Test Type: 14-DAY Route: DOSED WATER

Species/Strain: MICE/B6C3F1

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

Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

NTP Study Number: C05049

**Lock Date:** 12/03/2009

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include 001 Control Male

Include 004 6.0 mg/ml Bmim

Include 017 3.0 mg/ml Bmim

e Include 002 1.0 mg/ml Bmim

Include 015 Control Female

Include 018 6.0 mg/ml Bmim

Include 003 3.0 mg/ml Bmim

Include 016 1.0 mg/ml Bmim

Study Gender: Both

**TDMSE Version:** 3.0.2.3\_002

PWG Approval Date: NONE

**Test Type:** 14-DAY **Route:** DOSED WATER

Species/Strain: MICE/B6C3F1

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

Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

		0	0	0	0	0	0	0	0	0	0	
B6C3F1 MICE MALE	DAY ON TEST	0 0 1	0 0 1	0	0	0	0	0	0	0 1	0	
		5	5	5	5	5	5	5	5	5	5	
Control Male	ANIMAL ID	0 0 0 0	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 9	0 0 0 1 0	* TOTALS
ALIMENTARY SYSTEN	1	1										
Intestine Small, Duodenum		+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum		+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum		+	+	+	+	+	+	+	+	+	+	10
Liver		+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	 10
CARDIOVASCULAR S	YSTEM											
Heart		+	+	+	+	+	+	+	+	+	+	10
ENDOCRINE SYSTEM												
NONE						-	-					
GENERAL BODY SYS	ГЕМ											
NONE												 
GENITAL SYSTEM												
Testes		+	+	+	+	+	+	+	+	+	+	10

<sup>\* ..</sup> Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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

<sup>+ ..</sup> Tissue examined microscopically

Test Type: 14-DAY
Route: DOSED WATER
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

		_										
B6C3F1 MICE MALE	DAY ON TEST	0 0 1 5	0 0 1 5									
Control Male	ANIMAL ID	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 1	* TOTAL
Spleen		+	+	+	+	+	+	+	+	+	+	10
Thymus		+	+	+	+	+	М	+	+	+	+	9
NTEGUMENTARY SY	'STEM				-							
NONE												
MUSCULOSKELETAL	SYSTEM											
NONE												
NERVOUS SYSTEM												
Brain		+	+	+	+	+	+	+	+	+	+	10
RESPIRATORY SYST	EM											
Lung		+	+	+	+	+	+	+	+	+	+	10
SPECIAL SENSES SY	STEM											
NONE												
JRINARY SYSTEM												

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4)

<sup>\* ..</sup> Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

<sup>+ ..</sup> Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

Test Type: 14-DAY
Route: DOSED WATER
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

B6C3F1 MICE MALE	DAY ON TEST	0 0 1 5	0 0 1 5	0 0 1 5	0 0 1 5	
3.0 mg/ml Bmim	ANIMAL ID	0 0 0 1 6	0 0 0 1 7	0 0 0 1 8	0 0 0 1 9	* TOTALS
ALIMENTARY SYSTEM	И					
Intestine Small, Duodenum		+	+	+	+	5
Intestine Small, Ileum		+	+	+	+	5
Intestine Small, Jejunum		+	+	+	+	5
Liver		+	+	+	+	5
Stomach, Forestomach		+	+	+	+	5
Stomach, Glandular		+	+	+	+	5
CARDIOVASCULAR S	YSTEM					
Heart		+	+	+	+	5
ENDOCRINE SYSTEM						
NONE			,			
GENERAL BODY SYS	TEM					
NONE				-		
GENITAL SYSTEM						
Testes		+	+	+	+	5

<sup>\* ..</sup> Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

X .. Lesion present

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4)

<sup>+ ..</sup> Tissue examined microscopically

I .. Insufficient tissue

Test Type: 14-DAY
Route: DOSED WATER
Species/Strain: MICE/B6C3F1

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

Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

B6C3F1 MICE MALE	DAY ON TEST	0 0 1 5	0 0 1 5	0 0 1 5	0	0 0 1 5	
3.0 mg/ml Bmim	ANIMAL ID	0 0 0 1 6	0 0 0 1 7	0 0 0 1 8	0 0 1	0 0 0 2 0	* TOTALS
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
NTEGUMENTARY SYS	STEM						
NONE							
MUSCULOSKELETAL S	SYSTEM						
NONE				_			
NERVOUS SYSTEM							
Brain		+	+	+	+	+	5
RESPIRATORY SYSTE	М						
Lung		+	+	+	+	+	5
SPECIAL SENSES SYS	TEM						
NONE			_	_			
JRINARY SYSTEM							

