEMANGIOSARCOMA																2
HISTIOCYTIC SARCOMA																3
LYMPHOMA																5

Male: Core Animals																																			
B6C3F1/N Mouse Male 400 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
			7	6	6	7	7	7	3	7	7	7	7	7	7	5	7	7	7	7	6	7	7	6	7	5	6	7	7	7	6	7	7	6	
			3	1	6	6	3	3	9	1	3	2	3	3	3	2	2	0	4	2	3	2	3	3	2	4	2	3	3	3	5	2	2	3	8
			0	6	7	0	0	0	5	2	0	9	1	0	0	9	9	8	1	9	0	9	9	0	9	1	1	0	2	5	0	0	1	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
			5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8		
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	0		
ALIMENTARY SYSTEM																																			
ESOPHAGUS			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
INTESTINE, LARGE, CECUM			+	+	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+		
INTESTINE, LARGE, COLON			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	
INTESTINE, LARGE, RECTUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	
INTESTINE, SMALL, DUODENUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	
INTESTINE, SMALL, ILEUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	
INTESTINE, SMALL, JEJUNUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	A	+	+	+	
MESENTERY					+																														
ADIPOSE TISSUE; HEPATOCELLULAR CARCINOMA; METASTATIC					X																														
PANCREAS			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	
ACINUS; HEPATOBLASTOMA; METASTATIC																								X											
SALIVARY GLAND			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
STOMACH, FORESTOMACH			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	
PAPILLOMA																							X												
STOMACH, GLANDULAR			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	
CARDIOVASCULAR SYSTEM																																			
AORTA			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
HEPATOBLASTOMA; METASTATIC																								X											
HEART			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
HEPATOBLASTOMA; METASTATIC																								X											

		Male: Core Animals																																							
B6C3F1/N Mouse Male 400 ppm		DAY ON TEST																																							
		ANIMAL ID																																							
		S D 7 3 0	S D 6 1 6	S D 6 6 7	S D 7 7 3	S D 7 7 3	S D 7 7 3	S D 9 3 5	S D 7 7 1	S D 7 7 3	S D 7 7 2	S D 7 7 3	S D 7 7 3	S D 7 7 0	S D 7 7 2	S D 7 7 2	S D 7 7 9	S D 5 4 1	S D 7 7 2	S D 7 7 3	S D 7 7 9	S D 6 6 3	S D 7 7 2	S D 7 7 3	S D 7 7 1	S D 7 7 3	S D 5 4 2	S D 6 6 5	S D 7 7 3	S D 7 7 3	S D 6 6 5	S D 7 7 7	S D 7 7 8	S D 7 7 9	S D 6 6 4	S D 7 7 5	S D 7 7 2	S D 7 7 3	S D 7 7 9	S D 6 6 8	S D 7 7 0
		0 0 1 5 1	0 0 1 5 2	0 0 1 5 3	0 0 1 5 4	0 0 1 5 5	0 0 1 5 6	0 0 1 5 7	0 0 1 5 8	0 0 1 5 9	0 0 1 5 0	0 0 1 5 1	0 0 1 5 2	0 0 1 5 3	0 0 1 5 4	0 0 1 5 5	0 0 1 5 6	0 0 1 5 7	0 0 1 5 8	0 0 1 5 9	0 0 1 5 0	0 0 1 5 1	0 0 1 5 2	0 0 1 5 3	0 0 1 5 4	0 0 1 5 5	0 0 1 5 6	0 0 1 5 7	0 0 1 5 8	0 0 1 5 9	0 0 1 5 0	0 0 1 5 1	0 0 1 5 2	0 0 1 5 3	0 0 1 5 4	0 0 1 5 5	0 0 1 5 6	0 0 1 5 7	0 0 1 5 8	0 0 1 5 9	
ENDOCRINE SYSTEM																																									
ADRENAL GLAND		+																																							
HEPATOBLASTOMA; METASTATIC		X																																							
PARATHYROID GLAND		+																																							
PITUITARY GLAND		+																																							
HEPATOBLASTOMA; METASTATIC		X																																							
THYROID GLAND		+																																							
GENERAL BODY SYSTEM																																									
CAVITY		+																																							
HEMATOPOIETIC SYSTEM																																									
BONE MARROW		+																																							
HEPATOBIILIARY SYSTEM																																									
GALLBLADDER		+																																							
LIVER		+																																							
HEPATOBLASTOMA		X																																							
HEPATOCELLULAR ADENOMA; MULTIPLE		X																																							
HEPATOCELLULAR ADENOMA		X																																							
HEPATOCELLULAR CARCINOMA; MULTIPLE		X																																							
HEPATOCELLULAR CARCINOMA		X																																							

Male: Core Animals																													
B6C3F1/N Mouse Male 400 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
			7	6	6	7	7	7	3	7	7	7	7	7	7	7	5	7	7	7	7	6	7	7	7	7	6	7	7
			3	1	6	3	3	3	9	1	3	2	3	3	2	2	0	4	2	3	2	6	3	2	3	3	3	5	2
			0	6	7	0	0	0	5	2	0	9	1	0	0	9	9	8	1	9	0	9	9	1	1	0	2	5	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
			5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	8	8	8
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7
IMMUNE SYSTEM																													
LYMPH NODE																													
RENAL; LYMPHOMA; MALIGNANT																													
LYMPH NODE, BRONCHIAL			+	N	N	+	N	N	+	N	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
ADENOCARCINOMA; METASTATIC																													
HEPATOBLASTOMA; METASTATIC																													
LYMPH NODE, MANDIBULAR			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+
ADENOCARCINOMA; METASTATIC																													
LYMPH NODE, MEDIASTINAL			+	+	N	+	+	+	+	N	+	N	N	+	+	+	+	+	+	N	N	+	+	+	N	+	+	+	+
LYMPH NODE, MESENTERIC			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
LYMPHOMA; MALIGNANT																													
SPLEEN			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
THYMUS			+	N	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	N	+	+	+	+	N	+	+	N	N
HEPATOBLASTOMA; METASTATIC																													
INTEGUMENTARY SYSTEM																													
SKIN			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
FIBROSARCOMA																													
PLEOMORPHIC FIBROSARCOMA																													
MUSCULOSKELETAL SYSTEM																													
BONE, FEMUR			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SKELETAL MUSCLE																													
HEPATOBLASTOMA; METASTATIC																													
NERVOUS SYSTEM																													
BRAIN			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Lab: Battelle with EPL

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 400 ppm																													
		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
		D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
		7	6	6	7	7	7	3	7	7	7	7	7	7	7	5	7	7	7	7	6	7	7	5	6	7	7	7	7
		3	1	6	3	3	3	9	1	3	2	3	3	3	2	2	0	4	2	3	2	6	3	2	3	4	2	3	3
DAY ON TEST		0	6	7	0	0	0	5	2	0	9	1	0	0	9	9	8	1	9	0	9	0	1	1	0	2	5	0	0
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	8	8	8
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
SPECIAL SENSES SYSTEM																													
EYE		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
HARDERIAN GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
BILATERAL; ADENOCARCINOMA										X																			
ADENOCARCINOMA																X						X					X		X
BILATERAL; ADENOMA																													
ADENOMA		X				X			X			X	X			X	X				X	X		X					
HEPATOBLASTOMA; METASTATIC																				X									
URINARY SYSTEM																													
KIDNEY		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
HEPATOBLASTOMA; METASTATIC																				X									
HEPATOCELLULAR CARCINOMA; METASTATIC																											X		
URINARY BLADDER		+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
PAPILLOMA				X																									
SYSTEMIC LESIONS																													
Multiple Organ								+												+									
LYMPHOMA								X												X									

Male: Core Animals															
B6C3F1/N Mouse Male 400 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		6	5	6	6	5	7	7	5	4	7	7	7	3	
		0	6	0	4	2	2	3	5	7	3	2	3	8	
	ANIMAL ID	3	3	9	1	8	9	0	0	7	1	9	1	3	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	2	
		8	8	9	9	9	9	9	9	9	9	9	9	0	
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS
ALIMENTARY SYSTEM															
ESOPHAGUS		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, CECUM		+	+	+	A	+	+	+	+	+	+	+	+	+	47
INTESTINE, LARGE, COLON		+	+	+	A	+	+	+	+	+	+	+	+	+	48
INTESTINE, LARGE, RECTUM		+	+	+	A	+	+	+	+	+	+	+	+	+	48
INTESTINE, SMALL, DUODENUM		+	+	+	A	+	+	+	+	+	+	+	+	+	48
INTESTINE, SMALL, ILEUM		+	+	+	A	+	+	+	+	+	+	+	+	+	48
INTESTINE, SMALL, JEJUNUM		+	+	+	A	+	+	+	+	+	+	+	+	+	47
MESENTERY															1
ADIPOSE TISSUE; HEPATOCELLULAR CARCINOMA; METASTATIC															1
PANCREAS		+	+	+	A	+	+	+	+	+	+	+	+	+	48
ACINUS; HEPATOBLASTOMA; METASTATIC															1
SALIVARY GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50
STOMACH, FORESTOMACH		+	+	+	A	+	+	+	+	+	+	+	+	+	48
PAPILLOMA				X			X								3
STOMACH, GLANDULAR		+	+	+	+	+	+	+	+	+	+	+	+	+	49
CARDIOVASCULAR SYSTEM															
AORTA		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEPATOBLASTOMA; METASTATIC															1
HEART		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEPATOBLASTOMA; METASTATIC															1

Male: Core Animals															
B6C3F1/N Mouse Male 400 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		6	5	6	6	5	7	7	5	4	7	7	7	7	
		0	6	0	4	2	2	3	5	7	3	2	3	8	
	ANIMAL ID	3	3	9	1	8	9	0	0	7	1	9	1	3	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	2	
		8	8	9	9	9	9	9	9	9	9	9	9	0	
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS
ENDOCRINE SYSTEM															
ADRENAL GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEPATOBLASTOMA; METASTATIC															1
PARATHYROID GLAND		+	+	+	N	+	+	+	+	N	+	+	+	+	43
PITUITARY GLAND		+	+	+	+	N	+	+	+	N	+	+	+	+	45
HEPATOBLASTOMA; METASTATIC															1
THYROID GLAND		+	+	+	+	+	+	+	+	N	+	+	+	+	49
GENERAL BODY SYSTEM															
CAVITY															1
HEMATOPOIETIC SYSTEM															
BONE MARROW		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEPATOBIILIARY SYSTEM															
GALLBLADDER		+	+	+	N	+	+	+	+	+	+	+	+	+	47
LIVER		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEPATOBLASTOMA															1
HEPATOCELLULAR ADENOMA; MULTIPLE		X			X		X	X			X				20
HEPATOCELLULAR ADENOMA									X			X			13
HEPATOCELLULAR CARCINOMA; MULTIPLE					X			X					X	X	17
HEPATOCELLULAR CARCINOMA			X	X		X				X	X				19

Male: Core Animals																
B6C3F1/N Mouse Male 400 ppm	DAY ON TEST	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>	<i>S</i>		*TOTALS
		<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>		
		6	5	6	6	5	7	7	5	4	7	7	7	3		
		0	6	0	4	2	2	3	5	7	3	2	3	8		
	ANIMAL ID	3	3	9	1	8	9	0	0	7	1	9	1	3		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		1	1	1	1	1	1	1	1	1	1	1	1	2		
		8	8	9	9	9	9	9	9	9	9	9	9	0		
		8	9	0	1	2	3	4	5	6	7	8	9	0		
IMMUNE SYSTEM																
LYMPH NODE															1	
RENAL; LYMPHOMA; MALIGNANT															1	
LYMPH NODE, BRONCHIAL		+	+	+	+	+	+	+	+	+	+	+	+	+	44	
ADENOCARCINOMA; METASTATIC															1	
HEPATOBLASTOMA; METASTATIC															1	
LYMPH NODE, MANDIBULAR		+	+	+	+	+	+	+	N	+	+	+	+	+	48	
ADENOCARCINOMA; METASTATIC															1	
LYMPH NODE, MEDIASTINAL		+	+	+	N	+	+	+	+	+	+	N	+	+	38	
LYMPH NODE, MESENTERIC		+	+	+	N	+	+	+	+	N	+	+	+	+	48	
LYMPHOMA; MALIGNANT															2	
SPLEEN		+	+	+	A	+	+	+	+	+	+	+	+	+	49	
THYMUS		N	+	+	N	+	+	+	+	+	+	+	+	+	41	
HEPATOBLASTOMA; METASTATIC															1	
INTEGUMENTARY SYSTEM																
SKIN		+	+	+	+	+	+	+	+	+	+	+	+	+	50	
FIBROSARCOMA															1	
PLEOMORPHIC FIBROSARCOMA															1	
MUSCULOSKELETAL SYSTEM																
BONE, FEMUR		+	+	+	+	+	+	+	+	+	+	+	+	+	50	
SKELETAL MUSCLE															1	
HEPATOBLASTOMA; METASTATIC															1	
NERVOUS SYSTEM																
BRAIN		+	+	+	+	+	+	+	+	+	+	+	+	+	50	

