

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

PA46s: Summary of Gross Pathology
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
Time Report Requested: 14:42:39
Lab: Battelle with EPL

Study Number: C20302B-01
Study Sex: Both
PWG Approval Date: See web page for date of PWG Approval
Version: v1.7.4
Stat Version: 2025.06.02S

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Male: Interim Males				
	Treatment Groups (ppm)			
	0	100	200	400
Disposition Summary				
Animals Initially In Study	10	10	10	10
Censored				
Early Deaths				
Survivors				
Scheduled Sacrifice, Terminal	10	10	10	10
Number of Animals Examined	10	10	10	10
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				

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Male: Interim Males				
Treatment Groups (ppm)				
	0	100	200	400
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
None				
REPRODUCTIVE SYSTEM				
None				
RESPIRATORY SYSTEM				
None				
SPECIAL SENSES SYSTEM				
None				
URINARY SYSTEM				
None				

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Male: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
Disposition Summary				
Animals Initially In Study	50	50	50	50
Censored			2	
Early Deaths				
Found Dead	8	15	9	14
Sacrificed, Moribund	3	5	5	5
Survivors				
Scheduled Sacrifice, Terminal	39	30	34	31
Number of Animals Examined	50	50	50	50

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Male: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
ALIMENTARY SYSTEM				
ESOPHAGUS	(50)	(50)	(50)	(50)
LACERATION			1 (2.0%)	
INTESTINE, LARGE, CECUM	(50)	(50)	(50)	(50)
MASS; TAN			1 (2.0%)	
THICK			1 (2.0%)	
INTESTINE, LARGE, COLON	(50)	(50)	(50)	(50)
LACERATION; RED			1 (2.0%)	
INTESTINE, SMALL, ILEUM	(50)	(50)	(50)	(50)
NODULE; WHITE			1 (2.0%)	
INTESTINE, SMALL, JEJUNUM	(50)	(50)	(50)	(50)
PEYERS PATCH; ENLARGED; WHITE			1 (2.0%)	
ENLARGED		1 (2.0%)		
NODULE; MOTTLED	1 (2.0%)			
NODULE; TAN			1 (2.0%)	
NODULE; WHITE			1 (2.0%)	
LIVER	(50)	(50)	(50)	(50)
LOBE, LEFT; CYST; CLEAR	1 (2.0%)			
DEFORMITY; PALE			1 (2.0%)	
ENLARGED; MOTTLED			2 (4.0%)	
CAUDATE LOBE; FOCUS; TAN			1 (2.0%)	
CAUDATE LOBE; FOCUS; WHITE		1 (2.0%)		
LOBE, LEFT; FOCUS; PALE	1 (2.0%)			
LOBE, LEFT; FOCUS; TAN		1 (2.0%)	1 (2.0%)	2 (4.0%)
LOBE, LEFT; FOCUS; WHITE	1 (2.0%)	3 (6.0%)	2 (4.0%)	1 (2.0%)
LOBE, MEDIAN; FOCUS; PALE	1 (2.0%)	1 (2.0%)		2 (4.0%)
LOBE, MEDIAN; FOCUS; TAN	1 (2.0%)	1 (2.0%)	3 (6.0%)	1 (2.0%)
LOBE, MEDIAN; FOCUS; WHITE		2 (4.0%)		1 (2.0%)

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Male: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
RIGHT; FOCUS; TAN	1 (2.0%)		1 (2.0%)	
RIGHT; FOCUS; WHITE				1 (2.0%)
FOCUS; PINK	1 (2.0%)			
FOCUS; TAN			1 (2.0%)	1 (2.0%)
FOCUS; WHITE			1 (2.0%)	1 (2.0%)
CAUDATE LOBE; MASS; MOTTLED		1 (2.0%)	1 (2.0%)	3 (6.0%)
CAUDATE LOBE; MASS; TAN	1 (2.0%)	1 (2.0%)	1 (2.0%)	
LOBE, LEFT; MASS; DARK	1 (2.0%)			1 (2.0%)
LOBE, LEFT; MASS; GREEN			1 (2.0%)	
LOBE, LEFT; MASS; MOTTLED	5 (10.0%) **	13 (26.0%) *	14 (28.0%) *	23 (46.0%) **
LOBE, LEFT; MASS; RED		1 (2.0%)	2 (4.0%)	3 (6.0%)
LOBE, LEFT; MASS; TAN	5 (10.0%)	5 (10.0%)	2 (4.0%)	2 (4.0%)
LOBE, LEFT; MASS; WHITE			1 (2.0%)	
LOBE, LEFT; MASS		1 (2.0%)	1 (2.0%)	1 (2.0%)
LOBE, MEDIAN, LOBE, LEFT; MASS; MOTTLED		1 (2.0%)		
LOBE, MEDIAN; MASS; DARK	2 (4.0%)	3 (6.0%)	1 (2.0%)	3 (6.0%)
LOBE, MEDIAN; MASS; GREEN	1 (2.0%)			2 (4.0%)
LOBE, MEDIAN; MASS; MOTTLED	4 (8.0%)	12 (24.0%) *	14 (28.0%) **	12 (24.0%) *
LOBE, MEDIAN; MASS; MOTTLED, RED				1 (2.0%)
LOBE, MEDIAN; MASS; RED				1 (2.0%)
LOBE, MEDIAN; MASS; TAN	3 (6.0%)	5 (10.0%)	8 (16.0%)	6 (12.0%)
LOBE, MEDIAN; MASS				1 (2.0%)
RIGHT; MASS; DARK		1 (2.0%)		1 (2.0%)
RIGHT; MASS; MOTTLED		3 (6.0%)		2 (4.0%)
RIGHT; MASS; TAN		3 (6.0%)	1 (2.0%)	1 (2.0%)
RIGHT; MASS		1 (2.0%)		
MASS; GREEN			1 (2.0%)	
MASS; MOTTLED	11 (22.0%)	2 (4.0%)	4 (8.0%)	12 (24.0%)

