

ブチル 2,3-エポキシプロピル エーテルのマウス
を用いた吸入によるがん原性試験報告書

試験番号 : 0438

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APPENDIX A 1

IDENTITY OF BUTYL 2,3-EPOXYPROPYL ETHER IN THE 2-YEAR INHALATION STUDY

IDENTITY OF BUTYL 2,3-EPOXYPROPYL ETHER IN THE 2-YEAR INHALATION STUDY

Test Substance : Butyl 2,3-epoxypropyl ether (Wako Pure Chemical Industries, Ltd.)

A. Lot No. : LDJ4265

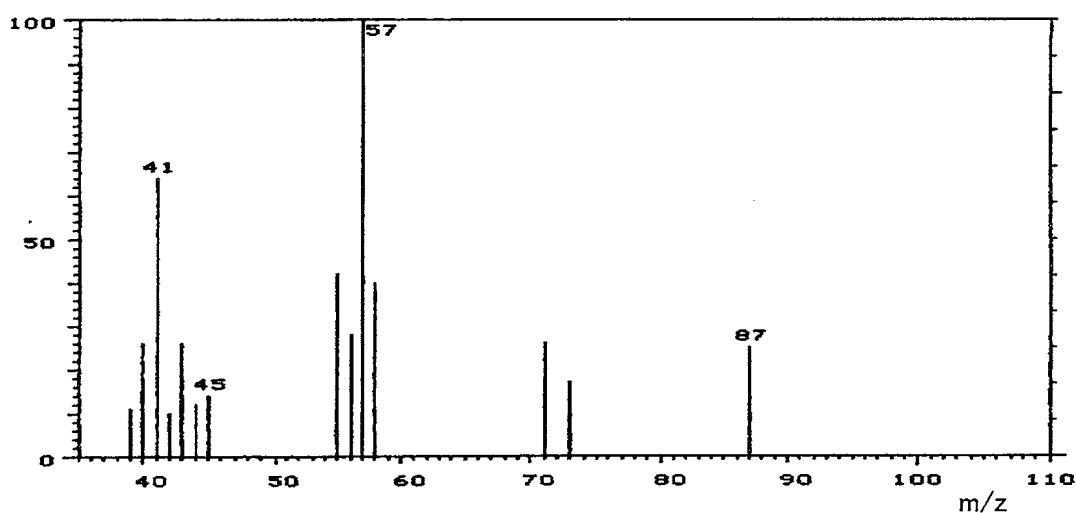
1. Spectral Data

Mass Spectrometry

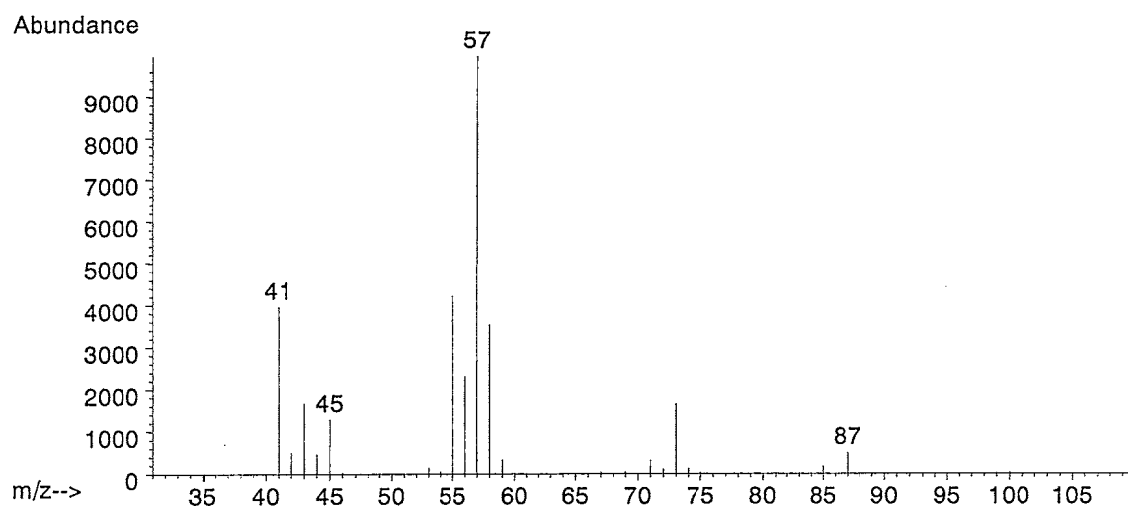
Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance



Mass Spectrum of Literature Data*

Result: The mass spectrum was consistent with literature spectrum.

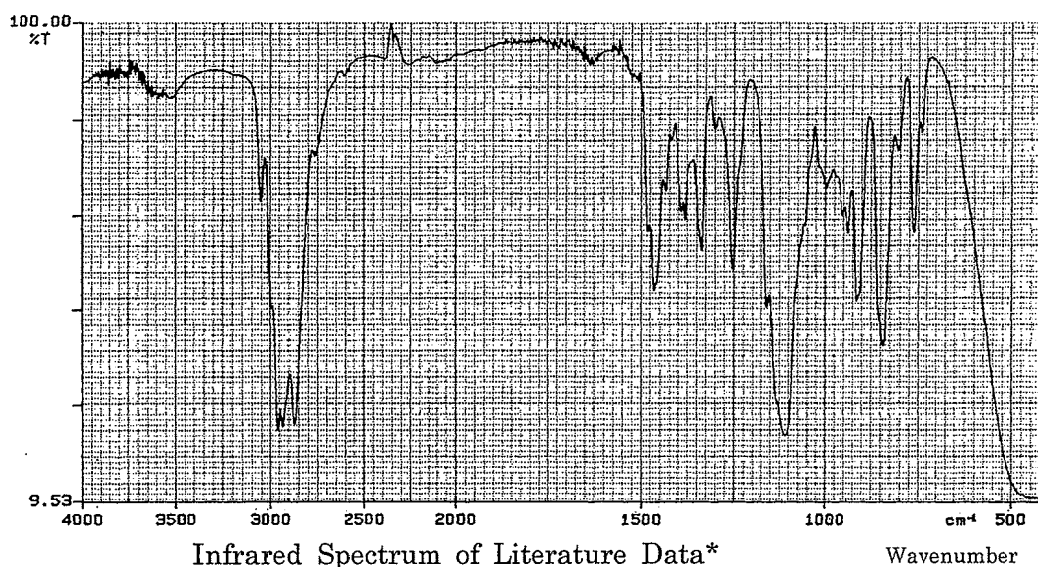
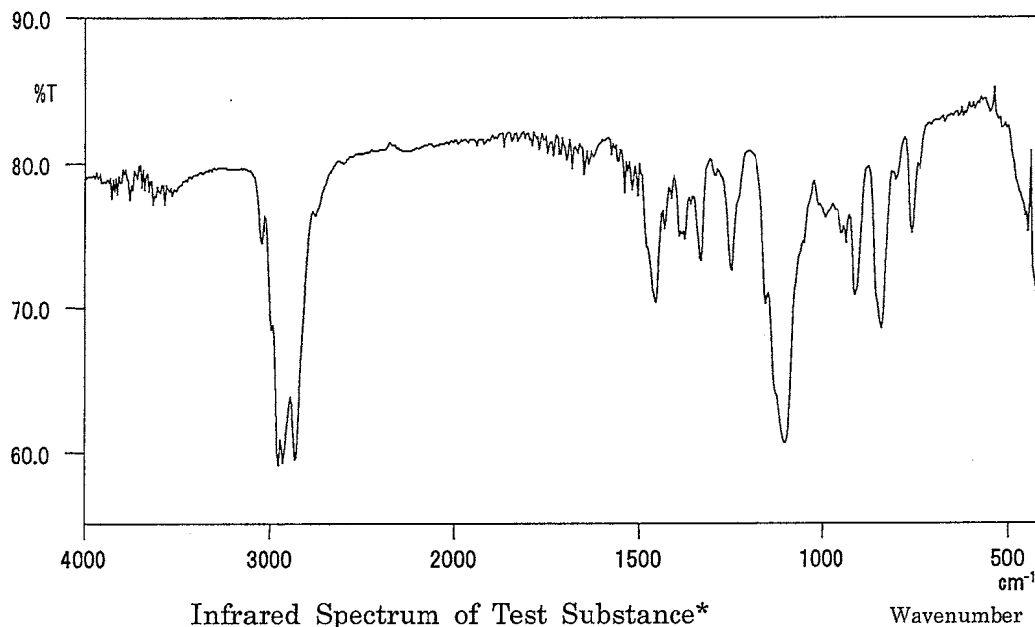
(*McLafferty FW, ed. 1994. Wiley Registry of Mass Spectral Data. 6th ed. New York, NY:John Wiley and Sons.)

Infrared Spectrometry

Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4 cm^{-1}



Result: The infrared spectrum was consistent with literature spectrum.

(*Performed by Wako Pure Chemical Industries, Ltd.)

2. Conclusion: The test substance was identified as butyl 2,3-epoxypropyl ether by mass spectrum and infrared spectrum.

B. Lot No. : LDE4969

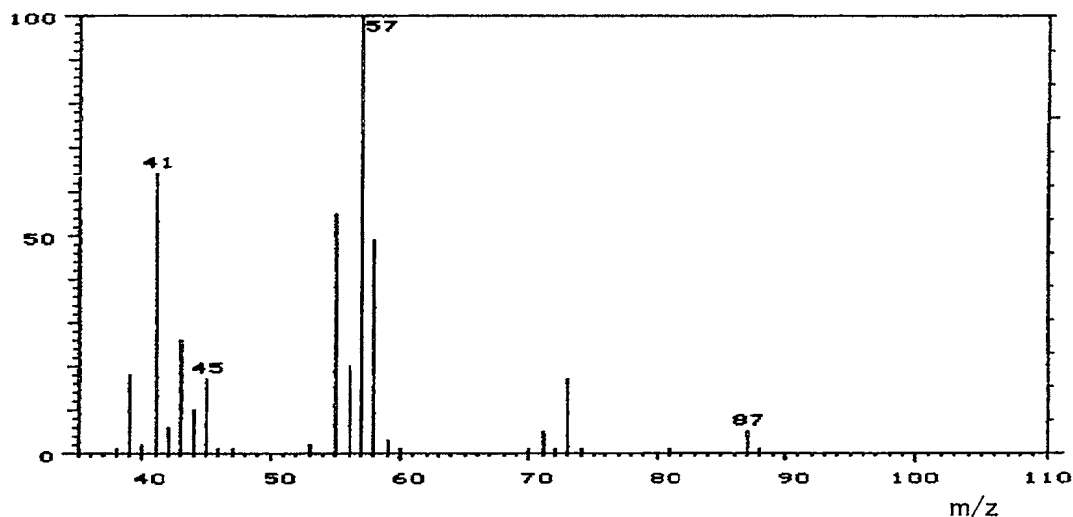
1. Spectral Data

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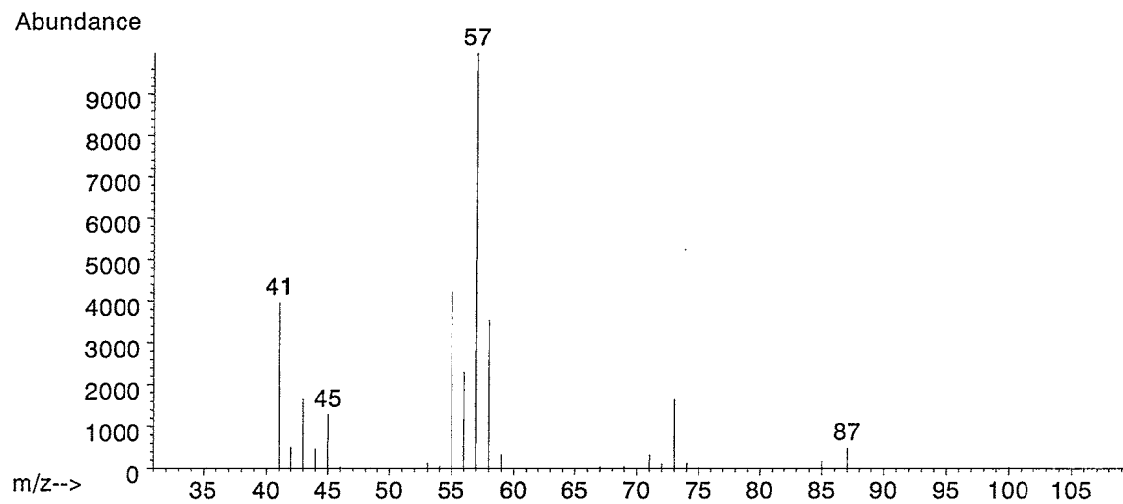
Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance



Mass Spectrum of Literature Data*

Result: The mass spectrum was consistent with literature spectrum.

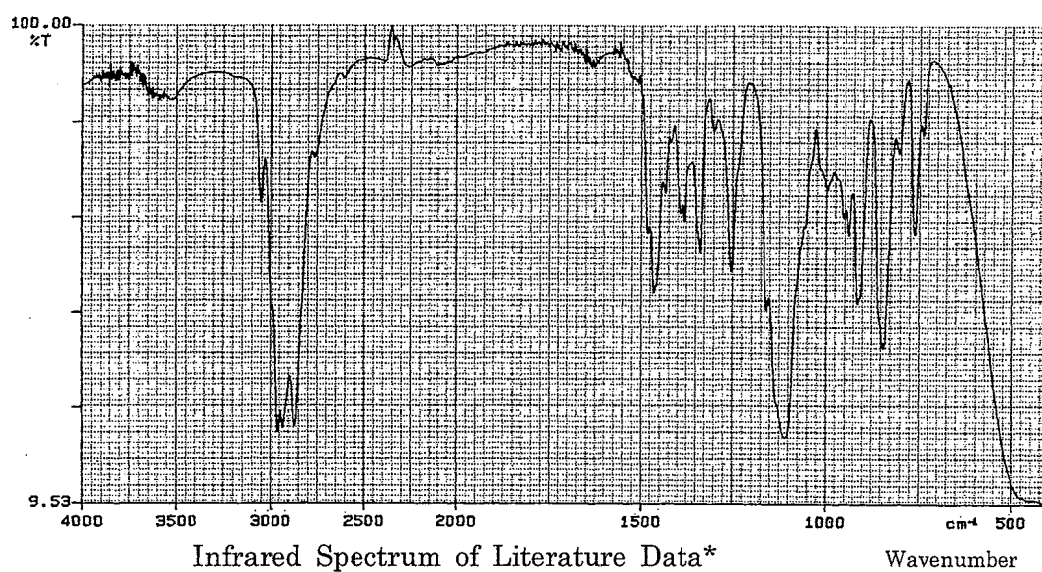
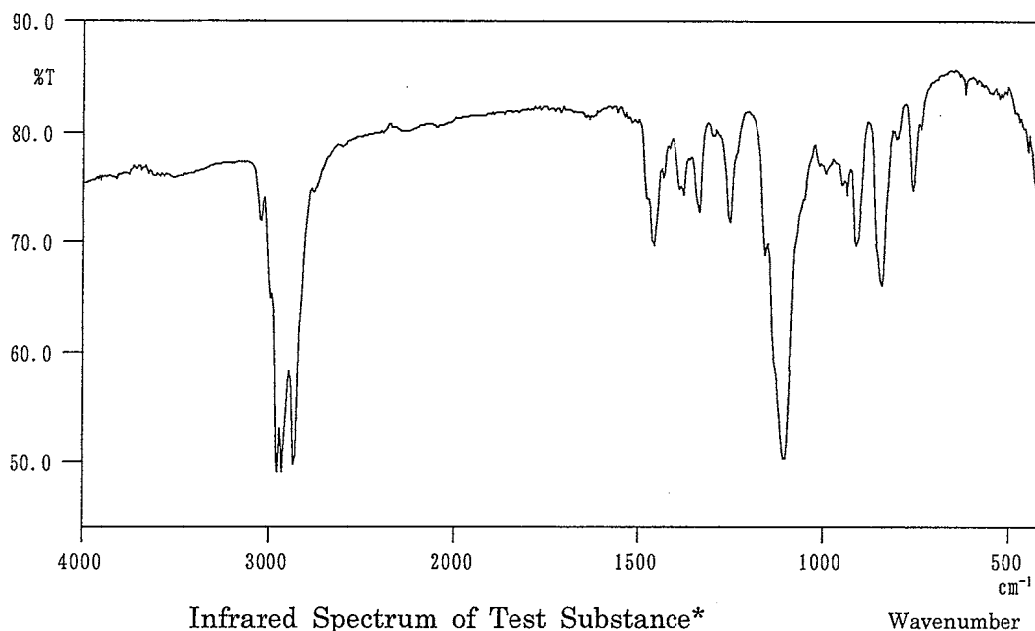
(*McLafferty FW, ed. 1994. Wiley Registry of Mass Spectral Data. 6th ed. New York, NY:John Wiley and Sons.)