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 400 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST	ANIMAL ID	6 0 3	5 6 3	6 0 9	6 4 1	5 2 8	7 2 9	7 3 0	5 7 0	4 3 7	7 7 1	7 2 9	7 3 1	3 8 3	
		0 0 1 8 8	0 0 1 8 9	0 0 1 9 0	0 0 1 9 1	0 0 1 9 2	0 0 1 9 3	0 0 1 9 4	0 0 1 9 5	0 0 1 9 6	0 0 1 9 7	0 0 1 9 8	0 0 1 9 9		

REPRODUCTIVE SYSTEM

EPIDIDYMIS	+	+	+	A	+	+	+	+	+	+	+	+	+	+	48
MAMMARY GLAND	N	+	+	N	+	+	+	+	+	+	+	+	+	+	31
PREPUTIAL GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
SARCOMA															1
PROSTATE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
SEMINAL VESICLE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
TESTIS	+	+	+	A	+	+	+	+	+	+	+	+	+	+	47

RESPIRATORY SYSTEM

LARYNX	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
LUNG	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ADENOCARCINOMA; METASTATIC															2
ALVEOLAR/BRONCHIOLAR ADENOMA; MULTIPLE				X			X				X				5
ALVEOLAR/BRONCHIOLAR ADENOMA						X						X			13
ALVEOLAR/BRONCHIOLAR CARCINOMA; MULTIPLE										X					4
ALVEOLAR/BRONCHIOLAR CARCINOMA			X												9
FIBROSARCOMA; METASTATIC															1
HEPATOBLASTOMA; METASTATIC															1
HEPATOCELLULAR CARCINOMA; METASTATIC									X			X	X		13
NOSE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
TRACHEA	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Male: Core Animals

B6C3F1/N Mouse Male 400 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	*TOTALS
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		6	5	6	6	5	7	7	5	4	7	7	7	3	
		0	6	0	4	2	2	3	5	7	3	2	3	8	
	ANIMAL ID	3	3	9	1	8	9	0	0	7	1	9	1	3	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	2		
	8	8	9	9	9	9	9	9	9	9	9	9	0		
	8	9	0	1	2	3	4	5	6	7	8	9	0		

SPECIAL SENSES SYSTEM

EYE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
HARDERIAN GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
BILATERAL; ADENOCARCINOMA															1
ADENOCARCINOMA										X					6
BILATERAL; ADENOMA															2
ADENOMA			X		X			X				X			14
HEPATOBLASTOMA; METASTATIC															1

URINARY SYSTEM

KIDNEY	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEPATOBLASTOMA; METASTATIC															1
HEPATOCELLULAR CARCINOMA; METASTATIC															1
URINARY BLADDER	+	+	A	A	+	+	+	+	A	+	+	+	+	+	45
PAPILLOMA	X											X			3

SYSTEMIC LESIONS

Multiple Organ															2
LYMPHOMA															2

Lab: Battelle with EPL

			Female: Core Animals																																																																																																																																																																																																																																																																																																																																																																
B6C3F1/N Mouse Female 0 ppm																																																																																																																																																																																																																																																																																																																																																																			
			DAY ON TEST																																																																																																																																																																																																																																																																																																																																																																
			ANIMAL ID																																																																																																																																																																																																																																																																																																																																																																
			S D 3 9 4	S D 6 8 8	S D 7 3 2	S D 7 3 1	S D 6 2 8	S D 7 3 1	S D 4 3 6	S D 7 3 3	S D 6 3 2	S D 7 3 0	S D 7 3 3	S D 6 7 3	S D 7 3 3	S D 7 3 0	S D 7 3 3	S D 7 3 3	S D 7 3 1	S D 7 3 3	S D 7 3 3	S D 7 3 1	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3 3	S D 7 3

Lab: Battelle with EPL

Female: Core Animals																													
B6C3F1/N Mouse Female 0 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
			3	6	7	7	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	5	7	7	7	5	7	7
			9	8	3	3	2	3	4	3	3	0	3	3	7	3	3	0	3	3	3	3	0	3	3	3	1	3	0
			4	8	2	1	8	1	6	3	2	2	3	2	3	3	3	1	3	3	1	2	3	8	2	3	2	5	3
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
			0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7
INTEGUMENTARY SYSTEM																													
SKIN			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
FIBROSARCOMA							X																				X		
PLEOMORPHIC FIBROSARCOMA																													
SCHWANNOMA; MALIGNANT																													
SCHWANNOMA; MALIGNANT, MULTIPLE												X																	
MUSCULOSKELETAL SYSTEM																													
BONE								+																					
FIBROSARCOMA								X																					
BONE, FEMUR			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SKELETAL MUSCLE			+																								+		
FIBROSARCOMA																											X		
NERVOUS SYSTEM																													
BRAIN			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
LYMPHOMA; MALIGNANT															X														
NERVE, SCIATIC			+																										
NERVE, TRIGEMINAL			+																										
SPINAL CORD			+																										

Lab: Battelle with EPL

		Female: Core Animals																																																																																																																																																																																																																																																																																																																																																																		
B6C3F1/N Mouse Female 0 ppm		DAY ON TEST																																																																																																																																																																																																																																																																																																																																																																		
		ANIMAL ID																																																																																																																																																																																																																																																																																																																																																																		
		S D 3 9 4	S D 6 8 8	S D 7 3 2	S D 7 3 1	S D 6 2 8	S D 7 3 1	S D 6 4 6	S D 7 3 3	S D 6 3 2	S D 7 7 2	S D 6 3 2	S D 7 7 2	S D 6 3 2	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3	S D 7 7 3	S D 6 7 3</

Female: Core Animals																																							
B6C3F1/N Mouse Female 0 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S			
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D			
			3	6	7	7	6	7	6	7	7	7	7	7	6	7	7	7	7	7	7	7	7	5	7	7	7	7	5	7	7	5	7	7	7	4	6	7	7
			9	8	3	3	2	3	4	3	3	0	3	3	7	3	3	0	3	3	3	3	3	0	3	3	3	1	3	3	0	9	3	3	3	3	7	8	3
			4	8	2	1	8	1	6	3	2	2	3	2	3	3	3	1	3	3	1	2	3	8	2	3	2	5	3	2	0	1	1	2	3	9	5	2	2
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
			0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7
SYSTEMIC LESIONS																																							
Multiple Organ													+		+												+		+						+				
HEMANGIOSARCOMA																											X												
HISTIOCYTIC SARCOMA													X																X										
LYMPHOMA															X		X		X										X						X				

Female: Core Animals															
B6C3F1/N Mouse Female 0 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		7	7	7	7	6	7	7	7	5	7	7	4	7	
		3	3	1	3	5	3	3	3	5	3	3	5	3	
	ANIMAL ID	1	3	9	1	7	2	2	2	9	2	3	0	3	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	2	2	2	2	
		3	3	4	4	4	4	4	4	4	4	4	4	5	
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS
ALIMENTARY SYSTEM															
ESOPHAGUS		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, CECUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, COLON		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, RECTUM		+	+	+	+	+	+	+	+	+	+	+	+	+	48
INTESTINE, SMALL, DUODENUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
LYMPHOMA; MALIGNANT															1
INTESTINE, SMALL, ILEUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, SMALL, JEJUNUM		+	+	+	+	+	+	+	+	+	+	+	+	+	50
MESENTERY						+			+						5
PANCREAS		+	+	+	+	+	+	+	+	+	+	+	+	+	50
ACINUS; LYMPHOMA; MALIGNANT															3
SALIVARY GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	49
LYMPHOMA; MALIGNANT															1
STOMACH, FORESTOMACH		+	+	+	+	A	+	+	+	+	+	+	+	+	49
LYMPHOMA; MALIGNANT															1
PAPILLOMA															1
STOMACH, GLANDULAR		+	+	+	+	+	+	+	+	+	+	+	+	+	50
CARDIOVASCULAR SYSTEM															
AORTA		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEART		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HISTIOCYTIC SARCOMA															1

Female: Core Animals															
B6C3F1/N Mouse Female 0 ppm	DAY ON TEST	S D 7 3 1	S D 7 3 3	S D 7 1 9	S D 7 3 1	S D 6 5 7	S D 7 3 2	S D 7 3 2	S D 7 3 2	S D 5 5 9	S D 7 3 2	S D 7 3 3	S D 4 5 0	S D 7 3 3	
		0 0 2 3 8	0 0 0 2 9	0 0 2 4 0	0 0 2 4 1	0 0 2 4 2	0 0 2 4 3	0 0 2 4 4	0 0 2 4 4	0 0 2 4 4	0 0 2 4 4	0 0 2 4 4	0 0 2 5 0		
	ANIMAL ID														*TOTALS
ENDOCRINE SYSTEM															
ADRENAL GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50
PHEOCHROMOCYTOMA; MALIGNANT															1
PARATHYROID GLAND		+	+	+	+	N	+	+	+	+	+	+	+	+	47
PITUITARY GLAND		+	+	+	+	N	+	+	+	+	+	+	+	+	48
PARS DISTALIS; ADENOMA															8
THYROID GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50
GENERAL BODY SYSTEM															
NONE															
HEMATOPOIETIC SYSTEM															
BONE MARROW		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEPATOBIILIARY SYSTEM															
GALLBLADDER		+	+	+	+	+	+	+	+	+	+	+	+	+	48
LIVER		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEMANGIOSARCOMA															1
HEPATOCELLULAR ADENOMA; MULTIPLE															1
HEPATOCELLULAR ADENOMA															5
HEPATOCELLULAR CARCINOMA															7
HISTIOCYTIC SARCOMA															4
LYMPHOMA; MALIGNANT															5

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

PA04: Neoplasms By Individual Animal
 Test Compound: alpha-Pinene
 CAS Number: 80-56-8
 Final

Date Report Requested: 08/08/2024
 Time Report Requested: 08:56:46
 Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 0 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST		7	7	7	7	6	7	7	7	5	7	7	4	7		
		3	3	1	3	5	3	3	3	5	3	3	5	3		
		1	3	9	1	7	2	2	2	9	2	3	0	3		
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		2	2	2	2	2	2	2	2	2	2	2	2	2		
		3	3	4	4	4	4	4	4	4	4	4	4	5		
		8	9	0	1	2	3	4	5	6	7	8	9	0		

IMMUNE SYSTEM

LYMPH NODE																2
LUMBAR; LYMPHOMA; MALIGNANT																2
RENAL; LYMPHOMA; MALIGNANT																2
LYMPHOMA; MALIGNANT																1
LYMPH NODE, BRONCHIAL	+	+	+	+	+	+	+	+	+	+	+	+	+	+		46
HISTIOCYTIC SARCOMA																1
LYMPHOMA; MALIGNANT																2
LYMPH NODE, MANDIBULAR	+	+	+	+	+	+	+	N	+	+	N	+	N			42
LYMPHOMA; MALIGNANT																3
LYMPH NODE, MEDIASTINAL	+	+	+	+	+	+	+	+	+	+	+	+	+	+		49
FIBROSARCOMA; METASTATIC																1
LYMPHOMA; MALIGNANT																2
LYMPH NODE, MESENTERIC	+	+	+	+	+	+	+	+	+	N	+	+	+			48
HISTIOCYTIC SARCOMA																2
LYMPHOMA; MALIGNANT																3
SPLEEN	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50
HISTIOCYTIC SARCOMA																1
LYMPHOMA; MALIGNANT	X															7
THYMUS	+	+	+	+	+	+	+	+	+	+	+	+	+	+		49
LYMPHOMA; MALIGNANT																2