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	Treatment Groups (ppm)			
	0	100	200	400
MASS; RED			2 (4.0%)	1 (2.0%)
MASS; TAN			3 (6.0%)	
CAUDATE LOBE; NODULE; MOTTLED		1 (2.0%)	1 (2.0%)	3 (6.0%)
CAUDATE LOBE; NODULE; TAN	1 (2.0%)	1 (2.0%)	1 (2.0%)	
CAUDATE LOBE; NODULE; WHITE		1 (2.0%)		
CAUDATE LOBE; NODULE		2 (4.0%)		
LOBE, LEFT; NODULE; DARK		1 (2.0%)		
LOBE, LEFT; NODULE; MOTTLED		2 (4.0%)		3 (6.0%)
LOBE, LEFT; NODULE; RED				1 (2.0%)
LOBE, LEFT; NODULE; TAN	4 (8.0%)	9 (18.0%)	11 (22.0%) *	5 (10.0%)
LOBE, LEFT; NODULE; WHITE	1 (2.0%)		1 (2.0%)	
LOBE, LEFT; NODULE			1 (2.0%)	
LOBE, MEDIAN; NODULE; MOTTLED		2 (4.0%)	1 (2.0%)	3 (6.0%)
LOBE, MEDIAN; NODULE; PALE	0 *			2 (4.0%)
LOBE, MEDIAN; NODULE; RED	2 (4.0%)			1 (2.0%)
LOBE, MEDIAN; NODULE; TAN	5 (10.0%)	7 (14.0%)	15 (30.0%) *	10 (20.0%)
LOBE, MEDIAN; NODULE; WHITE		1 (2.0%)	2 (4.0%)	
LOBE, MEDIAN; NODULE		1 (2.0%)		1 (2.0%)
RIGHT; NODULE; MOTTLED		1 (2.0%)		
RIGHT; NODULE; TAN		2 (4.0%)	1 (2.0%)	
RIGHT; NODULE; WHITE		2 (4.0%)		1 (2.0%)
RIGHT; NODULE		1 (2.0%)	1 (2.0%)	
NODULE; MOTTLED	1 (2.0%)		2 (4.0%)	2 (4.0%)
NODULE; RED				1 (2.0%)
NODULE; TAN	2 (4.0%) *	1 (2.0%)		7 (14.0%)
MESENTERY	(3)	(1)	(2)	(1)
NODULE; DARK				1 (100.0%)
NODULE; MOTTLED	1 (33.3%)		1 (50.0%)	

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Male: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
NODULE; YELLOW	2 (66.7%)	1 (100.0%)	1 (50.0%)	
PANCREAS	(50)	(50)	(50)	(50)
MASS; TAN		1 (2.0%)		
STOMACH, FORESTOMACH	(50)	(50)	(50)	(50)
FOCUS; WHITE		1 (2.0%)		
MASS; MOTTLED		1 (2.0%)		
MASS; WHITE				1 (2.0%)
NODULE; TAN				1 (2.0%)
NODULE; WHITE	0 *		2 (4.0%)	3 (6.0%)
STOMACH, GLANDULAR	(50)	(50)	(50)	(50)
FOCUS; DARK	1 (2.0%)	1 (2.0%)		
NODULE; DARK				1 (2.0%)
NODULE; TAN				1 (2.0%)
CARDIOVASCULAR SYSTEM				
HEART	(50)	(50)	(50)	(50)
LEFT, ATRIUM; MASS; WHITE		1 (2.0%)		
MYOCARDIUM; NODULE; WHITE				1 (2.0%)
PERICARDIUM	(0)	(0)	(1)	(0)
ACCUMULATION; RED			1 (100.0%)	
ENDOCRINE SYSTEM				
THYROID GLAND	(50)	(50)	(50)	(50)
LEFT; ENLARGED; DARK			1 (2.0%)	

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Treatment Groups (ppm)				
	0	100	200	400
GENERAL BODY SYSTEM				
ABDOMEN	(1)	(2)	(2)	(1)
ACCUMULATION; BROWN			1 (50.0%)	
ACCUMULATION; DARK	1 (100.0%)			1 (100.0%)
ACCUMULATION; RED		1 (50.0%)		
ABDOMINAL; FLUID; RED		1 (50.0%)		
FLUID; RED			1 (50.0%)	

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	0	100	200	400
GENITAL SYSTEM				
EPIDIDYMIS	(50)	(50)	(50)	(50)
LEFT; ENLARGED; MOTTLED			1 (2.0%)	
ENLARGED		1 (2.0%)		
LEFT; SMALL	1 (2.0%)			1 (2.0%)
RIGHT; SMALL	1 (2.0%)			
PENIS	(2)	(1)	(1)	(0)
PROLAPSE; GREEN	1 (50.0%)			
PROLAPSE	1 (50.0%)	1 (100.0%)	1 (100.0%)	
PREPUTIAL GLAND	(50)	(50)	(50)	(50)
BILATERAL; ENLARGED; TAN				1 (2.0%)
LEFT; ENLARGED; MOTTLED		1 (2.0%)		
LEFT; MASS; MOTTLED				1 (2.0%)
PROSTATE	(50)	(50)	(50)	(50)
SMALL	1 (2.0%)	1 (2.0%)		1 (2.0%)
SEMINAL VESICLE	(50)	(50)	(50)	(50)
RIGHT; DISCOLORATION; BROWN	1 (2.0%)			
RIGHT; LACERATION; RED			1 (2.0%)	
BILATERAL; SMALL	2 (4.0%)	1 (2.0%)		
TESTIS	(50)	(50)	(50)	(50)
LEFT; SMALL	1 (2.0%)			
RIGHT; SMALL	1 (2.0%)			

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Treatment Groups (ppm)				
	0	100	200	400
HEMATOLYMPHOID SYSTEM				
LYMPH NODE	(2)	(1)	(3)	(1)
AXILLARY, RIGHT; ENLARGED; TAN			1 (33.3%)	
BILATERAL, RENAL; ENLARGED; RED	1 (50.0%)			
LUMBAR; ENLARGED; DARK		1 (100.0%)		
LUMBAR; ENLARGED; MOTTLED	1 (50.0%)			
RENAL, BILATERAL; ENLARGED; TAN			1 (33.3%)	
RENAL, LEFT; ENLARGED; DARK		1 (100.0%)		
RENAL; ENLARGED; PALE			1 (33.3%)	
RENAL; ENLARGED; RED	1 (50.0%)			
RENAL; ENLARGED; TAN				1 (100.0%)
THORACIC; ENLARGED; TAN		1 (100.0%)		
LYMPH NODE, BRONCHIAL	(50)	(50)	(50)	(50)
ENLARGED; WHITE				1 (2.0%)
LYMPH NODE, MANDIBULAR	(50)	(50)	(50)	(50)
RIGHT; ENLARGED; TAN				1 (2.0%)
ENLARGED; DARK	1 (2.0%)			
ENLARGED; TAN	1 (2.0%)			
ENLARGED		2 (4.0%)		
LYMPH NODE, MEDIASTINAL	(50)	(50)	(50)	(50)
ENLARGED; RED	1 (2.0%)			
ENLARGED; TAN		1 (2.0%)		
ENLARGED	1 (2.0%)			
LYMPH NODE, MESENTERIC	(50)	(50)	(50)	(50)
ENLARGED; DARK	0 **		2 (4.0%)	4 (8.0%)
ENLARGED; MOTTLED	1 (2.0%)			1 (2.0%)
ENLARGED; PALE			1 (2.0%)	
ENLARGED; RED	1 (2.0%)			1 (2.0%)

