Experiment Number: 05049 - 03 P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 04/24/2020 AVERAGE SEVERITY GRADES[b]

Ionic liquid Toxicity

Test Type: 14-DAY Time Report Requested: 11:25:09 **Route: DOSED WATER CAS Number: IONICLIQUIDS** First Dose M/F: 03/09/09 / 03/10/09

Species/Strain: RATS/HSD Lab: MBA

NTP Study Number: C05049

Lock Date: 12/04/2009

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include 001 Control Male Include 002 0.3mg/ml Bmim Include 003 1.0 mg/ml Bmim

Include 016 0.3 mg/ml Bmim

Include 004 3.0 mg/ml Bmim Include 015 Control Female

Include 017 1.0 mg/ml Bmim Include 018 3.0 mg/ml Bmim

Study Gender: Both

TDMSE Version: 3.0.2.3_002

NONE PWG Approval Date:

Test Type: 14-DAY

Route: DOSED WATER

Species/Strain: RATS/HSD

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Harlan Sprague Dawley RATS MALE	Control Male	0.3mg/ml Bmim	1.0 mg/ml Bmim	3.0 mg/ml Bmim	
Disposition Summary					
Animals Initially In Study Early Deaths	10	5	5	5	
Survivors Terminal Sacrifice	10	E	E	5	
Animals Examined Microscopically	10	5 5	5 5	5	
ALIMENTARY SYSTEM					
Intestine Small, Duodenum	(10)	(0)	(0)	(5)	
Intestine Small, Ileum	(10)	(0)	(0)	(5)	
Intestine Small, Jejunum	(10)	(0)	(0)	(5)	
Liver	(10)	(0)	(0)	(5)	
Stomach, Forestomach	(10)	(0)	(0)	(5)	
Stomach, Glandular	(10)	(0)	(0)	(5)	
CARDIOVASCULAR SYSTEM					
Heart	(10)	(0)	(0)	(5)	
Cardiomyopathy	8 [1.0]	(-/	(-)	3 [1.0]	
ENDOCRINE SYSTEM					
None					
CENEDAL DODY CYCTEM					
GENERAL BODY SYSTEM					
None					
GENITAL SYSTEM					
Testes	(10)	(0)	(0)	(5)	

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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Harlan Sprague Dawley RATS MALE	Control Male	0.3mg/ml Bmim	1.0 mg/ml Bmim	3.0 mg/ml Bmim	
HEMATOPOIETIC SYSTEM					
Spleen Thymus	(10) (10)	(0) (0)	(0) (0)	(5) (5)	
INTEGUMENTARY SYSTEM					
None					
MUSCULOSKELETAL SYSTEM					
None					
NERVOUS SYSTEM					
Brain	(10)	(0)	(0)	(5)	
RESPIRATORY SYSTEM					
Lung Metaplasia, Osseous	(10) 1 [1.0]	(0)	(0)	(5)	
SPECIAL SENSES SYSTEM					
None					
URINARY SYSTEM					
Kidney	(10)	(0)	(0)	(5)	

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)

Test Type: 14-DAY

Route: DOSED WATER

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Ionic liquid Toxicity **CAS Number: IONICLIQUIDS**

Time Report Requested: 11:25:09 First Dose M/F: 03/09/09 / 03/10/09

Lab: MBA

Harlan Sprague Dawley RATS MALE

Control Male

0.3mg/ml Bmim

1.0 mg/ml Bmim

3.0 mg/ml Bmim

*** END OF MALE ***

Test Type: 14-DAY

Route: DOSED WATER

Species/Strain: RATS/HSD

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Ionic liquid Toxicity **CAS Number: IONICLIQUIDS**

Time Report Requested: 11:25:09 First Dose M/F: 03/09/09 / 03/10/09

Harlan Sprague Dawley RATS FEMALE	Control Female	0.3 mg/ml Bmim	1.0 mg/ml Bmim	3.0 mg/ml Bmim	
Disposition Summary					
Animals Initially In Study Early Deaths	10	5	5	5	
Survivors Terminal Sacrifice Animals Examined Microscopically	10 10	5 5	5 5	5 5	
ALIMENTARY SYSTEM					
Intestine Small, Duodenum	(10)	(0)	(0)	(5)	
Intestine Small, Ileum	(10)	(0)	(0)	(5)	
Intestine Small, Jejunum	(10)	(0)	(0)	(5)	
Liver	(10)	(0)	(0)	(5)	
Stomach, Forestomach	(10)	(0)	(0)	(5)	
Stomach, Glandular	(10)	(0)	(0)	(5)	
CARDIOVASCULAR SYSTEM					
Heart	(10)	(0)	(0)	(5)	
Cardiomyopathy	10 [1.0]	(0)	(0)	2 [1.0]	
ENDOCRINE SYSTEM					
None					
GENERAL BODY SYSTEM					
None					
GENITAL SYSTEM					
Ovary	(10)	(0)	(0)	(5)	

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)

Test Type: 14-DAY

Route: DOSED WATER

Species/Strain: RATS/HSD

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Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

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Harlan Sprague Dawley RATS FEMALE	Control Female	0.3 mg/ml Bmim	1.0 mg/ml Bmim	3.0 mg/ml Bmim	
HEMATOPOIETIC SYSTEM					
Spleen Thymus	(10) (10)	(0) (0)	(0) (0)	(5) (5)	
INTEGUMENTARY SYSTEM					
None					
MUSCULOSKELETAL SYSTEM					
None					
NERVOUS SYSTEM					
Brain	(10)	(0)	(0)	(5)	
RESPIRATORY SYSTEM					
Lung Hemorrhage	(10)	(1) 1 [1.0]	(0)	(5)	
SPECIAL SENSES SYSTEM					
None					
URINARY SYSTEM					
Kidney Hyperplasia, Tubular	(10)	(0)	(0)	(5) 1 [1.0]	

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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Lab: MBA

Harlan Sprague Dawley RATS FEMALE

Control Female

0.3 mg/ml Bmim

1.0 mg/ml Bmim

3.0 mg/ml Bmim

*** END OF REPORT ***