Female: Core Animals															
B6C3F1/N Mouse Female 0 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		7	7	7	7	6	7	7	7	5	7	7	4	7	
		3	3	1	3	5	3	3	3	5	3	3	5	3	
	ANIMAL ID	1	3	9	1	7	2	2	2	9	2	3	0	3	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	2	2	2	2	
		3	3	4	4	4	4	4	4	4	4	4	4	5	
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS
INTEGUMENTARY SYSTEM															
SKIN		+	+	+	+	+	+	+	+	+	+	+	+	+	50
FIBROSARCOMA															2
PLEOMORPHIC FIBROSARCOMA						X									1
SCHWANNOMA; MALIGNANT				X											1
SCHWANNOMA; MALIGNANT, MULTIPLE															1
MUSCULOSKELETAL SYSTEM															
BONE															1
FIBROSARCOMA															1
BONE, FEMUR		+	+	+	+	+	+	+	+	+	+	+	+	+	50
SKELETAL MUSCLE															2
FIBROSARCOMA															1
NERVOUS SYSTEM															
BRAIN		+	+	+	+	+	+	+	+	+	+	+	+	+	50
LYMPHOMA; MALIGNANT															1
NERVE, SCIATIC															1
NERVE, TRIGEMINAL															1
SPINAL CORD															1

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 0 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	D	
		7	7	7	7	6	7	7	7	5	7	7	4	7		
		3	3	1	3	5	3	3	3	5	3	3	5	3		
	ANIMAL ID	1	3	9	1	7	2	2	2	9	2	3	0	3		*TOTALS
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		2	2	2	2	2	2	2	2	2	2	2	2	2		
		3	3	4	4	4	4	4	4	4	4	4	4	5		
		8	9	0	1	2	3	4	5	6	7	8	9	0		

REPRODUCTIVE SYSTEM

CLITORAL GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
MAMMARY GLAND	+	+	+	+	+	+	+	+	N	+	+	+	+	+	48
LYMPHOMA; MALIGNANT															2
OVARY	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
CYSTADENOMA															1
HISTIOCYTIC SARCOMA									X						3
LUTEOMA															1
LYMPHOMA; MALIGNANT															4
UTERINE CERVIX	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
UTERUS	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
HISTIOCYTIC SARCOMA									X						2
LYMPHOMA; MALIGNANT															3
VAGINA	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 0 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST		7	7	7	7	6	7	7	7	5	7	7	4	7		
		3	3	1	3	5	3	3	3	5	3	3	5	3		
ANIMAL ID		1	3	9	1	7	2	2	2	9	2	3	0	3		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		2	2	2	2	2	2	2	2	2	2	2	2	2		
		3	3	4	4	4	4	4	4	4	4	4	4	5		
		8	9	0	1	2	3	4	5	6	7	8	9	0		

RESPIRATORY SYSTEM

LARYNX	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
LYMPHOMA; MALIGNANT															1
LUNG	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ALVEOLAR/BRONCHIOLAR ADENOMA								X					X		2
ALVEOLAR/BRONCHIOLAR CARCINOMA						X									1
HEPATOCELLULAR CARCINOMA; METASTATIC															1
HISTIOCYTIC SARCOMA									X						3
LYMPHOMA; MALIGNANT															4
NOSE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
TRACHEA	+	+	+	+	+	+	+	+	A	+	+	+	+	+	49

SPECIAL SENSES SYSTEM

EYE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
HARDERIAN GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ADENOCARCINOMA													X		1
ADENOMA								X							3
LYMPHOMA; MALIGNANT															1

URINARY SYSTEM

KIDNEY	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
LYMPHOMA; MALIGNANT															2
URINARY BLADDER	+	+	+	+	A	+	+	+	I	+	+	+	+	+	45
LYMPHOMA; MALIGNANT															2

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 0 ppm		DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	*TOTALS
			D	D	D	D	D	D	D	D	D	D	D	D		
			7	7	7	7	6	7	7	7	5	7	7	4	7	
			3	3	1	3	5	3	3	3	5	3	3	5	3	
			1	3	9	1	7	2	2	2	9	2	3	0	3	
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS	
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		2	2	2	2	2	2	2	2	2	2	2	2	2		
		3	3	4	4	4	4	4	4	4	4	4	4	5		
		8	9	0	1	2	3	4	5	6	7	8	9	0		
SYSTEMIC LESIONS																
Multiple Organ		+	+						+						11	
HEMANGIOSARCOMA														1		
HISTIOCYTIC SARCOMA					X						X			4		
LYMPHOMA		X												7		

			Female: Core Animals																															
B6C3F1/N Mouse Female 100 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S		
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
			7	7	7	7	7	7	7	7	7	7	7	7	7	5	7	7	7	7	7	7	2	3	7	7	7	6	5	7	7	7	7	
			3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	3	2	3	3	6	0	3	3	3	3	6	9	3	5	3	3	8
			2	2	1	0	2	3	3	2	1	3	5	2	3	8	3	2	6	2	6	3	8	6	1	3	1	8	9	3	0	2	1	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
			5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	
ALIMENTARY SYSTEM																																		
ESOPHAGUS			+																															
INTESTINE, LARGE, CECUM LYMPHOMA; MALIGNANT			+ + + N + + + + + + + + + A + + + + + + + + + + + + + + + + + A + + + + + +																															
INTESTINE, LARGE, COLON			+ + + + + + + + + + + + + A +																															
INTESTINE, LARGE, RECTUM			+ + + + + + + + + + + + + N +																															
INTESTINE, SMALL, DUODENUM HISTIOCYTIC SARCOMA			+ + + + + + + + + + + + + A + + + + + + + + + + + + + + + X																															
INTESTINE, SMALL, ILEUM LYMPHOMA; MALIGNANT			+ + + N + + + + + + + + + A +																															
INTESTINE, SMALL, JEJUNUM HISTIOCYTIC SARCOMA			+ + + + + + + + + + + + + A + + + + + + + + + + + + + + + X																															
MESENTERY			+ +																															
ADIPOSE TISSUE; HISTIOCYTIC SARCOMA			+ X																															
PANCREAS			+ + + + + + + + + + + + + A +																															
ACINUS; LYMPHOMA; MALIGNANT			+ +																															
SALIVARY GLAND			+ +																															
STOMACH, FORESTOMACH			+ +																															
STOMACH, GLANDULAR LYMPHOMA; MALIGNANT			+ +																															
CARDIOVASCULAR SYSTEM																																		
AORTA			+ +																															
HEART			+ +																															

		Female: Core Animals																																						
B6C3F1/N Mouse Female 100 ppm		DAY ON TEST																																						
		ANIMAL ID																																						
		S D 7 3 2	S D 7 3 2	S D 7 3 1	S D 7 3 0	S D 7 3 2	S D 7 3 3	S D 7 3 3	S D 7 3 2	S D 7 3 1	S D 7 3 3	S D 7 3 5	S D 7 3 2	S D 7 3 3	S D 7 3 1	S D 7 3 3	S D 7 3 8	S D 7 3 2	S D 7 3 6	S D 7 3 2	S D 7 3 6	S D 7 3 3	S D 7 3 8	S D 7 3 6	S D 7 3 1	S D 7 3 3	S D 7 3 1	S D 7 3 8	S D 7 3 6	S D 7 3 9	S D 7 3 3	S D 7 3 0	S D 7 3 2	S D 7 3 1	S D 7 3 8	S D 7 3 5	S D 7 3 2	S D 7 3 8	S D 7 3 3	S D 7 3 3
		0 0 2 5 1	0 0 2 5 2	0 0 0 5 3	0 0 0 5 4	0 0 0 5 5	0 0 0 5 6	0 0 0 5 7	0 0 0 5 8	0 0 0 5 9	0 0 0 5 0	0 0 0 6 1	0 0 0 6 2	0 0 0 6 3	0 0 0 6 4	0 0 0 6 5	0 0 0 6 6	0 0 0 6 7	0 0 0 6 8	0 0 0 6 9	0 0 0 7 0	0 0 0 7 1	0 0 0 7 2	0 0 0 7 3	0 0 0 7 4	0 0 0 7 5	0 0 0 7 6	0 0 0 7 7	0 0 0 7 8	0 0 0 7 9	0 0 0 8 0	0 0 0 8 1	0 0 0 8 2	0 0 0 8 3	0 0 0 8 4	0 0 0 8 5	0 0 0 8 6	0 0 0 8 7	0 0 0 8 8	0 0 0 8 9
ENDOCRINE SYSTEM																																								
ADRENAL GLAND		+																																						
FIBROSARCOMA; METASTATIC																																								
LYMPHOMA; MALIGNANT																																								
PARATHYROID GLAND		+																																						
PITUITARY GLAND		+																																						
PARS DISTALIS; ADENOMA		X																																						
THYROID GLAND		+																																						
FOLLICULAR CELL; ADENOMA		X																																						
GENERAL BODY SYSTEM																																								
CAVITY		+																																						
HEMATOPOIETIC SYSTEM																																								
BONE MARROW		+																																						

Female: Core Animals																																				
B6C3F1/N Mouse Female 100 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S			
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D			
			7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
			2	2	1	0	2	3	3	2	1	3	5	2	3	8	3	2	6	2	6	3	8	6	1	3	1	8	9	3	0	2	1	0		
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
			5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8			
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1			
HEPATOBIILIARY SYSTEM																																				
GALLBLADDER			+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
LIVER			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
HEMANGIOMA																																				
HEPATOCELLULAR ADENOMA; MULTIPLE						X																														
HEPATOCELLULAR ADENOMA			X			X		X		X	X	X			X	X									X			X								
HEPATOCELLULAR CARCINOMA; MULTIPLE																X													X							
HEPATOCELLULAR CARCINOMA						X			X				X	X				X				X			X				X			X				
HEPATOCHOLANGIOCARCINOMA																																				
HISTIOCYTIC SARCOMA																				X						X				X						
LYMPHOMA; MALIGNANT						X								X																						

Lab: Battelle with EPL

Female: Core Animals																																																																					
B6C3F1/N Mouse Female 100 ppm		DAY ON TEST																																																																			
		ANIMAL ID																																																																			
		S D 7 3 2	S D 7 3 2	S D 7 3 1	S D 7 3 0	S D 7 3 2	S D 7 3 3	S D 7 3 3	S D 7 3 2	S D 7 3 1	S D 7 3 3	S D 7 3 2	S D 7 3 1	S D 7 3 3	S D 7 3 1	S D 7 3 3	S D 7 3 2	S D 7 3 6	S D 7 3 2	S D 7 3 6	S D 7 3 3	S D 7 2 6	S D 7 3 0	S D 7 3 3	S D 7 3 3	S D 7 6 6	S D 7 5 9	S D 7 3 3	S D 7 6 5	S D 7 3 3	S D 7 3 8	S D 7 5 6	S D 7 3 2	S D 7 6 3	S D 7 3 4	S D 7 3 1	S D 7 3 3																																
		0 0 2 5 1	0 0 2 5 2	0 0 2 5 3	0 0 2 5 4	0 0 2 5 5	0 0 2 5 6	0 0 2 5 7	0 0 2 5 8	0 0 2 5 9	0 0 2 6 0	0 0 2 6 1	0 0 2 6 2	0 0 2 6 3	0 0 2 6 4	0 0 2 6 5	0 0 2 6 6	0 0 2 6 7	0 0 2 6 8	0 0 2 6 9	0 0 2 7 0	0 0 2 7 1	0 0 2 7 2	0 0 2 7 3	0 0 2 7 4	0 0 2 7 5	0 0 2 7 6	0 0 2 7 7	0 0 2 7 8	0 0 2 7 9	0 0 2 8 0	0 0 2 8 1	0 0 2 8 2	0 0 2 8 3	0 0 2 8 4	0 0 2 8 5	0 0 2 8 6	0 0 2 8 7	0 0 2 8 8																														
LYMPHOMA; MALIGNANT		X															X																																																				
THYMUS		+	+	+	N	+	+	+	N	+	+	N	+	+	N	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N																															
FIBROSARCOMA; METASTATIC																																																																					
LYMPHOMA; MALIGNANT		X															X																																																				
INTEGUMENTARY SYSTEM																																																																					
SKIN		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																															
FIBROSARCOMA																	X																		X																																		
PLEOMORPHIC FIBROSARCOMA																																																																					
SARCOMA																																	X																																				
MUSCULOSKELETAL SYSTEM																																																																					
BONE, FEMUR		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																														
NERVOUS SYSTEM																																																																					
BRAIN		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																														