Infrared Spectrometry

Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4 cm^{-1}



Result: The infrared spectrum was consistent with literature spectrum.

(*Performed by Wako Pure Chemical Industries, Ltd.)

2. Conclusion: The test substance was identified as butyl 2,3-epoxypropyl ether by mass spectrum and infrared spectrum.

C. Lot No. : WAK4372

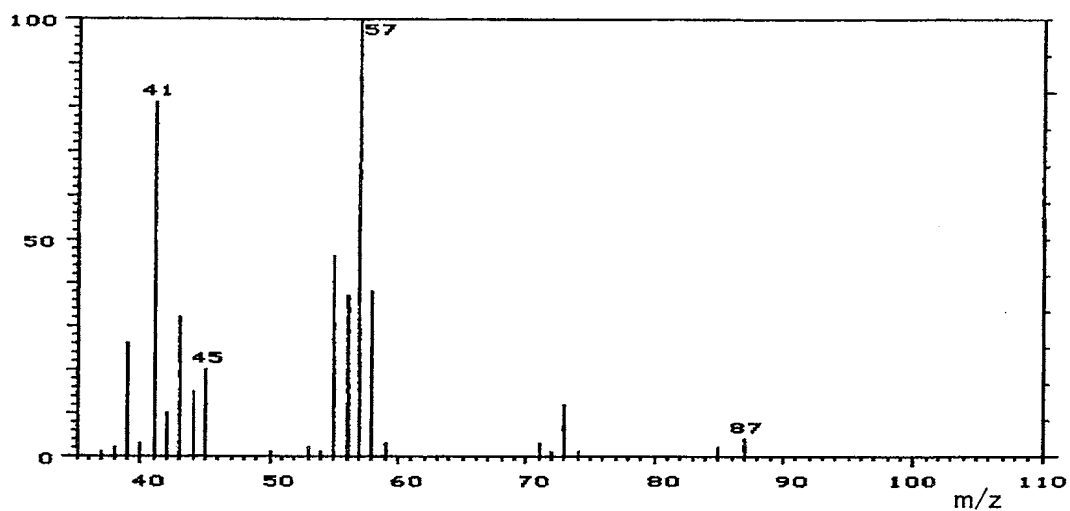
1. Spectral Data

Mass Spectrometry

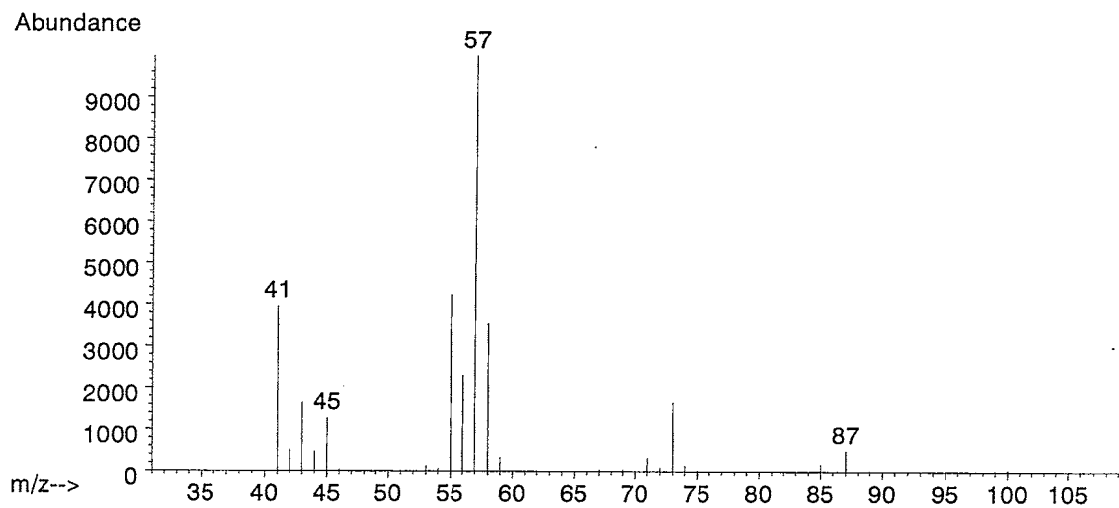
Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance



Mass Spectrum of Literature Data*

Result: The mass spectrum was consistent with literature spectrum.

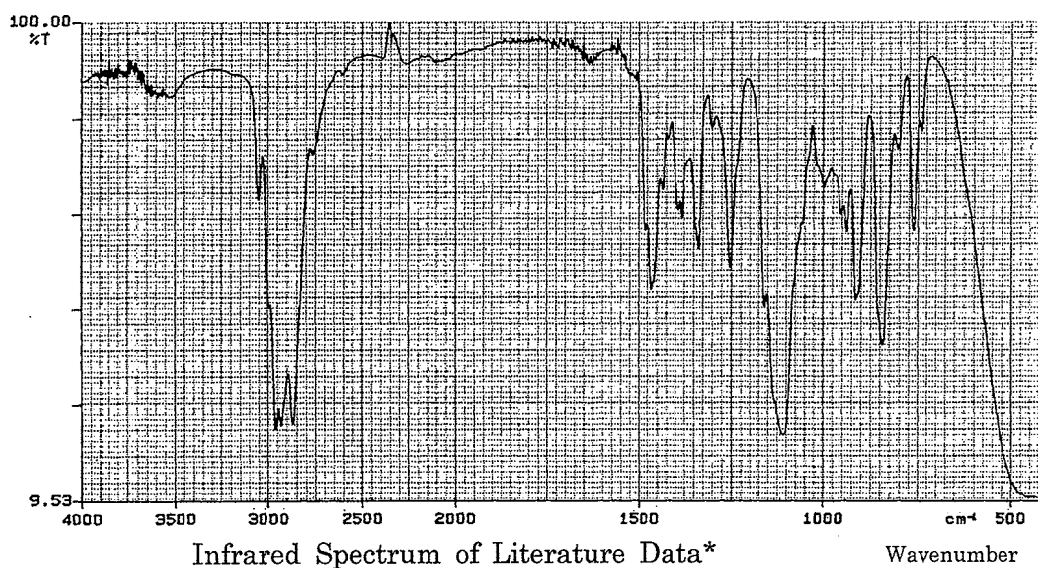
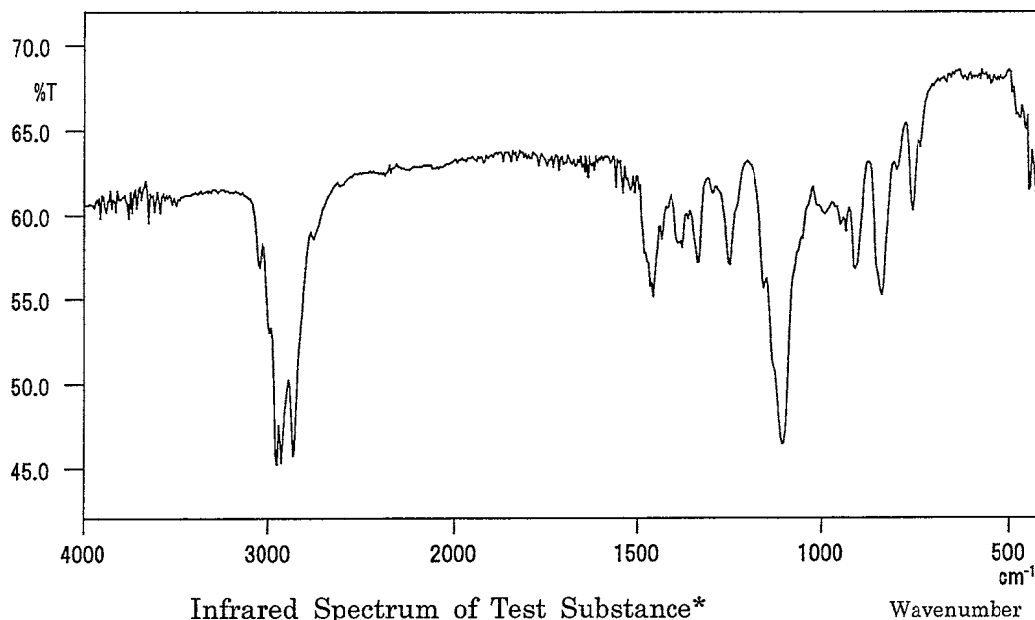
(*McLafferty FW, ed. 1994. Wiley Registry of Mass Spectral Data. 6th ed. New York, NY:John Wiley and Sons.)

Infrared Spectrometry

Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4 cm^{-1}



Result: The infrared spectrum was consistent with literature spectrum.

(*Performed by Wako Pure Chemical Industries, Ltd.)

2. Conclusion: The test substance was identified as butyl 2,3-epoxypropyl ether by mass spectrum and infrared spectrum.

D. Lot No. : PKQ5714

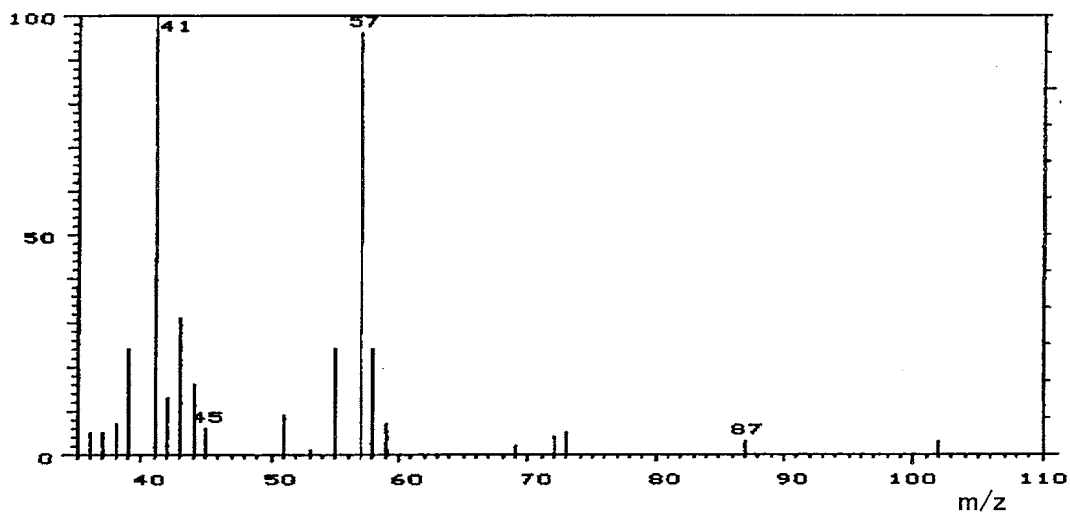
1. Spectral Data

Mass Spectrometry

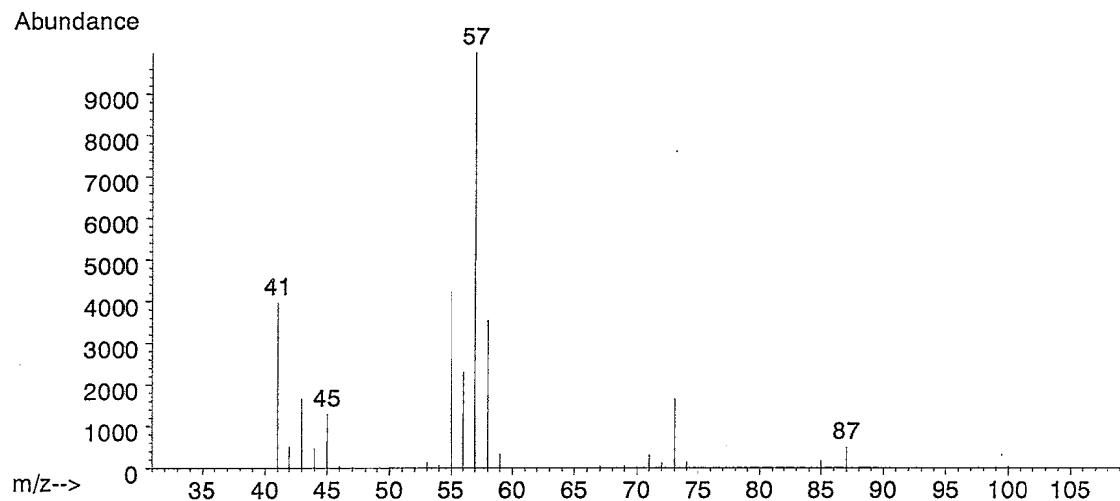
Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance



Mass Spectrum of Literature Data*

Result: The mass spectrum was consistent with literature spectrum.

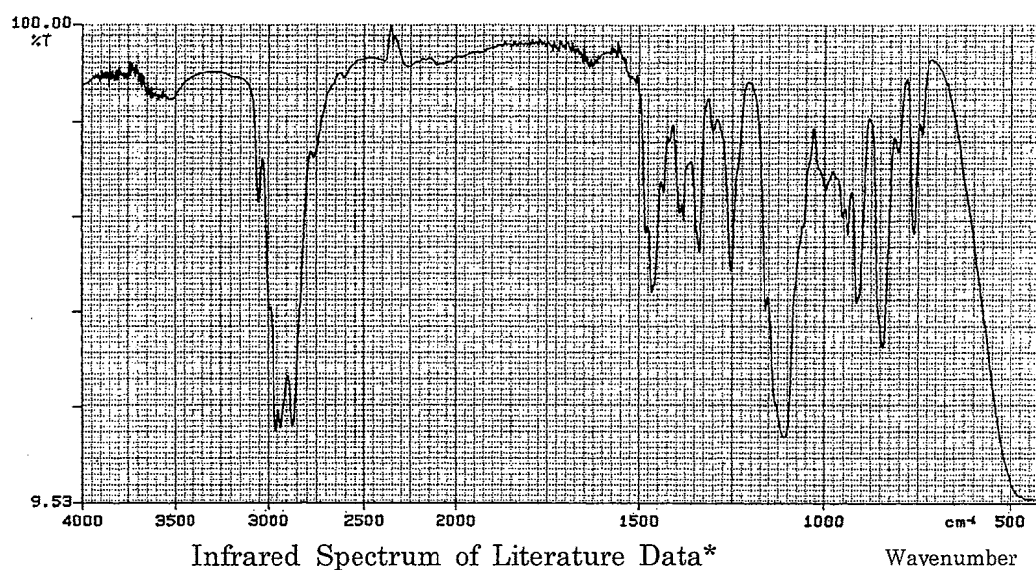
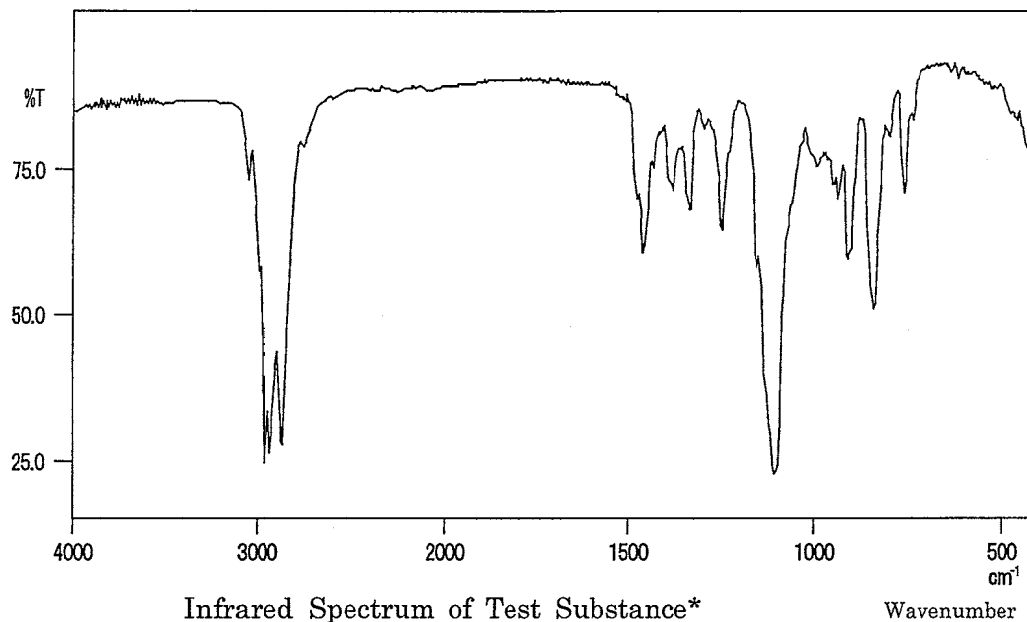
(*McLafferty FW, ed. 1994. Wiley Registry of Mass Spectral Data. 6th ed. New York, NY:John Wiley and Sons.)

Infrared Spectrometry

Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4 cm^{-1}



Result: The infrared spectrum was consistent with literature spectrum.

