

**Experiment Number:** 55312-01  
**Test Type:** 90-DAY  
**Route:** SKIN APPLICATION  
**Species/Strain:** Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
**Test Compound:** Coconut oil acid diethanolamine condensate  
**CAS Number:** 68603-42-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 05:27:36  
**First Dose M/F:** NA / NA  
**Lab:** BAT

<b>C Number:</b>	C55312B
<b>Lock Date:</b>	09/04/1992
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Both
<b>PWG Approval Date</b>	NONE

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First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male  
0 MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	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	0	0
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0
	*TOTALS									

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	10
Hepatodiaphragmatic Nodule								X			1
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10

Cardiovascular System

Heart	+	+	+	+	+	+	+	+	+	+	10
Cardiomyopathy	1	2			1	1		2		1	6 1.3

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	10

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1-4 ..Lesion qualified as:

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Lab: BAT

F 344/N Rat Male  
0 MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	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	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	1	0
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

Parathyroid Gland	+	+	+	+	M	+	M	M	+	M	6
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	10
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

General Body System

NONE

Genital System

Epididymis	+	+	+	+	+	+	+	+	+	+	10		
Preputial Gland	+	+	+	+	+	+	+	+	+	+	10		
Inflammation, Chronic Active				2	1	1		2		1	1	6	1.3
Prostate	+	+	+	+	+	+	+	+	+	+	10		
Inflammation, Chronic Active	1					1	2				3	1.3	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	10		
Testes	+	+	+	+	+	+	+	+	+	+	10		

Hematopoietic System

Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	10
Spleen	+	+	+	+	+	+	+	+	+	+	10
Thymus	+	+	+	+	+	+	+	+	+	+	10

Integumentary System

Mammary Gland	+	+	+	+	M	+	M	+	+	+	8
---------------	---	---	---	---	---	---	---	---	---	---	---

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First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male  
0 MG/KG

	DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	1	2	3	4	5	6	7	8	9	0	
	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
	3	3	3	3	3	3	3	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	1	
	1	2	3	4	5	6	7	8	9	0	<b>*TOTALS</b>
Mammary Gland	+	+	+	+	M	+	M	+	+	+	8
Skin	+	+	+	+	+	+	+	+	+	+	10
<b>Musculoskeletal System</b>											
Bone	+	+	+	+	+	+	+	+	+	+	10
<b>Nervous System</b>											
Brain	+	+	+	+	+	+	+	+	+	+	10
<b>Respiratory System</b>											
Lung	+	+	+	+	+	+	+	+	+	+	10
Metaplasia, Osseous						1					1 1.0
Nose	+	+	+	+	+	+	+	+	+	+	10
Trachea	+	+	+	+	+	+	+	+	+	+	10
<b>Special Senses System</b>											
NONE											
<b>Urinary System</b>											
Kidney	+	+	+	+	+	+	+	+	+	+	10
Renal Tubule, Regeneration	1	1	1	1	1		1	1	1	1	9 1.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10

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CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:37

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male  
25 MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
	3	3	3	3	3	3	3	3	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	0	0	
	1	1	1	1	1	1	1	1	1	2	
	1	2	3	4	5	6	7	8	9	0	*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin + + + + + + + + + 10

Epidermis, SOA, Hyperplasia 1 1 1 2 1 1 1 7 1.1

Musculoskeletal System

NONE

Nervous System

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Lab: BAT

F 344/N Rat Male  
25 MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	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	0	0
	1	1	1	1	1	1	1	1	1	2
	1	2	3	4	5	6	7	8	9	0
	*TOTALS									

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

Kidney											9
--------	--	--	--	--	--	--	--	--	--	--	---

Renal Tubule, Regeneration	1	2	2	1	1	1	1	1	1		9	1.2
----------------------------	---	---	---	---	---	---	---	---	---	--	---	-----

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CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:37

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male  
50 MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
	3	3	3	3	3	3	3	3	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	0	0	
	2	2	2	2	2	2	2	2	2	3	
	1	2	3	4	5	6	7	8	9	0	*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin + + + + + + + + + 10

Epidermis, SOA, Hyperplasia 1 2 1 1 1 1 2 1 2 2 10 1.4

SOA, Sebaceous Gl, Hyperplasia 1 1 1 1 1 1 6 1.0

Musculoskeletal System

NONE

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Species/Strain: Rat/F 344/N

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Time Report Requested: 05:27:37

