

**Experiment Number:** 56348-02  
**Test Type:** 90-DAY  
**Route:** DOSED FEED  
**Species/Strain:** Mouse/B6C3F1

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH  
AVERAGE SEVERITY GRADES[b]**

**Test Compound:** Citral  
**CAS Number:** 5392-40-5

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 05:29:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**C Number:** C56348A  
**Lock Date:** 01/02/1996  
**Cage Range:** All  
**Date Range:** All  
**Reasons For Removal:** All  
**Removal Date Range:** All  
**Treatment Groups:** All  
**Study Gender:** Both  
**PWG Approval Date** NONE

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 First Dose M/F: NA / NA  
 Lab: BAT

B6C3F1 Mouse MALE	UNTREAT CONTROL	VEHICLE CONTROL	3900 PPM	7800 PPM	15600 PPM	31300 PPM
<b>Disposition Summary</b>						
Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Moribund Sacrifice						4
Survivors						
Terminal Sacrifice	10	10	10	10	10	6
Animals Examined Microscopically	10	10			10	10
<b>ALIMENTARY SYSTEM</b>						
Esophagus	(10)	(10)	(0)	(0)	(0)	(10)
Gallbladder	(9)	(8)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(10)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(10)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(10)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(10)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(10)	(0)	(0)	(0)	(9)
Intestine Small, Jejunum	(10)	(10)	(0)	(0)	(0)	(10)
Liver	(10)	(10)	(0)	(0)	(0)	(10)
Pancreas	(10)	(10)	(0)	(0)	(0)	(10)
Salivary Glands	(10)	(10)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(10)	(0)	(0)	(10)	(10)
Stomach, Glandular	(10)	(10)	(0)	(0)	(0)	(10)
<b>CARDIOVASCULAR SYSTEM</b>						
Blood Vessel	(10)	(10)	(0)	(0)	(0)	(10)
Heart	(10)	(10)	(0)	(0)	(0)	(10)
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(10)	(10)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(10)	(0)	(0)	(0)	(10)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]**

Test Compound: Citral

CAS Number: 5392-40-5

Date Report Requested: 10/22/2014

Time Report Requested: 05:29:49

First Dose M/F: NA / NA

Lab: BAT

B6C3F1 Mouse MALE	UNTREAT CONTROL	VEHICLE CONTROL	3900 PPM	7800 PPM	15600 PPM	31300 PPM
Islets, Pancreatic	(10)	(10)	(0)	(0)	(0)	(10)
Parathyroid Gland	(7)	(8)	(0)	(0)	(0)	(6)
Pituitary Gland	(10)	(10)	(0)	(0)	(0)	(9)
Thyroid Gland	(10)	(10)	(0)	(0)	(0)	(10)
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Epididymis	(10)	(10)	(0)	(0)	(0)	(10)
Preputial Gland	(10)	(10)	(0)	(0)	(0)	(10)
Prostate	(10)	(10)	(0)	(0)	(0)	(10)
Seminal Vesicle	(10)	(10)	(0)	(0)	(0)	(10)
Testes	(10)	(10)	(0)	(0)	(0)	(10)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(10)	(0)	(0)	(0)	(10)
Lymph Node, Mandibular	(10)	(10)	(0)	(0)	(0)	(10)
Lymph Node, Mesenteric	(10)	(9)	(0)	(0)	(0)	(10)
Spleen	(10)	(10)	(0)	(0)	(0)	(10)
Thymus	(10)	(10)	(0)	(0)	(0)	(8)
Atrophy						2 [3.0]
INTEGUMENTARY SYSTEM						
Mammary Gland	(0)	(0)	(0)	(0)	(0)	(2)
Skin	(10)	(10)	(0)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(10)	(0)	(0)	(0)	(10)
NERVOUS SYSTEM						
Brain	(10)	(10)	(0)	(0)	(0)	(10)

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First Dose M/F: NA / NA  
Lab: BAT

B6C3F1 Mouse MALE	UNTREAT CONTROL	VEHICLE CONTROL	3900 PPM	7800 PPM	15600 PPM	31300 PPM
RESPIRATORY SYSTEM						
Lung	(10)	(10)	(0)	(0)	(0)	(10)
Nose	(10)	(10)	(0)	(0)	(0)	(10)
Trachea	(10)	(10)	(0)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney	(10)	(10)	(0)	(0)	(0)	(10)
Urinary Bladder	(10)	(10)	(0)	(0)	(0)	(9)