			Female: Core Animals																																	
B6C3F1/N Mouse Female 100 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S		
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
			7	7	7	7	7	7	7	7	7	7	7	7	7	5	7	7	7	7	7	7	7	2	3	7	7	7	7	6	5	7	6	7	7	
			3	3	3	3	3	3	3	3	3	3	2	3	3	1	3	3	2	3	2	3	6	3	8	6	0	3	3	3	6	9	3	5	3	3
			2	2	1	0	2	3	3	2	1	3	5	2	3	8	3	2	6	2	6	3	8	6	1	3	1	8	9	3	0	2	1	0	2	2
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
			5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4
REPRODUCTIVE SYSTEM																																				
CLITORAL GLAND			+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	N	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
MAMMARY GLAND			+	+	+	+	+	+	+	+	+	+	I	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	
OVARY			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
CYSTADENOCARCINOMA			X																																	
GRANULOSA CELL TUMOR; BENIGN			X																																	
GRANULOSA CELL TUMOR; MALIGNANT																																				
HISTIOCYTIC SARCOMA			X																																	
LYMPHOMA; MALIGNANT			X																																	
SQUAMOUS CELL CARCINOMA; METASTATIC			X																																	
UTERINE CERVIX			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
UTERUS			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
LYMPHOMA; MALIGNANT			X																																	
VAGINA			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		

Species/Strain: Mouse/B6C3F1/N

PA04: Neoplasms By Individual Animal

Test Compound: alpha-Pinene

CAS Number: 80-56-8

Final

Date Report Requested: 08/08/2024

Time Report Requested: 08:56:46

Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 100 ppm		DAY ON TEST																																			
		S D 7 3 2	S D 7 3 2	S D 7 3 1	S D 7 3 0	S D 7 3 2	S D 7 3 3	S D 7 3 3	S D 7 3 2	S D 7 3 1	S D 7 3 3	S D 7 3 5	S D 7 3 2	S D 7 3 3	S D 7 3 1	S D 7 3 8	S D 7 3 3	S D 7 3 2	S D 7 3 6	S D 7 3 2	S D 7 3 6	S D 7 3 3	S D 7 3 8	S D 7 3 6	S D 7 3 3	S D 7 3 6	S D 7 3 9	S D 7 3 3	S D 7 3 0	S D 7 3 2	S D 7 3 1	S D 7 3 0	S D 7 3 2	S D 7 3 8	S D 7 3 4	S D 7 3 1	S D 7 3 3
ANIMAL ID		DAY ON TEST																																			
		0 0 2 5 1	0 0 2 5 2	0 0 2 5 3	0 0 2 5 4	0 0 2 5 5	0 0 2 5 6	0 0 2 5 7	0 0 2 5 8	0 0 2 5 9	0 0 2 6 0	0 0 2 6 1	0 0 2 6 2	0 0 2 6 3	0 0 2 6 4	0 0 2 6 5	0 0 2 6 6	0 0 2 6 6	0 0 2 6 7	0 0 2 6 8	0 0 2 6 9	0 0 2 7 0	0 0 2 7 1	0 0 2 7 2	0 0 2 7 3	0 0 2 7 4	0 0 2 7 5	0 0 2 7 6	0 0 2 7 7	0 0 2 7 8	0 0 2 7 9	0 0 2 8 0	0 0 2 8 1	0 0 2 8 2	0 0 2 8 3	0 0 2 8 4	0 0 2 8 5

RESPIRATORY SYSTEM

[illegible]

SPECIAL SENSES SYSTEM

[illegible]

			Female: Core Animals																																		
B6C3F1/N Mouse Female 100 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S		
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
			7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
			2	2	1	0	2	3	3	3	2	1	3	5	2	3	8	3	2	6	2	6	3	8	6	1	3	1	8	9	3	0	2	1	0		
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
			5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	
URINARY SYSTEM																																					
KIDNEY			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
LYMPHOMA; MALIGNANT					X	X									X																						
URINARY BLADDER			+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	A	+	+	A	+	+	+
LYMPHOMA; MALIGNANT					X										X																						
SYSTEMIC LESIONS																																					
Multiple Organ				+	+	+								+							+						+			+							
HISTIOCYTIC SARCOMA																					X						X			X							
LYMPHOMA				X	X	X								X																							

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 100 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST	ANIMAL ID	6	7	4	7	7	7	6	5	6	7	6	7	7	7	
		8	3	3	3	1	3	5	0	4	3	8	0	3	3	
		9	2	5	2	5	3	7	2	0	3	9	2	3	3	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	2	2	2	2	3	
		8	8	9	9	9	9	9	9	9	9	9	9	9	0	
		8	9	0	1	2	3	4	5	6	7	8	9	0	0	

ALIMENTARY SYSTEM

ESOPHAGUS	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, CECUM	+	+	A	+	+	+	+	+	+	+	+	+	+	+	46
LYMPHOMA; MALIGNANT	X														1
INTESTINE, LARGE, COLON	+	+	A	+	+	+	+	+	+	+	+	+	+	+	48
INTESTINE, LARGE, RECTUM	+	+	A	+	+	+	+	+	+	+	+	+	+	+	48
INTESTINE, SMALL, DUODENUM	+	+	A	+	+	+	+	+	+	+	+	+	+	+	48
HISTIOCYTIC SARCOMA															1
INTESTINE, SMALL, ILEUM	+	+	A	+	+	+	+	+	+	+	+	+	+	+	47
LYMPHOMA; MALIGNANT	X														1
INTESTINE, SMALL, JEJUNUM	+	+	A	+	+	+	+	+	+	+	+	+	+	+	47
HISTIOCYTIC SARCOMA															1
MESENTERY		+			+	+				+					7
ADIPOSE TISSUE; HISTIOCYTIC SARCOMA															1
PANCREAS	+	+	A	+	+	+	+	+	+	+	+	+	+	+	48
ACINUS; LYMPHOMA; MALIGNANT	X														1
SALIVARY GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
STOMACH, FORESTOMACH	+	+	A	+	+	+	+	+	+	+	+	+	+	+	49
STOMACH, GLANDULAR	+	+	A	+	+	+	+	+	+	+	+	+	+	+	49
LYMPHOMA; MALIGNANT	X														1

CARDIOVASCULAR SYSTEM

AORTA	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEART	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

Female: Core Animals

B6C3F1/N Mouse Female 100 ppm		DAY ON TEST														*TOTALS
		S	S	S	S	S	S	S	S	S	S	S	S	S		
		D	D	D	D	D	D	D	D	D	D	D	D	D		
		6	7	4	7	7	7	6	5	6	7	6	7	7		
		ANIMAL ID														
		8	3	3	3	1	3	5	0	4	3	8	0	3		
		9	2	5	2	5	3	7	2	0	3	9	2	3		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		2	2	2	2	2	2	2	2	2	2	2	2	3		
		8	8	9	9	9	9	9	9	9	9	9	9	0		
		8	9	0	1	2	3	4	5	6	7	8	9	0		
*TOTALS																
ENDOCRINE SYSTEM																
ADRENAL GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	50	
FIBROSARCOMA; METASTATIC												X			1	
LYMPHOMA; MALIGNANT		X													1	
PARATHYROID GLAND		+	+	N	+	+	+	+	+	+	+	+	+	+	44	
PITUITARY GLAND		+	+	N	+	+	+	+	+	+	N	+	+	+	46	
PARS DISTALIS; ADENOMA		X													4	
THYROID GLAND		+	+	A	+	+	+	+	+	+	+	+	+	+	49	
FOLLICULAR CELL; ADENOMA															1	
GENERAL BODY SYSTEM																
CAVITY															1	
HEMATOPOIETIC SYSTEM																
BONE MARROW		+	+	+	+	+	+	+	+	+	+	+	+	+	50	

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 100 ppm		S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		6	7	4	7	7	7	6	5	6	7	6	7	7	
		8	3	3	3	1	3	5	0	4	3	8	0	3	
		9	2	5	2	5	3	7	2	0	3	9	2	3	
DAY ON TEST		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	2	2	2	3	
		8	8	9	9	9	9	9	9	9	9	9	9	0	
		8	9	0	1	2	3	4	5	6	7	8	9	0	
ANIMAL ID															
															*TOTALS

HEPATOBIILIARY SYSTEM															
GALLBLADDER		+	+	A	+	+	+	+	+	+	+	+	+	+	47
LIVER		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEMANGIOMA															1
HEPATOCELLULAR ADENOMA; MULTIPLE															4
HEPATOCELLULAR ADENOMA						X									11
HEPATOCELLULAR CARCINOMA; MULTIPLE													X		3
HEPATOCELLULAR CARCINOMA				X				X							11
HEPATOCHOLANGIOCARCINOMA			X												1
HISTIOCYTIC SARCOMA															3
LYMPHOMA; MALIGNANT															2

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

PA04: Neoplasms By Individual Animal
 Test Compound: alpha-Pinene
 CAS Number: 80-56-8
 Final

Date Report Requested: 08/08/2024
 Time Report Requested: 08:56:46
 Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 100 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST		6	7	4	7	7	7	6	5	6	7	6	7	7	7	
		8	3	3	3	1	3	5	0	4	3	8	0	3	3	
		9	2	5	2	5	3	7	2	0	3	9	2	3	3	
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	2	2	2	2	3	
		8	8	9	9	9	9	9	9	9	9	9	9	9	0	
		8	9	0	1	2	3	4	5	6	7	8	9	0		

IMMUNE SYSTEM

LYMPH NODE	+														4	
AXILLARY; FIBROSARCOMA; METASTATIC															1	
LUMBAR; HISTIOCYTIC SARCOMA															1	
HISTIOCYTIC SARCOMA															1	
LUMBAR; LYMPHOMA; MALIGNANT	X														2	
PANCREATIC; LYMPHOMA; MALIGNANT	X														1	
RENAL; LYMPHOMA; MALIGNANT	X														2	
LYMPH NODE, BRONCHIAL	+	+	N	+	+	+	+	+	+	+	+	+	+	46		
HISTIOCYTIC SARCOMA															1	
LYMPHOMA; MALIGNANT															3	
LYMPH NODE, MANDIBULAR	+	+	+	+	+	+	+	+	N	+	+	+	+	47		
HISTIOCYTIC SARCOMA															1	
LYMPHOMA; MALIGNANT															3	
LYMPH NODE, MEDIASTINAL	+	+	A	+	+	+	+	N	+	+	+	+	+	47		
FIBROSARCOMA; METASTATIC													X			1
HISTIOCYTIC SARCOMA															1	
LYMPHOMA; MALIGNANT	X														4	
LYMPH NODE, MESENTERIC	+	+	N	+	+	+	+	+	+	+	+	+	+	48		
HISTIOCYTIC SARCOMA															1	
LYMPHOMA; MALIGNANT	X														4	
SPLEEN	+	+	A	+	+	+	+	+	+	+	+	+	+	48		
HISTIOCYTIC SARCOMA															2	

Female: Core Animals															
B6C3F1/N Mouse Female 100 ppm	DAY ON TEST	S D 6 8 9	S D 7 3 2	S D 4 3 5	S D 7 3 2	S D 7 1 5	S D 7 3 3	S D 6 5 7	S D 5 0 2	S D 6 4 0	S D 7 3 3	S D 6 8 9	S D 7 0 2	S D 7 3 3	
		0 0 2 8 8	0 0 2 8 9	0 0 2 9 0	0 0 2 9 1	0 0 2 9 2	0 0 2 9 3	0 0 2 9 4	0 0 2 9 5	0 0 2 9 6	0 0 2 9 7	0 0 2 9 8	0 0 2 9 9	0 0 3 0 0	
	ANIMAL ID	0 0 2 8 8	0 0 2 8 9	0 0 2 9 0	0 0 2 9 1	0 0 2 9 2	0 0 2 9 3	0 0 2 9 4	0 0 2 9 5	0 0 2 9 6	0 0 2 9 7	0 0 2 9 8	0 0 2 9 9	0 0 3 0 0	*TOTALS
LYMPHOMA; MALIGNANT															2
THYMUS		N	+	A	+	+	+	+	N	+	+	+	+	+	41
FIBROSARCOMA; METASTATIC												X			1
LYMPHOMA; MALIGNANT															2
INTEGUMENTARY SYSTEM															
SKIN		+	+	+	+	+	+	+	+	+	+	+	+	+	50
FIBROSARCOMA												X			5
PLEOMORPHIC FIBROSARCOMA												X			1
SARCOMA															1
MUSCULOSKELETAL SYSTEM															
BONE, FEMUR		+	+	+	+	+	+	+	+	+	+	+	+	+	50
NERVOUS SYSTEM															
BRAIN		+	+	+	+	+	+	+	+	+	+	+	+	+	50