(*Performed by Wako Pure Chemical Industries, Ltd.)

2. Conclusion: The test substance was identified as butyl 2,3-epoxypropyl ether by mass spectrum and infrared spectrum.

APPENDIX A 2

STABILITY OF BUTYL 2,3-EPOXYPROPYL ETHER IN THE 2-YEAR INHALATION STUDY

STABILITY OF BUTYL 2,3-EPOXYPROPYL ETHER IN THE 2-YEAR INHALATION STUDY

Test Substance : Butyl 2,3-epoxypropyl ether (Wako Pure Chemical Industries, Ltd.)

A. Lot No. : LDJ4265

1. Sample : This lot was used from 2001.11.8 to 2002.2.18. The test substance was stored in a dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.53 mm ϕ \times 60 m)

Column Temperature: 160° C

Flow Rate : 20 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
2001.10.10	1	2.893	100
2002.02.19	1	2.899	100

Result: Gas chromatography indicated one major peak (peak No.1) analyzed on 2001.10.10 and one major peak (peak No.1) analyzed on 2002.2.19. No new trace impurity peak in the test substance analyzed on 2002.2.19 was detected.

3. Conclusion: The test substance was stable for about 4 months in a dark place at room temperature.

B. Lot No. : LDE4969

1. Sample : This lot was used from 2002.2.19 to 2002.10.7. The test substance was stored in a dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.53 mm ϕ \times 60 m)

Column Temperature: 160° C

Flow Rate : 20 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
2002.02.18	1	2.901	100
2002.10.09	1	3.135	100

Result: Gas chromatography indicated one major peak (peak No.1) analyzed on 2001.2.18 and one major peak (peak No.1) analyzed on 2002.10.9. No new trace impurity peak in the test substance analyzed on 2002.10.9 was detected.

3. Conclusion: The test substance was stable for about 7 months in a dark place at room temperature.

C. Lot No. : WAK4372

1. Sample : This lot was used from 2002.10.8 to 2003.5.23. The test substance was stored in a dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.53 mm ϕ \times 60 m)

Column Temperature: 160° C

Flow Rate : 20 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
2002.10.07	1	3.131	100
2003.05.26	1	3.127	100

Result: Gas chromatography indicated one major peak (peak No.1) analyzed on 2002.10.7 and one major peak (peak No.1) analyzed on 2003.5.26. No new trace impurity peak in the test substance analyzed on 2003.5.26 was detected.

3. Conclusion: The test substance was stable for about 7 months in a dark place at room temperature.

D. Lot No. : PKQ5714

1. Sample : This lot was used from 2003.5.26 to 2003.11.5. The test substance was stored in a dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.53 mm ϕ \times 60 m)

Column Temperature: 160° C

Flow Rate : 20 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
2003.05.23	1	3.129	100
2003.11.19	1	3.113	100

Result: Gas chromatography indicated one major peak (peak No.1) analyzed on 2003.5.23 and one major peak (peak No.1) analyzed on 2003.11.19. No new trace impurity peak in the test substance analyzed on 2003.11.19 was detected.

3. Conclusion: The test substance was stable for about 5 months in a dark place at room temperature.

APPENDIX B

ENVIRONMENTAL CONDITIONS OF INHALATION CHAMBER IN THE 2-YEAR INHALATION STUDY OF BUTYL 2,3-EPOXYPROPYL ETHER

ENVIRONMENTAL CONDITIONS OF INHALATION CHAMBER IN THE 2-YEAR
INHALATION STUDY OF BUTYL 2,3-EPOXYPROPYL ETHER

Group Name	Temperature (°C) Mean ± S.D.	Humidity (%) Mean ± S.D.	Ventilation Rate (L/min) Mean ± S.D.	Air Change (time/h) Mean
Control	23.1 ± 0.1	56.8 ± 1.4	782.3 ± 4.7	12.0
5 ppm	23.0 ± 0.1	56.2 ± 1.5	782.7 ± 4.0	12.0
15 ppm	23.0 ± 0.0	53.7 ± 1.9	781.2 ± 5.0	12.0
45 ppm	22.9 ± 0.1	53.0 ± 3.2	781.1 ± 3.5	12.0

APPENDIX C 1

CLINICAL OBSERVATION : MALE

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 1

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 2

Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 3

Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	37-7	38-7	39-7	40-7	41-7	42-7	43-7
DEATH	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOBRECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7	57-7
DEATH	Control	1	1	1	1	1	2	2	2	2	2	2	2	2	2
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
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CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day		58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7	71-7
		58-7	59-7														
DEATH	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	5 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	15 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1 104

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SEX : MALE

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Clinical sign	Group Name	Administration Week-day			72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7	85-7
		72-7	73-7	74-7														
DEATH	Control	2	2	2	2	2	2	2	2	2	2	3	3	3	3	4	4	4
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	15 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	2	3	3	3	3	3	3	3	3	4	4	4	4	4	5
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
PILOBRECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0438
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Clinical sign	Group Name	Administration Week-day				89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7	99-7
		86-7	87-7	88-7												
DEATH	Control	5	5	5		5	5	5	6	7	8	8	8	8	9	9
	5 ppm	1	1	3		3	3	3	4	4	4	4	5	5	6	6
	15 ppm	5	6	7		8	8	8	8	9	10	10	11	12	13	13
	45 ppm	1	1	1		1	1	1	1	1	1	1	1	1	2	2
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	1	1	3
	5 ppm	2	2	3		3	3	3	3	3	3	3	3	4	4	4
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	1	1
	45 ppm	5	6	6		6	6	6	6	6	6	6	6	6	7	7
LATERAL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	1	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	2	2
	5 ppm	0	1	0		0	0	1	1	1	1	1	1	1	1	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	1	1	1	1
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
PILOBRECTION	Control	0	0	0		0	0	0	1	0	0	0	0	0	0	0
	5 ppm	0	1	0		0	1	1	1	1	1	1	1	1	1	1
	15 ppm	0	0	0		0	1	0	0	1	0	0	0	0	0	1
	45 ppm	0	0	0		0	0	0	1	1	0	0	0	0	0	0
TRAUMA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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ANIMAL : MOUSE Crj:BDF1
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CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day				
		100-7	101-7	102-7	103-7	104-7
DEATH	Control	10	10	11	12	12
	5 ppm	6	6	6	7	7
	15 ppm	13	14	15	15	16
	45 ppm	3	3	3	4	4
MORIBUND SACRIFICE	Control	3	3	3	3	3
	5 ppm	7	7	7	7	7
	15 ppm	1	1	1	2	2
	45 ppm	7	8	9	9	9
LATERAL	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	1	1	1	1	1
	45 ppm	0	0	0	0	0
WASTING	Control	2	2	1	1	1
	5 ppm	0	0	0	0	0
	15 ppm	1	1	1	1	1
	45 ppm	0	0	0	0	0
SOILED	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	1	1	1
	45 ppm	0	0	0	0	0
PILOERECTION	Control	0	0	0	2	2
	5 ppm	2	2	1	1	1
	15 ppm	1	1	1	1	1
	45 ppm	1	0	1	0	0
TRAUMA	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	1
	45 ppm	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LACRIMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7												
FROG BELLY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
LACRIMATION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	2	2	2		2	2	2	2	2	2	2	2	2	2	2
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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		29-7	30-7	31-7	32-7	33-7	34-7	35-7	37-7	38-7	39-7	40-7	41-7	42-7	43-7
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LACRIMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	2	2	2	2	2	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7	57-7
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	1	1	1	1	1	1	1	1	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LACRIMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	1	1	1	1	2	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	1	1	1	1	1	1	0	0	1
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7	71-7
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	45 ppm	0	0	0	0	0	0	0	1	1	1	2	2	2	2
LACRIMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	45 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	1	1	1	2	2	2	2	2	2	4	2	2	2	3
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7	85-7
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	1	1	1	1	2	2	2	2	2	2	2	2	2	2
	45 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
LACRIMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	1	1	1	1	1	2	2	2	1	2	2	2	2	2
	45 ppm	1	1	1	1	1	1	1	1	1	1	2	2	2	2
EXTERNAL MASS	Control	1	1	2	2	2	2	2	2	2	2	2	2	2	2
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	45 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	3	3	3	3	4	5	3	3	3	3	2	2	2	2
	5 ppm	0	0	0	0	2	2	1	1	1	2	1	1	2	2
	15 ppm	0	0	0	0	0	0	0	0	1	1	2	2	2	2
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7	99-7
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	2
	5 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	5 ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	2	2	3	3	3	3	3	3	2	2	2	2	2	2
	45 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
LACRIMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	1	1	0	0	0	0	0	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	15 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	45 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	2	2	2	2	2	2	2	2	2	0	0	0	0	0
	45 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXTERNAL MASS	Control	2	2	2	2	2	2	2	2	2	2	2	2	1	1
	5 ppm	0	1	0	0	0	0	0	1	1	1	1	1	1	1
	15 ppm	1	1	2	1	2	2	3	4	3	3	3	3	2	3
	45 ppm	1	1	1	1	1	1	2	2	2	2	2	2	2	2
INTERNAL MASS	Control	2	2	2	2	3	4	4	3	3	3	4	4	5	5
	5 ppm	2	3	1	1	2	1	1	1	1	1	2	1	1	1
	15 ppm	2	3	1	2	2	2	2	1	2	4	6	1	1	0
	45 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				
		100-7	101-7	102-7	103-7	104-7
FROG BELLY	Control	1	1	1	0	1
	5 ppm	0	0	1	0	1
	15 ppm	1	1	0	0	0
	45 ppm	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0
	5 ppm	1	0	1	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	1	0	0
EXOPHTHALMOS	Control	1	1	2	2	2
	5 ppm	0	0	0	0	0
	15 ppm	2	2	3	4	3
	45 ppm	2	2	2	2	3
LACRIMATION	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	1	1	1	1	0
GUM	Control	1	1	1	1	1
	5 ppm	0	0	0	0	0
	15 ppm	1	1	1	2	1
	45 ppm	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	2	2	2	2	2
EXTERNAL MASS	Control	1	1	1	1	1
	5 ppm	1	1	1	1	1
	15 ppm	3	3	2	2	1
	45 ppm	2	2	2	2	2
INTERNAL MASS	Control	5	5	4	4	2
	5 ppm	1	1	2	2	1
	15 ppm	1	1	1	2	3
	45 ppm	0	1	1	1	1

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. INTERSCAPULUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. INTERSCAPULUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				32-7	33-7	34-7	35-7	37-7	38-7	39-7	40-7	41-7	42-7	43-7
		29-7	30-7	31-7												
M. EYE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. INTERSCAPULUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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		44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7	57-7
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. INTERSCAPULUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7	71-7
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. INTERSCAPULUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7	85-7
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	45 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. INTERSCAPULUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	1	1	0	0	0	0	1	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7	99-7
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	1	1	1	1	2	2	3	3	2	2	2	2	2	2
	45 ppm	1	1	1	1	1	1	2	2	2	2	2	2	2	2
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	1	1	1	1	1	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. INTERSCAPULUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	1	1	1	1	1	1	1	1	1	1	1	1	0	0
	5 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	5 ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				
		100-7	101-7	102-7	103-7	104-7
M. EYE	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	2	2	2	2	1
	45 ppm	2	2	2	2	2
M. NECK	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
M. FORELIMB	Control	1	1	1	1	1
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
M. INTERSCAPULUM	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	1	1	0	0	0
	45 ppm	0	0	0	0	0
M. POSTERIOR DORSUM	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0
	5 ppm	1	1	1	1	1
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	37-7	38-7	39-7	40-7	41-7	42-7	43-7
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7	57-7
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7	71-7
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7	85-7
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	1	1	1	1	1	1	1	1	1	1	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	45 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration		Week-day		89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7	99-7
		86-7	87-7	88-7												
ULCER	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	1	1	1	1
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0		1	1	1	1	1	1	1	2	3	2	2
	5 ppm	0	0	0		0	0	0	0	1	1	1	1	1	1	1
	15 ppm	0	0	0		0	2	2	2	2	2	2	2	1	1	1
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
PROLAPSE OF PENIS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	1	1	1	1	1	1	1
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	1	1	1		1	1	1	1	1	1	1	1	1	2	2
IRREGULAR BREATHING	Control	0	0	0		0	0	1	1	0	0	0	0	0	0	0
	5 ppm	0	2	0		0	0	0	0	0	0	0	0	0	1	1
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
RESPIRATORY SOUND ABNOR	Control	0	0	0		0	0	0	1	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1

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Clinical sign	Group Name	Administration Week-day				
		100-7	101-7	102-7	103-7	104-7
ULCER	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
EROSION	Control	0	0	0	0	0
	5 ppm	1	1	1	1	1
	15 ppm	1	1	1	1	1
	45 ppm	0	0	0	0	0
CRUSTA	Control	2	2	1	0	0
	5 ppm	1	1	2	2	2
	15 ppm	1	1	0	0	0
	45 ppm	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
PROLAPSE OF PENIS	Control	0	0	0	0	0
	5 ppm	2	2	2	3	2
	15 ppm	0	0	0	0	0
	45 ppm	2	2	2	1	1
IRREGULAR BREATHING	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	1	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	1
	45 ppm	1	0	0	0	0

APPENDIX C 2

CLINICAL OBSERVATION : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	15 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day		32-7	33-7	34-7	35-7	37-7	38-7	39-7	40-7	41-7	42-7	43-7
		29-7	30-7											
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTON	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	1	1	1	1	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7	57-7
DEATH	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	45 ppm	1	1	1	1	1	1	1	1	1	1	1	3	3	3
MORIBUND SACRIFICE	Control	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	2

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Clinical sign	Group Name	Administration		Week-day		61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7	71-7
		58-7	59-7	60-7												
DEATH	Control	1	1	1		2	2	2	2	2	2	2	2	2	2	2
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	1	1	1		1	1	1	1	1	1	2	2	2	2	2
	45 ppm	4	4	5		5	5	5	5	5	5	6	6	6	6	6
MORIBUND SACRIFICE	Control	1	1	1		1	1	2	2	2	2	2	2	2	2	2
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		1	1	1	1	1	2	2	2	2	2	3
	45 ppm	1	1	1		1	1	1	1	2	2	3	3	3	3	3
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	1	1		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	1	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	1	2	1
	45 ppm	1	1	0		0	0	0	1	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7	85-7
		72-7	73-7	74-7												
DEATH	Control	2	2	2		2	2	2	3	3	4	4	4	4	4	4
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	1	1	1
	15 ppm	2	2	2		3	3	4	5	5	5	5	6	6	7	7
	45 ppm	6	7	7		7	7	7	7	8	10	10	10	10	10	10
MORIBUND SACRIFICE	Control	2	2	2		2	2	3	3	3	3	3	3	3	3	3
	5 ppm	0	0	0		0	0	0	0	1	2	2	2	2	2	4
	15 ppm	3	3	4		4	5	5	5	5	5	5	5	6	6	6
	45 ppm	3	3	3		3	3	3	3	3	3	3	3	3	3	3
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	1	1	1	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	1	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	1	0	0	0	0	0	0	0
PILOERRECTION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	1	1	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	45 ppm	0	0	0		1	1	1	1	0	0	0	0	0	0	1
TRAUMA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	1	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	1	1	1	0	0	0	0	0	0
	15 ppm	3	3	2		1	2	2	1	1	1	2	1	0	0	0
	45 ppm	1	0	0		0	0	0	1	1	0	1	1	1	1	1

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Clinical sign	Group Name	Administration Week-day		86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7	99-7
DEATH	Control	4	4	4	4	5	5	6	6	6	7	7	7	7	8		
	5 ppm	1	1	1	1	1	2	2	2	2	3	3	5	6	9		
	15 ppm	8	8	8	8	9	9	10	10	10	10	10	11	12	12		
	45 ppm	11	11	11	11	12	12	12	12	14	17	17	18	19	20		
MORIBUND SACRIFICE	Control	3	3	3	3	3	5	5	5	5	5	5	5	5	5		
	5 ppm	4	4	4	4	6	6	6	6	6	6	6	6	6	6		
	15 ppm	6	6	7	7	7	7	7	7	7	7	7	7	7	7		
	45 ppm	4	4	4	5	5	5	5	5	5	5	5	5	5	6		
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	1	1	1	1	1	1		
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1		
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WASTING	Control	0	0	0	1	1	1	1	1	2	2	2	2	2	2		
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	15 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1		
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0		
PILOERECTION	Control	0	0	1	1	1	1	1	2	3	2	2	2	2	1		
	5 ppm	0	0	0	0	0	0	0	0	0	0	2	1	1	1		
	15 ppm	0	0	0	0	0	1	0	0	0	0	0	1	1	1		
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
FROG BELLY	Control	0	0	0	0	0	1	0	0	1	0	0	0	0	1		
	5 ppm	0	0	1	1	0	1	1	1	2	1	1	3	2	1		
	15 ppm	0	0	0	0	1	1	0	0	1	1	2	1	1	3		
	45 ppm	0	0	0	0	0	0	0	1	1	0	1	0	0	1		