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Male  
50 MG/KG**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
	3	3	3	3	3	3	3	3	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	0	0	
	2	2	2	2	2	2	2	2	2	3	
	1	2	3	4	5	6	7	8	9	0	*TOTALS

**Nervous System**

NONE

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

Kidney	+	+	+	+	+	+	+	+	+	9	
Renal Tubule, Regeneration	2	1	1	1	1	1	1	1	1	9	1.1

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Species/Strain: Rat/F 344/N

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Date Report Requested: 10/23/2014

Time Report Requested: 05:27:37

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male  
100 MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	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	0	0
	3	3	3	3	3	3	3	3	3	4
	1	2	3	4	5	6	7	8	9	0

\*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

Testes

+	1	
2	1	2.0

Germinal Epith, Degeneration

Hematopoietic System

NONE

Integumentary System

Skin	+	+	+	+	+	+	+	+	+	+	10	
Epidermis, SOA, Hyperplasia	2	3	2	2	3	2	2	3	2	2	10	2.3
SOA, Inflammation, Chronic Active	1			1	1	1	1	1	1	1	8	1.0
SOA, Parakeratosis	1	1			1						3	1.0
SOA, Sebaceous GI, Hyperplasia	2	2		2	2	1	2	2	1	1	9	1.7

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Lab: BAT

F 344/N Rat Male  
100 MG/KG

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
	3	3	3	3	3	3	3	3	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	0	0	
	3	3	3	3	3	3	3	3	4	4	
	1	2	3	4	5	6	7	8	9	0	
	*TOTALS										
									1	1	1.0

SOA, Ulcer

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

Kidney

+ + + + + + + + + + 9

Renal Tubule, Regeneration

2 1 1 1 1 1 1 1 1 9 1.1

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First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male  
200 MG/KG

|             |   |   |   |   |   |   |   |   |   |   |         |
|-------------|---|---|---|---|---|---|---|---|---|---|---------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |         |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 0 |         |
|             | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |         |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | *TOTALS |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

|                                   |   |   |   |   |   |   |   |   |   |   |    |     |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|----|-----|
| Skin                              | + | + | + | + | + | + | + | + | + | + | 10 |     |
| Epidermis, SOA, Hyperplasia       | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 10 | 2.9 |
| SOA, Inflammation, Chronic Active | 1 | 2 | 1 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 10 | 1.9 |
| SOA, Parakeratosis                |   | 3 | 2 | 4 | 4 | 3 | 2 | 3 | 4 | 3 | 9  | 3.1 |
| SOA, Sebaceous GI, Hyperplasia    | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 10 | 3.0 |
| SOA, Ulcer                        |   | 4 |   | 4 | 4 | 2 |   |   | 4 | 1 | 6  | 3.2 |

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Time Report Requested: 05:27:37

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male  
200 MG/KG

|             |   |   |   |   |   |   |   |   |   |   |
|-------------|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 0 |
|             | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

\*TOTALS

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

Kidney

+ + + + + 5

Renal Tubule, Regeneration

1 1 1 1 1 1 5 1.0

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Test Compound: Coconut oil acid diethanolamine condensate

CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:37

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male  
400 MG/KG

| DAY ON TEST | 0       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---------|---|---|---|---|---|---|---|---|---|
|             | 0       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 9       | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|             | 3       | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 0 |
|             | 5       | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
|             | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
|             | *TOTALS |   |   |   |   |   |   |   |   |   |

Alimentary System

|                            |   |   |   |   |   |   |   |   |   |   |    |
|----------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                  | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum     | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon     | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum    | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum     | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver                      | + | + | + | + | + | + | + | + | + | + | 10 |
| Hepatodiaphragmatic Nodule |   |   |   |   |   |   |   | X |   |   | 1  |
| Pancreas                   | + | + | + | + | + | + | + | + | + | + | 10 |
| Salivary Glands            | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach       | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Glandular         | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

|                |   |   |   |   |   |   |   |   |   |   |       |
|----------------|---|---|---|---|---|---|---|---|---|---|-------|
| Heart          | + | + | + | + | + | + | + | + | + | + | 10    |
| Cardiomyopathy |   | 1 | 1 | 1 |   |   |   |   |   | 1 | 4 1.0 |

Endocrine System

|                    |   |   |   |   |   |   |   |   |   |   |    |
|--------------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex     | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla    | + | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 55312-01