<sup>\* ..</sup> Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

<sup>+ ..</sup> Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

<sup>1)</sup> Minimal 3) Moderate

<sup>2)</sup> Mild 4)

Test Type: 14-DAY
Route: DOSED WATER

Species/Strain: MICE/B6C3F1

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

Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

B6C3F1 MICE MALE	DAY ON TEST	0 0 1 5	0 0 1 5	0 0 1 5	0 0 1 5	0 0 1 5		
6.0 mg/ml Bmim	ANIMAL ID	0 0 0 2 1	0 0 0 2 2	0 0 0 2 3	0 0 0 2 4	0 0 0 2 5	*	TOTALS
ALIMENTARY SYSTEM	1	•	•	•	•	•		
Intestine Small, Duodenum		+	+	+	+	+		5
Intestine Small, Ileum		+	+	+	+	+		5
Intestine Small, Jejunum		+	+	+	+	+		5
Liver Depletion Glycogen		+	+ 1	+ 1	+ 1	+ 1	•	5 5 1.0
Stomach, Forestomach		+	+	+	+	+		5
Stomach, Glandular		+	+	+	+	+		5
CARDIOVASCULAR SY	YSTEM							
Heart		+	+	+	+	+	•	5
ENDOCRINE SYSTEM								
NONE								
GENERAL BODY SYST	ГЕМ							
NONE								
GENITAL SYSTEM				_				
Testes		+	+	+	+	+	,	5

<sup>\* ..</sup> Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4)

<sup>+ ..</sup> Tissue examined microscopically

<sup>..</sup> Hissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

Test Type: 14-DAY
Route: DOSED WATER
Species/Strain: MICE/B6C3F1

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

Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

	DAY ON TEST	0	0	0	0	0		
B6C3F1 MICE MALE		1 5	1 5	1 5	1 5	1 5		
6.0 mg/ml Bmim	ANIMAL ID	0 0 0 2 1	0 0 0 2 2	0 0 0 2 3	0 0 0 2 4	0 0 0 2 5	* ТОТ	ALS
HEMATOPOIETIC SYS	TEM							
Spleen Depletion Cellular		+	+	+ 1	+	+ 1	5	5 1.0
Thymus		+	+	+	+	+	5	
INTEGUMENTARY SYS	STEM							
NONE								
MUSCULOSKELETAL	SYSTEM	,						
NONE								
NERVOUS SYSTEM								
Brain		+	+	+	+	+	5	
RESPIRATORY SYSTE	EM							
Lung		+	+	+	+	+	5	
SPECIAL SENSES SYS	STEM							
NONE								
URINARY SYSTEM								
Kidney		+			+		5	

<sup>\* ..</sup> Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

<sup>+ ..</sup> Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

<sup>1-4 ..</sup> Lesion qualified as:

<sup>1)</sup> Minimal 3) Moderate

<sup>2)</sup> Mild 4) I

Test Type: 14-DAY Route: DOSED WATER

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

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

<sup>\* ..</sup> Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

<sup>+ ..</sup> Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

<sup>2)</sup> Mild 4) Marked

**Test Type:** 14-DAY **Route:** DOSED WATER

Species/Strain: MICE/B6C3F1

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

Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

DAY ON THE PROPERTY OF THE PRO	TEST 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Control Female ANIM	MAL ID  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	* TOTALS
ALIMENTARY SYSTEM		
Intestine Small, Duodenum	+ + + + + + + + +	10
Intestine Small, Ileum	+ + + + + + + + +	10
Intestine Small, Jejunum	+ + + + + + + + +	10
Liver	+ + + + + + + + +	10
Stomach, Forestomach	+ + + + + + + + +	10
Stomach, Glandular	+ + + + + + + + +	10
CARDIOVASCULAR SYSTEM		
Heart	+ + + + + + + + +	10
ENDOCRINE SYSTEM		
NONE		
GENERAL BODY SYSTEM		
NONE		
GENITAL SYSTEM		
Ovary	+ + + + + + + + +	10