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Clinical sign	Group Name	Administration Week-day				
		100-7	101-7	102-7	103-7	104-7
DEATH	Control	8	10	10	10	12
	5 ppm	9	9	10	12	13
	15 ppm	13	13	14	14	15
	45 ppm	20	21	21	21	22
MORIBUND SACRIFICE	Control	5	5	5	5	5
	5 ppm	6	6	6	6	6
	15 ppm	7	7	7	8	8
	45 ppm	6	6	6	6	6
HUNCHBACK POSITION	Control	1	0	0	0	1
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
WASTING	Control	1	1	2	2	2
	5 ppm	0	1	1	0	0
	15 ppm	0	0	0	1	1
	45 ppm	0	0	0	0	0
PILOERECTION	Control	2	1	1	4	3
	5 ppm	1	2	2	1	2
	15 ppm	0	0	1	1	1
	45 ppm	0	0	0	1	0
TRAUMA	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
FROG BELLY	Control	1	1	1	1	1
	5 ppm	1	2	3	2	3
	15 ppm	4	2	2	2	2
	45 ppm	2	1	1	1	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	2	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7												
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				32-7	33-7	34-7	35-7	37-7	38-7	39-7	40-7	41-7	42-7	43-7
		29-7	30-7	31-7												
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	45 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7	57-7
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	1	1	0	0	1	1	1	1	1	1	1	1	2
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	2	1	1	1	1	1	1	0	0	1	1	1	1	1
	5 ppm	1	1	1	1	1	1	2	3	3	4	4	3	3	3
	15 ppm	0	0	0	0	0	1	1	0	1	1	0	1	1	2
	45 ppm	2	2	1	1	1	1	1	1	1	1	1	1	1	1
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7	71-7
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	2	2	2	1	1	1	1	1	1	2	2	2	2	2
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	2	2	2	2	2	2	2	1	1	0	0	0	0	0
	15 ppm	3	3	3	2	3	4	4	4	4	5	5	6	7	6
	45 ppm	2	2	1	1	1	1	1	0	0	0	0	0	0	1
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7	85-7
		72-7	73-7	74-7												
SOILED PERI-GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0		0	0	1	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	2	2	2		2	2	2	2	2	1	1	1	1	1	1
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	45 ppm	0	0	2		2	2	2	2	2	2	3	3	3	3	3
INTERNAL MASS	Control	1	2	2		2	2	1	2	2	2	2	2	2	2	2
	5 ppm	0	1	2		3	3	3	3	2	1	2	2	1	1	2
	15 ppm	6	6	6		5	4	3	3	3	3	4	3	2	3	3
	45 ppm	2	1	2		2	2	2	2	2	1	1	1	1	1	1
M. PERI-MOUTH	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	1		1	1	1	1	1	1	1	1	1	1	1

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		86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7	99-7
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	1	1	1	1	1	1	1	1	1	0	0
	45 ppm	3	3	3	3	2	2	2	2	1	1	1	1	1	1
INTERNAL MASS	Control	2	2	2	2	1	0	0	3	3	2	2	2	2	2
	5 ppm	2	2	2	2	3	2	2	2	2	3	4	4	3	2
	15 ppm	2	2	1	1	1	1	0	0	2	3	1	2	2	2
	45 ppm	0	0	0	0	1	1	2	2	1	0	0	0	2	1
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	1	1	1	1	1	1	1	1	1	0	0
	45 ppm	1	1	1	1	0	0	0	0	0	0	0	0	0	0

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		100-7	101-7	102-7	103-7	104-7
SOILED PERI-GENITALIA	Control	0	0	0	0	0
	5 ppm	0	0	0	1	1
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	1
	5 ppm	1	2	2	2	2
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
GUM	Control	0	0	0	0	0
	5 ppm	0	1	1	1	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	1
	5 ppm	0	0	0	0	1
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
EXTERNAL MASS	Control	0	1	1	1	1
	5 ppm	0	1	1	1	2
	15 ppm	0	0	0	1	1
	45 ppm	1	1	1	1	1
INTERNAL MASS	Control	2	4	4	5	4
	5 ppm	2	3	3	3	3
	15 ppm	2	4	4	3	3
	45 ppm	1	2	2	3	3
M. PERI-MOUTH	Control	0	1	1	1	1
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day		29-7	30-7	31-7	32-7	33-7	34-7	35-7	37-7	38-7	39-7	40-7	41-7	42-7	43-7
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIME	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7	57-7
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7	71-7
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7	85-7
M. PERI EAR	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
M. ABDOMEN	Control	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7	99-7
M. PERI EAR	Control	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	1	1	1	1	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	1	1	1	1	1	1	1	1	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				
		100-7	101-7	102-7	103-7	104-7
M. PERI EAR	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
M. NECK	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0
	5 ppm	0	1	1	1	2
	15 ppm	0	0	0	1	1
	45 ppm	1	1	1	1	1
M. ABDOMEN	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	37-7	38-7	39-7	40-7	41-7	42-7	43-7
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	1	1	1	1	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7	57-7
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	1	1	2	2	0	0	0
IRREGULAR BREATHING	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 61

Clinical sign	Group Name	Administration Week-day													
		58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7	71-7
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 62

Clinical sign	Group Name	Administration Week-day													
		72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7	85-7
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	0
	15 ppm	0	1	1	0	0	0	0	0	0	1	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	0
	15 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 63

Clinical sign	Group Name	Administration		Week-day		89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7	99-7
		86-7	87-7	88-7												
EROSION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0		0	0	0	1	1	1	1	1	1	2	1
	5 ppm	0	0	0		0	0	0	0	0	0	0	1	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	1	1	1
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	1	1	0
RESPIRATORY SOUND ABNOR	Control	0	0	0		0	0	0	0	1	1	1	1	1	1	1
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	15 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	45 ppm	0	0	0		0	0	0	0	0	0	0	0	1	1	0

(HAN190)

BAIS 4

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 64

Clinical sign	Group Name	Administration Week-day				
		100-7	101-7	102-7	103-7	104-7
EROSION	Control	0	0	0	0	1
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
CRUSTA	Control	0	0	1	1	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
TORTICOLLIS	Control	0	0	1	1	1
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0
IRREGULAR BREATHING	Control	1	0	0	1	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	1	0	0
	45 ppm	0	0	0	1	0
RESPIRATORY SOUND ABNOR	Control	1	0	0	0	0
	5 ppm	0	0	0	0	0
	15 ppm	0	0	0	0	0
	45 ppm	0	0	0	0	0

APPENDIX D 1

BODY WEIGHT CHANGES : MALE

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration week-day						
	0-0	1-7	2-7	3-7	4-7	5-7	6-7
Control	23.5± 0.9	25.0± 1.0	25.8± 1.1	26.3± 1.3	26.9± 1.3	27.4± 1.5	28.2± 1.7
5 ppm	23.5± 0.9	24.8± 0.9	25.6± 1.1	26.1± 1.1	26.6± 1.2	27.1± 1.4	27.9± 1.5
15 ppm	23.5± 0.9	25.0± 1.1	25.8± 1.1	26.3± 1.4	26.8± 1.4	27.6± 1.7	28.1± 1.8
45 ppm	23.5± 0.9	24.5± 1.0	24.8± 1.1**	25.2± 1.2**	25.5± 1.2**	25.7± 1.2**	25.9± 1.2**
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Dunnett							

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration week-day						
	7-7	8-7	9-7	10-7	11-7	12-7	13-7
Control	29.1± 2.0	29.4± 1.9	30.2± 2.1	30.7± 2.3	31.7± 2.5	32.3± 2.5	32.7± 2.9
5 ppm	28.9± 1.8	29.2± 1.8	29.8± 1.9	30.3± 2.0	31.6± 2.2	32.3± 2.4	33.1± 2.4
15 ppm	29.0± 1.9	29.2± 1.9	30.2± 2.3	30.9± 2.2	31.8± 2.2	32.5± 2.4	33.1± 2.4
45 ppm	26.4± 1.3**	26.7± 1.3**	27.1± 1.4**	27.4± 1.5**	27.6± 1.5**	28.0± 1.6**	28.3± 1.7**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration		week-day									
	14-7		18-7		22-7		26-7		30-7		34-7	38-7
Control	33.6± 2.7		36.3± 3.1		38.5± 3.5		40.2± 3.9		41.5± 4.1		43.1± 4.5	44.7± 4.6
5 ppm	33.8± 2.4		36.8± 2.4		39.0± 2.9		40.8± 3.0		42.6± 3.5		44.2± 3.7	45.7± 3.7
15 ppm	33.0± 2.9		36.7± 2.7		38.7± 2.9		40.0± 3.5		41.8± 3.7		43.6± 3.7	45.0± 3.9
45 ppm	28.2± 1.8**		29.5± 1.8**		30.3± 1.9**		31.3± 2.2**		31.9± 2.3**		32.7± 2.8**	33.5± 3.0**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration week-day							
	42-7	46-7	50-7	54-7	58-7	62-7	66-7	
Control	45.4± 4.3	46.5± 4.5	47.9± 4.2	48.4± 4.6	49.1± 4.7	50.1± 5.2	50.5± 5.2	
5 ppm	46.4± 3.6	47.5± 3.8	48.5± 3.7	49.3± 3.8	49.9± 3.8	50.7± 3.9	51.6± 3.6	
15 ppm	45.8± 3.9	46.7± 4.3	47.8± 4.4	48.4± 4.7	49.3± 3.6	50.3± 3.5	51.1± 3.5	
45 ppm	33.7± 3.2**	34.4± 3.3**	35.2± 3.7**	35.7± 3.8**	36.2± 4.1**	37.6± 4.5**	37.5± 4.7**	
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01								
Test of Dunnett								

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration week-day						
	70-7	74-7	78-7	82-7	86-7	90-7	94-7
Control	50.8± 5.3	51.0± 5.8	51.8± 5.8	52.2± 6.4	51.9± 6.6	51.7± 7.1	51.8± 7.8
5 ppm	51.9± 3.8	52.4± 4.0	53.3± 4.1	53.2± 4.7	52.8± 5.6	52.4± 6.3	52.4± 7.2
15 ppm	51.0± 3.6	51.1± 4.0	51.6± 4.8	51.3± 5.3	50.5± 6.1	48.7± 6.9	49.1± 7.9
45 ppm	37.8± 5.1**	38.2± 5.7**	39.0± 5.3**	38.9± 5.5**	38.6± 5.6**	38.2± 5.1**	37.8± 5.1**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 6

Group Name	Administration week-day		
	98-7	102-7	104-7
Control	51.2± 8.3	51.0± 7.9	50.1± 8.0
5 ppm	52.0± 7.6	51.0± 7.1	50.1± 6.8
15 ppm	48.9± 8.0	46.9± 8.8	46.5± 8.6
45 ppm	38.4± 4.9**	38.1± 5.3**	38.3± 5.1**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett			

APPENDIX D 2

BODY WEIGHT CHANGES : FEMALE

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration week-day						
	0-0	1-7	2-7	3-7	4-7	5-7	6-7
Control	19.1± 0.8	19.9± 0.9	20.7± 1.0	21.1± 1.0	21.6± 1.1	21.7± 1.1	22.5± 1.2
5 ppm	19.1± 0.8	19.8± 1.0	20.7± 1.0	21.2± 1.1	21.6± 1.0	22.0± 1.2	22.7± 1.3
15 ppm	19.1± 0.8	19.7± 1.1	20.6± 1.0	21.0± 1.0	21.4± 1.0	21.6± 0.9	22.0± 1.6
45 ppm	19.1± 0.8	19.6± 1.0	20.1± 0.9**	20.6± 0.9*	20.7± 0.9**	21.0± 1.0**	21.4± 1.0**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group Name	Administration week-day						
	7-7	8-7	9-7	10-7	11-7	12-7	13-7
Control	23.1± 1.2	23.1± 1.1	23.7± 1.2	23.8± 1.1	24.3± 1.1	24.3± 1.1	24.7± 1.4
5 ppm	23.3± 1.2	23.3± 1.3	23.7± 1.3	23.9± 1.4	24.5± 1.4	24.4± 1.5	24.7± 2.1
15 ppm	23.0± 1.2	22.9± 1.0	23.7± 1.4	23.6± 1.0	23.9± 1.3	24.2± 1.5	24.4± 1.4
45 ppm	22.0± 1.0**	22.0± 1.0**	22.8± 1.0**	22.7± 1.0**	23.2± 1.0**	23.2± 1.1**	23.4± 1.2**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 9

Group Name	Administration week-day						
	14-7	18-7	22-7	26-7	30-7	34-7	38-7
Control	24.9± 1.2	26.4± 1.7	27.3± 2.0	28.0± 2.3	29.0± 2.6	29.3± 2.9	30.0± 3.1
5 ppm	25.5± 1.7	26.7± 2.1	27.5± 2.2	28.2± 2.6	28.9± 2.9	29.6± 2.9	30.6± 3.7
15 ppm	24.4± 1.3	25.7± 1.5	26.4± 1.4	27.3± 2.0	27.9± 1.8	28.7± 2.4	29.0± 2.8
45 ppm	23.2± 1.1**	24.0± 1.2**	24.4± 1.3**	25.1± 1.5**	25.5± 1.5**	25.7± 1.4**	25.7± 1.4**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 10

Group Name	Administration		week-day									
	42-7		46-7		50-7		54-7		58-7		62-7	66-7
Control	30.4± 3.1		31.2± 3.5		31.3± 3.6		32.3± 4.0		32.8± 3.8		33.3± 4.3	33.7± 4.3
5 ppm	30.7± 3.1		31.2± 4.0		31.5± 3.9		32.6± 3.9		33.2± 4.5		33.6± 4.4	34.2± 4.5
15 ppm	29.2± 2.8		30.5± 2.3		30.3± 2.7		31.2± 2.9		32.1± 3.0		33.2± 3.1	33.8± 3.4
45 ppm	25.7± 1.7**		26.1± 1.9**		26.4± 1.9**		26.7± 2.2**		26.9± 1.7**		27.8± 1.9**	27.9± 2.0**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration		week-day									
	70-7		74-7		78-7		82-7		86-7		90-7	
Control	33.9± 4.4		34.6± 4.5		34.7± 4.6		34.8± 4.7		34.4± 4.9		34.1± 5.2	
5 ppm	34.5± 4.7		34.3± 4.7		34.9± 5.7		35.2± 5.8		35.3± 5.1		35.6± 5.2	
15 ppm	34.1± 3.6		34.9± 3.9		34.8± 3.7		35.0± 4.3		34.8± 3.4		34.7± 3.9	
45 ppm	27.7± 2.1**		28.2± 2.2**		28.5± 3.0**		28.5± 2.7**		28.4± 2.4**		28.6± 2.5**	

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 12

Group Name	Administration week-day		
	98-7	102-7	104-7
Control	34.0± 5.3	33.9± 3.6	33.4± 4.2
5 ppm	36.0± 5.5	35.6± 5.0	36.0± 5.0
15 ppm	35.2± 4.5	35.2± 4.4	35.8± 5.3
45 ppm	28.9± 2.7**	29.6± 4.0**	29.6± 3.2**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett			

APPENDIX E 1

FOOD CONSUMPTION CHANGES : MALE

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration 1-7(4)	week-day(effective) 2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	3.3± 0.2	3.3± 0.3	3.4± 0.2	3.5± 0.2	3.7± 0.2	3.8± 0.2	3.9± 0.3
5 ppm	3.3± 0.3	3.5± 0.2**	3.6± 0.3**	3.7± 0.2**	3.8± 0.3**	3.9± 0.3*	4.0± 0.3
15 ppm	3.3± 0.2	3.3± 0.2	3.5± 0.2	3.5± 0.2	3.6± 0.2	3.8± 0.4	3.9± 0.4
45 ppm	3.4± 0.2	3.2± 0.2*	3.4± 0.2	3.3± 0.2**	3.4± 0.2**	3.6± 0.2**	3.5± 0.3**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group Name	Administration 8-7(7)	week-day(effective) 9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)	14-7(7)
Control	4.1± 0.3	4.1± 0.3	4.0± 0.3	4.1± 0.3	4.0± 0.3	4.0± 0.3	4.1± 0.4
5 ppm	4.2± 0.3	4.1± 0.3	4.1± 0.3	4.2± 0.2	4.0± 0.3	4.0± 0.4	4.2± 0.3*
15 ppm	4.0± 0.3	4.1± 0.3	4.1± 0.3	4.1± 0.2	4.1± 0.3	4.1± 0.4	4.1± 0.3
45 ppm	3.6± 0.3**	3.8± 0.2**	3.8± 0.3**	3.7± 0.2**	3.6± 0.3**	3.6± 0.3**	3.7± 0.3**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 9