Male: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
ENLARGED; TAN			2 (4.0%)	1 (2.0%)
ENLARGED		1 (2.0%)		
SPLEEN	(50)	(50)	(50)	(50)
ENLARGED; DARK	1 (2.0%)			
ENLARGED; MOTTLED	1 (2.0%)	1 (2.0%)	1 (2.0%)	
ENLARGED; PALE			1 (2.0%)	1 (2.0%)
ENLARGED; RED			1 (2.0%)	
ENLARGED	3 (6.0%)		1 (2.0%)	4 (8.0%)
MASS; MOTTLED			1 (2.0%)	
NODULE; DARK		1 (2.0%)		
THYMUS	(50)	(50)	(50)	(50)
ENLARGED; TAN		1 (2.0%)		
SMALL	1 (2.0%)			1 (2.0%)
HEMATOPOIETIC SYSTEM				
None				
HEPATOBIILIARY SYSTEM				
None				
IMMUNE SYSTEM				
None				

Male: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
INTEGUMENTARY SYSTEM				
SKIN	(49)	(50)	(50)	(50)
DORSAL; CRUST; RED			1 (2.0%)	
INGUINAL, BILATERAL; CRUST; RED			1 (2.0%)	
RIGHT, THORACIC; CRUST; DARK				1 (2.0%)
RIGHT, THORACIC; CRUST; RED	1 (2.0%)			
VENTRAL, THORACIC; CRUST; DARK				1 (2.0%)
CRUST			2 (4.0%)	
ENLARGED	1 (2.0%)			
LEFT, THORACIC; LACERATION; RED			1 (2.0%)	
RIGHT, HINDLIMB; LACERATION; RED			1 (2.0%)	
FACE, LEFT; MASS; CASEOUS, YELLOW	1 (2.0%)			
FORELIMB, LEFT; MASS; MOTTLED	1 (2.0%)			
RIGHT, INGUINAL; MASS; MOTTLED				1 (2.0%)
MASS; TAN				1 (2.0%)
NODULE; DARK				1 (2.0%)
HEAD; ULCER; RED			1 (2.0%)	

Male: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
MUSCULOSKELETAL SYSTEM				
BONE	(0)	(2)	(3)	(0)
CERVICAL, VERTEBRA; FRACTURE; RED			1 (33.3%)	
LEFT, RADIUS; FRACTURE		1 (50.0%)		
LUMBAR, VERTEBRA; FRACTURE			1 (33.3%)	
RIB; MASS; TAN		1 (50.0%)		
MASS			1 (33.3%)	
SKELETAL MUSCLE	(1)	(0)	(1)	(1)
CERVICAL, DORSAL; DISCOLORATION; RED	1 (100.0%)			
ABDOMINAL; NODULE; WHITE				1 (100.0%)
DIAPHRAGM; NODULE; WHITE				1 (100.0%)
DORSAL, THORACIC; NODULE; TAN			1 (100.0%)	
RIGHT, DORSAL; NODULE; WHITE			1 (100.0%)	
THORACIC; NODULE; WHITE				1 (100.0%)
NERVOUS SYSTEM				
SPINAL CORD	(50)	(50)	(50)	(50)
LUMBAR; LACERATION; RED			1 (2.0%)	
SPINAL CORD, CERVICAL	(0)	(0)	(1)	(0)
LACERATION; RED			1 (100.0%)	
REPRODUCTIVE SYSTEM				
None				

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Treatment Groups (ppm)				
	0	100	200	400
RESPIRATORY SYSTEM				
LUNG	(50)	(50)	(50)	(50)
LOBE, LEFT; FOCUS; TAN		1 (2.0%)		
LOBE, LEFT; FOCUS; WHITE	1 (2.0%)	1 (2.0%)	2 (4.0%)	1 (2.0%)
LOBE, MIDDLE, RIGHT; FOCUS; WHITE			1 (2.0%)	1 (2.0%)
FOCUS; TAN		1 (2.0%)		
ACCESSORY LOBE; MASS; WHITE				1 (2.0%)
APICAL LOBE; MASS; TAN				1 (2.0%)
LOBE, LEFT; MASS; TAN	1 (2.0%)		1 (2.0%)	1 (2.0%)
RIGHT, CRANIAL; MASS; MOTTLED			1 (2.0%)	
RIGHT; MASS; MOTTLED				1 (2.0%)
RIGHT LOBE, CRANIAL; MASS; DARK			1 (2.0%)	
RIGHT LOBE, CRANIAL; MASS; MOTTLED		1 (2.0%)		
RIGHT LOBE, CRANIAL; MASS; TAN				1 (2.0%)
RIGHT LOBE, CRANIAL; MASS; WHITE	1 (2.0%)		1 (2.0%)	
RIGHT LOBE; MASS; TAN		1 (2.0%)		
RIGHT LOBE; MASS; WHITE			1 (2.0%)	
MASS; TAN				1 (2.0%)
ACCESSORY LOBE; NODULE; DARK				1 (2.0%)
ACCESSORY LOBE; NODULE; WHITE	1 (2.0%)	1 (2.0%)	1 (2.0%)	2 (4.0%)
LOBE, LEFT; NODULE; TAN	1 (2.0%)		1 (2.0%)	1 (2.0%)
LOBE, LEFT; NODULE; WHITE	1 (2.0%)	1 (2.0%)	1 (2.0%)	3 (6.0%)
LOBE, LEFT; NODULE			1 (2.0%)	
LOBE, MIDDLE, RIGHT; NODULE; DARK				1 (2.0%)
LOBE, MIDDLE, RIGHT; NODULE; TAN	0 *			2 (4.0%)
LOBE, MIDDLE, RIGHT; NODULE; WHITE	1 (2.0%)	2 (4.0%)		3 (6.0%)
RIGHT, CRANIAL; NODULE; DARK				1 (2.0%)
RIGHT, CRANIAL; NODULE; WHITE		1 (2.0%)		