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Coconut oil acid diethanolamine condensate

CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:37

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male  
400 MG/KG

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 0 |
|             | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

\*TOTALS

|                   |   |   |   |   |   |   |   |   |   |   |    |
|-------------------|---|---|---|---|---|---|---|---|---|---|----|
| Parathyroid Gland | + | M | + | M | + | + | + | M | + | + | 7  |
| Pituitary Gland   | + | + | + | + | + | + | + | + | + | + | 10 |
| Thyroid Gland     | + | + | + | + | + | + | + | + | + | + | 10 |

General Body System

NONE

Genital System

|                              |   |   |   |   |   |   |   |   |   |   |       |
|------------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Epididymis                   | + | + | + | + | + | + | + | + | + | + | 10    |
| Preputial Gland              | + | + | + | + | + | + | + | + | + | + | 10    |
| Inflammation, Chronic Active |   |   | 1 | 1 | 1 | 1 | 4 | 4 | 1 | 1 | 8 1.8 |
| Prostate                     | + | + | + | + | + | + | + | + | + | + | 10    |
| Inflammation, Chronic Active |   |   |   |   | 2 | 2 |   |   |   | 1 | 3 1.7 |
| Seminal Vesicle              | + | + | + | + | + | + | + | + | + | + | 10    |
| Testes                       | + | + | + | + | + | + | + | + | + | + | 10    |

Hematopoietic System

|                        |   |   |   |   |   |   |   |   |   |   |    |
|------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow            | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen                 | + | + | + | + | + | + | + | + | + | + | 10 |
| Thymus                 | + | + | + | + | + | + | + | + | + | + | 10 |

Integumentary System

|               |   |   |   |   |   |   |   |   |   |   |   |
|---------------|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | M | + | + | + | + | + | + | + | + | 9 |
|---------------|---|---|---|---|---|---|---|---|---|---|---|

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

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Species/Strain: Rat/F 344/N

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Test Compound: Coconut oil acid diethanolamine condensate

CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:37

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male  
400 MG/KG

|                                   | DAY ON TEST |   |   |   |   |   |   |   |   |   |         |     |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---------|-----|
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |     |
| ANIMAL ID                         | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | *TOTALS |     |
|                                   | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |         |     |
| Mammary Gland                     | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9       |     |
| Skin                              | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10      |     |
| Epidermis, SOA, Hyperplasia       | 9           | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 10      | 3.0 |
| SOA, Inflammation, Chronic Active | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 10      | 2.9 |
| SOA, Parakeratosis                | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 10      | 3.9 |
| SOA, Sebaceous GI, Hyperplasia    | 4           | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 10      | 3.0 |
| SOA, Ulcer                        | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 7       | 4.0 |
| <b>Musculoskeletal System</b>     |             |   |   |   |   |   |   |   |   |   |         |     |
| Bone                              | 4           |   |   | 4 |   | 4 | 4 | 4 | 4 | 4 | 10      |     |
| <b>Nervous System</b>             |             |   |   |   |   |   |   |   |   |   |         |     |
| Brain                             | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| <b>Respiratory System</b>         |             |   |   |   |   |   |   |   |   |   |         |     |
| Lung                              | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Nose                              | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Inflammation, Suppurative, Acute  |             |   |   | 1 |   |   |   |   |   |   | 1       | 1.0 |
| Trachea                           | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| <b>Special Senses System</b>      |             |   |   |   |   |   |   |   |   |   |         |     |
| NONE                              |             |   |   |   |   |   |   |   |   |   |         |     |
| <b>Urinary System</b>             |             |   |   |   |   |   |   |   |   |   |         |     |
| Kidney                            | +           | + | + | + | + | + | + | + | + | + | 10      |     |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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Experiment Number: 55312-01

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Coconut oil acid diethanolamine condensate

CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:37

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male  
400 MG/KG

| 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   |
|                            | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9       | 9   |
|                            | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0       | 0   |
|                            | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6       | 6   |
|                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | *TOTALS |     |
| Renal Tubule, Regeneration |   |   |   |   |   | 1 | 1 |   |   | 1 | 3       | 1.0 |
| Urinary Bladder            | + | + | + | + | + | + | + | + | + | + | 10      |     |

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

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

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Experiment Number: 55312-01  
 Test Type: 90-DAY  
 Route: SKIN APPLICATION  
 Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: Coconut oil acid diethanolamine condensate  
 CAS Number: 68603-42-9