Group Name	Administration week-day(effective)						
	18-7(7)	22-7(7)	26-7(7)	30-7(7)	34-7(7)	38-7(7)	42-7(7)
Control	4.2± 0.3	4.3± 0.3	4.2± 0.4	4.4± 0.4	4.4± 0.4	4.4± 0.5	4.6± 0.4
5 ppm	4.3± 0.4	4.3± 0.4	4.3± 0.4	4.3± 0.4	4.4± 0.5	4.5± 0.6	4.7± 0.4
15 ppm	4.2± 0.4	4.2± 0.4	4.3± 0.4	4.3± 0.4	4.4± 0.4	4.3± 0.5	4.4± 0.5*
45 ppm	3.7± 0.5**	3.6± 0.3**	3.7± 0.4**	3.8± 0.3**	3.8± 0.5**	3.8± 0.4**	3.8± 0.4**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 10

Group Name	Administration week-day(effective)						
	46-7(7)	50-7(7)	54-7(7)	58-7(7)	62-7(7)	66-7(7)	70-7(7)
Control	4.5± 0.5	4.2± 0.5	4.5± 0.5	4.5± 0.5	4.4± 0.6	4.6± 0.5	4.4± 0.5
5 ppm	4.5± 0.5	4.2± 0.5	4.5± 0.4	4.7± 0.4	4.5± 0.5	4.6± 0.5	4.4± 0.5
15 ppm	4.5± 0.4	4.2± 0.5	4.3± 0.4	4.5± 0.4	4.7± 0.5	4.6± 0.5	4.4± 0.5
45 ppm	3.9± 0.4**	3.7± 0.4**	3.7± 0.4**	3.7± 0.3**	4.0± 0.4**	3.9± 0.4**	3.7± 0.3**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration week-day(effective)						
	74-7(7)	78-7(7)	82-7(7)	86-7(7)	90-7(7)	94-7(7)	98-7(7)
Control	4.5± 0.5	4.4± 0.6	4.5± 0.5	4.5± 0.5	4.4± 0.7	4.4± 0.6	4.7± 0.7
5 ppm	4.5± 0.5	4.5± 0.5	4.6± 0.6	4.6± 0.6	4.6± 0.6	4.6± 0.7	4.7± 0.7
15 ppm	4.6± 0.8	4.5± 0.6	4.3± 0.6	4.4± 0.4	4.6± 0.5	4.6± 0.5	4.8± 0.6
45 ppm	3.9± 0.4**	4.0± 0.4**	3.9± 0.6**	3.9± 0.4**	3.8± 0.4**	3.9± 0.5**	4.0± 0.7**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 12

Group Name	Administration week-day(effective)	
	102-7(7)	104-7(7)
Control	4.5± 0.7	4.6± 0.7
5 ppm	4.5± 0.7	4.7± 0.7
15 ppm	4.6± 0.8	4.9± 0.7
45 ppm	3.9± 0.6*	4.2± 0.7

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

APPENDIX E 2

FOOD CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration 1-7(4)	week-day(effective) 2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	4.0± 0.3	3.9± 0.3	4.0± 0.4	4.0± 0.4	4.0± 0.4	4.1± 0.3	4.2± 0.4
5 ppm	4.0± 0.2	3.9± 0.3	4.0± 0.3	4.0± 0.2	4.1± 0.2	4.1± 0.2	4.3± 0.3
15 ppm	3.9± 0.3	3.9± 0.3	4.0± 0.3	3.9± 0.3	4.0± 0.3	4.0± 0.3	4.2± 0.3
45 ppm	3.8± 0.2*	3.6± 0.2**	3.7± 0.3**	3.7± 0.3**	3.7± 0.3**	3.8± 0.3**	3.8± 0.3**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration 8-7(7)	week-day(effective) 9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)	14-7(7)
Control	4.3± 0.4	4.3± 0.4	4.2± 0.4	4.4± 0.4	4.3± 0.3	4.4± 0.4	4.3± 0.3
5 ppm	4.3± 0.3	4.3± 0.3	4.3± 0.3	4.4± 0.3	4.3± 0.2	4.4± 0.3	4.3± 0.3
15 ppm	4.2± 0.4	4.3± 0.4	4.4± 0.3	4.4± 0.3	4.3± 0.3	4.3± 0.3	4.3± 0.3
45 ppm	3.9± 0.3**	4.0± 0.3**	4.0± 0.3*	3.8± 0.3**	3.8± 0.3**	3.8± 0.3**	3.9± 0.3**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration week-day(effective)						
	18-7(7)	22-7(7)	26-7(7)	30-7(7)	34-7(7)	38-7(7)	42-7(7)
Control	4.5± 0.4	4.5± 0.3	4.6± 0.3	4.6± 0.3	4.7± 0.3	4.7± 0.3	4.9± 0.3
5 ppm	4.5± 0.3	4.5± 0.3	4.6± 0.3	4.6± 0.2	4.8± 0.3	4.9± 0.3*	5.0± 0.2
15 ppm	4.5± 0.3	4.4± 0.3*	4.5± 0.3	4.6± 0.2	4.7± 0.3	4.7± 0.2	4.8± 0.3
45 ppm	3.8± 0.2**	3.7± 0.2**	4.0± 0.2**	3.9± 0.2**	4.0± 0.3**	4.0± 0.2**	3.9± 0.3**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration week-day(effective)						
	46-7(7)	50-7(7)	54-7(7)	58-7(7)	62-7(7)	66-7(7)	70-7(7)
Control	4.8± 0.3	4.7± 0.3	4.9± 0.3	4.9± 0.3	5.1± 0.6	5.1± 0.4	4.9± 0.3
5 ppm	4.8± 0.3	4.7± 0.3	4.9± 0.3	5.0± 0.2	5.0± 0.3	5.1± 0.3	5.0± 0.3
15 ppm	4.8± 0.3	4.7± 0.3	4.8± 0.3	4.8± 0.3	5.0± 0.2	5.0± 0.3	4.8± 0.3
45 ppm	4.1± 0.3**	4.0± 0.3**	4.1± 0.3**	4.0± 0.3**	4.3± 0.3**	4.2± 0.3**	4.1± 0.3**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration week-day(effective)						
	74-7(7)	78-7(7)	82-7(7)	86-7(7)	90-7(7)	94-7(7)	98-7(7)
Control	5.0± 0.4	5.0± 0.4	5.0± 0.4	5.0± 0.5	4.9± 0.4	4.9± 0.7	5.1± 0.8
5 ppm	5.1± 0.4	5.1± 0.3	5.0± 0.3	5.0± 0.6	5.0± 0.4	5.0± 0.6	5.1± 0.6
15 ppm	5.0± 0.3	5.0± 0.4	5.0± 0.3	4.9± 0.5	4.7± 0.6	5.0± 0.5	5.0± 0.5
45 ppm	4.2± 0.4**	4.3± 0.4**	4.2± 0.4**	4.1± 0.3**	4.2± 0.3**	4.1± 0.4**	4.3± 0.5**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 6

Group Name	Administration week-day(effective)	
	102-7(7)	104-7(7)
Control	4.8± 0.7	4.8± 0.9
5 ppm	5.0± 0.4	5.1± 0.5
15 ppm	4.6± 0.7	4.7± 0.7
45 ppm	4.1± 0.3**	4.4± 0.3**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

APPENDIX F 1

HEMATOLOGY : MALE

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : MALE

HEMATOLOGY (SUMMARY)
ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ⁹ /μl	
Control	34	9.52±	1.67	13.4±	2.3	43.4±	6.8	46.0±	3.4	14.2±	0.6	30.9±	1.1	1558±	377
5 ppm	35	9.69±	1.17	13.7±	1.5	44.2±	4.5	45.7±	1.6	14.2±	0.5	31.0±	0.7	1608±	381
15 ppm	32	9.82±	1.55	13.7±	1.7	44.4±	5.1	45.5±	2.1	14.0±	0.7	30.8±	1.0	1548±	344
45 ppm	35	10.03±	0.73	14.3±	0.8	46.3±	2.5*	46.2±	1.7	14.3±	0.6	30.9±	0.7	1573±	145

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	WBC 10 ³ /μl		Differential N-BAND		WBC (%) N-SEG		EOSINO		BASO		MONO		LYMPHO		OTHER	
Control	34	4.79±	2.67	1±	1	26±	13	2±	1	0±	0	4±	2	68±	15	1±	1
5 ppm	35	4.88±	3.23	1±	1	27±	14	2±	2	0±	0	4±	1	66±	16	0±	1
15 ppm	32	4.70±	2.94	1±	1	28±	16	3±	6	0±	0	3±	1	64±	16	1±	2
45 ppm	35	2.98±	1.28**	1±	1	22±	6	2±	1	0±	0	3±	1	72±	7	1±	1

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

APPENDIX F 2

HEMATOLOGY : FEMALE

STUDY NO. : 0438

ANIMAL : MOUSE Crj:BDF1

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (105W)

PAGE : 3

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ³ /μl	
Control	29	9.71±	1.11	13.8±	1.7	44.5±	4.8	45.9±	1.8	14.2±	0.5	31.0±	1.0	1092±	295
5 ppm	29	9.58±	0.95	13.7±	1.4	44.4±	3.6	46.5±	1.7	14.4±	0.5	31.0±	1.0	1090±	309
15 ppm	25	9.41±	1.17	13.5±	1.6	43.9±	4.1	47.0±	3.6	14.3±	0.8	30.5±	1.2	973±	322
45 ppm	22	8.77±	1.77	12.7±	2.4	41.8±	6.3	48.6±	4.9	14.6±	0.6	30.1±	1.9	931±	393

Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0438

ANIMAL : MOUSE Crj:BDF1

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)

ALL ANIMALS (105W)

PAGE : 4

Group Name	NO. of Animals	WBC 1 O ³ /μℓ		Differential N-BAND		WBC (%) N-SEG		EOSINO		BASO		MONO		LYMPHO		OTHER	
Control	29	3.31±	3.39	1±	1	26±	11	2±	2	0±	0	3±	2	65±	13	3±	6
5 ppm	29	4.81±	5.31	1±	1	23±	14	1±	1	0±	0	4±	2	67±	16	4±	9
15 ppm	25	3.47±	2.40	1±	2	26±	13	3±	6	0±	0	3±	1	64±	15	3±	7
45 ppm	22	3.64±	2.82	1±	1	28±	14	1±	1	0±	0	3±	2	60±	18	8±	15

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

APPENDIX G 1

BIOCHEMISTRY : MALE

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : MALE

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		TRIGLYCERIDE mg/dl	
Control	34	5.0±	0.5	2.6±	0.3	1.1±	0.3	0.14±	0.03	184±	48	101±	19	51±	18
5 ppm	35	5.2±	0.7	2.7±	0.3	1.1±	0.2	0.14±	0.08	182±	44	116±	39	46±	20
15 ppm	32	5.4±	1.6	2.6±	0.4	1.0±	0.3	0.13±	0.03	173±	53	109±	31	42±	23
45 ppm	35	4.9±	0.5	2.7±	0.3	1.2±	0.1**	0.14±	0.03	190±	29	93±	49**	43±	16

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		AST IU/l		ALT IU/l		LDH IU/l		ALP IU/l		G-GTP IU/l		CK IU/l	
Control	34	182±	34	194±	523	104±	279	905±	3442	148±	91	1±	1	71±	56
5 ppm	35	203±	57	687±	3088	304±	1272	1911±	8231	178±	158	1±	1	71±	82
15 ppm	32	185±	50	127±	198	65±	107	382±	395	147±	129	1±	1	110±	182
45 ppm	35	173±	68**	54±	19	35±	65**	275±	362	155±	41*	1±	1	64±	46

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	UREA NITROGEN mg/dl		SODIUM mEq/l		POTASSIUM mEq/l		CHLORIDE mEq/l		CALCIUM mg/dl		INORGANIC PHOSPHORUS mg/dl	
Control	34	30.1±	40.7	153±	2	4.2±	0.4	120±	3	8.7±	0.4	6.5±	2.1
5 ppm	35	22.6±	6.6	152±	1	4.2±	0.3	120±	2	8.8±	0.5	5.8±	0.4
15 ppm	32	26.0±	11.1	153±	2	4.3±	0.7	120±	2	8.9±	0.6	6.5±	1.4
45 ppm	35	23.1±	3.3	152±	1	4.2±	0.4	120±	2	8.6±	0.4	6.4±	0.7

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

APPENDIX G 2

BIOCHEMISTRY : FEMALE

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		TRIGLYCERIDE mg/dl	
Control	29	5.0±	0.6	2.7±	0.3	1.2±	0.2	0.13±	0.02	125±	30	88±	86	41±	29
5 ppm	29	4.8±	0.4	2.6±	0.3	1.2±	0.2	0.13±	0.03	134±	33	69±	16	41±	25
15 ppm	26	5.0±	0.7	2.7±	0.3	1.2±	0.2	0.15±	0.05	139±	21	78±	18	39±	20
45 ppm	22	4.6±	0.4	2.7±	0.2	1.5±	0.3**	0.17±	0.07**	145±	39	77±	25	30±	13

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 5

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		AST IU/l		ALT IU/l		LDH IU/l		ALP IU/l		G-GTP IU/l		CK IU/l	
Control	29	162±	125	112±	50	45±	18	373±	362	245±	142	3±	9	111±	141
5 ppm	29	134±	29	122±	105	56±	48	341±	275	208±	81	1±	1	92±	62
15 ppm	26	147±	32	121±	110	49±	36	550±	534	210±	88	2±	3	92±	65
45 ppm	22	142±	38	114±	122	44±	52*	651±	842	325±	142*	2±	1	127±	65*

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

PAGE : 6

Group Name	NO. of Animals	UREA NITROGEN mg/dl		SODIUM mEq/l		POTASSIUM mEq/l		CHLORIDE mEq/l		CALCIUM mg/dl		INORGANIC PHOSPHORUS mg/dl	
Control	29	19.7±	6.7	151±	2	4.1±	0.4	120±	2	9.1±	0.6	6.5±	1.0
5 ppm	29	18.1±	7.4	151±	2	4.0±	0.4	120±	2	8.8±	0.3*	6.5±	1.1
15 ppm	26	19.7±	7.2	151±	2	4.1±	0.5	120±	2	9.0±	0.5	6.4±	0.9
45 ppm	22	25.4±	15.5	152±	3	4.4±	0.3*	121±	3	8.7±	0.5*	6.9±	1.2

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

APPENDIX H 1

URINALYSIS : MALE

STUDY NO. : 0438

URINALYSIS

ANIMAL : MOUSE Crj:BDF1

MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	pH							CHI	Protein						CHI	Glucose						CHI	Ketone body						CHI	Occult blood					CHI
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		—	±	+	2+	3+	4+		—	±	+	2+	3+	4+		—	±	+	2+	3+	4+		—	±	+	2+	3+	
Control	35	0	1	8	13	11	2	0		0	9	22	4	0	0		35	0	0	0	0	0		17	15	2	0	1	0		30	1	1	0	3	
5 ppm	35	0	0	7	14	9	5	0		0	12	17	4	2	0		35	0	0	0	0	0		22	11	2	0	0	0		30	1	2	1	1	
15 ppm	33	0	2	11	8	7	5	0		0	11	18	4	0	0		33	0	0	0	0	0		20	10	3	0	0	0		29	0	1	0	3	
45 ppm	36	0	1	6	5	14	9	1		0	2	29	4	1	0		36	0	0	0	0	0		2	16	18	0	0	0	**	32	0	3	0	1	

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of CHI SQUARE

(HCL101)

BAYS 4

STUDY NO. : 0438

URINALYSIS

ANIMAL : MOUSE Crj:BDF1

MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	Urobilinogen					CHI
		±	+	2+	3+	4+	
Control	35	35	0	0	0	0	0
5 ppm	35	35	0	0	0	0	0
15 ppm	33	33	0	0	0	0	0
45 ppm	36	36	0	0	0	0	0

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of CHI SQUARE

(HCL101)

BATS 4

APPENDIX H 2

URINALYSIS : FEMALE

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : FEMALE

URINALYSIS

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	pH							CHI	Protein						CHI	Glucose						CHI	Ketone body						CHI	Occult blood					CHI
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		-	±	+	2+	3+	4+		-	±	+	2+	3+	4+		-	±	+	2+	3+	4+		-	±	+	2+	3+	
Control	34	0	1	6	4	6	17	0		1	7	14	10	1	1		34	0	0	0	0	0		11	20	1	2	0	0		27	0	0	3	4	
5 ppm	32	0	2	0	6	10	13	1		0	16	13	2	1	0		32	0	0	0	0	0		11	21	0	0	0	0		29	0	0	1	2	
15 ppm	29	0	2	1	6	5	15	0		0	14	10	4	1	0		29	0	0	0	0	0		13	15	1	0	0	0		24	0	1	0	4	
45 ppm	23	0	1	2	5	2	12	1		0	4	7	8	3	1		23	0	0	0	0	0		2	9	9	3	0	0	**	20	0	1	1	1	