Female: Core Animals															
B6C3F1/N Mouse Female 100 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		6	7	4	7	7	7	6	5	6	7	6	7	7	
		8	3	3	3	1	3	5	0	4	3	8	0	3	
	ANIMAL ID	9	2	5	2	5	3	7	2	0	3	9	2	3	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	2	2	2	3	
		8	8	9	9	9	9	9	9	9	9	9	9	0	
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS
REPRODUCTIVE SYSTEM															
CLITORAL GLAND		+	+	N	+	+	+	+	+	+	+	+	N	+	45
MAMMARY GLAND		N	+	+	+	+	+	+	+	+	+	N	+	+	46
OVARY		+	+	N	+	+	+	+	+	+	+	+	+	+	49
CYSTADENOCARCINOMA															1
GRANULOSA CELL TUMOR; BENIGN													X		2
GRANULOSA CELL TUMOR; MALIGNANT													X		1
HISTIOCYTIC SARCOMA															1
LYMPHOMA; MALIGNANT		X													2
SQUAMOUS CELL CARCINOMA; METASTATIC															1
UTERINE CERVIX		+	+	+	+	+	+	+	+	+	+	+	+	+	50
UTERUS		+	+	+	+	+	+	+	+	+	+	+	+	+	50
LYMPHOMA; MALIGNANT		X													2
VAGINA		+	+	+	+	+	+	+	+	+	+	+	+	+	50

Female: Core Animals															
B6C3F1/N Mouse Female 100 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		6	7	4	7	7	7	6	5	6	7	6	7	7	
		8	3	3	3	1	3	5	0	4	3	8	0	3	
	ANIMAL ID	9	2	5	2	5	3	7	2	0	3	9	2	3	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	2	2	2	3	
		8	8	9	9	9	9	9	9	9	9	9	9	0	
		8	9	0	1	2	3	4	5	6	7	8	9	0	*TOTALS
RESPIRATORY SYSTEM															
LARYNX		+	+	A	+	+	+	+	+	+	+	+	+	+	49
LUNG		+	+	+	+	+	+	+	+	+	+	+	+	+	50
ALVEOLAR/BRONCHIOLAR ADENOMA; MULTIPLE															1
ALVEOLAR/BRONCHIOLAR ADENOMA							X				X				7
ALVEOLAR/BRONCHIOLAR CARCINOMA															2
FIBROSARCOMA; METASTATIC												X			2
HEPATOCELLULAR CARCINOMA; METASTATIC															6
HISTIOCYTIC SARCOMA															2
LYMPHOMA; MALIGNANT															1
NOSE		+	+	A	+	+	+	+	+	+	+	+	+	+	49
TRACHEA		+	+	+	+	+	+	+	+	+	+	+	+	+	50
SPECIAL SENSES SYSTEM															
EYE		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HARDERIAN GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	49
ADENOCARCINOMA															2
BILATERAL; ADENOMA										X					2
ADENOMA													X		4
HISTIOCYTIC SARCOMA															1
ZYMBAL'S GLAND															1
SQUAMOUS CELL CARCINOMA															1

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 100 ppm		DAY ON TEST	S D 6 8 9	S D 7 3 2	S D 4 3 5	S D 7 3 2	S D 7 1 5	S D 7 3 3	S D 7 6 7	S D 5 0 2	S D 6 4 0	S D 7 3 3	S D 6 8 9	S D 7 0 2	S D 7 3 3	
			0 0 2 8 8	0 0 2 8 9	0 0 2 9 0	0 0 2 9 1	0 0 2 9 2	0 0 2 9 3	0 0 2 9 4	0 0 2 9 5	0 0 2 9 6	0 0 2 9 7	0 0 2 9 8	0 0 2 9 9		
			0 0 2 8 8	0 0 2 8 9	0 0 2 9 0	0 0 2 9 1	0 0 2 9 2	0 0 2 9 3	0 0 2 9 4	0 0 2 9 5	0 0 2 9 6	0 0 2 9 7	0 0 2 9 8	0 0 2 9 9		
			0 0 2 8 8	0 0 2 8 9	0 0 2 9 0	0 0 2 9 1	0 0 2 9 2	0 0 2 9 3	0 0 2 9 4	0 0 2 9 5	0 0 2 9 6	0 0 2 9 7	0 0 2 9 8	0 0 2 9 9		
			0 0 2 8 8	0 0 2 8 9	0 0 2 9 0	0 0 2 9 1	0 0 2 9 2	0 0 2 9 3	0 0 2 9 4	0 0 2 9 5	0 0 2 9 6	0 0 2 9 7	0 0 2 9 8	0 0 2 9 9		
																*TOTALS
URINARY SYSTEM																
KIDNEY															49	
LYMPHOMA; MALIGNANT															4	
URINARY BLADDER															43	
LYMPHOMA; MALIGNANT															3	
SYSTEMIC LESIONS																
Multiple Organ															8	
HISTIOCYTIC SARCOMA															3	
LYMPHOMA															5	

Species/Strain: Mouse/B6C3F1/N

PA04: Neoplasms By Individual Animal

Test Compound: alpha-Pinene

CAS Number: 80-56-8

Final

Date Report Requested: 08/08/2024

Time Report Requested: 08:56:46

Lab: Battelle with EPL

Female: Core Animals

[illegible]

ALIMENTARY SYSTEM

[illegible]

Species/Strain: Mouse/B6C3F1/N

PA04: Neoplasms By Individual Animal

Test Compound: alpha-Pinene

CAS Number: 80-56-8

Final

Date Report Requested: 08/08/2024

Time Report Requested: 08:56:46

Lab: Battelle with EPL

Female: Core Animals

[illegible]

CARDIOVASCULAR SYSTEM

[illegible]

ENDOCRINE SYSTEM

[illegible]

GENERAL BODY SYSTEM

CAVITY	+	+
PALATE; SQUAMOUS CELL CARCINOMA	X	

HEMATOPOIETIC SYSTEM

[illegible]

			Female: Core Animals																																				
B6C3F1/N Mouse Female 200 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S			
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
			7	6	7	3	7	4	7	7	7	6	7	7	7	7	7	7	7	3	7	7	7	5	6	7	7	7	7	6	7	7	4	7	7	5	7	6	
			3	0	0	3	3	0	3	3	3	6	3	1	3	3	3	3	3	9	3	3	3	6	9	1	3	3	3	6	9	5	4	3	3	8	3	8	
	2	3	5	5	3	8	2	3	2	0	2	0	2	1	3	2	3	3	4	2	1	3	3	7	6	3	3	2	9	5	4	4	3	1	1	1	3		
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	6			
			0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	7		
			3	4	5	6	7	8	9	0	1	2	3	4	5	7	8	9	2	4	5	6	0	1	2	3	5	7	0	1	2	4	5	6	7	8	9	0	1
HEPATOBIILIARY SYSTEM																																							
GALLBLADDER			+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
LIVER			+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
HEPATOCELLULAR ADENOMA; MULTIPLE							X		X	X				X		X	X			X								X	X										
HEPATOCELLULAR ADENOMA			X	X	X										X				X		X	X			X	X								X					
HEPATOCELLULAR CARCINOMA; MULTIPLE				X																X																			
HEPATOCELLULAR CARCINOMA					X		X		X								X												X		X			X					
HEPATOCHOLANGIOCARCINOMA					X																																		
HISTIOCYTIC SARCOMA																								X		X										X			
LYMPHOMA; MALIGNANT												X												X	X				X										

Lab: Battelle with EPL

			Female: Core Animals																																					
B6C3F1/N Mouse Female 200 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S				
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D				
			7	6	7	3	7	4	7	7	7	6	7	7	7	7	7	7	7	7	3	7	7	7	5	6	7	7	7	7	7	6	7	7	4	7	7	5	7	6
			3	0	0	3	3	0	3	3	3	6	3	1	3	3	3	3	3	3	9	3	3	6	9	1	3	3	3	3	3	6	2	1	8	3	3	8	3	8
			2	3	5	5	3	8	2	3	2	0	2	0	2	1	3	2	3	3	4	2	1	3	3	7	6	3	3	2	9	5	4	4	3	1	1	1	3	
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	6	6		
			0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	7	7	
			3	4	5	6	7	8	9	0	1	2	3	4	5	7	8	9	2	4	5	6	0	1	2	3	5	7	0	1	2	4	5	6	7	8	9	0	1	
THYMUS			+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
HEPATOCHOLANGIOCARCINOMA; METASTATIC						X																																		
LYMPHOMA; MALIGNANT								X					X		X																									
INTEGUMENTARY SYSTEM																																								
SKIN			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
FIBROSARCOMA													X																											
HISTIOCYTIC SARCOMA																										X										X				
PLEOMORPHIC FIBROSARCOMA																			X																					
MUSCULOSKELETAL SYSTEM																																								
BONE																																				+				
OSTEOSARCOMA																																				X				
BONE, FEMUR			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
SKELETAL MUSCLE						+																														+				
HEPATOCHOLANGIOCARCINOMA; METASTATIC								X																																
OSTEOSARCOMA; METASTATIC																																					X			
NERVOUS SYSTEM																																								
BRAIN			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			

B6C3F1/N Mouse Female 200 ppm			Female: Core Animals																																	
DAY ON TEST		S D 7 3 2	S D 6 0 3	S D 7 0 5	S D 3 3 5	S D 7 3 3	S D 4 0 8	S D 7 3 2	S D 7 3 3	S D 7 6 2	S D 6 3 0	S D 7 7 1	S D 7 3 2	S D 7 7 1	S D 7 3 3	S D 7 3 2	S D 7 3 3	S D 7 3 3	S D 7 3 9	S D 7 3 2	S D 7 3 3	S D 7 5 6	S D 6 7 1	S D 7 7 3	S D 7 7 3	S D 7 6 3	S D 6 7 6	S D 7 2 5	S D 7 1 4	S D 4 8 3	S D 7 3 1	S D 7 3 8	S D 5 1 1	S D 7 3 1	S D 6 3 3	
ANIMAL ID		0 0 3 0 3	0 0 3 0 4	0 0 3 0 5	0 0 3 0 6	0 0 3 0 7	0 0 3 0 8	0 0 3 0 9	0 0 3 1 0	0 0 3 1 1	0 0 3 1 2	0 0 3 1 3	0 0 3 1 4	0 0 3 1 5	0 0 3 1 7	0 0 3 3 8	0 0 3 3 9	0 0 3 3 2	0 0 3 3 3	0 0 3 3 4	0 0 3 3 5	0 0 3 3 6	0 0 3 3 7	0 0 3 3 8	0 0 3 3 9	0 0 3 4 0	0 0 3 4 1	0 0 3 4 2	0 0 3 4 4	0 0 3 4 5	0 0 3 4 6	0 0 3 4 7	0 0 3 4 8	0 0 3 4 9	0 0 3 5 0	0 0 3 5 1
REPRODUCTIVE SYSTEM																																				
CLITORAL GLAND		+																																		
MAMMARY GLAND		+																																		
ADENOMA		X																																		
OVARY		+																																		
GRANULOSA CELL TUMOR; BENIGN		X																																		
LUTEOMA		X																																		
LYMPHOMA; MALIGNANT		X																																		
TUBULOSTROMAL ADENOMA		X																																		
UTERINE CERVIX		+																																		
UTERUS		+																																		
LYMPHOMA; MALIGNANT																																				
VAGINA		+																																		
LYMPHOMA; MALIGNANT																																				

Species/Strain: Mouse/B6C3F1/N

PA04: Neoplasms By Individual Animal

Test Compound: alpha-Pinene

CAS Number: 80-56-8

Final

Date Report Requested: 08/08/2024

Time Report Requested: 08:56:46

Lab: Battelle with EPL

Female: Core Animals

[illegible]

RESPIRATORY SYSTEM

[illegible]

SPECIAL SENSES SYSTEM

EYE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
HARDERIAN GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
ADENOCARCINOMA												X			X															X		
BILATERAL; ADENOMA																																X
ADENOMA				X		X									X	X	X		X		X				X	X				X		