Male: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
RIGHT; NODULE; WHITE		1 (2.0%)	1 (2.0%)	
RIGHT LOBE, CRANIAL; NODULE; WHITE	0 *			2 (4.0%)
RIGHT LOBE; NODULE; CAUDAL, MOTTLED, WHITE				1 (2.0%)
RIGHT LOBE; NODULE; RED				1 (2.0%)
RIGHT LOBE; NODULE; TAN				1 (2.0%)
RIGHT LOBE; NODULE; WHITE	0 **		1 (2.0%)	4 (8.0%)
NODULE; MOTTLED	1 (2.0%)			
NODULE; TAN	1 (2.0%)	1 (2.0%)	1 (2.0%)	
NODULE; WHITE	0 *		1 (2.0%)	3 (6.0%)
THORAX	(0)	(0)	(1)	(0)
ACCUMULATION; RED			1 (100.0%)	
TRACHEA	(50)	(50)	(50)	(50)
LACERATION			1 (2.0%)	

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	Treatment Groups (ppm)			
	0	100	200	400
SPECIAL SENSES SYSTEM				
EYE	(50)	(50)	(50)	(50)
LEFT; DISCOLORATION; OPAQUE			1 (2.0%)	
HARDERIAN GLAND	(50)	(50)	(50)	(50)
BILATERAL; ENLARGED; TAN				1 (2.0%)
LEFT; ENLARGED; PALE	1 (2.0%)			
LEFT; ENLARGED; TAN			2 (4.0%)	2 (4.0%)
LEFT; ENLARGED; WHITE		1 (2.0%)		2 (4.0%)
RIGHT; ENLARGED; TAN			1 (2.0%)	
RIGHT; ENLARGED; WHITE			1 (2.0%)	2 (4.0%)
RIGHT; ENLARGED		2 (4.0%)	1 (2.0%)	
ENLARGED; WHITE				1 (2.0%)
LEFT; MASS; MOTTLED				1 (2.0%)
LEFT; MASS; TAN	1 (2.0%)	1 (2.0%)		1 (2.0%)
RIGHT; MASS; TAN	1 (2.0%)		1 (2.0%)	2 (4.0%)
MASS; WHITE				1 (2.0%)
LEFT; NODULE; TAN		1 (2.0%)		1 (2.0%)
RIGHT; NODULE; TAN	1 (2.0%)			
RIGHT; NODULE; WHITE			1 (2.0%)	

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

PA46s: Summary of Gross Pathology
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
Time Report Requested: 14:42:39
Lab: Battelle with EPL

Male: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
URINARY SYSTEM				
KIDNEY	(50)	(50)	(50)	(50)
LEFT; ACCUMULATION; DARK		1 (2.0%)		
LEFT; CYST; CLEAR	1 (2.0%)			
RIGHT; CYST; CLEAR	0 *			2 (4.0%)
RIGHT; CYST; DARK		1 (2.0%)		
LEFT; DEFORMITY; PALE		2 (4.0%)		
LEFT; DEFORMITY		1 (2.0%)	1 (2.0%)	
RIGHT; DEFORMITY; PALE		2 (4.0%)		
RIGHT; DEFORMITY		1 (2.0%)	1 (2.0%)	
PELVIS, LEFT; DILATION	1 (2.0%)			1 (2.0%)
PELVIS, RIGHT; DILATION	0 *			3 (6.0%)
LEFT; ENLARGED; DARK		1 (2.0%)		
LEFT; ENLARGED				1 (2.0%)
RIGHT; ENLARGED				1 (2.0%)
RIGHT; FOCUS; WHITE	0 *			2 (4.0%)
RIGHT; MASS; MOTTLED		1 (2.0%)		
RIGHT; MASS; RED				1 (2.0%)
LEFT; NODULE; TAN			1 (2.0%)	
LEFT; NODULE; WHITE		1 (2.0%)		1 (2.0%)
RIGHT; NODULE; TAN			1 (2.0%)	
RIGHT; NODULE; WHITE		1 (2.0%)		1 (2.0%)
URINARY BLADDER	(50)	(50)	(50)	(50)
ACCUMULATION; WHITE	1 (2.0%)			
DILATION; CLEAR	1 (2.0%)			
DILATION		1 (2.0%)		
LUMEN; NODULE; WHITE				1 (2.0%)

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
Disposition Summary				
Animals Initially In Study	50	50	40	50
Censored				
Early Deaths				
Found Dead	10	14	9	17
Sacrificed, Moribund	7	7	7	9
Survivors				
Scheduled Sacrifice, Terminal	33	29	24	24
Number of Animals Examined	50	50	40	50

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

PA46s: Summary of Gross Pathology
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
Time Report Requested: 14:42:39
Lab: Battelle with EPL

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
ALIMENTARY SYSTEM				
INTESTINE, LARGE, CECUM	(50)	(50)	(40)	(50)
NODULE; TAN			1 (2.5%)	
INTESTINE, SMALL, JEJUNUM	(50)	(50)	(40)	(50)
PEYERS PATCH; ENLARGED; TAN				1 (2.0%)
ENLARGED		1 (2.0%)		1 (2.0%)
MASS; WHITE				1 (2.0%)
LIVER	(50)	(50)	(40)	(50)
CYST	1 (2.0%)			
DEFORMITY; MOTTLED				1 (2.0%)
DEFORMITY; TAN			1 (2.5%)	
RIGHT; DISCOLORATION; MOTTLED		1 (2.0%)		
RIGHT; DISCOLORATION; TAN	1 (2.0%)			
ENLARGED; MOTTLED	1 (2.0%)	1 (2.0%)	2 (5.0%)	
ENLARGED; PALE	1 (2.0%)	1 (2.0%)		
CAUDATE LOBE; FOCUS; WHITE	1 (2.0%)			
LEFT; FOCUS; RED	1 (2.0%)			
LOBE, LEFT; FOCUS; DARK				1 (2.0%)
LOBE, LEFT; FOCUS; TAN			2 (5.0%)	1 (2.0%)
LOBE, LEFT; FOCUS; WHITE	1 (2.0%)			
LOBE, MEDIAN; FOCUS; TAN			1 (2.5%)	1 (2.0%)
LOBE, MEDIAN; FOCUS; WHITE			1 (2.5%)	
RIGHT; FOCUS; DARK				1 (2.0%)
RIGHT; FOCUS; TAN			1 (2.5%)	
FOCUS; WHITE				1 (2.0%)
CAUDATE LOBE; MASS; MOTTLED	1 (2.0%)	4 (8.0%)		4 (8.0%)
CAUDATE LOBE; MASS; TAN	0 *	1 (2.0%)		3 (6.0%)
LEFT; MASS; MOTTLED		1 (2.0%)		

