TDMS No. 20117 - 02 Test Type: 1-YEAR Route: SKIN APPLICATION Species/Strain: MICE/SKH-1/NCTR		P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a) All-trans-retinyl palmitate CAS Number: 79-81-2	Date Report Requested: 06/29/2009 Time Report Requested: 16:32:02 First Dose M/F: NA / 06/22/03 Lab: NCTR
C Number:	C20117		
Lock Date:	12/01/2008		
Cage Range:	ALL		
Date Range:	ALL		
Reasons For Removal:	ALL		
Removal Date Range:	ALL		
Treatment Groups:	Include ALL		
Study Gender:	Female		
TDMSE Version:	2.1.0		

TDMS No. 20117 - 02 Test Type: 1-YEAR Route: SKIN APPLICATION Species/Strain: MICE/SKH-1/NCTR

### P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

All-trans-retinyl palmitate

**CAS Number:** 79-81-2

Date Report Requested: 06/29/2009 Time Report Requested: 16:32:02 First Dose M/F: NA / 06/22/03 Lab: NCTR

SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	NO CREAMNO SSL-F	PH 7.0 NO SSL-F	2% RP NO SSL-F	.001% RANO SSL-F	NO CREAM6.75SSLF	PH 7.0 6.75SSL
Disposition Summary						
Animals Initially in Study Early Deaths Accidently Killed	36	36	36	36	36	36
Moribund Sacrifice Natural Death	1	3	16 1	1	2 1	2
Survivors Moribund Sacrifice	1	3		1		
Terminal Sacrifice	34	28		29	30	24
Harvest		2	19	5	3	10
Animals Examined Microscopically	36	36			36	36
ALIMENTARY SYSTEM						
None						
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
None						
HEMATOPOIETIC SYSTEM						
None						

**TDMS No.** 20117 - 02

# Test Type: 1-YEAR Route: SKIN APPLICATION

Species/Strain: MICE/SKH-1/NCTR

# P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

All-trans-retinyl palmitate

**CAS Number:** 79-81-2

Date Report Requested: 06/29/2009 Time Report Requested: 16:32:02 First Dose M/F: NA / 06/22/03 Lab: NCTR

SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	NO CREAMNO SSL-F	PH 7.0 NO SSL-F	2% RP NO SSL-F	.001% RANO SSL-F	NO CREAM6.75SSLF	PH 7.0 6.75SSLI
NTEGUMENTARY SYSTEM						
Skin, Control	(36)	(36)	(0)	(0)	(36)	(36)
Abscess	1 (3%)				1 (3%)	
Cyst Epithelial Inclusion	2 (6%)	4 (11%)			4 (11%)	6 (17%)
Edema						
Hyperplasia, Squamous Atypical, Focal						
Hyperplasia, Squamous	1 (3%)					1 (3%)
Ulcer		1 (3%)				
Dermis, Inflammation, Suppurative	- /					. (
Dermis, Inflammation, Chronic Active	3 (8%)	1 (3%)			1 (3%)	1 (3%)
Epidermis, Inflammation, Suppurative						
Epidermis, Necrosis	4 (22())					
Epidermis, Ulcer	1 (3%)	(22)	(2)		(22)	(00)
Skin, Site Of Application	(36)	(36)	(0)	(0)	(36)	(36)
Abscess	1 (3%)	1 (3%)				1 (3%)
Cyst, Multiple Cyst Epithelial Inclusion	1 (3%)				4 (11%)	E (1 40/)
	2 (6%)				4 (11%) 11 (31%)	5 (14%) 6 (17%)
Hyperplasia, Squamous Atypical, One, Focal Hyperplasia, Squamous Atypical, Two, Focal		1 (3%)			1 (3%)	6 (17%) 5 (14%)
Hyperplasia, Squamous Atypical, Two, Pocal Hyperplasia, Squamous Atypical, Three, Focal		1 (3%)			2 (6%)	6 (17%)
Hyperplasia, Squamous Atypical, Three, Pocal Hyperplasia, Squamous Atypical, Four, Focal					1 (3%)	3 (8%)
Hyperplasia, Squamous Atypical, Four, Focal					1 (3%)	2 (6%)
Hyperplasia, Squamous Atypical, Five, Focal Hyperplasia, Squamous Atypical, Greater					1 (578)	5 (14%)
Than Five. Focal						0 (1470)
Hyperplasia, Basal Cell						1 (3%)
Hyperplasia, Squamous	1 (3%)	7 (19%)			11 (31%)	24 (67%)
Dermis, Inflammation, Chronic Active	2 (6%)	2 (6%)			1 (3%)	15 (42%)
Epidermis, Inflammation, Suppurative	= (0,00)	_ ( , , , ,				1 (3%)
Epidermis, Necrosis						2 (6%)
Epidermis, Ulcer						1 (3%)
Sebaceous Gland, Hyperplasia						()