\*\*\*END OF MALE DATA\*\*\*

a - Number of animals examined microscopically at site and number of animals with lesion  
b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Experiment Number: 56348-02  
 Test Type: 90-DAY  
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 Species/Strain: Mouse/B6C3F1

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 Lab: BAT

B6C3F1 Mouse FEMALE	UNTREAT CONTROL	VEHICLE CONTROL	3900 PPM	7800 PPM	15600 PPM	31300 PPM
<b>Disposition Summary</b>						
Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
Animals Examined Microscopically	10	10		10	10	10
<b>ALIMENTARY SYSTEM</b>						
Esophagus	(10)	(10)	(0)	(0)	(0)	(9)
Gallbladder	(9)	(8)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(10)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(10)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(10)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(10)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(10)	(0)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(10)	(0)	(0)	(0)	(10)
Liver	(10)	(10)	(0)	(0)	(0)	(10)
Vacuolization Cytoplasmic						1 [1.0]
Pancreas	(10)	(10)	(0)	(0)	(0)	(10)
Salivary Glands	(10)	(10)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(10)	(0)	(10)	(10)	(10)
Epithelium, Hyperplasia					1 [1.0]	
Hyperkeratosis					1 [1.0]	
Stomach, Glandular	(10)	(10)	(0)	(0)	(0)	(10)
<b>CARDIOVASCULAR SYSTEM</b>						
Blood Vessel	(10)	(10)	(0)	(0)	(0)	(10)
Heart	(10)	(10)	(0)	(0)	(0)	(10)
<b>ENDOCRINE SYSTEM</b>						

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B6C3F1 Mouse FEMALE	UNTREAT CONTROL	VEHICLE CONTROL	3900 PPM	7800 PPM	15600 PPM	31300 PPM
Adrenal Cortex	(10)	(10)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(10)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(10)	(0)	(0)	(0)	(10)
Parathyroid Gland	(9)	(6)	(0)	(0)	(0)	(8)
Pituitary Gland	(10)	(10)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(10)	(0)	(0)	(0)	(9)
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Clitoral Gland	(10)	(10)	(0)	(0)	(0)	(10)
Ovary	(10)	(10)	(0)	(10)	(10)	(10)
Corpus Luteum, Atrophy					7 [2.6]	10 [3.8]
Uterus	(10)	(10)	(0)	(0)	(0)	(10)
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(10)	(0)	(0)	(0)	(10)
Lymph Node, Mandibular	(10)	(10)	(0)	(0)	(0)	(9)
Lymph Node, Mesenteric	(10)	(10)	(0)	(0)	(0)	(10)
Spleen	(10)	(10)	(0)	(0)	(0)	(10)
Thymus	(10)	(10)	(0)	(0)	(0)	(10)
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(10)	(10)	(0)	(0)	(0)	(10)
Skin	(10)	(10)	(0)	(0)	(0)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone	(10)	(10)	(0)	(0)	(0)	(10)
<b>NERVOUS SYSTEM</b>						
Brain	(10)	(10)	(0)	(0)	(0)	(10)

a - Number of animals examined microscopically at site and number of animals with lesion

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<b>B6C3F1 Mouse FEMALE</b>	<b>UNTREAT CONTROL</b>	<b>VEHICLE CONTROL</b>	<b>3900 PPM</b>	<b>7800 PPM</b>	<b>15600 PPM</b>	<b>31300 PPM</b>
<b>RESPIRATORY SYSTEM</b>						
Lung	(10)	(10)	(0)	(0)	(0)	(9)
Nose	(10)	(10)	(0)	(0)	(0)	(10)
Trachea	(10)	(10)	(0)	(0)	(0)	(9)
<b>SPECIAL SENSES SYSTEM</b>						
None						
<b>URINARY SYSTEM</b>						
Kidney	(10)	(10)	(0)	(0)	(0)	(10)
Urinary Bladder	(10)	(10)	(0)	(0)	(0)	(10)

**\*\* END OF REPORT \*\***

a - Number of animals examined microscopically at site and number of animals with lesion  
b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)