Date Report Requested: 10/23/2014  
 Time Report Requested: 05:27:37  
 First Dose M/F: NA / NA  
 Lab: BAT

**F 344/N Rat Female**  
**0 MG/KG**

| DAY ON TEST | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|----------------|---|---|---|---|---|---|---|---|---|
|             | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 9              | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|             | 3              | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 0 |
|             | 6              | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |
|             | 1              | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
|             | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |

**Alimentary System**

|                            |   |   |   |   |   |   |   |   |   |   |    |   |     |
|----------------------------|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Esophagus                  | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Intestine Large, Cecum     | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Intestine Large, Colon     | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Intestine Large, Rectum    | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Intestine Small, Ileum     | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Liver                      | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Hepatodiaphragmatic Nodule | X |   |   |   |   |   |   |   |   |   |    | 1 |     |
| Pancreas                   | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Acinus, Atrophy            |   |   |   |   |   |   |   |   |   | 1 |    | 1 | 1.0 |
| Salivary Glands            | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Stomach, Forestomach       | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Stomach, Glandular         | + | + | + | + | + | + | + | + | + | + | 10 |   |     |

**Cardiovascular System**

|                |   |   |   |   |   |   |   |   |   |   |    |   |     |
|----------------|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Heart          | + | + | + | + | + | + | + | + | + | + | 10 |   |     |
| Cardiomyopathy |   |   |   | 1 |   |   |   |   |   |   |    | 1 | 1.0 |

**Endocrine System**

|                 |   |   |   |   |   |   |   |   |   |   |    |  |  |
|-----------------|---|---|---|---|---|---|---|---|---|---|----|--|--|
| Adrenal Cortex  | + | + | + | + | + | + | + | + | + | + | 10 |  |  |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 10 |  |  |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

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M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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2) Mild 4) Marked

Experiment Number: 55312-01  
 Test Type: 90-DAY  
 Route: SKIN APPLICATION  
 Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: Coconut oil acid diethanolamine condensate  
 CAS Number: 68603-42-9

Date Report Requested: 10/23/2014  
 Time Report Requested: 05:27:38  
 First Dose M/F: NA / NA  
 Lab: BAT

**F 344/N Rat Female**  
**0 MG/KG**

|                                     | DAY ON TEST |   |   |   |   |   |   |   |   |   |                |     |  |
|-------------------------------------|-------------|---|---|---|---|---|---|---|---|---|----------------|-----|--|
|                                     | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |     |  |
| ANIMAL ID                           | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |     |  |
|                                     | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |                |     |  |
|                                     | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | <b>*TOTALS</b> |     |  |
| Islets, Pancreatic                  | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Parathyroid Gland                   | M           | + | + | + | + | + | + | + | M | + | 8              |     |  |
| Pituitary Gland                     | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Craniophar Dct, Pars Distalis, Cyst |             |   |   |   | 2 |   |   | 1 |   |   | 2              | 1.5 |  |
| Thyroid Gland                       | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| <b>General Body System</b>          |             |   |   |   |   |   |   |   |   |   |                |     |  |
| NONE                                |             |   |   |   |   |   |   |   |   |   |                |     |  |
| <b>Genital System</b>               |             |   |   |   |   |   |   |   |   |   |                |     |  |
| Clitoral Gland                      | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Inflammation, Chronic Active        | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10             | 1.0 |  |
| Ovary                               | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Periovarn Tiss, Cyst                |             |   |   |   | 2 |   | 1 |   |   | 1 | 3              | 1.3 |  |
| Uterus                              | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| <b>Hematopoietic System</b>         |             |   |   |   |   |   |   |   |   |   |                |     |  |
| Bone Marrow                         | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Lymph Node, Mandibular              | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Lymph Node, Mesenteric              | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Spleen                              | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Thymus                              | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| <b>Integumentary System</b>         |             |   |   |   |   |   |   |   |   |   |                |     |  |
| Mammary Gland                       | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