### MUSCULOSKELETAL SYSTEM

None

### NERVOUS SYSTEM

None

# **RESPIRATORY SYSTEM**

TDMS No. 20117 - 02 Test Type: 1-YEAR Route: SKIN APPLICATION Species/Strain: MICE/SKH-1/NCTR	P03: INCIDENCI	All-trans-r	PPLASTIC LESIONS BY etinyl palmitate nber: 79-81-2	ANATOMIC SITE(a)	•	equested: 06/29/2009 equested: 16:32:02 : NA / 06/22/03
SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	NO CREAMNO SSL-F	PH 7.0 NO SSL-F	2% RP NO SSL-F	.001% RANO SSL-F	NO CREAM6.75SSLF	PH 7.0 6.75SSLF
None						
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
None						

TDMS No. 20117 - 02 Test Type: 1-YEAR Route: SKIN APPLICATION Species/Strain: MICE/SKH-1/NCTR	P03: INCIDENCE		PPLASTIC LESIONS B etinyl palmitate nber: 79-81-2	Y ANATOMIC SITE(a)	Time Report F	Requested: 06/29/2009 Requested: 16:32:02 F: NA / 06/22/03
SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	.1% RP 6.75SSLF	.5% RP 6.75SSLF	1% RP 6.75SSLF	2% RP 6.75SSLF	.001% RA6.75SSLF	NO CREAM13.7SSLF
Disposition Summary						
Animals Initially in Study Early Deaths Accidently Killed	36	36	36	36	36	36
Moribund Sacrifice Natural Death Survivors	1 1	1	1 1	3	1 1	3
Moribund Sacrifice Terminal Sacrifice Harvest Animals Examined Microscopically	4 30 36	35 36	34	33	2 32	1 32 36
ALIMENTARY SYSTEM						
None						
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
HEMATOPOIETIC SYSTEM						
None						

TDMS No. 20117 - 02

# Test Type: 1-YEAR

Route: SKIN APPLICATION

Species/Strain: MICE/SKH-1/NCTR

### P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

All-trans-retinyl palmitate

**CAS Number:** 79-81-2

Date Report Requested: 06/29/2009 Time Report Requested: 16:32:02 First Dose M/F: NA / 06/22/03 Lab: NCTR

SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	.1% RP 6.75SSLF	.5% RP 6.75SSLF	1% RP 6.75SSLF	2% RP 6.75SSLF	.001% RA6.75SSLF	NO CREAM13.7SSLF
INTEGUMENTARY SYSTEM						
Skin, Control	(36)	(36)	(0)	(0)	(0)	(36)
Abscess	- ()					
Cyst Epithelial Inclusion	3 (8%)	1 (3%)				1 (3%)
Edema Hyperplasia, Squamous Atypical, Focal	1 (3%)					
Hyperplasia, Squamous	1 (378)	4 (11%)				1 (3%)
Ulcer		. (,)				1 (070)
Dermis, Inflammation, Suppurative						
Dermis, Inflammation, Chronic Active						1 (3%)
Epidermis, Inflammation, Suppurative						1 (3%)
Epidermis, Necrosis						0 (00()
Epidermis, Ulcer Skin, Site Of Application	(36)	(36)	(0)	(0)	(0)	2 (6%)
Abscess	(38)	(38)	(0)	(0)	(0)	(36)
Cyst, Multiple						
Cyst Epithelial Inclusion	4 (11%)	1 (3%)				2 (6%)
Hyperplasia, Squamous Atypical, One, Focal	1 (3%)	8 (22%)				4 (11%)
Hyperplasia, Squamous Atypical, Two, Focal	4 (11%)	3 (8%)				4 (11%)
Hyperplasia, Squamous Atypical, Three, Focal	3 (8%)	2 (6%)				4 (11%)
Hyperplasia, Squamous Atypical, Four, Focal	6 (17%)	2 (6%)				5 (14%)
Hyperplasia, Squamous Atypical, Five, Focal	3 (8%)	3 (8%)				3 (8%)
Hyperplasia, Squamous Atypical, Greater	14 (39%)	16 (44%)				13 (36%)
Than Five, Focal	1 (20()					
Hyperplasia, Basal Cell Hyperplasia, Squamous	1 (3%) 32 (89%)	36 (100%)				28 (78%)
Dermis, Inflammation, Chronic Active	28 (78%)	36 (100%)				12 (33%)
Epidermis, Inflammation, Suppurative	2 (6%)	7 (19%)				1 (3%)
Epidermis, Necrosis	4 (11%)	7 (19%)				2 (6%)
Epidermis, Ulcer	3 (8%)	9 (25%)				1 (3%)
Sebaceous Gland, Hyperplasia	1 (3%)					· · · ·
	· ·					