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

PA46s: Summary of Gross Pathology
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
Time Report Requested: 14:42:39
Lab: Battelle with EPL

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
LEFT; MASS; TAN	0 *			2 (4.0%)
LOBE, LEFT; MASS; DARK				1 (2.0%)
LOBE, LEFT; MASS; MOTTLED	3 (6.0%) **	4 (8.0%)	7 (17.5%)	18 (36.0%) **
LOBE, LEFT; MASS; PALE	1 (2.0%)			1 (2.0%)
LOBE, LEFT; MASS; RED			1 (2.5%)	
LOBE, LEFT; MASS; TAN		3 (6.0%)	1 (2.5%)	2 (4.0%)
LOBE, MEDIAN; MASS; DARK	1 (2.0%)	2 (4.0%)		1 (2.0%)
LOBE, MEDIAN; MASS; GREEN		1 (2.0%)		
LOBE, MEDIAN; MASS; MOTTLED	4 (8.0%) **	9 (18.0%)	5 (12.5%)	14 (28.0%) **
LOBE, MEDIAN; MASS; PALE				1 (2.0%)
LOBE, MEDIAN; MASS; TAN	1 (2.0%)	2 (4.0%)	3 (7.5%)	3 (6.0%)
RIGHT; MASS; MOTTLED	0 *	3 (6.0%)	3 (7.5%)	5 (10.0%) *
RIGHT; MASS; PALE				1 (2.0%)
RIGHT; MASS; TAN		1 (2.0%)	1 (2.5%)	2 (4.0%)
MASS; MOTTLED	1 (2.0%) **			6 (12.0%)
MASS; RED				1 (2.0%)
MASS; TAN				1 (2.0%)
CAUDATE LOBE; NODULE; TAN	1 (2.0%)			
LOBE, LEFT; NODULE; MOTTLED	0 *		3 (7.5%)	4 (8.0%)
LOBE, LEFT; NODULE; RED		1 (2.0%)		
LOBE, LEFT; NODULE; TAN	1 (2.0%)	3 (6.0%)	4 (10.0%)	5 (10.0%)
LOBE, LEFT; NODULE; WHITE	1 (2.0%)		1 (2.5%)	
LOBE, MEDIAN; NODULE; MOTTLED	2 (4.0%)	2 (4.0%)	4 (10.0%)	2 (4.0%)
LOBE, MEDIAN; NODULE; PALE	1 (2.0%)			
LOBE, MEDIAN; NODULE; RED		1 (2.0%)		
LOBE, MEDIAN; NODULE; TAN	1 (2.0%) **	1 (2.0%)	3 (7.5%)	11 (22.0%) **
LOBE, MEDIAN; NODULE				1 (2.0%)
RIGHT; NODULE; MOTTLED		1 (2.0%)	3 (7.5%)	

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

PA46s: Summary of Gross Pathology
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
Time Report Requested: 14:42:39
Lab: Battelle with EPL

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
RIGHT; NODULE; TAN		4 (8.0%)		4 (8.0%)
NODULE; MOTTLED	0 *			2 (4.0%)
NODULE; TAN				1 (2.0%)
THICK	1 (2.0%)			
MESENTERY	(4)	(7)	(3)	(3)
MASS; MOTTLED	1 (25.0%)			
MASS; WHITE			1 (33.3%)	
LEFT, ABDOMINAL; NODULE; MOTTLED		1 (14.3%)		
NODULE; MOTTLED		1 (14.3%)	1 (33.3%)	1 (33.3%)
NODULE; TAN	1 (25.0%)	2 (28.6%)	1 (33.3%)	
NODULE; WHITE	1 (25.0%)			1 (33.3%)
NODULE; YELLOW	1 (25.0%)	3 (42.9%)		1 (33.3%)
PANCREAS	(50)	(50)	(40)	(50)
MASS; TAN			1 (2.5%)	
PHARYNX	(50)	(50)	(40)	(50)
MASS; WHITE			1 (2.5%)	
STOMACH, FORESTOMACH	(50)	(50)	(40)	(50)
MASS; MOTTLED				1 (2.0%)
MASS; WHITE				1 (2.0%)
NODULE; TAN			1 (2.5%)	
NODULE; WHITE	1 (2.0%)			2 (4.0%)
STOMACH, GLANDULAR	(50)	(50)	(40)	(50)
MASS; MOTTLED	1 (2.0%)			1 (2.0%)

Study Number: C20302B-01
Test Type: TOX
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Species/Strain: Mouse/B6C3F1/N

PA46s: Summary of Gross Pathology
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
Time Report Requested: 14:42:39
Lab: Battelle with EPL

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
CARDIOVASCULAR SYSTEM				
AORTA	(50)	(50)	(40)	(50)
NODULE; WHITE				1 (2.0%)
HEART	(50)	(50)	(40)	(50)
LEFT, ATRIUM; NODULE; MOTTLED		1 (2.0%)		
RIGHT, VENTRICLE; NODULE; TAN			1 (2.5%)	
ENDOCRINE SYSTEM				
ADRENAL GLAND	(50)	(50)	(40)	(50)
RIGHT; CYST; CLEAR		1 (2.0%)		
BILATERAL; ENLARGED; MOTTLED				1 (2.0%)
BILATERAL; ENLARGED; TAN		1 (2.0%)		
LEFT; ENLARGED; DARK			1 (2.5%)	1 (2.0%)
LEFT; ENLARGED; MOTTLED				1 (2.0%)
LEFT; ENLARGED				1 (2.0%)
RIGHT; ENLARGED; MOTTLED	1 (2.0%)			
PITUITARY GLAND	(50)	(50)	(40)	(50)
CYST; CLEAR	1 (2.0%)			
ENLARGED; DARK	2 (4.0%)			1 (2.0%)
ENLARGED; MOTTLED	1 (2.0%)			
ENLARGED; RED				1 (2.0%)
ENLARGED; TAN	1 (2.0%)			
THYROID GLAND	(50)	(50)	(40)	(50)
BILATERAL; ENLARGED; DARK	1 (2.0%)			
LEFT; ENLARGED; MOTTLED				1 (2.0%)
RIGHT; ENLARGED; DARK		1 (2.0%)		