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Lab: BAT

F 344/N Rat Female  
0 MG/KG

|                               | DAY ON TEST |   |   |   |   |   |   |   |   |   |                |     |  |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|----------------|-----|--|
|                               | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |     |  |
|                               | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |     |  |
|                               | 9           | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |                |     |  |
|                               | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 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 |                |     |  |
|                               | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |                |     |  |
|                               | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |                |     |  |
|                               |             |   |   |   |   |   |   |   |   |   | <b>*TOTALS</b> |     |  |
| Mammary Gland                 | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Skin                          | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| <b>Musculoskeletal System</b> |             |   |   |   |   |   |   |   |   |   |                |     |  |
| Bone                          | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| <b>Nervous System</b>         |             |   |   |   |   |   |   |   |   |   |                |     |  |
| Brain                         | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| <b>Respiratory System</b>     |             |   |   |   |   |   |   |   |   |   |                |     |  |
| Lung                          | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Inflammation, Acute           |             |   |   |   | 1 |   |   |   |   |   | 1              | 1.0 |  |
| Nose                          | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Trachea                       | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| <b>Special Senses System</b>  |             |   |   |   |   |   |   |   |   |   |                |     |  |
| NONE                          |             |   |   |   |   |   |   |   |   |   |                |     |  |
| <b>Urinary System</b>         |             |   |   |   |   |   |   |   |   |   |                |     |  |
| Kidney                        | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |
| Mineralization                | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10             | 1.0 |  |
| Renal Tubule, Regeneration    |             |   |   | 1 |   |   |   | 1 | 1 |   | 3              | 1.0 |  |
| Urinary Bladder               | +           | + | + | + | + | + | + | + | + | + | 10             |     |  |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Coconut oil acid diethanolamine condensate

CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:38

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female  
25 MG/KG

|             |   |   |   |   |   |   |   |   |   |   |         |
|-------------|---|---|---|---|---|---|---|---|---|---|---------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |         |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 0 |         |
|             | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |         |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | *TOTALS |

Alimentary System

|                            |  |  |  |  |  |  |  |  |  |  |   |   |
|----------------------------|--|--|--|--|--|--|--|--|--|--|---|---|
| Liver                      |  |  |  |  |  |  |  |  |  |  | + | 1 |
| Hepatodiaphragmatic Nodule |  |  |  |  |  |  |  |  |  |  | X | 1 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

|                      |  |  |  |  |  |  |  |  |  |  |   |   |   |       |
|----------------------|--|--|--|--|--|--|--|--|--|--|---|---|---|-------|
| Ovary                |  |  |  |  |  |  |  |  |  |  | + | + | + | 3     |
| Periovarn Tiss, Cyst |  |  |  |  |  |  |  |  |  |  | 2 | 2 | 2 | 3 2.0 |

Hematopoietic System

NONE

Integumentary System

|                             |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |       |
|-----------------------------|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|-------|
| Skin                        |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + | 10    |
| Epidermis, SOA, Hyperplasia |  |  |  |  |  |  |  |  |  |  |   | 1 |   |   |   |   | 1 |   |   |   | 2 1.0 |

Musculoskeletal System

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 55312-01

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

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First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female  
25 MG/KG

|             |   |   |   |   |   |   |   |   |   |   |         |
|-------------|---|---|---|---|---|---|---|---|---|---|---------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |         |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 0 |         |
|             | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |         |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | *TOTALS |

NONE  
Nervous System

NONE  
Respiratory System

NONE  
Special Senses System

NONE  
Urinary System

|                            |   |   |   |   |   |   |   |   |   |   |    |     |
|----------------------------|---|---|---|---|---|---|---|---|---|---|----|-----|
| Kidney                     | + | + | + | + | + | + | + | + | + | + | 10 |     |
| Mineralization             | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 10 | 1.3 |
| Renal Tubule, Regeneration |   |   | 1 | 1 | 1 |   | 1 | 1 |   |   | 5  | 1.0 |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

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BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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2) Mild 4) Marked

Experiment Number: 55312-01

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Coconut oil acid diethanolamine condensate

CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:38

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female  
50 MG/KG

|             |   |   |   |   |   |   |   |   |   |   |         |
|-------------|---|---|---|---|---|---|---|---|---|---|---------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |         |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 0 |         |
|             | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |         |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | *TOTALS |

Alimentary System

|                            |  |  |  |  |  |  |  |  |  |  |   |   |
|----------------------------|--|--|--|--|--|--|--|--|--|--|---|---|
| Liver                      |  |  |  |  |  |  |  |  |  |  | + | 1 |
| Hepatodiaphragmatic Nodule |  |  |  |  |  |  |  |  |  |  | X | 1 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

|                      |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |  |   |   |     |
|----------------------|--|--|--|--|--|--|--|--|--|--|---|---|---|--|--|--|---|---|-----|
| Ovary                |  |  |  |  |  |  |  |  |  |  | + | + |   |  |  |  | + | 3 |     |
| Periovarn Tiss, Cyst |  |  |  |  |  |  |  |  |  |  |   | 2 | 2 |  |  |  | 2 | 3 | 2.0 |