#### MUSCULOSKELETAL SYSTEM

None

#### NERVOUS SYSTEM

None

### **RESPIRATORY SYSTEM**

TDMS No. 20117 - 02 Test Type: 1-YEAR Route: SKIN APPLICATION Species/Strain: MICE/SKH-1/NCTR	P03: INCIDENCE		PLASTIC LESIONS B etinyl palmitate nber: 79-81-2	Y ANATOMIC SITE(a)	Date Report Requested: 06/29/200 Time Report Requested: 16:32:02 First Dose M/F: NA / 06/22/03 Lab: NCTR	
SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	.1% RP 6.75SSLF	.5% RP 6.75SSLF	1% RP 6.75SSLF	2% RP 6.75SSLF	.001% RA6.75SSLF	NO CREAM13.7SSLF
None						
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
None						

TDMS No. 20117 - 02 Test Type: 1-YEAR Route: SKIN APPLICATION Species/Strain: MICE/SKH-1/NCTR	P03: INCIDENCE	All-trans-r	PPLASTIC LESIONS B etinyl palmitate nber: 79-81-2	Y ANATOMIC SITE(a)		<b>quested:</b> 06/29/2009 <b>quested:</b> 16:32:02 NA / 06/22/03
SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	PH 7.0 13.7SSLF	.1% RP 13.7SSLF	.5% RP 13.7SSLF	1% RP 13.7SSLF	2% RP 13.7SSLF	.001% RA13.7SSLF
Disposition Summary						
Animals Initially in Study Early Deaths	36	36	36	36	36	36
Accidently Killed Moribund Sacrifice Natural Death Survivors Moribund Sacrifice Terminal Sacrifice	3 1	2	2 2		1 4 1	1
Harvest Animals Examined Microscopically	32 36	34 36	32 36	36	30	35
ALIMENTARY SYSTEM						
None						
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
None						
HEMATOPOIETIC SYSTEM						
None						

TDMS	No.	20117	- 02
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# Test Type: 1-YEAR

# Route: SKIN APPLICATION

Species/Strain: MICE/SKH-1/NCTR

### P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

All-trans-retinyl palmitate

**CAS Number:** 79-81-2

Date Report Requested: 06/29/2009 Time Report Requested: 16:32:02 First Dose M/F: NA / 06/22/03 Lab: NCTR

SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	PH 7.0 13.7SSLF	.1% RP 13.7SSLF	.5% RP 13.7SSLF	1% RP 13.7SSLF	2% RP 13.7SSLF	.001% RA13.7SSLF
INTEGUMENTARY SYSTEM						
Skin, Control	(36)	(36)	(36)	(0)	(0)	(0)
Abscess						.,
Cyst Epithelial Inclusion	4 (11%)	2 (6%)				
Edema			1 (3%)			
Hyperplasia, Squamous Atypical, Focal	1 (3%)					
Hyperplasia, Squamous	1 (3%)		6 (17%)			
Ulcer						
Dermis, Inflammation, Suppurative			1 (3%)			
Dermis, Inflammation, Chronic Active		1 (3%)	2 (6%)			
Epidermis, Inflammation, Suppurative						
Epidermis, Necrosis			1 (3%)			
Epidermis, Ulcer						
Skin, Site Of Application	(36)	(36)	(36)	(0)	(0)	(0)
Abscess						
Cyst, Multiple						
Cyst Epithelial Inclusion	9 (25%)	1 (3%)				
Hyperplasia, Squamous Atypical, One, Focal	5 (14%)	1 (3%)	3 (8%)			
Hyperplasia, Squamous Atypical, Two, Focal		1 (3%)	3 (8%)			
Hyperplasia, Squamous Atypical, Three, Focal	5 (14%)	6 (17%)	2 (6%)			
Hyperplasia, Squamous Atypical, Four, Focal	2 (6%)	4 (11%)	4 (11%)			
Hyperplasia, Squamous Atypical, Five, Focal	1 (3%)	5 (14%)	4 (11%)			
Hyperplasia, Squamous Atypical, Greater	20 (56%)	19 (53%)	14 (39%)			
Than Five, Focal						
Hyperplasia, Basal Cell						
Hyperplasia, Squamous	33 (92%)	31 (86%)	35 (97%)			
Dermis, Inflammation, Chronic Active	18 (50%)	31 (86%)	33 (92%)			
Epidermis, Inflammation, Suppurative	3 (8%)	3 (8%)	9 (25%)			
Epidermis, Necrosis	3 (8%)	5 (14%)	14 (39%)			
Epidermis, Ulcer	2 (6%)	3 (8%)	6 (17%)			
Sebaceous Gland, Hyperplasia						