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

PA46s: Summary of Gross Pathology
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
Time Report Requested: 14:42:39
Lab: Battelle with EPL

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
GENERAL BODY SYSTEM				
ABDOMEN	(0)	(1)	(0)	(2)
ACCUMULATION; RED		1 (100.0%)		2 (100.0%)

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

PA46s: Summary of Gross Pathology
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
Time Report Requested: 14:42:39
Lab: Battelle with EPL

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
GENITAL SYSTEM				
CERVIX	(50)	(50)	(40)	(50)
MASS; DARK	1 (2.0%)			
OVARY	(50)	(50)	(40)	(50)
LEFT; CYST; CLEAR	2 (4.0%)		1 (2.5%)	3 (6.0%)
LEFT; CYST; RED	1 (2.0%)			1 (2.0%)
LEFT; CYST; YELLOW	1 (2.0%)			
RIGHT; CYST; CLEAR	2 (4.0%)	3 (6.0%)	2 (5.0%)	4 (8.0%)
RIGHT; CYST; RED		2 (4.0%)	1 (2.5%)	
LEFT; ENLARGED; MOTTLED				1 (2.0%)
LEFT; ENLARGED; RED				1 (2.0%)
LEFT; ENLARGED; TAN		1 (2.0%)		1 (2.0%)
LEFT; ENLARGED	1 (2.0%)			
RIGHT; ENLARGED; MOTTLED				1 (2.0%)
RIGHT; ENLARGED; RED		1 (2.0%)		
RIGHT; ENLARGED; TAN			1 (2.5%)	
RIGHT; ENLARGED	1 (2.0%)			
LEFT; MASS; MOTTLED	0 *	1 (2.0%)		3 (6.0%)
LEFT; MASS; RED				1 (2.0%)
LEFT; MASS; TAN			1 (2.5%)	
RIGHT; MASS; MOTTLED	1 (2.0%)	1 (2.0%)		
RIGHT; MASS; RED				1 (2.0%)
LEFT; NODULE; MOTTLED				1 (2.0%)
RIGHT; NODULE; TAN		1 (2.0%)		
LEFT; SMALL				1 (2.0%)
RIGHT; SMALL; GRAY		1 (2.0%)		
UTERUS	(50)	(50)	(40)	(50)
BILATERAL; DILATION; DARK		1 (2.0%)		

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
LEFT; DILATION; CLEAR	1 (2.0%)			
DILATION; CLEAR	1 (2.0%)			
DILATION; MOTTLED	1 (2.0%)			
DILATION	4 (8.0%)			
LEFT; MASS; RED				1 (2.0%)
LEFT; MASS; TAN	1 (2.0%)			
RIGHT; MASS; MOTTLED				1 (2.0%)
MASS; BROWN	1 (2.0%)			
MASS; MOTTLED				1 (2.0%)
MASS; RED	0 *			2 (4.0%)
LEFT; NODULE; RED		1 (2.0%)		
LEFT; NODULE; TAN	1 (2.0%)			
RIGHT; NODULE; RED		1 (2.0%)		

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

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Date Report Requested: 03/18/2026
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Lab: Battelle with EPL

Female: Core Animals

	Treatment Groups (ppm)			
	0	100	200	400
HEMATOLYMPHOID SYSTEM				
LYMPH NODE	(3)	(4)	(3)	(2)
BILATERAL, LUMBAR; ENLARGED; TAN		1 (25.0%)		
BILATERAL, RENAL; ENLARGED; TAN		1 (25.0%)		
INGUINAL; ENLARGED				1 (50.0%)
LUMBAR; ENLARGED; DARK		1 (25.0%)		
LUMBAR; ENLARGED; MOTTLED		1 (25.0%)		
LUMBAR; ENLARGED; RED		1 (25.0%)		
LUMBAR; ENLARGED; TAN	2 (66.7%)			1 (50.0%)
PANCREATIC; ENLARGED; TAN		1 (25.0%)		
RENAL; ENLARGED; PALE		1 (25.0%)		
RENAL; ENLARGED; RED		1 (25.0%)		
RENAL; ENLARGED; TAN	3 (100.0%)		3 (100.0%)	1 (50.0%)
LYMPH NODE, AXILLARY	(0)	(1)	(1)	(0)
RIGHT; ENLARGED; TAN		1 (100.0%)	1 (100.0%)	
LYMPH NODE, BRONCHIAL	(50)	(50)	(40)	(50)
ENLARGED; PALE		1 (2.0%)		
ENLARGED; TAN	2 (4.0%)			
ENLARGED				1 (2.0%)
LYMPH NODE, CERVICAL	(0)	(0)	(1)	(0)
ENLARGED; TAN			1 (100.0%)	
LYMPH NODE, MANDIBULAR	(50)	(50)	(40)	(50)
BILATERAL; ENLARGED; TAN		1 (2.0%)		
LEFT; ENLARGED; RED		1 (2.0%)		
RIGHT; ENLARGED; TAN			1 (2.5%)	
ENLARGED; PALE		1 (2.0%)		
ENLARGED; TAN	1 (2.0%)		1 (2.5%)	
LYMPH NODE, MEDIASTINAL	(50)	(50)	(40)	(50)

Study Number: C20302B-01
Test Type: TOX
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Species/Strain: Mouse/B6C3F1/N

PA46s: Summary of Gross Pathology
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CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
Time Report Requested: 14:42:39
Lab: Battelle with EPL