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of CHI SQUARE

(HCL101)

BAIS 4

STUDY NO. : 0438

URINALYSIS

ANIMAL : MOUSE Crj:BDF1

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	Urobilinogen ± + 2+ 3+ 4+ CHI
------------	-------------------	----------------------------------

Control	34	34 0 0 0 0
---------	----	------------

5 ppm	32	32 0 0 0 0
-------	----	------------

15 ppm	29	29 0 0 0 0
--------	----	------------

45 ppm	23	23 0 0 0 0
--------	----	------------

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of CHI SQUARE

(HCL101)

BAIS 4

APPENDIX I 1

GROSS FINDINGS : MALE

ALL ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

GROSS FINDINGS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		15 ppm		45 ppm	
			50	(%)	49	(%)	50	(%)	49	(%)
skin/app	nodule		1	(2)	0	(0)	1	(2)	0	(0)
	ulcer		0	(0)	0	(0)	2	(4)	1	(2)
	erosion		0	(0)	1	(2)	0	(0)	0	(0)
	scab		2	(4)	4	(8)	1	(2)	0	(0)
subcutis	edema		1	(2)	1	(2)	0	(0)	2	(4)
	mass		1	(2)	1	(2)	2	(4)	0	(0)
lung	red		0	(0)	1	(2)	0	(0)	1	(2)
	white zone		0	(0)	0	(0)	1	(2)	0	(0)
	red zone		0	(0)	1	(2)	0	(0)	0	(0)
	nodule		8	(16)	9	(18)	6	(12)	4	(8)
lymph node	enlarged		5	(10)	9	(18)	7	(14)	0	(0)
thymus	enlarged		0	(0)	0	(0)	0	(0)	1	(2)
spleen	enlarged		3	(6)	4	(8)	7	(14)	3	(6)
	black zone		2	(4)	0	(0)	1	(2)	1	(2)
	nodule		3	(6)	1	(2)	1	(2)	0	(0)
salivary gl	enlarged		0	(0)	0	(0)	1	(2)	0	(0)
	nodule		0	(0)	1	(2)	1	(2)	0	(0)
gl stomach	black zone		1	(2)	0	(0)	0	(0)	0	(0)
small intes	nodule		1	(2)	4	(8)	1	(2)	0	(0)
liver	enlarged		2	(4)	1	(2)	1	(2)	2	(4)
	pale		0	(0)	0	(0)	2	(4)	0	(0)
	white zone		7	(14)	1	(2)	1	(2)	0	(0)

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

GROSS FINDINGS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 2

Organ	Findings	Group Name	Control		5 ppm		15 ppm		45 ppm	
		NO. of Animals	50	(%)	49	(%)	50	(%)	49	(%)
liver	red zone		3	(6)	4	(8)	6	(12)	2	(4)
	nodule		16	(32)	20	(41)	21	(42)	7	(14)
	cyst		1	(2)	0	(0)	1	(2)	0	(0)
	adhesion		0	(0)	0	(0)	1	(2)	0	(0)
pancreas	nodule		1	(2)	0	(0)	0	(0)	0	(0)
kidney	enlarged		0	(0)	0	(0)	2	(4)	0	(0)
	atrophic		1	(2)	0	(0)	0	(0)	1	(2)
	white zone		0	(0)	1	(2)	1	(2)	0	(0)
	nodule		1	(2)	2	(4)	2	(4)	0	(0)
	deformed		0	(0)	1	(2)	0	(0)	0	(0)
	granular		0	(0)	0	(0)	0	(0)	1	(2)
	hydronephrosis		4	(8)	2	(4)	1	(2)	0	(0)
	white zone		0	(0)	1	(2)	0	(0)	0	(0)
	nodule		0	(0)	2	(4)	1	(2)	0	(0)
	urine:marked retention		0	(0)	0	(0)	0	(0)	2	(4)
urin bladd	white zone		0	(0)	1	(2)	0	(0)	0	(0)
	nodule		0	(0)	2	(4)	1	(2)	0	(0)
	urine:marked retention		0	(0)	0	(0)	0	(0)	2	(4)
pituitary	enlarged		1	(2)	0	(0)	1	(2)	0	(0)
testis	enlarged		1	(2)	1	(2)	0	(0)	0	(0)
epididymis	nodule		2	(4)	0	(0)	0	(0)	1	(2)
semin ves	enlarged		0	(0)	0	(0)	1	(2)	0	(0)
prep/cli gl	nodule		2	(4)	1	(2)	0	(0)	0	(0)
brain	enlarged		0	(0)	0	(0)	0	(0)	1	(2)
	red zone		0	(0)	0	(0)	0	(0)	1	(2)

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

GROSS FINDINGS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		15 ppm		45 ppm	
			50	(%)	49	(%)	50	(%)	49	(%)
brain	nodule		0	(0)	1	(2)	0	(0)	1	(2)
periph nerv	nodule		1	(2)	0	(0)	0	(0)	0	(0)
eye	turbid		0	(0)	0	(0)	0	(0)	2	(4)
Harder gl	enlarged		1	(2)	0	(0)	5	(10)	3	(6)
	nodule		1	(2)	3	(6)	1	(2)	2	(4)
mediastinum	mass		1	(2)	0	(0)	0	(0)	1	(2)
peritoneum	nodule		1	(2)	0	(0)	0	(0)	1	(2)
retroperit	nodule		0	(0)	0	(0)	1	(2)	0	(0)
	mass		0	(0)	0	(0)	1	(2)	0	(0)
abdominal c	hemorrhage		2	(4)	0	(0)	3	(6)	3	(6)
	ascites		2	(4)	2	(4)	0	(0)	2	(4)
thoracic ca	hemorrhage		0	(0)	2	(4)	0	(0)	0	(0)
	pleural fluid		4	(8)	3	(6)	1	(2)	3	(6)
other	hindlimb:nodule		0	(0)	0	(0)	0	(0)	1	(2)
whole body	anemic		2	(4)	0	(0)	1	(2)	1	(2)

APPENDIX I 2

GROSS FINDINGS : MALE DEAD AND MORIBUND ANIMALS

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/CrLj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control	5 ppm	15 ppm	45 ppm
			15 (%)	14 (%)	18 (%)	13 (%)
skin/app	nodule		0 (0)	0 (0)	1 (6)	0 (0)
	ulcer		0 (0)	0 (0)	1 (6)	1 (8)
	scab		2 (13)	2 (14)	1 (6)	0 (0)
subcutis	edema		1 (7)	1 (7)	0 (0)	2 (15)
	mass		1 (7)	0 (0)	2 (11)	0 (0)
lung	red		0 (0)	1 (7)	0 (0)	1 (8)
	red zone		0 (0)	1 (7)	0 (0)	0 (0)
	nodule		0 (0)	5 (36)	1 (6)	0 (0)
lymph node	enlarged		4 (27)	4 (29)	3 (17)	0 (0)
thymus	enlarged		0 (0)	0 (0)	0 (0)	1 (8)
spleen	enlarged		2 (13)	2 (14)	4 (22)	2 (15)
	black zone		0 (0)	0 (0)	1 (6)	0 (0)
	nodule		2 (13)	1 (7)	1 (6)	0 (0)
salivary gl	enlarged		0 (0)	0 (0)	1 (6)	0 (0)
	nodule		0 (0)	1 (7)	1 (6)	0 (0)
gl stomach	black zone		1 (7)	0 (0)	0 (0)	0 (0)
small intes	nodule		1 (7)	2 (14)	0 (0)	0 (0)
liver	enlarged		1 (7)	1 (7)	1 (6)	2 (15)
	pale		0 (0)	0 (0)	2 (11)	0 (0)
	white zone		3 (20)	1 (7)	1 (6)	0 (0)
	red zone		1 (7)	0 (0)	3 (17)	1 (8)
	nodule		6 (40)	5 (36)	9 (50)	4 (31)

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

GROSS FINDINGS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		15 ppm		45 ppm	
			15	(%)	14	(%)	18	(%)	13	(%)
liver	adhesion		0	(0)	0	(0)	1	(6)	0	(0)
pancreas	nodule		1	(7)	0	(0)	0	(0)	0	(0)
kidney	enlarged		0	(0)	0	(0)	1	(6)	0	(0)
	nodule		0	(0)	1	(7)	2	(11)	0	(0)
	granular		0	(0)	0	(0)	0	(0)	1	(8)
	hydronephrosis		2	(13)	1	(7)	1	(6)	0	(0)
urin bladd	urine:marked retention		0	(0)	0	(0)	0	(0)	2	(15)
testis	enlarged		1	(7)	1	(7)	0	(0)	0	(0)
epididymis	nodule		1	(7)	0	(0)	0	(0)	1	(8)
prep/cli gl	nodule		1	(7)	0	(0)	0	(0)	0	(0)
brain	enlarged		0	(0)	0	(0)	0	(0)	1	(8)
	red zone		0	(0)	0	(0)	0	(0)	1	(8)
	nodule		0	(0)	1	(7)	0	(0)	1	(8)
periph nerv	nodule		1	(7)	0	(0)	0	(0)	0	(0)
Harder gl	enlarged		0	(0)	0	(0)	2	(11)	0	(0)
	nodule		0	(0)	0	(0)	1	(6)	0	(0)
peritoneum	nodule		1	(7)	0	(0)	0	(0)	1	(8)
retroperit	nodule		0	(0)	0	(0)	1	(6)	0	(0)
	mass		0	(0)	0	(0)	1	(6)	0	(0)
abdominal c	hemorrhage		2	(13)	0	(0)	3	(17)	3	(23)
	ascites		2	(13)	2	(14)	0	(0)	2	(15)
thoracic ca	hemorrhage		0	(0)	2	(14)	0	(0)	0	(0)

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		15 ppm		45 ppm	
			15	(%)	14	(%)	18	(%)	13	(%)
thoracic ca	pleural fluid		3	(20)	3	(21)	1	(6)	3	(23)
other	hindlimb:nodule		0	(0)	0	(0)	0	(0)	1	(8)
whole body	anemic		2	(13)	0	(0)	1	(6)	1	(8)

(HPT080)

BAIS 4

APPENDIX I 3

GROSS FINDINGS : MALE SACRIFICED ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[BDF1]
 REPORT TYPE : A1
 SEX : MALE

GROSS FINDINGS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		15 ppm		45 ppm	
			35	(%)	35	(%)	32	(%)	36	(%)
skin/app	nodule		1	(3)	0	(0)	0	(0)	0	(0)
	ulcer		0	(0)	0	(0)	1	(3)	0	(0)
	erosion		0	(0)	1	(3)	0	(0)	0	(0)
	scab		0	(0)	2	(6)	0	(0)	0	(0)
subcutis	mass		0	(0)	1	(3)	0	(0)	0	(0)
lung	white zone		0	(0)	0	(0)	1	(3)	0	(0)
	nodule		8	(23)	4	(11)	5	(16)	4	(11)
lymph node	enlarged		1	(3)	5	(14)	4	(13)	0	(0)
spleen	enlarged		1	(3)	2	(6)	3	(9)	1	(3)
	black zone		2	(6)	0	(0)	0	(0)	1	(3)
	nodule		1	(3)	0	(0)	0	(0)	0	(0)
small intes	nodule		0	(0)	2	(6)	1	(3)	0	(0)
liver	enlarged		1	(3)	0	(0)	0	(0)	0	(0)
	white zone		4	(11)	0	(0)	0	(0)	0	(0)
	red zone		2	(6)	4	(11)	3	(9)	1	(3)
	nodule		10	(29)	15	(43)	12	(38)	3	(8)
	cyst		1	(3)	0	(0)	1	(3)	0	(0)
kidney	enlarged		0	(0)	0	(0)	1	(3)	0	(0)
	atrophic		1	(3)	0	(0)	0	(0)	1	(3)
	white zone		0	(0)	1	(3)	1	(3)	0	(0)
	nodule		1	(3)	1	(3)	0	(0)	0	(0)
	deformed		0	(0)	1	(3)	0	(0)	0	(0)

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

GROSS FINDINGS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		15 ppm		45 ppm	
			35	(%)	35	(%)	32	(%)	36	(%)
kidney	hydronephrosis		2	(6)	1	(3)	0	(0)	0	(0)
urin bladd	white zone		0	(0)	1	(3)	0	(0)	0	(0)
	nodule		0	(0)	2	(6)	1	(3)	0	(0)
pituitary	enlarged		1	(3)	0	(0)	1	(3)	0	(0)
epididymis	nodule		1	(3)	0	(0)	0	(0)	0	(0)
semin ves	enlarged		0	(0)	0	(0)	1	(3)	0	(0)
prep/cli gl	nodule		1	(3)	1	(3)	0	(0)	0	(0)
eye	turbid		0	(0)	0	(0)	0	(0)	2	(6)
Harder gl	enlarged		1	(3)	0	(0)	3	(9)	3	(8)
	nodule		1	(3)	3	(9)	0	(0)	2	(6)
mediastinum	mass		1	(3)	0	(0)	0	(0)	1	(3)
thoracic ca	pleural fluid		1	(3)	0	(0)	0	(0)	0	(0)

APPENDIX I 4

GROSS FINDINGS : FEMALE

ALL ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control	5 ppm	15 ppm	45 ppm
			50 (%)	50 (%)	50 (%)	50 (%)
skin/app	nodule		1 (2)	0 (0)	0 (0)	1 (2)
	ulcer		1 (2)	0 (0)	0 (0)	0 (0)
subcutis	edema		1 (2)	7 (14)	8 (16)	12 (24)
	mass		2 (4)	1 (2)	3 (6)	3 (6)
lung	red		0 (0)	1 (2)	2 (4)	0 (0)
	red zone		0 (0)	1 (2)	0 (0)	0 (0)
	black zone		0 (0)	0 (0)	0 (0)	1 (2)
	nodule		9 (18)	8 (16)	5 (10)	1 (2)
lymph node	enlarged		8 (16)	6 (12)	6 (12)	7 (14)
thymus	enlarged		1 (2)	1 (2)	0 (0)	0 (0)
spleen	enlarged		9 (18)	8 (16)	11 (22)	10 (20)
	black zone		0 (0)	1 (2)	0 (0)	0 (0)
	nodule		1 (2)	0 (0)	1 (2)	1 (2)
stomach	nodule		1 (2)	0 (0)	0 (0)	0 (0)
small intes	nodule		2 (4)	2 (4)	1 (2)	0 (0)
	dilated		0 (0)	0 (0)	0 (0)	1 (2)
liver	enlarged		3 (6)	4 (8)	5 (10)	8 (16)
	white zone		4 (8)	7 (14)	13 (26)	10 (20)
	red zone		1 (2)	5 (10)	6 (12)	2 (4)
	nodule		8 (16)	8 (16)	2 (4)	5 (10)
	cyst		0 (0)	0 (0)	1 (2)	0 (0)
	rough		2 (4)	1 (2)	0 (0)	0 (0)

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		15 ppm		45 ppm	
			50	(%)	50	(%)	50	(%)	50	(%)
gall bladd	adhesion		0	(0)	1	(2)	0	(0)	0	(0)
pancreas	nodule		2	(4)	0	(0)	1	(2)	0	(0)
kidney	enlarged		1	(2)	0	(0)	1	(2)	0	(0)
	pale		0	(0)	0	(0)	2	(4)	0	(0)
	nodule		1	(2)	2	(4)	0	(0)	0	(0)
	deformed		1	(2)	0	(0)	0	(0)	0	(0)
	hydronephrosis		1	(2)	2	(4)	2	(4)	1	(2)
urin bladd	nodule		1	(2)	0	(0)	0	(0)	0	(0)
	urine:marked retention		1	(2)	0	(0)	2	(4)	1	(2)
	urine:red		0	(0)	0	(0)	1	(2)	0	(0)
pituitary	enlarged		4	(8)	5	(10)	5	(10)	1	(2)
	red zone		3	(6)	4	(8)	1	(2)	0	(0)
	brown zone		1	(2)	0	(0)	0	(0)	0	(0)
	nodule		4	(8)	5	(10)	2	(4)	1	(2)
adrenal	enlarged		1	(2)	0	(0)	0	(0)	0	(0)
ovary	enlarged		1	(2)	6	(12)	6	(12)	5	(10)
	cyst		6	(12)	9	(18)	9	(18)	8	(16)
uterus	enlarged		0	(0)	0	(0)	2	(4)	0	(0)
	nodule		8	(16)	12	(24)	13	(26)	16	(32)
	cyst		0	(0)	0	(0)	1	(2)	0	(0)
	dilated lumen		0	(0)	0	(0)	2	(4)	2	(4)
vagina	nodule		0	(0)	0	(0)	2	(4)	0	(0)