#### MUSCULOSKELETAL SYSTEM

None

### NERVOUS SYSTEM

None

# **RESPIRATORY SYSTEM**

TDMS No. 20117 - 02 Test Type: 1-YEAR Route: SKIN APPLICATION Species/Strain: MICE/SKH-1/NCTR	P03: INCIDENCE	All-trans-r	PPLASTIC LESIONS B etinyl palmitate nber: 79-81-2	Y ANATOMIC SITE(a)	•	quested: 06/29/2009 quested: 16:32:02 NA / 06/22/03
SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	PH 7.0 13.7SSLF	.1% RP 13.7SSLF	.5% RP 13.7SSLF	1% RP 13.7SSLF	2% RP 13.7SSLF	.001% RA13.7SSLF
None						
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
None						

### P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

All-trans-retinyl palmitate

### CAS Number: 79-81-2

Date Report Requested: 06/29/2009 Time Report Requested: 16:32:02 First Dose M/F: NA / 06/22/03 Lab: NCTR

SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	NOCREAMF20.55SSL	1% RP NO SSL-F		
Disposition Summary				
Animals Initially in Study Early Deaths	36	36		
Accidently Killed Moribund Sacrifice Natural Death		5 1		
Survivors Moribund Sacrifice Terminal Sacrifice		1 9		
Harvest Animals Examined Microscopically	36 36	20		
ALIMENTARY SYSTEM				
None				
CARDIOVASCULAR SYSTEM				
None				
ENDOCRINE SYSTEM				
None				
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
None				
HEMATOPOIETIC SYSTEM				
None				

TDMS No. 20117 - 02 Test Type: 1-YEAR Route: SKIN APPLICATION Species/Strain: MICE/SKH-1/NCTR

### P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

All-trans-retinyl palmitate

**CAS Number:** 79-81-2

Date Report Requested: 06/29/2009 Time Report Requested: 16:32:02 First Dose M/F: NA / 06/22/03 Lab: NCTR

SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	NOCREAMF20.55SSL	1% RP NO SSL-F
INTEGUMENTARY SYSTEM		
Skin, Control Abscess Cyst Epithelial Inclusion Edema	(36) 1 (3%) 4 (11%)	(0)
Hyperplasia, Squamous Atypical, Focal Hyperplasia, Squamous Ulcer Dermis, Inflammation, Suppurative Dermis, Inflammation, Chronic Active Epidermis, Inflammation, Suppurative Epidermis, Necrosis	1 (3%)	
Epidermis, Ulcer Skin, Site Of Application Abscess Cyst, Multiple	(36) 1 (3%)	(0)
Cyst Epithelial Inclusion Hyperplasia, Squamous Atypical, One, Focal Hyperplasia, Squamous Atypical, Two, Focal Hyperplasia, Squamous Atypical, Three, Focal Hyperplasia, Squamous Atypical, Four, Focal Hyperplasia, Squamous Atypical, Five, Focal Hyperplasia, Squamous Atypical, Greater Than Five, Focal	2 (6%) 4 (11%) 9 (25%) 7 (19%) 7 (19%) 4 (11%) 4 (11%)	
Hyperplasia, Basal Cell Hyperplasia, Squamous Dermis, Inflammation, Chronic Active Epidermis, Inflammation, Suppurative Epidermis, Necrosis Epidermis, Ulcer Sebaceous Gland, Hyperplasia	28 (78%) 21 (58%) 3 (8%) 1 (3%) 4 (11%)	

#### MUSCULOSKELETAL SYSTEM

None

### NERVOUS SYSTEM

None

# **RESPIRATORY SYSTEM**

TDMS No. 20117 - 02 Test Type: 1-YEAR Route: SKIN APPLICATION Species/Strain: MICE/SKH-1/NCTR	P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a) All-trans-retinyl palmitate CAS Number: 79-81-2	Date Report Requested: 06/29/2009 Time Report Requested: 16:32:02 First Dose M/F: NA / 06/22/03 Lab: NCTR
SKH-1 HAIRLESS MICE (NCTR) MICE FEMALE	NOCREAMF20.55SSL 1% RP NO SSL-F	
None		
SPECIAL SENSES SYSTEM		
None		
URINARY SYSTEM		
None		

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