			Female: Core Animals																																	
B6C3F1/N Mouse Female 200 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S		
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
			7	6	7	3	7	4	7	7	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
			3	0	0	3	3	0	3	3	3	6	3	1	3	3	3	3	3	3	9	3	3	3	6	9	1	3	3	3	3	3	6	2	1	8
			2	3	5	5	3	8	2	3	2	0	2	0	2	1	3	2	3	3	4	2	1	3	3	7	6	3	3	3	2	9	5	4	4	3
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	6	
			0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	4	5	7
			3	4	5	6	7	8	9	0	1	2	3	4	5	7	8	9	2	4	5	6	0	1	2	3	5	7	0	1	2	4	5	6	7	
URINARY SYSTEM																																				
KIDNEY			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC				X																																
LYMPHOMA; MALIGNANT																											X				X					
URINARY BLADDER			+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	A	+	N	+	+	+	+	+	+	+	+	+	+	N	+	A	+	+	
LYMPHOMA; MALIGNANT															X																					
SYSTEMIC LESIONS																																				
Multiple Organ			+				+						+	+	+								+	+	+			+			+	+				
HISTIOCYTIC SARCOMA																								X	X	X							X			
LYMPHOMA			X				X						X	X	X									X	X			X			X					

Female: Core Animals

B6C3F1/N Mouse Female 200 ppm	DAY ON TEST	S	S	S	*TOTALS
		D	D	D	
		7	7	7	
		3	3	3	
		2	2	3	
	ANIMAL ID	0	0	0	
		0	0	0	
		6	6	6	
		7	7	7	
		2	3	5	

ALIMENTARY SYSTEM

ESOPHAGUS	+	+	+	40
INTESTINE, LARGE, CECUM	+	+	+	38
INTESTINE, LARGE, COLON	+	+	+	39
INTESTINE, LARGE, RECTUM	+	+	+	40
INTESTINE, SMALL, DUODENUM	+	+	+	39
INTESTINE, SMALL, ILEUM	+	+	+	39
LYMPHOMA; MALIGNANT		X		1
INTESTINE, SMALL, JEJUNUM	+	+	+	39
LYMPHOMA; MALIGNANT				1
MESENTERY				5
ADIPOSE TISSUE; FIBROSARCOMA; METASTATIC				1
PANCREAS	+	+	+	40
ACINUS; HEPATOCHOLANGIOCARCINOMA; METASTATIC				1
ACINUS; LYMPHOMA; MALIGNANT				1
SALIVARY GLAND	+	+	+	40
STOMACH, FORESTOMACH	+	+	+	38
STOMACH, GLANDULAR	+	+	+	40

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female		S	S	S	*TOTALS
200 ppm		D	D	D	
DAY ON TEST		7	7	7	
		3	3	3	
		2	2	3	
ANIMAL ID		0	0	0	
		0	0	0	
		6	6	6	
		7	7	7	
		2	3	5	
CARDIOVASCULAR SYSTEM					
AORTA		+	+	+	40
HEART		+	+	+	39
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC					1
LYMPHOMA; MALIGNANT					1
ENDOCRINE SYSTEM					
ADRENAL GLAND		+	+	+	38
FIBROSARCOMA; METASTATIC					1
HEPATOCELLULAR CARCINOMA; METASTATIC					1
HISTIOCYTIC SARCOMA					1
PARATHYROID GLAND		N	+	+	38
PITUITARY GLAND		+	+	+	38
PARS DISTALIS; ADENOMA					1
LYMPHOMA; MALIGNANT			X		1
THYROID GLAND		+	+	+	40
GENERAL BODY SYSTEM					
CAVITY					2
PALATE; SQUAMOUS CELL CARCINOMA					1
HEMATOPOIETIC SYSTEM					
BONE MARROW		+	+	+	40

Female: Core Animals

B6C3F1/N Mouse Female 200 ppm	DAY ON TEST	S	S	S	*TOTALS
		D	D	D	
		7	7	7	
		3	3	3	
		2	2	3	
	ANIMAL ID	0	0	0	
		0	0	0	
		6	6	6	
		7	7	7	
		2	3	5	

HEPATOBIILIARY SYSTEM

GALLBLADDER	+	+	+	39
LIVER	+	+	+	38
HEPATOCELLULAR ADENOMA; MULTIPLE				9
HEPATOCELLULAR ADENOMA			X	11
HEPATOCELLULAR CARCINOMA; MULTIPLE				2
HEPATOCELLULAR CARCINOMA	X		X	9
HEPATOCHOLANGIOCARCINOMA				1
HISTIOCYTIC SARCOMA				3
LYMPHOMA; MALIGNANT		X		5

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

PA04: Neoplasms By Individual Animal
 Test Compound: alpha-Pinene
 CAS Number: 80-56-8
 Final

Date Report Requested: 08/08/2024
 Time Report Requested: 08:56:46
 Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 200 ppm		S D	S D	S D	*TOTALS
DAY ON TEST	7	7	7	7	
	3	3	3	3	
	2	2	2	3	
ANIMAL ID	0	0	0		
	0	0	0		
	6	6	6		
	7	7	7		
	2	3	5		

IMMUNE SYSTEM

LYMPH NODE	+			6
AXILLARY; HISTIOCYTIC SARCOMA				1
PANCREATIC; LYMPHOMA; MALIGNANT				2
RENAL; LYMPHOMA; MALIGNANT	X			3
LYMPH NODE, BRONCHIAL	+	+	+	37
HEPATOCHOLANGIOCARCINOMA; METASTATIC				1
LYMPHOMA; MALIGNANT				1
LYMPH NODE, MANDIBULAR	+	+	+	39
LYMPHOMA; MALIGNANT	X			4
LYMPH NODE, MEDIASTINAL	+	+	+	39
FIBROSARCOMA; METASTATIC				1
HEPATOCHOLANGIOCARCINOMA; METASTATIC				1
LYMPHOMA; MALIGNANT	X			6
OSTEOSARCOMA; METASTATIC				1
LYMPH NODE, MESENTERIC	+	+	+	39
HEPATOCHOLANGIOCARCINOMA; METASTATIC				1
HISTIOCYTIC SARCOMA				1
LYMPHOMA; MALIGNANT	X			4
SPLEEN	+	+	+	39
HISTIOCYTIC SARCOMA				1
LYMPHOMA; MALIGNANT	X			6

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 200 ppm					*TOTALS
		S	S	S	
		D	D	D	
		7	7	7	
		3	3	3	
DAY ON TEST		2	2	3	
ANIMAL ID		0	0	0	
		0	0	0	
		6	6	6	
		7	7	7	
		2	3	5	
THYMUS		+	+	+	39
HEPATOCHOLANGIOCARCINOMA; METASTATIC					1
LYMPHOMA; MALIGNANT			X		4
INTEGUMENTARY SYSTEM					
SKIN		+	+	+	40
FIBROSARCOMA					2
HISTIOCYTIC SARCOMA					1
PLEOMORPHIC FIBROSARCOMA					1
MUSCULOSKELETAL SYSTEM					
BONE					1
OSTEOSARCOMA					1
BONE, FEMUR		+	+	+	40
SKELETAL MUSCLE					2
HEPATOCHOLANGIOCARCINOMA; METASTATIC					1
OSTEOSARCOMA; METASTATIC					1
NERVOUS SYSTEM					
BRAIN		+	+	+	40

Female: Core Animals

B6C3F1/N Mouse Female 200 ppm	DAY ON TEST	S	S	S	*TOTALS
		D	D	D	
		7	7	7	
		3	3	3	
		2	2	3	
	ANIMAL ID	0	0	0	
		0	0	0	
		6	6	6	
		7	7	7	
		2	3	5	

REPRODUCTIVE SYSTEM

CLITORAL GLAND	+	+	+	40
MAMMARY GLAND	+	+	+	40
ADENOMA				1
OVARY	+	+	+	36
GRANULOSA CELL TUMOR; BENIGN				2
LUTEOMA				3
LYMPHOMA; MALIGNANT		X		3
TUBULOSTROMAL ADENOMA				1
UTERINE CERVIX	+	+	+	40
UTERUS	+	+	+	39
LYMPHOMA; MALIGNANT		X		1
VAGINA	+	+	+	40
LYMPHOMA; MALIGNANT		X		1

Female: Core Animals

B6C3F1/N Mouse Female 200 ppm	DAY ON TEST	S	S	S	*TOTALS
		D	D	D	
		7	7	7	
		3	3	3	
		2	2	3	
	ANIMAL ID	0	0	0	
		0	0	0	
		6	6	6	
		7	7	7	
		2	3	5	

RESPIRATORY SYSTEM

LARYNX	+	+	+	39
LUNG	+	+	+	39
ADENOCARCINOMA; METASTATIC				1
ALVEOLAR/BRONCHIOLAR ADENOMA; MULTIPLE				3
ALVEOLAR/BRONCHIOLAR ADENOMA				6
ALVEOLAR/BRONCHIOLAR CARCINOMA				6
HEPATOCELLULAR CARCINOMA; METASTATIC				2
HEPATOCHOLANGIOCARCINOMA; METASTATIC				1
HISTIOCYTIC SARCOMA				2
LYMPHOMA; MALIGNANT		X		3
PLEURA; OSTEOSARCOMA; METASTATIC				1
OSTEOSARCOMA; METASTATIC				1
NOSE	+	+	+	38
TRACHEA	+	+	+	40

SPECIAL SENSES SYSTEM

EYE	+	+	+	40
HARDERIAN GLAND	+	+	+	40
ADENOCARCINOMA				3
BILATERAL; ADENOMA				1
ADENOMA				10

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 200 ppm					*TOTALS
		S	S	S	
		D	D	D	
		7	7	7	
		3	3	3	
DAY ON TEST		2	2	3	
ANIMAL ID		0	0	0	
		0	0	0	
		6	6	6	
		7	7	7	
		2	3	5	
URINARY SYSTEM					
KIDNEY		+	+	+	40
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC					1
LYMPHOMA; MALIGNANT			X		3
URINARY BLADDER		+	+	+	34
LYMPHOMA; MALIGNANT					1
SYSTEMIC LESIONS					
Multiple Organ			+		12
HISTIOCYTIC SARCOMA					4
LYMPHOMA			X		10

			Female: Core Animals																																		
B6C3F1/N Mouse Female 400 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S		
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
			7	7	6	7	7	6	7	7	2	6	7	7	6	7	6	7	6	7	6	7	7	2	6	7	7	4	7	7	7	5	6	7	4	7	6
			3	3	9	9	2	3	2	3	3	2	4	2	2	9	3	4	8	3	8	3	3	2	3	3	8	1	3	3	5	1	3	3	1	3	9
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			3	3	3	3	3	3	3	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
			5	5	5	5	5	5	5	5	6	6	2	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8		
			1	2	3	4	5	6	7	8	9	0	1	R	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3		
ALIMENTARY SYSTEM																																					
ESOPHAGUS			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
INTESTINE, LARGE, CECUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
INTESTINE, LARGE, COLON			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
INTESTINE, LARGE, RECTUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
INTESTINE, SMALL, DUODENUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
SCHWANNOMA; MALIGNANT, METASTATIC			X																																		
INTESTINE, SMALL, ILEUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
INTESTINE, SMALL, JEJUNUM			+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
LYMPHOMA; MALIGNANT			X																																		
MESENTERY			+														+																				
PANCREAS			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
ACINUS; LYMPHOMA; MALIGNANT			X																																		
SALIVARY GLAND			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
LYMPHOMA; MALIGNANT																																					
STOMACH, FORESTOMACH			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A		
PAPILLOMA			X														X												X								
SQUAMOUS CELL CARCINOMA			X																																		
STOMACH, GLANDULAR			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
SQUAMOUS CELL CARCINOMA; METASTATIC			X																																		

Female: Core Animals																																		
B6C3F1/N Mouse Female 400 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S			
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D			
			7	7	6	7	7	6	7	7	2	6	7	7	6	7	6	7	7	7	7	2	6	7	7	4	7	7	5	6	7	4	7	
			3	3	9	2	3	2	3	3	2	4	2	2	9	3	4	8	3	8	3	3	8	1	3	3	5	1	3	3	1	3	3	1
			3	3	9	9	1	8	2	3	3	7	5	6	2	7	2	4	0	3	3	1	2	2	3	3	9	2	3	9	6	2	3	9
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			3	3	3	3	3	3	3	3	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
			5	5	5	5	5	5	5	5	6	6	2	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8	8	8		
			1	2	3	4	5	6	7	8	9	0	1	R	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0		
CARDIOVASCULAR SYSTEM																																		
AORTA			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC														X																				
LYMPHOMA; MALIGNANT																															X			
HEART			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC														X														X						
FIBROSARCOMA; METASTATIC																							X											
LYMPHOMA; MALIGNANT										X																					X			
ENDOCRINE SYSTEM																																		
ADRENAL GLAND			+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
CORTEX, SUBCAPSULAR; ADENOMA							X		X																									
LYMPHOMA; MALIGNANT																															X			
PHEOCHROMOCYTOMA; MALIGNANT																																		
PARATHYROID GLAND			+	+	+	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
PITUITARY GLAND			+	+	+	+	+	+	+	N	+	N	N	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
PARS DISTALIS; ADENOMA																						X												
LYMPHOMA; MALIGNANT																																		
THYROID GLAND			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
FOLLICULAR CELL; ADENOMA						X								X																				
GENERAL BODY SYSTEM																																		
CAVITY														+																	+			