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 6

Organ	Findings	Group Name NO. of Animals	Control	5 ppm	15 ppm	45 ppm
			50 (%)	50 (%)	50 (%)	50 (%)
brain	red zone		0 (0)	0 (0)	1 (2)	0 (0)
	yellow zone		1 (2)	0 (0)	0 (0)	0 (0)
periph nerv	nodule		2 (4)	0 (0)	0 (0)	1 (2)
eye	turbid		1 (2)	1 (2)	0 (0)	0 (0)
Harder gl	enlarged		2 (4)	2 (4)	1 (2)	0 (0)
	nodule		0 (0)	0 (0)	1 (2)	2 (4)
muscle	nodule		1 (2)	0 (0)	0 (0)	0 (0)
mediastinum	nodule		1 (2)	1 (2)	0 (0)	0 (0)
	mass		3 (6)	3 (6)	2 (4)	2 (4)
peritoneum	nodule		1 (2)	1 (2)	1 (2)	0 (0)
	adhesion		0 (0)	0 (0)	0 (0)	1 (2)
	thick		0 (0)	1 (2)	0 (0)	1 (2)
retroperit	mass		0 (0)	1 (2)	0 (0)	1 (2)
abdominal c	hemorrhage		1 (2)	5 (10)	6 (12)	1 (2)
	ascites		6 (12)	7 (14)	8 (16)	9 (18)
thoracic ca	hemorrhage		2 (4)	0 (0)	0 (0)	0 (0)
	pleural fluid		11 (22)	12 (24)	10 (20)	8 (16)
other	nose:nodule		0 (0)	0 (0)	0 (0)	1 (2)
whole body	anemic		0 (0)	2 (4)	1 (2)	2 (4)

APPENDIX I 5

GROSS FINDINGS : FEMALE DEAD AND MORIBUND ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control	5 ppm	15 ppm	45 ppm
			17 (%)	19 (%)	23 (%)	28 (%)
subcutis	edema		1 (6)	6 (32)	8 (35)	12 (43)
	mass		2 (12)	0 (0)	1 (4)	3 (11)
lung	red		0 (0)	1 (5)	2 (9)	0 (0)
	red zone		0 (0)	1 (5)	0 (0)	0 (0)
	black zone		0 (0)	0 (0)	0 (0)	1 (4)
	nodule		3 (18)	3 (16)	2 (9)	1 (4)
lymph node	enlarged		5 (29)	2 (11)	2 (9)	4 (14)
spleen	enlarged		6 (35)	6 (32)	8 (35)	6 (21)
small intes	nodule		0 (0)	1 (5)	1 (4)	0 (0)
	dilated		0 (0)	0 (0)	0 (0)	1 (4)
liver	enlarged		3 (18)	4 (21)	5 (22)	7 (25)
	white zone		4 (24)	5 (26)	12 (52)	10 (36)
	red zone		0 (0)	1 (5)	0 (0)	0 (0)
	nodule		1 (6)	4 (21)	1 (4)	2 (7)
	rough		1 (6)	1 (5)	0 (0)	0 (0)
gall bladd	adhesion		0 (0)	1 (5)	0 (0)	0 (0)
pancreas	nodule		2 (12)	0 (0)	1 (4)	0 (0)
kidney	enlarged		0 (0)	0 (0)	1 (4)	0 (0)
	pale		0 (0)	0 (0)	2 (9)	0 (0)
	nodule		0 (0)	2 (11)	0 (0)	0 (0)
	hydronephrosis		1 (6)	2 (11)	1 (4)	1 (4)
urin bladd	urine:marked retention		1 (6)	0 (0)	2 (9)	1 (4)

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control	5 ppm	15 ppm	45 ppm
			17 (%)	19 (%)	23 (%)	28 (%)
urin bladd	urine:red		0 (0)	0 (0)	1 (4)	0 (0)
pituitary	enlarged		2 (12)	2 (11)	1 (4)	1 (4)
	red zone		0 (0)	1 (5)	0 (0)	0 (0)
	nodule		1 (6)	1 (5)	0 (0)	1 (4)
adrenal	enlarged		1 (6)	0 (0)	0 (0)	0 (0)
ovary	enlarged		1 (6)	4 (21)	5 (22)	3 (11)
	cyst		3 (18)	1 (5)	2 (9)	2 (7)
uterus	enlarged		0 (0)	0 (0)	2 (9)	0 (0)
	nodule		6 (35)	8 (42)	12 (52)	10 (36)
brain	red zone		0 (0)	0 (0)	1 (4)	0 (0)
	yellow zone		1 (6)	0 (0)	0 (0)	0 (0)
periph nerv	nodule		2 (12)	0 (0)	0 (0)	1 (4)
muscle	nodule		1 (6)	0 (0)	0 (0)	0 (0)
mediastinum	mass		2 (12)	2 (11)	2 (9)	2 (7)
peritoneum	nodule		0 (0)	1 (5)	1 (4)	0 (0)
	adhesion		0 (0)	0 (0)	0 (0)	1 (4)
	thick		0 (0)	1 (5)	0 (0)	1 (4)
retroperit	mass		0 (0)	1 (5)	0 (0)	0 (0)
abdominal c	hemorrhage		1 (6)	5 (26)	6 (26)	1 (4)
	ascites		5 (29)	5 (26)	7 (30)	8 (29)
thoracic ca	hemorrhage		2 (12)	0 (0)	0 (0)	0 (0)
	pleural fluid		8 (47)	8 (42)	8 (35)	8 (29)

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 6

Organ	Findings	Group Name		Control		5 ppm		15 ppm		45 ppm	
		NO. of Animals		17	(%)	19	(%)	23	(%)	28	(%)
whole body	anemic			0	(0)	1	(5)	1	(4)	2	(7)

(HPT080)

BAIS 4

APPENDIX I 6

GROSS FINDINGS : FEMALE SACRIFICED ANIMALS

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		15 ppm		45 ppm	
			33	(%)	31	(%)	27	(%)	22	(%)
skin/app	nodule		1	(3)	0	(0)	0	(0)	1	(5)
	ulcer		1	(3)	0	(0)	0	(0)	0	(0)
subcutis	edema		0	(0)	1	(3)	0	(0)	0	(0)
	mass		0	(0)	1	(3)	2	(7)	0	(0)
lung	nodule		6	(18)	5	(16)	3	(11)	0	(0)
lymph node	enlarged		3	(9)	4	(13)	4	(15)	3	(14)
thymus	enlarged		1	(3)	1	(3)	0	(0)	0	(0)
spleen	enlarged		3	(9)	2	(6)	3	(11)	4	(18)
	black zone		0	(0)	1	(3)	0	(0)	0	(0)
	nodule		1	(3)	0	(0)	1	(4)	1	(5)
stomach	nodule		1	(3)	0	(0)	0	(0)	0	(0)
small intes	nodule		2	(6)	1	(3)	0	(0)	0	(0)
liver	enlarged		0	(0)	0	(0)	0	(0)	1	(5)
	white zone		0	(0)	2	(6)	1	(4)	0	(0)
	red zone		1	(3)	4	(13)	6	(22)	2	(9)
	nodule		7	(21)	4	(13)	1	(4)	3	(14)
	cyst		0	(0)	0	(0)	1	(4)	0	(0)
	rough		1	(3)	0	(0)	0	(0)	0	(0)
kidney	enlarged		1	(3)	0	(0)	0	(0)	0	(0)
	nodule		1	(3)	0	(0)	0	(0)	0	(0)
	deformed		1	(3)	0	(0)	0	(0)	0	(0)
	hydronephrosis		0	(0)	0	(0)	1	(4)	0	(0)

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Crlj[Crlj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control	5 ppm	15 ppm	45 ppm
			33 (%)	31 (%)	27 (%)	22 (%)
urin bladd	nodule		1 (3)	0 (0)	0 (0)	0 (0)
pituitary	enlarged		2 (6)	3 (10)	4 (15)	0 (0)
	red zone		3 (9)	3 (10)	1 (4)	0 (0)
	brown zone		1 (3)	0 (0)	0 (0)	0 (0)
	nodule		3 (9)	4 (13)	2 (7)	0 (0)
ovary	enlarged		0 (0)	2 (6)	1 (4)	2 (9)
	cyst		3 (9)	8 (26)	7 (26)	6 (27)
uterus	nodule		2 (6)	4 (13)	1 (4)	6 (27)
	cyst		0 (0)	0 (0)	1 (4)	0 (0)
	dilated lumen		0 (0)	0 (0)	2 (7)	2 (9)
vagina	nodule		0 (0)	0 (0)	2 (7)	0 (0)
eye	turbid		1 (3)	1 (3)	0 (0)	0 (0)
Harder gl	enlarged		2 (6)	2 (6)	1 (4)	0 (0)
	nodule		0 (0)	0 (0)	1 (4)	2 (9)
mediastinum	nodule		1 (3)	1 (3)	0 (0)	0 (0)
	mass		1 (3)	1 (3)	0 (0)	0 (0)
peritoneum	nodule		1 (3)	0 (0)	0 (0)	0 (0)
retroperit	mass		0 (0)	0 (0)	0 (0)	1 (5)
abdominal c	ascites		1 (3)	2 (6)	1 (4)	1 (5)
thoracic ca	pleural fluid		3 (9)	4 (13)	2 (7)	0 (0)
other	nose:nodule		0 (0)	0 (0)	0 (0)	1 (5)
whole body	anemic		0 (0)	1 (3)	0 (0)	0 (0)

APPENDIX J 1

ORGAN WEIGHT, ABSOLUTE : MALE

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE
 UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
 SURVIVAL ANIMALS (105W)

PAGE : 1

Group Name	NO. of Animals	Body Weight	ADRENALS		TESTES		HEART		LUNGS		KIDNEYS	
Control	35	46.4± 7.8	0.009±	0.002	0.223±	0.033	0.226±	0.025	0.249±	0.167	0.730±	0.336
5 ppm	35	46.2± 6.9	0.009±	0.002	0.230±	0.028	0.224±	0.021	0.215±	0.022	0.689±	0.211
15 ppm	32	42.7± 8.8	0.009±	0.002	0.218±	0.035	0.214±	0.028	0.236±	0.077	0.649±	0.175
45 ppm	36	35.0± 5.0**	0.009±	0.002	0.204±	0.032*	0.185±	0.012**	0.201±	0.025**	0.573±	0.046**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL040)

BAIS 4

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE
UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
SURVIVAL ANIMALS (105W)

PAGE : 2

Group Name	NO. of Animals	SPLEEN		LIVER		BRAIN	
Control	35	0.107±	0.108	1.944±	1.181	0.464±	0.018
5 ppm	35	0.125±	0.146	1.857±	0.499	0.455±	0.015
15 ppm	32	0.183±	0.295	1.698±	0.480	0.457±	0.016
45 ppm	36	0.064±	0.060**	1.387±	0.523**	0.456±	0.021

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL040)

BAIS 4

APPENDIX J 2

ORGAN WEIGHT, ABSOLUTE : FEMALE

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
SURVIVAL ANIMALS (105W)

PAGE : 3

Group Name	NO. of Animals	Body Weight	ADRENALS		OVARIES		HEART		LUNGS		KIDNEYS	
Control	33	29.4± 4.0	0.012±	0.002	0.038±	0.020	0.180±	0.034	0.241±	0.148	0.503±	0.239
5 ppm	31	32.0± 4.8*	0.013±	0.002	0.366±	1.825	0.185±	0.034	0.229±	0.062	0.474±	0.092
15 ppm	27	31.7± 5.0	0.017±	0.026	0.107±	0.251	0.175±	0.029	0.239±	0.146	0.484±	0.145
45 ppm	22	26.1± 3.2*	0.011±	0.002	0.051±	0.067	0.149±	0.021**	0.219±	0.090	0.422±	0.071*

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL040)

BAIS 4

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

ORGAN WEIGHT:ABSOLUTE (SUMMARY)
SURVIVAL ANIMALS (105W)

PAGE : 4

Group Name	NO. of Animals	SPLEEN		LIVER		BRAIN	
Control	33	0.177±	0.158	1.550±	0.424	0.484±	0.017
5 ppm	31	0.187±	0.181	1.668±	0.586	0.482±	0.017
15 ppm	27	0.283±	0.399	1.612±	0.632	0.480±	0.015
45 ppm	22	0.270±	0.585	1.510±	1.075*	0.469±	0.013**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL040)

BAIS 4

APPENDIX K 1

ORGAN WEIGHT, RELATIVE : MALE

STUDY NO. : 0438
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE
 UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
 SURVIVAL ANIMALS (105W)

PAGE : 1

Group Name	NO. of Animals	Body Weight (g)	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS
Control	35	46.4± 7.8	0.021± 0.006	0.491± 0.087	0.504± 0.132	0.585± 0.581	1.723± 1.483
5 ppm	35	46.2± 6.9	0.020± 0.005	0.506± 0.086	0.496± 0.099	0.478± 0.119	1.542± 0.653
15 ppm	32	42.7± 8.8	0.022± 0.007	0.525± 0.105	0.520± 0.122	0.581± 0.249	1.604± 0.682
45 ppm	36	35.0± 5.0**	0.026± 0.006**	0.589± 0.102**	0.537± 0.061**	0.584± 0.094**	1.660± 0.203**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL042)

BAIS 4

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (105W)

PAGE : 2

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	35	0.238 ± 0.233	4.399 ± 3.342	1.035 ± 0.232
5 ppm	35	0.289 ± 0.379	4.119 ± 1.328	1.010 ± 0.182
15 ppm	32	0.443 ± 0.639	4.203 ± 1.908	1.123 ± 0.284
45 ppm	36	0.190 ± 0.192	4.030 ± 1.719	1.329 ± 0.194**

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL042)

BAIS 4

APPENDIX K 2

ORGAN WEIGHT, RELATIVE : FEMALE

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (105W)

PAGE : 3

Group Name	NO. of Animals	Body Weight (g)	ADRENALS	OVARIES	HEART	LUNGS	KIDNEYS
Control	33	29.4± 4.0	0.042± 0.008	0.130± 0.069	0.618± 0.104	0.825± 0.473	1.702± 0.619
5 ppm	31	32.0± 4.8*	0.040± 0.009	1.017± 4.970	0.582± 0.091	0.718± 0.153	1.489± 0.203
15 ppm	27	31.7± 5.0	0.057± 0.099	0.322± 0.702	0.555± 0.059	0.817± 0.798	1.547± 0.502
45 ppm	22	26.1± 3.2*	0.044± 0.010	0.195± 0.235	0.578± 0.092	0.839± 0.300	1.625± 0.213

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL042)

BAIS 4

STUDY NO. : 0438
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

ORGAN WEIGHT:RELATIVE (SUMMARY)
SURVIVAL ANIMALS (105W)

PAGE : 4

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	33	0.592± 0.483	5.268± 1.100	1.678± 0.224
5 ppm	31	0.571± 0.498	5.171± 1.311	1.540± 0.226*
15 ppm	27	0.868± 1.207	5.019± 1.243	1.554± 0.255
45 ppm	22	0.971± 2.022	5.624± 3.274	1.820± 0.210

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Test of Dunnett

(HCL042)

BAIS 4

APPENDIX L 1

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE
ALL ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 1