Hematopoietic System

NONE

Integumentary System

|                             |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |    |     |
|-----------------------------|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|----|-----|
| Skin                        |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + | 10 |     |
| Epidermis, SOA, Hyperplasia |  |  |  |  |  |  |  |  |  |  | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 10 | 1.5 |

Musculoskeletal System

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 55312-01

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

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Time Report Requested: 05:27:38

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female  
50 MG/KG

|             |   |   |   |   |   |   |   |   |   |   |         |
|-------------|---|---|---|---|---|---|---|---|---|---|---------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |         |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 0 |         |
|             | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |         |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | *TOTALS |

NONE  
Nervous System

NONE  
Respiratory System

NONE  
Special Senses System

NONE  
Urinary System

|                            |   |   |   |   |   |   |   |   |   |   |    |     |
|----------------------------|---|---|---|---|---|---|---|---|---|---|----|-----|
| Kidney                     | + | + | + | + | + | + | + | + | + | + | 10 |     |
| Mineralization             | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | 1.0 |
| Renal Tubule, Regeneration | 1 | 1 | 1 | 1 |   |   | 1 | 1 | 1 |   | 7  | 1.0 |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 55312-01

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: Coconut oil acid diethanolamine condensate

CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:38

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female  
100 MG/KG**

| DAY ON TEST | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|----------------|---|---|---|---|---|---|---|---|---|
|             | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 9              | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|             | 3              | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 1 |
|             | 9              | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
|             | 1              | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
|             | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |

**Alimentary System**

|                            |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| Liver                      |  |  |  |  |  |  |  |  |  |  |  |  | + | 1 |
| Hepatodiaphragmatic Nodule |  |  |  |  |  |  |  |  |  |  |  |  | X | 1 |

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

|                      |  |  |  |  |  |  |  |  |  |  |  |  |   |   |       |
|----------------------|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-------|
| Ovary                |  |  |  |  |  |  |  |  |  |  |  |  | + | + | 2     |
| Periovarn Tiss, Cyst |  |  |  |  |  |  |  |  |  |  |  |  | 2 | 2 | 2 2.0 |

**Hematopoietic System**

NONE

**Integumentary System**

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |    |     |
|-----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|----|-----|
| Skin                              |  |  |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + | 10 |     |
| Epidermis, SOA, Hyperplasia       |  |  |  |  |  |  |  |  |  |  |  |  | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 10 | 1.8 |
| SOA, Inflammation, Chronic Active |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9  | 1.0 |
| SOA, Sebaceous GI, Hyperplasia    |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 7  | 1.3 |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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Experiment Number: 55312-01

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Species/Strain: Rat/F 344/N

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Date Report Requested: 10/23/2014

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First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female  
100 MG/KG

|             |   |   |   |   |   |   |   |   |   |   |
|-------------|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 0 | 1 |
|             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

\*TOTALS

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

Kidney

+ + + + + + + + + + 10

Mineralization

2 2 2 2 2 1 2 2 2 2 10 1.9

Renal Tubule, Regeneration

1 1 1 1 1 1 1 1 1 1 10 1.0

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female  
200 MG/KG

| DAY ON TEST | 0       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---------|---|---|---|---|---|---|---|---|---|
|             | 0       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 9       | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|             | 3       | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID   | 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 |
|             | 0       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
|             | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
|             | *TOTALS |   |   |   |   |   |   |   |   |   |

Alimentary System

|                              |  |   |   |  |  |   |  |  |   |     |
|------------------------------|--|---|---|--|--|---|--|--|---|-----|
| Liver                        |  | + | + |  |  |   |  |  |   | 2   |
| Artery, Dilatation           |  |   |   |  |  | 4 |  |  | 1 | 4.0 |
| Atrophy                      |  |   |   |  |  | 4 |  |  | 1 | 4.0 |
| Hepatocyte, Hyperplasia      |  |   |   |  |  | 4 |  |  | 1 | 4.0 |
| Hepatodiaphragmatic Nodule   |  |   | X |  |  |   |  |  | 1 |     |
| Inflammation, Chronic Active |  |   |   |  |  | 3 |  |  | 1 | 3.0 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

|                                 |  |   |  |   |  |  |   |  |   |   |     |
|---------------------------------|--|---|--|---|--|--|---|--|---|---|-----|
| Ovary                           |  | + |  | + |  |  |   |  | + | 3 |     |
| Bilateral, Periovarn Tiss, Cyst |  |   |  |   |  |  | 2 |  |   | 1 | 2.0 |
| Periovarn Tiss, Cyst            |  |   |  |   |  |  | 2 |  |   | 2 | 2.0 |