			Female: Core Animals																														
B6C3F1/N Mouse Female 400 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
			7	7	6	7	7	6	7	7	2	6	7	7	6	7	6	6	7	6	7	7	7	2	6	7	7	4	7	7	5	6	7
			3	3	9	2	3	2	3	3	2	4	2	2	9	3	4	8	3	8	3	3	3	8	1	3	3	3	5	1	3	3	3
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			3	3	3	3	3	3	3	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
			5	5	5	5	5	5	5	5	6	6	2	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8	8	8	
			1	2	3	4	5	6	7	8	9	0	1	R	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	
HEMATOPOIETIC SYSTEM																																	
BONE MARROW			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
HEPATOBIILIARY SYSTEM																																	
GALLBLADDER			+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
LIVER			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
HEMANGIOSARCOMA												X																					
HEPATOBLASTOMA																																	
HEPATOCELLULAR ADENOMA; MULTIPLE					X	X		X		X	X		X	X	X										X	X		X	X		X		
HEPATOCELLULAR ADENOMA							X									X		X		X									X				
HEPATOCELLULAR CARCINOMA; MULTIPLE													X	X					X														
HEPATOCELLULAR CARCINOMA			X	X	X	X		X							X				X	X	X	X					X	X			X		
HISTIOCYTIC SARCOMA						X		X																								X	
LYMPHOMA; MALIGNANT																												X			X		
SARCOMA																																	
SQUAMOUS CELL CARCINOMA; METASTATIC																											X						

Female: Core Animals																																		
B6C3F1/N Mouse Female 400 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S		
		D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
		7	7	6	7	7	6	7	7	2	6	7	7	6	6	7	6	7	7	2	6	7	7	4	7	7	7	7	5	6	7	4	7	
		3	3	9	2	3	2	3	3	2	4	2	2	9	3	4	8	3	8	3	3	3	8	1	3	3	5	1	6	3	3	1	3	9
		3	3	9	9	1	8	2	3	7	5	6	2	7	2	4	0	3	3	3	1	2	2	1	3	9	2	3	9	2	3	9	9	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		3	3	3	3	3	3	3	3	3	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
		5	5	5	5	5	5	5	5	5	6	6	2	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	8	8	8	8	8	
		1	2	3	4	5	6	7	8	9	0	1	R	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3

IMMUNE SYSTEM																													
LYMPH NODE																													
LUMBAR; LYMPHOMA; MALIGNANT																													
RENAL; LYMPHOMA; MALIGNANT																													
LYMPH NODE, BRONCHIAL			+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC																													
LYMPHOMA; MALIGNANT																													
LYMPH NODE, MANDIBULAR			+	N	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+
HISTIOCYTIC SARCOMA																													
LYMPHOMA; MALIGNANT																													
LYMPH NODE, MEDIASTINAL			+	+	+	N	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC																													
FIBROSARCOMA; METASTATIC																													
LYMPHOMA; MALIGNANT																													
SQUAMOUS CELL CARCINOMA; METASTATIC																													
LYMPH NODE, MESENTERIC			+	+	+	N	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	N	+	+	+	+	+
LYMPHOMA; MALIGNANT																													
SQUAMOUS CELL CARCINOMA; METASTATIC																													
SPLEEN			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
HEMANGIOSARCOMA																													
HISTIOCYTIC SARCOMA																													
LYMPHOMA; MALIGNANT																													

Species/Strain: Mouse/B6C3F1/N

PA04: Neoplasms By Individual Animal

Test Compound: alpha-Pinene

CAS Number: 80-56-8

Final

Date Report Requested: 08/08/2024

Time Report Requested: 08:56:46

Lab: Battelle with EPL

Female: Core Animals

[illegible]

			Female: Core Animals																																				
B6C3F1/N Mouse Female 400 ppm	DAY ON TEST	ANIMAL ID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S							
			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D						
			7	7	6	7	7	6	7	7	2	6	7	7	6	6	7	6	7	7	7	7	2	6	7	7	4	7	7	7	7	5	6	7	4	7	6		
			3	3	9	2	3	2	3	3	2	4	2	2	9	3	4	8	3	8	3	3	3	8	1	3	3	3	5	1	3	3	1	3	3	1	3	9	
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
			0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
			3	3	3	3	3	3	3	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
			5	5	5	5	5	5	5	5	6	6	2	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8				
			1	2	3	4	5	6	7	8	9	0	1	R	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7
REPRODUCTIVE SYSTEM																																							
CLITORAL GLAND			+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
MAMMARY GLAND			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A		
ADENOCARCINOMA; MULTIPLE																																							
ADENOCARCINOMA																																							
OVARY			+	+	+	+	+	+	+	+	+	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+		
RETE OVARI; ADENOMA																																							
CYSTADENOMA																																							
GRANULOSA CELL TUMOR; BENIGN																																							
GRANULOSA CELL TUMOR; MALIGNANT																																							
SQUAMOUS CELL CARCINOMA; METASTATIC																																							
THECOMA; MALIGNANT																																							
TUBULOSTROMAL ADENOMA																																							
UTERINE CERVIX			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
HISTIOCYTIC SARCOMA																																							
SCHWANNOMA; MALIGNANT, METASTATIC																																							
UTERUS			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
ADENOCARCINOMA																																							
HISTIOCYTIC SARCOMA																																							
LYMPHOMA; MALIGNANT																																							
SCHWANNOMA; MALIGNANT																																							
VAGINA			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			

Female: Core Animals																																			
B6C3F1/N Mouse Female 400 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
		D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
		7	7	6	7	7	6	7	7	2	6	7	7	6	7	6	7	6	7	7	7	7	2	6	7	7	4	7	7	7	5	6	7	4	7
		3	3	9	2	3	2	3	3	2	4	2	2	9	3	4	8	3	8	3	3	3	3	8	1	3	3	3	5	1	3	3	1	3	3
		3	3	9	9	1	8	2	3	7	5	6	2	7	2	4	0	3	3	1	2	2	1	3	9	2	3	3	9	6	2	2	9	9	9
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	3	3	3	3	3	3	3	3	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
	5	5	5	5	5	5	5	5	5	6	2	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	
	1	2	3	4	5	6	7	8	9	0	1	R	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
HISTIOCYTIC SARCOMA		X																																	
SCHWANNOMA; MALIGNANT, METASTATIC		X																																	
RESPIRATORY SYSTEM																																			
LARYNX		+																																	
LUNG		+																																	
ADENOCARCINOMA; METASTATIC		X																																	
ALVEOLAR/BRONCHIOLAR ADENOMA; MULTIPLE		X																																	
ALVEOLAR/BRONCHIOLAR ADENOMA		X																																	
ALVEOLAR/BRONCHIOLAR CARCINOMA; MULTIPLE		X																																	
ALVEOLAR/BRONCHIOLAR CARCINOMA		X																																	
FIBROSARCOMA; METASTATIC		X																																	
HEPATOCELLULAR CARCINOMA; METASTATIC		X																																	
HISTIOCYTIC SARCOMA		X																																	
LYMPHOMA; MALIGNANT		X																																	
SCHWANNOMA; MALIGNANT, METASTATIC		X																																	
SQUAMOUS CELL CARCINOMA; METASTATIC		X																																	
NOSE		+																																	
TRACHEA		+																																	

		Female: Core Animals																																						
B6C3F1/N Mouse Female 400 ppm		DAY ON TEST																																						
		ANIMAL ID																																						
		S D 7 3 3	S D 7 3 3	S D 6 9 9	S D 7 2 3	S D 7 7 1	S D 6 2 8	S D 7 3 2	S D 7 7 3	S D 2 2 7	S D 6 4 5	S D 7 2 6	S D 7 7 2	S D 6 6 9	S D 7 3 2	S D 6 4 4	S D 6 8 0	S D 7 3 3	S D 6 8 3	S D 7 3 1	S D 2 3 2	S D 7 7 1	S D 2 2 3	S D 6 8 1	S D 7 3 9	S D 6 3 2	S D 7 4 3	S D 7 5 9	S D 7 3 2	S D 7 3 1	S D 5 1 3	S D 6 6 9	S D 7 3 2	S D 4 1 3	S D 7 3 4	S D 6 3 5	S D 7 1 7	S D 7 3 9	S D 6 3 8	S D 7 1 6
		0 0 3 5 1	0 0 3 5 2	0 0 3 5 3	0 0 3 5 4	0 0 3 5 5	0 0 3 5 6	0 0 3 5 7	0 0 3 5 8	0 0 3 5 9	0 0 3 6 0	0 0 3 6 1	0 3 6 2 R	0 0 3 6 3	0 0 3 6 4	0 0 3 6 5	0 0 3 6 6	0 0 3 6 7	0 0 3 6 8	0 0 3 6 9	0 0 3 7 0	0 0 3 7 1	0 0 3 7 2	0 0 3 7 3	0 0 3 7 4	0 0 3 7 5	0 0 3 7 6	0 0 3 7 7	0 0 3 7 8	0 0 3 7 9	0 0 3 8 0	0 0 3 8 1	0 0 3 8 2	0 0 3 8 3	0 0 3 8 4	0 0 3 8 5	0 0 3 8 6	0 0 3 8 7	0 0 3 8 8	0 0 3 8 9
SPECIAL SENSES SYSTEM																																								
EYE		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
HARDERIAN GLAND		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
ADENOCARCINOMA							X				X				X													X									X			
BILATERAL; ADENOMA										X																														
ADENOMA				X	X									X			X			X	X			X	X	X										X				
ZYMBAL'S GLAND																																						+		
URINARY SYSTEM																																								
KIDNEY		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
RENAL TUBULE; ADENOMA					X																																			
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC																																						X		
RENAL TUBULE; CARCINOMA														X																										
HISTIOCYTIC SARCOMA																																								
LYMPHOMA; MALIGNANT										X																											X			
URINARY BLADDER		+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A
LYMPHOMA; MALIGNANT																																								
SCHWANNOMA; MALIGNANT, METASTATIC																		X																						
SYSTEMIC LESIONS																																								
Multiple Organ					+		+		+																			+	+					+			+			
HEMANGIOSARCOMA								X																																
HISTIOCYTIC SARCOMA					X		X																																X	
LYMPHOMA										X																														

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

PA04: Neoplasms By Individual Animal
 Test Compound: alpha-Pinene
 CAS Number: 80-56-8
 Final

Date Report Requested: 08/08/2024
 Time Report Requested: 08:56:46
 Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 400 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST		7	7	7	7	7	7	7	4	7	6	5	7	7		
		3	0	3	3	3	2	3	8	3	8	8	3	0		
ANIMAL ID		1	3	3	2	3	2	3	4	2	3	7	2	4		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		3	3	3	3	3	3	3	3	3	3	3	3	4		
		8	8	9	9	9	9	9	9	9	9	9	9	0		
		8	9	0	1	2	3	4	5	6	7	8	9	0		

ALIMENTARY SYSTEM

ESOPHAGUS	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, CECUM	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, COLON	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
INTESTINE, LARGE, RECTUM	+	+	+	+	+	+	+	+	+	+	A	+	+	+	49
INTESTINE, SMALL, DUODENUM	+	+	+	+	+	+	+	+	+	+	A	+	A	+	48
SCHWANNOMA; MALIGNANT, METASTATIC															1
INTESTINE, SMALL, ILEUM	+	+	+	+	+	+	+	+	+	+	A	+	+	+	49
INTESTINE, SMALL, JEJUNUM	+	+	+	+	+	+	+	+	+	+	A	+	+	+	48
LYMPHOMA; MALIGNANT				X											2
MESENTERY					+	+									4
PANCREAS	+	+	+	+	+	+	+	+	+	+	A	+	+	+	49
ACINUS; LYMPHOMA; MALIGNANT															1
SALIVARY GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
LYMPHOMA; MALIGNANT				X											1
STOMACH, FORESTOMACH	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
PAPILLOMA															2
SQUAMOUS CELL CARCINOMA												X			2
STOMACH, GLANDULAR	+	+	+	+	+	+	+	+	+	+	A	+	+	+	49
SQUAMOUS CELL CARCINOMA; METASTATIC															1