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
ENLARGED; DARK		1 (2.0%)		1 (2.0%)
ENLARGED; PALE		1 (2.0%)		
ENLARGED; RED		1 (2.0%)		
ENLARGED; TAN	2 (4.0%)	1 (2.0%)	3 (7.5%)	2 (4.0%)
ENLARGED				1 (2.0%)
LYMPH NODE, MESENTERIC	(50)	(50)	(40)	(50)
ENLARGED; MOTTLED				1 (2.0%)
ENLARGED; PALE	1 (2.0%)			
ENLARGED; RED		1 (2.0%)		
ENLARGED; TAN	3 (6.0%)	4 (8.0%)	4 (10.0%)	2 (4.0%)
MASS; MOTTLED		1 (2.0%)		
SPLEEN	(50)	(50)	(40)	(50)
ENLARGED; DARK	1 (2.0%)			1 (2.0%)
ENLARGED; MOTTLED	1 (2.0%)	3 (6.0%)	2 (5.0%)	
ENLARGED; RED	1 (2.0%)	1 (2.0%)	3 (7.5%)	3 (6.0%)
ENLARGED	1 (2.0%)	1 (2.0%)	2 (5.0%)	2 (4.0%)
MASS; MOTTLED	1 (2.0%)			1 (2.0%)
MASS; RED			1 (2.5%)	
NODULE; MOTTLED		1 (2.0%)		
NODULE; TAN				1 (2.0%)
THYMUS	(50)	(50)	(40)	(50)
ENLARGED; TAN		1 (2.0%)	1 (2.5%)	2 (4.0%)
SMALL; TAN		1 (2.0%)		
SMALL		1 (2.0%)		
HEMATOPOIETIC SYSTEM				
None				

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

PA46s: Summary of Gross Pathology
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
Time Report Requested: 14:42:39
Lab: Battelle with EPL

Female: Core Animals				
Treatment Groups (ppm)				
	0	100	200	400
HEPATOBIILIARY SYSTEM				
None				
IMMUNE SYSTEM				
None				

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

PA46s: Summary of Gross Pathology
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Final

Date Report Requested: 03/18/2026
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Lab: Battelle with EPL

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
INTEGUMENTARY SYSTEM				
MAMMARY GLAND	(2)	(5)	(1)	(7)
ABDOMINAL; CYST; CLEAR				1 (14.3%)
AXILLARY, RIGHT; MASS; TAN	1 (50.0%)			
LEFT, ABDOMINAL; MASS; MOTTLED		1 (20.0%)		
LEFT, ABDOMINAL; MASS; TAN			1 (100.0%)	
LEFT, AXILLARY; MASS; TAN				1 (14.3%)
LEFT, DORSAL; MASS; DARK				1 (14.3%)
LEFT, THORACIC; MASS; MOTTLED				1 (14.3%)
LEFT, THORACIC; MASS; TAN		1 (20.0%)		1 (14.3%)
RIGHT, ABDOMINAL; MASS; MOTTLED		1 (20.0%)		
RIGHT, ABDOMINAL; MASS; RED		1 (20.0%)		
RIGHT, ABDOMINAL; MASS; TAN			1 (100.0%)	
RIGHT, AXILLARY; MASS; MOTTLED				1 (14.3%)
RIGHT, AXILLARY; MASS; TAN				1 (14.3%)
RIGHT, AXILLARY; MASS; WHITE				1 (14.3%)
RIGHT, THORACIC; MASS; TAN	1 (50.0%)	1 (20.0%)		1 (14.3%)
MAMMARY GLAND, INGUINAL	(50)	(50)	(40)	(50)
RIGHT; MASS; MOTTLED	1 (2.0%)			
MASS; TAN		1 (2.0%)		
SKIN	(50)	(50)	(40)	(49)
ABDOMINAL; CRUST; TAN			1 (2.5%)	
DORSAL; CRUST; RED				1 (2.0%)
DORSAL; CRUST; TAN			1 (2.5%)	
RIGHT, ABDOMINAL; CRUST; TAN				1 (2.0%)
CRUST; TAN			1 (2.5%)	
RIGHT, HINDLIMB; DEFORMITY				1 (2.0%)
RIGHT, HINDLIMB; DISCOLORATION; BLUE	1 (2.0%)			

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
NOSE; LACERATION; RED		1 (2.0%)		
RIGHT, FACE; LACERATION; RED	1 (2.0%)			
DORSAL, LEFT; MASS; TAN			1 (2.5%)	
DORSAL, THORACIC; MASS; TAN	1 (2.0%)			1 (2.0%)
DORSAL; MASS; TAN		1 (2.0%)		
HEAD; MASS; MOTTLED	1 (2.0%)			
HINDLIMB, RIGHT; MASS; TAN				1 (2.0%)
RIGHT, ABDOMINAL; MASS; TAN			1 (2.5%)	
MUSCULOSKELETAL SYSTEM				
BONE	(2)	(0)	(0)	(2)
NOSE; FRACTURE; RED	1 (50.0%)			
LEFT, RIB; MASS; TAN	1 (50.0%)			
RIGHT, RIB; MASS; TAN	1 (50.0%)			
RIB; NODULE; TAN				1 (50.0%)
RIB; NODULE; WHITE				1 (50.0%)
SKELETAL MUSCLE	(1)	(0)	(2)	(1)
LEFT, HINDLIMB; MASS; TAN	1 (100.0%)			
DIAPHRAGM; NODULE; TAN				1 (100.0%)
DIAPHRAGM; NODULE; WHITE			2 (100.0%)	
NERVOUS SYSTEM				
BRAIN	(50)	(50)	(40)	(50)
CEREBELLUM; DISCOLORATION; DARK	1 (2.0%)			
REPRODUCTIVE SYSTEM				
None				

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

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Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
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Lab: Battelle with EPL