Hematopoietic System

|        |  |  |  |   |  |  |  |  |  |   |
|--------|--|--|--|---|--|--|--|--|--|---|
| Spleen |  |  |  | + |  |  |  |  |  | 1 |
|--------|--|--|--|---|--|--|--|--|--|---|

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

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A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

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2) Mild 4) Marked

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Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

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CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:38

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female  
200 MG/KG

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID   | 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 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

\*TOTALS

|                                   |   |   |   |   |   |   |   |   |   |   |   |  |  |    |     |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|--|--|----|-----|
| Hyperplasia, Lymphoid             |   |   |   |   |   |   |   |   |   |   | 2 |  |  | 1  | 2.0 |
| <b>Integumentary System</b>       |   |   |   |   |   |   |   |   |   |   |   |  |  |    |     |
| Skin                              | + | + | + | + | + | + | + | + | + | + |   |  |  | 10 |     |
| Epidermis, SOA, Hyperplasia       | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |  |  | 10 | 3.0 |
| SOA, Inflammation, Chronic Active | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |   |  |  | 10 | 2.8 |
| SOA, Parakeratosis                | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 4 |   |  |  | 10 | 3.4 |
| SOA, Sebaceous GI, Hyperplasia    | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |  |  | 10 | 3.0 |
| SOA, Ulcer                        | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 |   |  |  | 10 | 3.8 |
| <b>Musculoskeletal System</b>     |   |   |   |   |   |   |   |   |   |   |   |  |  |    |     |
| NONE                              |   |   |   |   |   |   |   |   |   |   |   |  |  |    |     |
| <b>Nervous System</b>             |   |   |   |   |   |   |   |   |   |   |   |  |  |    |     |
| NONE                              |   |   |   |   |   |   |   |   |   |   |   |  |  |    |     |
| <b>Respiratory System</b>         |   |   |   |   |   |   |   |   |   |   |   |  |  |    |     |
| NONE                              |   |   |   |   |   |   |   |   |   |   |   |  |  |    |     |
| <b>Special Senses System</b>      |   |   |   |   |   |   |   |   |   |   |   |  |  |    |     |
| NONE                              |   |   |   |   |   |   |   |   |   |   |   |  |  |    |     |
| <b>Urinary System</b>             |   |   |   |   |   |   |   |   |   |   |   |  |  |    |     |
| Kidney                            | + | + | + | + | + | + | + | + | + | + |   |  |  | 10 |     |
| Infarct                           |   |   |   |   |   |   |   |   |   |   | 4 |  |  | 1  | 4.0 |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 55312-01

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

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CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:38

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female  
200 MG/KG**

| 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      |
|                            | 9              | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9      |
|                            | 3              | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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      |
|                            | 1              | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1      |
|                            | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1      |
|                            | 1              | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |        |
|                            | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |        |
| Mineralization             | 2              | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 10 1.8 |
| Renal Tubule, Regeneration | 1              | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 10 1.6 |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 55312-01

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Coconut oil acid diethanolamine condensate

CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:38

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female  
400 MG/KG

| DAY ON TEST | 0       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---------|---|---|---|---|---|---|---|---|---|
|             | 0       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 9       | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|             | 3       | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID   | 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 | 2 |
|             | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
|             | *TOTALS |   |   |   |   |   |   |   |   |   |

Alimentary System

|                            |   |   |   |   |   |   |   |   |   |   |    |
|----------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                  | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum     | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon     | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum    | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum     | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver                      | + | + | + | + | + | + | + | + | + | + | 10 |
| Hepatodiaphragmatic Nodule |   |   |   |   |   |   |   | X |   |   | 1  |
| Pancreas                   | + | + | + | + | + | + | + | + | + | + | 10 |
| Salivary Glands            | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach       | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Glandular         | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

|       |   |   |   |   |   |   |   |   |   |   |    |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