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 400 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST		7	7	7	7	7	7	7	4	7	6	5	7	7		
		3	0	3	3	3	2	3	8	3	8	8	3	0		
		1	3	3	2	3	2	3	4	2	3	7	2	4		
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		3	3	3	3	3	3	3	3	3	3	3	3	4		
		8	8	9	9	9	9	9	9	9	9	9	9	0		
		8	9	0	1	2	3	4	5	6	7	8	9	0		

CARDIOVASCULAR SYSTEM

AORTA	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC															1
LYMPHOMA; MALIGNANT															1
HEART	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC															2
FIBROSARCOMA; METASTATIC															1
LYMPHOMA; MALIGNANT															2

ENDOCRINE SYSTEM

ADRENAL GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
CORTEX, SUBCAPSULAR; ADENOMA															2
LYMPHOMA; MALIGNANT															1
PHEOCHROMOCYTOMA; MALIGNANT			X							X					2
PARATHYROID GLAND	+	+	+	+	+	+	+	N	+	+	N	+	+		47
PITUITARY GLAND	N	+	+	+	N	+	+	+	+	+	+	+	+		44
PARS DISTALIS; ADENOMA								X							2
LYMPHOMA; MALIGNANT			X												1
THYROID GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
FOLLICULAR CELL; ADENOMA									X						3

GENERAL BODY SYSTEM

CAVITY													+		3
--------	--	--	--	--	--	--	--	--	--	--	--	--	---	--	---

Female: Core Animals															
B6C3F1/N Mouse Female 400 ppm	DAY ON TEST	S D 7 3 1	S D 7 0 3	S D 7 3 3	S D 7 3 2	S D 7 3 3	S D 7 2 3	S D 7 3 3	S D 4 8 3	S D 7 3 8	S D 6 8 8	S D 5 8 3	S D 7 3 2	S D 7 0 4	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		3	3	3	3	3	3	3	3	3	3	3	3	4	
	ANIMAL ID	8 8 8	8 8 9	9 9 0	9 9 1	9 9 2	9 9 3	9 9 4	9 9 5	9 9 6	9 9 7	9 9 8	9 9 9	0	*TOTALS
HEMATOPOIETIC SYSTEM															
BONE MARROW		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEPATOBIILIARY SYSTEM															
GALLBLADDER		+	+	+	N	+	+	+	+	+	+	N	+	A	46
LIVER		+	+	+	+	+	+	+	+	+	+	+	+	+	50
HEMANGIOSARCOMA															1
HEPATOBLASTOMA															1
HEPATOCELLULAR ADENOMA; MULTIPLE				X	X	X	X		X	X		X			22
HEPATOCELLULAR ADENOMA								X							6
HEPATOCELLULAR CARCINOMA; MULTIPLE		X				X	X					X			7
HEPATOCELLULAR CARCINOMA															13
HISTIOCYTIC SARCOMA												X			4
LYMPHOMA; MALIGNANT			X		X										4
SARCOMA														X	1
SQUAMOUS CELL CARCINOMA; METASTATIC															1

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female
400 ppm

DAY ON TEST

ANIMAL ID

S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
7	7	7	7	7	7	7	7	4	7	6	5	7	7		
3	0	3	3	3	2	3	8	3	8	8	3	0			
1	3	3	2	3	2	3	4	2	3	7	2	4			
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	3	3	3	3	3	3	3	3	3	3	3	3	4		
8	8	9	9	9	9	9	9	9	9	9	9	9	0		
8	9	0	1	2	3	4	5	6	7	8	9	0			

*TOTALS

IMMUNE SYSTEM

LYMPH NODE	+												+		2
LUMBAR; LYMPHOMA; MALIGNANT	X														1
RENAL; LYMPHOMA; MALIGNANT	X														1
LYMPH NODE, BRONCHIAL	+	+	+	+	+	+	+	+	+	+	A	+	+		44
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC							X								1
LYMPHOMA; MALIGNANT	X														1
LYMPH NODE, MANDIBULAR	+	+	+	+	+	+	+	+	+	+	+	+	+		45
HISTIOCYTIC SARCOMA											X				1
LYMPHOMA; MALIGNANT	X														2
LYMPH NODE, MEDIASTINAL	+	+	+	N	+	+	+	+	+	+	N	+	N		43
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC															2
FIBROSARCOMA; METASTATIC															1
LYMPHOMA; MALIGNANT	X														2
SQUAMOUS CELL CARCINOMA; METASTATIC															1
LYMPH NODE, MESENTERIC	+	+	+	+	+	+	+	+	+	+	A	+	+		44
LYMPHOMA; MALIGNANT	X			X											4
SQUAMOUS CELL CARCINOMA; METASTATIC															1
SPLEEN	+	+	+	+	+	+	+	+	+	+	+	+	+		50
HEMANGIOSARCOMA															1
HISTIOCYTIC SARCOMA											X				2
LYMPHOMA; MALIGNANT	X			X											4

Female: Core Animals															
B6C3F1/N Mouse Female 400 ppm	DAY ON TEST	S	S	S	S	S	S	S	S	S	S	S	S	S	*TOTALS
		D	D	D	D	D	D	D	D	D	D	D	D	D	
		7	7	7	7	7	7	4	7	6	5	7	7		
		3	0	3	3	3	2	3	8	3	8	8	3	0	
	ANIMAL ID	1	3	3	2	3	2	3	4	2	3	7	2	4	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		3	3	3	3	3	3	3	3	3	3	3	3	4	
		8	8	9	9	9	9	9	9	9	9	9	9	0	
		8	9	0	1	2	3	4	5	6	7	8	9	0	
SCHWANNOMA; MALIGNANT, METASTATIC		1													
SQUAMOUS CELL CARCINOMA; METASTATIC		1													
THYMUS		+	+	+	+	+	+	+	+	+	+	N	+	N	42
LYMPHOMA; MALIGNANT		X3													
INTEGUMENTARY SYSTEM															
SKIN		+	+	+	+	+	+	+	+	+	+	+	+	+	50
FIBROSARCOMA		X2													
PILOMATRIXOMA		1													
SCHWANNOMA; MALIGNANT		1													
MUSCULOSKELETAL SYSTEM															
BONE		2													
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC		1													
FIBROSARCOMA; METASTATIC		1													
BONE, FEMUR		+	+	+	+	+	+	+	+	+	+	+	+	+	50
SKELETAL MUSCLE		1													
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC		1													
NERVOUS SYSTEM															
BRAIN		+	+	+	+	+	+	+	+	+	+	+	+	+	50

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 400 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST		7	7	7	7	7	7	7	4	7	6	5	7	7		
		3	0	3	3	3	2	3	8	3	8	8	3	0		
		1	3	3	2	3	2	3	4	2	3	7	2	4		
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		3	3	3	3	3	3	3	3	3	3	3	3	4		
		8	8	9	9	9	9	9	9	9	9	9	9	0		
		8	9	0	1	2	3	4	5	6	7	8	9	0		

REPRODUCTIVE SYSTEM

CLITORAL GLAND	+	+	+	+	+	+	+	+	+	+	N	+	+	48
MAMMARY GLAND	N	+	+	+	+	+	+	+	+	+	+	+	+	48
ADENOCARCINOMA; MULTIPLE														1
ADENOCARCINOMA										X		X		4
OVARY	+	+	+	+	+	+	+	+	+	+	+	+	+	46
RETE OVARI; ADENOMA														1
CYSTADENOMA								X						2
GRANULOSA CELL TUMOR; BENIGN														2
GRANULOSA CELL TUMOR; MALIGNANT													X	3
SQUAMOUS CELL CARCINOMA; METASTATIC														1
THECOMA; MALIGNANT														1
TUBULOSTROMAL ADENOMA					X				X	X		X		7
UTERINE CERVIX	+	+	+	+	+	+	+	+	+	+	+	+	+	50
HISTIOCYTIC SARCOMA														1
SCHWANNOMA; MALIGNANT, METASTATIC														1
UTERUS	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ADENOCARCINOMA					X									1
HISTIOCYTIC SARCOMA														1
LYMPHOMA; MALIGNANT		X												1
SCHWANNOMA; MALIGNANT														1
VAGINA	+	+	+	+	+	+	+	+	+	+	+	+	+	50

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female 400 ppm		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	*TOTALS
DAY ON TEST		7	7	7	7	7	7	7	4	7	6	5	7	7		
		3	0	3	3	3	2	3	8	3	8	8	3	0		
ANIMAL ID		1	3	3	2	3	2	3	4	2	3	7	2	4		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0		
		3	3	3	3	3	3	3	3	3	3	3	3	4		
		8	8	9	9	9	9	9	9	9	9	9	9	0		
		8	9	0	1	2	3	4	5	6	7	8	9	0		
HISTIOCYTIC SARCOMA																1
SCHWANNOMA; MALIGNANT, METASTATIC																1
RESPIRATORY SYSTEM																
LARYNX		+	+	+	+	+	+	+	+	+	+	+	+	+		50
LUNG		+	+	+	+	+	+	+	+	+	+	+	+	+		50
ADENOCARCINOMA; METASTATIC																1
ALVEOLAR/BRONCHIOLAR ADENOMA; MULTIPLE				X				X								7
ALVEOLAR/BRONCHIOLAR ADENOMA		X									X		X			10
ALVEOLAR/BRONCHIOLAR CARCINOMA; MULTIPLE						X	X			X						15
ALVEOLAR/BRONCHIOLAR CARCINOMA			X										X			8
FIBROSARCOMA; METASTATIC																1
HEPATOCELLULAR CARCINOMA; METASTATIC		X														5
HISTIOCYTIC SARCOMA												X				1
LYMPHOMA; MALIGNANT			X													3
SCHWANNOMA; MALIGNANT, METASTATIC																1
SQUAMOUS CELL CARCINOMA; METASTATIC																1
NOSE		+	+	+	+	+	+	+	+	+	+	A	+	+		49
TRACHEA		+	+	+	+	+	+	+	+	+	+	+	+	+		49

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

PA04: Neoplasms By Individual Animal
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 08/08/2024
Time Report Requested: 08:56:46
Lab: Battelle with EPL

Female: Core Animals

B6C3F1/N Mouse Female
400 ppm

DAY ON TEST

ANIMAL ID

S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
7	7	7	7	7	7	7	7	4	7	6	5	7	7		
3	0	3	3	3	2	3	8	3	8	8	3	0			
1	3	3	2	3	2	3	4	2	3	7	2	4			
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	3	3	3	3	3	3	3	3	3	3	3	3	4		
8	8	9	9	9	9	9	9	9	9	9	9	9	0		
8	9	0	1	2	3	4	5	6	7	8	9	0			

*TOTALS

SPECIAL SENSES SYSTEM

EYE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
HARDERIAN GLAND	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
ADENOCARCINOMA										X					6
BILATERAL; ADENOMA											X	X			3
ADENOMA		X	X					X							13
ZYMBAL'S GLAND															1

URINARY SYSTEM

KIDNEY	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
RENAL TUBULE; ADENOMA															1
ALVEOLAR/BRONCHIOLAR CARCINOMA; METASTATIC															1
RENAL TUBULE; CARCINOMA															1
HISTIOCYTIC SARCOMA											X				1
LYMPHOMA; MALIGNANT		X													4
URINARY BLADDER	A	+	+	+	+	+	+	+	+	+	A	+	+		46
LYMPHOMA; MALIGNANT		X													1
SCHWANNOMA; MALIGNANT, METASTATIC															1

SYSTEMIC LESIONS

Multiple Organ		+		+							+				10
HEMANGIOSARCOMA															1
HISTIOCYTIC SARCOMA											X				4
LYMPHOMA		X		X											6

Study Number: C20302B-01

Test Type: TOX

Route: Whole-Body Inhalation

Species/Strain: Mouse/B6C3F1/N

PA04: Neoplasms By Individual Animal

Test Compound: alpha-Pinene

CAS Number: 80-56-8

Final

Date Report Requested: 08/08/2024

Time Report Requested: 08:56:46

Lab: Battelle with EPL

LEGEND

*TOTAL = Total animals with tissue examined microscopically: Total animals with a tumor.

+ = Tissue examined microscopically

X = Lesion present

A = Autolysis precludes evaluation

I = Insufficient tissue

M = Missing slides

N = No section present

P = Artifact precludes examination

R = Not examined read-down

BLANK = Not examined microscopically

**** END OF REPORT ****