# HEMATOPOIETIC SYSTEM

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

<sup>\* ..</sup> Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

<sup>+ ..</sup> Tissue examined microscopically

X .. Lesion present

Test Type: 14-DAY
Route: DOSED WATER
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

		_											
B6C3F1 MICE FEMALE	DAY ON TEST	0 0 1 5											
Control Female	ANIMAL ID	0 0 0 7 6	0 0 0 7 7	0 0 0 7 8	0 0 0 7 9	0 0 0 8 0	0 0 0 8 1	0 0 0 8 2	0 0 0 8 3	0 0 0 8 4	0 0 0 8 5	* TOTAL	. <b>S</b>
Spleen		+	+	+	+	+	+	+	+	+	+	10	
Thymus		+	+	+	+	+	+	+	+	+	+	10	
INTEGUMENTARY SYS	TEM												
NONE													
MUSCULOSKELETAL S	SYSTEM												
NONE				_	_	_	-						
NERVOUS SYSTEM													
Brain		+	+	+	+	+	+	+	+	+	+	10	
RESPIRATORY SYSTEM	VI												
Lung		+	+	+	+	+	+	+	+	+	+	10	
SPECIAL SENSES SYS	TEM												
NONE													
URINARY SYSTEM													
Kidney		+	+	+	+	+	+	+	+	+	+	10	

M .. Missing tissue

A .. Autolysis precludes evaluation BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4)

<sup>\* ..</sup> Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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I .. Insufficient tissue

Test Type: 14-DAY
Route: DOSED WATER
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ionic liquid Toxicity

CAS Number: IONICLIQUIDS

Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

DA B6C3F1 MICE FEMALE	AY ON TEST	0 0 1 5	0 0 1 5	0 0 1 5	0 0 1 5	0 0 1 5	
6.0 mg/ml Bmim	ANIMAL ID	0 0 0 9 6	0 0 0 9 7	0 0 0 9 8	0 0 0 9 9	0 0 1 0 0	* TOTALS
ALIMENTARY SYSTEM		1					
Intestine Small, Duodenum		+	+	+	+	+	5
Intestine Small, Ileum	_	+	+	+	+	+	5
Intestine Small, Jejunum	_	+	+	+	+	+	5
Liver		+	+	+	+	+	5
Stomach, Forestomach		+	+	+	+	+	5
Stomach, Glandular		+	+	+	+	+	5
CARDIOVASCULAR SYSTI	EM						
Heart		+	+	+	+	+	5
ENDOCRINE SYSTEM							
NONE						_	
GENERAL BODY SYSTEM							
NONE							
GENITAL SYSTEM	-						
Ovary		+	+	+	+	+	5
HEMATOPOIETIC SYSTEM	1						

<sup>\* ..</sup> Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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

<sup>+ ..</sup> Tissue examined microscopically

Test Type: 14-DAY Route: DOSED WATER Species/Strain: MICE/B6C3F1 P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ionic liquid Toxicity **CAS Number: IONICLIQUIDS**  Date Report Requested: 04/28/2020 Time Report Requested: 12:13:16 First Dose M/F: 03/12/09 / 03/13/09

Lab: MBA

B6C3F1 MICE FEMALE	DAY ON TEST	0 0 1 5	0 0 1 5	0 0 1 5	0 0 1 5	0 0 1 5	
6.0 mg/ml Bmim	ANIMAL ID	0 0 0 9 6	0 0 0 9 7	0 0 0 9 8	0 0 0 9 9	0 0 1 0	* TOTALS
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
INTEGUMENTARY SYS	TEM						
NONE							
MUSCULOSKELETAL S	YSTEM						
NONE							
NERVOUS SYSTEM							
Brain		+	+	+	+	+	5
RESPIRATORY SYSTEM	И						
Lung		+	+	+	+	+	5
SPECIAL SENSES SYST	ГЕМ						
NONE							
URINARY SYSTEM					-	-	
Kidney		+	+	+	+	+	5

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

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

<sup>\* ..</sup> Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

<sup>+ ..</sup> Tissue examined microscopically