Endocrine System

|                    |   |   |   |   |   |   |   |   |   |   |    |
|--------------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex     | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla    | + | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland  | + | + | M | + | I | + | M | + | M | + | 6  |

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+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

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A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 55312-01  
 Test Type: 90-DAY  
 Route: SKIN APPLICATION  
 Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: Coconut oil acid diethanolamine condensate  
 CAS Number: 68603-42-9

Date Report Requested: 10/23/2014  
 Time Report Requested: 05:27:38  
 First Dose M/F: NA / NA  
 Lab: BAT

**F 344/N Rat Female**  
**400 MG/KG**

|                              | DAY ON TEST |   |   |   |   |   |   |   |   |   |         |     |
|------------------------------|-------------|---|---|---|---|---|---|---|---|---|---------|-----|
|                              | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |     |
| ANIMAL ID                    | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | *TOTALS |     |
|                              | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |         |     |
| Pituitary Gland              | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Pars Distalis, Cyst          | 1           |   |   |   |   |   |   |   |   |   | 1       | 1.0 |
| Thyroid Gland                | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| <b>General Body System</b>   |             |   |   |   |   |   |   |   |   |   |         |     |
| NONE                         |             |   |   |   |   |   |   |   |   |   |         |     |
| <b>Genital System</b>        |             |   |   |   |   |   |   |   |   |   |         |     |
| Clitoral Gland               | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Inflammation, Chronic Active | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10      | 1.0 |
| Ovary                        | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Periovarn Tiss, Cyst         |             |   |   |   |   |   | 2 |   |   |   | 1       | 2.0 |
| Uterus                       | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| <b>Hematopoietic System</b>  |             |   |   |   |   |   |   |   |   |   |         |     |
| Bone Marrow                  | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Lymph Node, Mandibular       | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Lymph Node, Mesenteric       | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Spleen                       | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Thymus                       | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| <b>Integumentary System</b>  |             |   |   |   |   |   |   |   |   |   |         |     |
| Mammary Gland                | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Skin                         | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Epidermis, SOA, Hyperplasia  | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 10      | 3.0 |

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
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 1) Minimal 3) Moderate  
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Experiment Number: 55312-01

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Coconut oil acid diethanolamine condensate

CAS Number: 68603-42-9

Date Report Requested: 10/23/2014

Time Report Requested: 05:27:38

First Dose M/F: NA / NA

Lab: BAT

| F 344/N Rat Female<br>400 MG/KG   | DAY ON TEST |   |   |   |   |   |   |   |   |   |         |     |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---------|-----|
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |     |
| ANIMAL ID                         | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | *TOTALS |     |
|                                   | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |         |     |
| Epidermis, SOA, Hyperplasia       | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 10      | 3.0 |
| SOA, Inflammation, Chronic Active | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 10      | 3.0 |
| SOA, Parakeratosis                | 4           | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 10      | 4.0 |
| SOA, Sebaceous Gl, Hyperplasia    | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 10      | 3.0 |
| SOA, Ulcer                        | 4           | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 10      | 3.9 |
| <b>Musculoskeletal System</b>     |             |   |   |   |   |   |   |   |   |   |         |     |
| Bone                              | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| <b>Nervous System</b>             |             |   |   |   |   |   |   |   |   |   |         |     |
| Brain                             | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| <b>Respiratory System</b>         |             |   |   |   |   |   |   |   |   |   |         |     |
| Lung                              | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Nose                              | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Trachea                           | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| <b>Special Senses System</b>      |             |   |   |   |   |   |   |   |   |   |         |     |
| NONE                              |             |   |   |   |   |   |   |   |   |   |         |     |
| <b>Urinary System</b>             |             |   |   |   |   |   |   |   |   |   |         |     |
| Kidney                            | +           | + | + | + | + | + | + | + | + | + | 10      |     |
| Mineralization                    | 2           | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 10      | 1.9 |
| Renal Tubule, Regeneration        | 2           | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 10      | 2.0 |
| Urinary Bladder                   | +           | + | + | + | + | + | + | + | + | + | 10      |     |

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**Experiment Number:** 55312-01

**Test Type:** 90-DAY

**Route:** SKIN APPLICATION

**Species/Strain:** Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

**Test Compound:** Coconut oil acid diethanolamine condensate

**CAS Number:** 68603-42-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 05:27:38

**First Dose M/F:** NA / NA

**Lab:** BAT

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

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