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
RESPIRATORY SYSTEM				
LUNG	(50)	(50)	(40)	(50)
CRANIAL; FOCUS; WHITE		1 (2.0%)		
LOBE, LEFT; FOCUS; WHITE			1 (2.5%)	2 (4.0%)
RIGHT; FOCUS; CAUDAL, DARK		1 (2.0%)		
ACCESSORY LOBE; MASS; MOTTLED		1 (2.0%)		
ACCESSORY LOBE; MASS; TAN		1 (2.0%)		
ACCESSORY LOBE; MASS; WHITE				1 (2.0%)
LEFT, CRANIAL; MASS; PALE			1 (2.5%)	
LEFT; MASS; CAUDAL, PALE			1 (2.5%)	
LEFT; MASS; PALE				1 (2.0%)
LOBE, LEFT; MASS; MOTTLED				1 (2.0%)
LOBE, LEFT; MASS; TAN			2 (5.0%)	1 (2.0%)
LOBE, LEFT; MASS; WHITE	0 *			3 (6.0%)
LOBE, MIDDLE, RIGHT; MASS; TAN				1 (2.0%)
LOBE, MIDDLE, RIGHT; MASS; WHITE				1 (2.0%)
RIGHT, CRANIAL; MASS; WHITE				1 (2.0%)
RIGHT; MASS; CAUDAL, TAN				1 (2.0%)
RIGHT; MASS; CAUDAL, WHITE	0 *			3 (6.0%)
MASS; CAUDAL, TAN				1 (2.0%)
MASS; MOTTLED	1 (2.0%)			
MASS; TAN	0 *			2 (4.0%)
MASS; WHITE				1 (2.0%)
ACCESSORY LOBE; NODULE; TAN		1 (2.0%)		1 (2.0%)
ACCESSORY LOBE; NODULE; WHITE	0 **		1 (2.5%)	4 (8.0%)
LEFT; NODULE; WHITE			2 (5.0%)	
LOBE, LEFT; NODULE; DARK		1 (2.0%)		
LOBE, LEFT; NODULE; TAN		1 (2.0%)		1 (2.0%)

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

PA46s: Summary of Gross Pathology
Test Compound: alpha-Pinene
CAS Number: 80-56-8
Final

Date Report Requested: 03/18/2026
Time Report Requested: 14:42:39
Lab: Battelle with EPL

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
LOBE, LEFT; NODULE; WHITE	0 **	1 (2.0%)	2 (5.0%)	10 (20.0%) **
LOBE, MEDIAN; NODULE; WHITE			1 (2.5%)	
LOBE, MIDDLE, RIGHT; NODULE; TAN	0 *			2 (4.0%)
LOBE, MIDDLE, RIGHT; NODULE; WHITE			1 (2.5%)	2 (4.0%)
RIGHT, CRANIAL; NODULE; DARK				1 (2.0%)
RIGHT, CRANIAL; NODULE; TAN	0 *			2 (4.0%)
RIGHT, CRANIAL; NODULE; WHITE	0 **			4 (8.0%)
RIGHT; NODULE; CAUDAL, TAN		1 (2.0%)		1 (2.0%)
RIGHT; NODULE; CAUDAL, WHITE	0 *	2 (4.0%)	1 (2.5%)	4 (8.0%)
RIGHT; NODULE; TAN				1 (2.0%)
RIGHT; NODULE; WHITE	1 (2.0%)			
RIGHT LOBE, CRANIAL; NODULE; WHITE				1 (2.0%)
RIGHT LOBE; NODULE; WHITE				1 (2.0%)
NODULE; CAUDAL, WHITE	0 *			2 (4.0%)
NODULE; RED				1 (2.0%)
NODULE; TAN	0 *			2 (4.0%)
NODULE; WHITE			1 (2.5%)	1 (2.0%)
NODULE			1 (2.5%)	
THORAX	(0)	(1)	(1)	(1)
ACCUMULATION; CLOUDY				1 (100.0%)
ACCUMULATION; RED		1 (100.0%)	1 (100.0%)	

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	Treatment Groups (ppm)			
	0	100	200	400
SPECIAL SENSES SYSTEM				
EYE	(50)	(50)	(40)	(50)
RIGHT; SMALL			1 (2.5%)	
HARDERIAN GLAND	(50)	(50)	(40)	(50)
BILATERAL; ENLARGED; TAN	0 *			2 (4.0%)
LEFT; ENLARGED; PALE				1 (2.0%)
LEFT; ENLARGED; TAN	1 (2.0%)	1 (2.0%)	2 (5.0%)	
LEFT; ENLARGED; WHITE				1 (2.0%)
RIGHT; ENLARGED; TAN		1 (2.0%)	2 (5.0%)	
RIGHT; ENLARGED; WHITE				1 (2.0%)
RIGHT; ENLARGED				1 (2.0%)
ENLARGED; TAN				1 (2.0%)
ENLARGED; WHITE			1 (2.5%)	
LEFT; MASS; WHITE				1 (2.0%)
RIGHT; MASS; TAN			1 (2.5%)	
RIGHT; MASS; WHITE				1 (2.0%)
MASS; WHITE				1 (2.0%)
LEFT; NODULE; PALE		1 (2.0%)		
LEFT; NODULE; TAN	1 (2.0%)			1 (2.0%)
RIGHT; NODULE; TAN	1 (2.0%)			1 (2.0%)
RIGHT; NODULE; WHITE				1 (2.0%)
NODULE; WHITE	1 (2.0%)			
ZYMBALS GLAND	(50)	(50)	(40)	(50)
LEFT; MASS; MOTTLED	1 (2.0%)			
RIGHT; MASS; TAN				1 (2.0%)
RIGHT; MASS; WHITE		1 (2.0%)		

Female: Core Animals				
	Treatment Groups (ppm)			
	0	100	200	400
URINARY SYSTEM				
KIDNEY	(50)	(50)	(40)	(50)
LEFT; CYST; CLEAR				1 (2.0%)
LEFT; DEFORMITY; PALE				1 (2.0%)
RIGHT; DEFORMITY; PALE				1 (2.0%)
LEFT; DILATION	1 (2.0%)			
RIGHT; DILATION	1 (2.0%)			
LEFT; ENLARGED; MOTTLED	1 (2.0%)			
LEFT; NODULE; MOTTLED		1 (2.0%)		
RIGHT; NODULE; DARK				1 (2.0%)
RIGHT; NODULE; WHITE			1 (2.5%)	1 (2.0%)
RIGHT; SMALL; TAN		1 (2.0%)		
URINARY BLADDER	(50)	(50)	(40)	(50)
LUMEN; NODULE; WHITE				1 (2.0%)

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LEGEND

Censored animals are animals not in one of the other disposition categories that are removed prior to the end of the study. The censored animals are included in the pathology data if microscopic examination of tissues was performed.

In the rows with the lesion names, the number of animals with observation are reported with percent incidence in parentheses. If none of the animals examined have the specific lesion, there is a blank for that dose group for that specific lesion. The exception to this is if statistical significance is found for a lesion and the control group has no animals with the lesion; in that case a 0 is included for the control group on the table for that lesion.

Number (percent) of animals affected given for each observation

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

Statistical significance for the control group indicates a significant trend test.

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

* Statistically significant at $p \leq 0.05$

** Statistically significant at $p \leq 0.01$

**** END OF REPORT ****