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				49				50				49			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																		
skin/app			<50>				<49>				<50>				<49>			
	inflammation		0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	scab		2	1	0	0	2	1	0	0	1	0	0	0	0	0	0	0
			(4)	(2)	(0)	(0)	(4)	(2)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Respiratory system}																		
nasal cavit			<50>				<49>				<50>				<49>			
	exudate		1	0	0	0	0	0	0	0	1	0	0	0	20	0	0	0 **
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(41)	(0)	(0)	(0)
	angiectasis		0	0	0	0	0	0	0	0	14	0	0	0 **	17	0	0	0 **
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(28)	(0)	(0)	(0)	(35)	(0)	(0)	(0)
	thrombus		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	proliferation:histiocyte		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		13	2	0	0	8	1	0	0	9	1	0	0	15	0	0	0
			(26)	(4)	(0)	(0)	(16)	(2)	(0)	(0)	(18)	(2)	(0)	(0)	(31)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm			
			50				49				50				49			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			<50>				<49>				<50>				<49>			
eosinophilic change:respiratory epithelium			6	2	0	0	3	1	1	0	9	0	1	0	16	0	0	0 *
			(12)	(4)	(0)	(0)	(6)	(2)	(2)	(0)	(18)	(0)	(2)	(0)	(33)	(0)	(0)	(0)
respiratory metaplasia:olfactory epithelium			6	0	0	0	4	0	0	0	38	3	0	0 **	3	44	0	0 **
			(12)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(76)	(6)	(0)	(0)	(6)	(90)	(0)	(0)
respiratory metaplasia:gland			8	2	0	0	8	0	0	0	46	3	0	0 **	4	44	0	0 **
			(16)	(4)	(0)	(0)	(16)	(0)	(0)	(0)	(92)	(6)	(0)	(0)	(8)	(90)	(0)	(0)
desquamation:olfactory epithelium			0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
cuboidal change:respiratory epithelium			0	0	0	0	8	0	0	0 **	27	15	0	0 **	39	7	0	0 **
			(0)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(54)	(30)	(0)	(0)	(80)	(14)	(0)	(0)
nodular hyperplasia:transitional epithelium			0	0	0	0	0	0	0	0	4	0	0	0	18	0	0	0 **
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(37)	(0)	(0)	(0)
atrophy:olfactory epithelium			8	1	0	0	10	0	0	0	9	0	0	0	6	1	0	0
			(16)	(2)	(0)	(0)	(20)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(12)	(2)	(0)	(0)
nasopharynx			<50>				<49>				<50>				<49>			
eosinophilic change			3	1	0	0	1	2	0	0	2	3	1	0	9	1	0	0
			(6)	(2)	(0)	(0)	(2)	(4)	(0)	(0)	(4)	(6)	(2)	(0)	(18)	(2)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm			
			50				49				50				49			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
larynx	arteritis		<50>				<49>				<50>				<48>			
		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
lung	congestion		<50>				<49>				<50>				<49>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
				(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	inflammatory infiltration		0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
					(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)
	lymphocytic infiltration		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
					(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	interstitial pneumonia		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
					(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
	bronchiolar-alveolar cell hyperplasia		2	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0
					(4)	(2)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
{Hematopoietic system}																		
bone marrow	increased hematopoiesis		<50>				<49>				<50>				<49>			
		1	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference : * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 4

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm			
			50				49				50				49			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
bone marrow			<50>				<49>				<50>				<49>			
	decreased hematopoiesis		1	0	0	0	1	0	0	0	2	1	0	0	5	0	0	0
			(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(2)	(0)	(0)	(10)	(0)	(0)	(0)
	erythropoiesis:increased		2	0	0	0	2	0	0	0	3	0	0	0	2	0	0	0
			(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	granulopoiesis:increased		0	0	0	0	1	0	0	0	1	0	1	0	1	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(2)	(0)	(2)	(0)	(0)	(0)
lymph node			<50>				<49>				<50>				<49>			
	plasma cell hyperplasia		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
spleen			<50>				<49>				<50>				<49>			
	congestion		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of amyloid		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of melanin		2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 5

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm			
			50				49				50				49			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
{Hematopoietic system}																		
spleen			<50>				<49>				<50>				<49>			
	plasma cell hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	extramedullary hematopoiesis		3 (6)	4 (8)	1 (2)	1 (2)	7 (14)	3 (6)	4 (8)	0 (0)	6 (12)	8 (16)	4 (8)	0 (0)	3 (6)	0 (0)	6 (12)	0 (0)
	follicular hyperplasia		2 (4)	1 (2)	0 (0)	0 (0)	4 (8)	2 (4)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)
{Circulatory system}																		
heart			<50>				<49>				<50>				<49>			
	mineralization		4 (8)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	2 (4)	1 (2)	0 (0)	0 (0)
	inflammatory infiltration		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	lymphocytic infiltration		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 (2)	0 (0)	0 (0)	0 (0)
	arteritis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				50				49				50				49			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																					
tooth	dysplasia	<50>				<49>				<50>				<49>				<49>			
		17	6	3	2	20	7	2	0	20	7	1	0	23	4	0	0	23	4	0	0
		(34)	(12)	(6)	(4)	(41)	(14)	(4)	(0)	(40)	(14)	(2)	(0)	(47)	(8)	(0)	(0)	(47)	(8)	(0)	(0)
tongue	arteritis	<50>				<49>				<50>				<48>				<48>			
		0	0	0	0	1	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(4)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
salivary gl	inflammatory infiltration	<50>				<49>				<50>				<49>				<49>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	lymphocytic infiltration	1	0	0	0	2	0	0	0	3	0	0	0	2	0	0	0	2	0	0	0
		(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
stomach	erosion	<50>				<49>				<50>				<49>				<49>			
		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	inflammatory infiltration	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

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ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
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HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 7

		Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study															
		Grade															
Organ	Findings	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																	
stomach		<50>				<49>				<50>				<49>			
	hyperplasia:forestomach	0	1	0	0	2	0	0	0	1	1	0	0	1	0	0	0
		(0)	(2)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(2)	(0)	(0)	(2)	(0)	(0)	(0)
	hyperkeratosis:forestomach	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	erosion:glandular stomach	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:glandular stomach	25	24	0	0	20	29	0	0	15	32	0	0	28	12	0	0 **
		(50)	(48)	(0)	(0)	(41)	(59)	(0)	(0)	(30)	(64)	(0)	(0)	(57)	(24)	(0)	(0)
liver		<50>				<49>				<50>				<49>			
	angiectasis	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(2)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:central	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	fatty change:central	3	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0
		(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

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 REPORT TYPE : A1
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HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 8

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				49				50				49			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<50>				<49>				<50>				<49>			
	granulation		21 (42)	2 (4)	0 (0)	0 (0)	23 (47)	0 (0)	0 (0)	0 (0)	24 (48)	0 (0)	0 (0)	0 (0)	31 (63)	2 (4)	0 (0)	0 (0)
	clear cell focus		3 (6)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	acidophilic cell focus		2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	basophilic cell focus		0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
	bile ductular proliferation		1 (2)	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)
	biliary cyst		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
gall bladd			<50>				<49>				<50>				<49>			
	intestinal metaplasia		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
pancreas			<50>				<49>				<50>				<49>			
	islet cell hyperplasia		1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 9

Organ	Findings	Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				49				50				49			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney			<50>				<49>				<50>				<49>			
	infaret		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	basophilic change		35	2	0	0	31	4	0	0	34	2	0	0	31	0	1	0
			(70)	(4)	(0)	(0)	(63)	(8)	(0)	(0)	(68)	(4)	(0)	(0)	(63)	(0)	(2)	(0)
	deposit of hemosiderin		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	lymphocytic infiltration		1	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
inflammatory polyp		2	0	1	0	0	1	0	0	0	1	1	0	0	0	1	0	
		(4)	(0)	(2)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(2)	(0)	(0)	(0)	(2)	(0)	
vacuolization of proximal tubule		40	0	0	0	41	0	0	0	40	0	0	0	31	0	0	0	
		(80)	(0)	(0)	(0)	(84)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(63)	(0)	(0)	(0)	
hydronephrosis		0	0	5	0	0	1	1	0	2	1	2	0	0	0	1	0	
		(0)	(0)	(10)	(0)	(0)	(2)	(2)	(0)	(4)	(2)	(4)	(0)	(0)	(0)	(2)	(0)	
retention cyst		0	1	0	0	1	0	0	0	2	0	0	0	0	0	0	0	
		(0)	(2)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 10

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm			
			50				49				50				49			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney			<50>				<49>				<50>				<49>			
	mineralization:cortico-medullary junction	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	mineralization:papilla	7 (14)	0 (0)	0 (0)	0 (0)	9 (18)	0 (0)	0 (0)	0 (0)	0 (0)	5 (10)	1 (2)	0 (0)	0 (0)	12 (24)	0 (0)	0 (0)	0 (0)
	mineralization:cortex	28 (56)	2 (4)	0 (0)	0 (0)	29 (59)	6 (12)	0 (0)	0 (0)	0 (0)	38 (76)	2 (4)	0 (0)	0 (0)	22 (45)	2 (4)	0 (0)	0 (0)
	hyperplasia:tubular epithelium	4 (8)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	eosinophilic droplet:proximal tubule	1 (2)	1 (2)	1 (2)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	3 (6)	1 (2)	0 (0)	0 (0)	
urin bladd			<50>				<49>				<48>				<49>			
	inflammation	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	inflammatory infiltration	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 (2)	0 (0)	0 (0)	0 (0)	
	lymphocytic infiltration	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 11

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				49				50				49			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
urin bladd			<50>				<49>				<48>				<49>			
	xanthogranuloma		0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)
{Endocrine system}																		
pituitary			<50>				<49>				<50>				<49>			
	cyst		5	0	0	0	8	0	0	0	7	0	0	0	8	0	0	0
			(10)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(16)	(0)	(0)	(0)
	hyperplasia		1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	Rathke pouch		0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	focal hypertrophy		2	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0
			(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
thyroid			<50>				<49>				<50>				<48>			
	follicular hyperplasia		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Crlj[Crlj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 12

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				50				49				50				49			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																					
thyroid		<50>				<49>				<50>				<48>							
	C-cell hyperplasia	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
adrenal		<50>				<49>				<50>				<49>							
	spindle-cell hyperplasia	19	6	0	0	22	8	0	0	17	11	0	0	17	11	0	0	17	11	0	0
		(38)	(12)	(0)	(0)	(45)	(16)	(0)	(0)	(34)	(22)	(0)	(0)	(35)	(22)	(0)	(0)	(35)	(22)	(0)	(0)
{Reproductive system}																					
testis		<50>				<49>				<50>				<49>							
	mineralization	27	1	0	0	29	3	1	0	30	3	1	0	32	1	0	0	32	1	0	0
		(54)	(2)	(0)	(0)	(59)	(6)	(2)	(0)	(60)	(6)	(2)	(0)	(65)	(2)	(0)	(0)	(65)	(2)	(0)	(0)
		<50>				<49>				<50>				<49>							
	xanthogranuloma	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
epididymis		<50>				<49>				<50>				<49>							
	spermatogenic granuloma	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
		<50>				<49>				<50>				<49>							
	xanthogranuloma	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 13

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		50				49				50				49				4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																					
semin ves	lymphocytic infiltration	<50>				<49>				<50>				<49>							
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
prostate	lymphocytic infiltration	<50>				<49>				<50>				<49>							
		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
prep/cli gl	cyst	<50>				<49>				<50>				<49>							
		1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Nervous system}																					
brain	mineralization	<50>				<49>				<50>				<49>							
		20	0	0	0	13	0	0	0	16	0	0	0	6	0	0	0	0	0	0	**
		(40)	(0)	(0)	(0)	(27)	(0)	(0)	(0)	(32)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Special sense organs/appendage}																					
eye	keratitis	<50>				<49>				<50>				<49>							
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(2)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 14

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				49				50				49			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye	phthisis bulbi		<50>				<49>				<50>				<49>			
		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)
Harder gl	lymphocytic infiltration		<50>				<49>				<50>				<49>			
		2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0
		(2)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
{Musculoskeletal system}																		
muscle	mineralization		<50>				<49>				<50>				<49>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
arteritis	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
bone	osteosclerosis		<50>				<49>				<50>				<49>			
		0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

APPENDIX L 2

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE
DEAD AND MORIBUND ANIMALS

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Crj[Crl:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				15				14				18				13			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																					
skin/app		<15>				<14>				<18>				<13>							
	inflammation	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	scab	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(7)	(7)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(7)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Respiratory system}																					
nasal cavit		<15>				<14>				<18>				<13>							
	exudate	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(31)	(0)	(0)	(0)	(31)	(0)	(0)	(0)
	angiectasis	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(15)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	2	0	0	0	3	0	0	0	3	1	0	0	6	0	0	0	6	0	0	0
		(13)	(0)	(0)	(0)	(21)	(0)	(0)	(0)	(17)	(6)	(0)	(0)	(46)	(0)	(0)	(0)	(46)	(0)	(0)	(0)
	eosinophilic change:respiratory epithelium	2	0	0	0	1	0	0	0	1	0	1	0	3	0	0	0	3	0	0	0
		(13)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(6)	(0)	(6)	(0)	(23)	(0)	(0)	(0)	(23)	(0)	(0)	(0)
	respiratory metaplasia:olfactory epithelium	1	0	0	0	0	0	0	0	13	1	0	0 **	2	9	0	0 **	2	9	0	0 **
		(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(72)	(6)	(0)	(0)	(15)	(69)	(0)	(0)	(15)	(69)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				15				14				18				13			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																					
nasal cavit		<15>				<14>				<18>				<13>							
	respiratory metaplasia:gland	2 (13)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)	16 (89)	1 (6)	0 (0)	0 (0)	3 (23)	9 (69)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	desquamation:olfactory epithelium	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	cuboidal change:respiratory epithelium	0 (0)	0 (0)	0 (0)	0 (0)	5 (36)	0 (0)	0 (0)	0 (0)	9 (50)	6 (33)	0 (0)	0 (0)	8 (62)	4 (31)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	nodular hyperplasia:transitional epithelium	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (11)	0 (0)	0 (0)	0 (0)	5 (38)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	atrophy:olfactory epithelium	4 (27)	0 (0)	0 (0)	0 (0)	4 (29)	0 (0)	0 (0)	0 (0)	5 (28)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
nasopharynx		<15>				<14>				<18>				<13>							
	eosinophilic change	0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	3 (23)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
larynx		<15>				<14>				<18>				<13>							
	arteritis	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	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)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe

< a > a : Number of animals examined at the site

b : Number of animals with lesion

(c) c : b / a * 100

Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm			
			15				14				18				13			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
lung			<15>				<14>				<18>				<13>			
	congestion		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	inflammatory infiltration		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)
	bronchiolar-alveolar cell hyperplasia		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}																		
bone marrow			<15>				<14>				<18>				<13>			
	increased hematopoiesis		1	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0
			(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	decreased hematopoiesis		0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)
	erythropoiesis:increased		1	0	0	0	1	0	0	0	3	0	0	0	2	0	0	0
			(7)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(15)	(0)	(0)	(0)
	granulopoiesis:increased		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 4

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	15				14				18				13			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
spleen			<15>				<14>				<18>				<13>			
	congestion		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of melanin		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	extramedullary hematopoiesis		0	3	1	1	3	0	4	0	2	4	4	0	0	0	6	0 *
			(0)	(20)	(7)	(7)	(21)	(0)	(29)	(0)	(11)	(22)	(22)	(0)	(0)	(0)	(46)	(0)
	follicular hyperplasia		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Circulatory system}																		
heart			<15>				<14>				<18>				<13>			
	mineralization		3	0	0	0	2	0	0	0	3	0	0	0	2	1	0	0
			(20)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(15)	(8)	(0)	(0)
	inflammatory infiltration		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	arteritis		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 5

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm			
			15				14				18				13			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
tooth	dysplasia		<15>				<14>				<18>				<13>			
		4	2	0	0	6	0	1	0	5	3	1	0	4	1	0	0	
			(27)	(13)	(0)	(0)	(43)	(0)	(7)	(0)	(28)	(17)	(6)	(0)	(31)	(8)	(0)	(0)
tongue	arteritis		<15>				<14>				<18>				<13>			
		0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(14)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
salivary gl	inflammatory infiltration		<15>				<14>				<18>				<13>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	lymphocytic infiltration		1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(7)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)		
stomach	hyperplasia:forestomach		<15>				<14>				<18>				<13>			
		0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	
				(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperkeratosis:forestomach		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)		
	erosion:glandular stomach		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
					(7)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
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 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 6

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	15				14				18				13			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Organ	Findings		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
stomach			<15>				<14>				<18>				<13>			
	hyperplasia:glandular stomach		11	3	0	0	8	6	0	0	10	7	0	0	10	2	0	0
			(73)	(20)	(0)	(0)	(57)	(43)	(0)	(0)	(56)	(39)	(0)	(0)	(77)	(15)	(0)	(0)
liver			<15>				<14>				<18>				<13>			
	angiectasis		0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:central		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)
	fatty change:central		2	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0
		(13)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	
	granulation		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
			(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
{Urinary system}																		
kidney			<15>				<14>				<18>				<13>			
	infarct		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
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STUDY NO. : 0438
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HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 7

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm			
			15				14				18				13			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
{Urinary system}																		
kidney																		
	basophilic change		<15>				<14>				<18>				<13>			
			6 (40)	0 (0)	0 (0)	0 (0)	4 (29)	0 (0)	0 (0)	0 (0)	5 (28)	0 (0)	0 (0)	0 (0)	3 (23)	0 (0)	1 (8)	0 (0)
	deposit of hemosiderin		0 (0)	0 (0)	1 (7)	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)
	inflammatory polyp		1 (7)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	vacuolization of proximal tubule		9 (60)	0 (0)	0 (0)	0 (0)	11 (79)	0 (0)	0 (0)	0 (0)	13 (72)	0 (0)	0 (0)	0 (0)	5 (38)	0 (0)	0 (0)	0 (0)
	hydronephrosis		0 (0)	0 (0)	2 (13)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	1 (6)	1 (6)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	mineralization:papilla		3 (20)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)	3 (17)	0 (0)	0 (0)	0 (0)	4 (31)	0 (0)	0 (0)	0 (0)
	mineralization:cortex		5 (33)	0 (0)	0 (0)	0 (0)	5 (36)	1 (7)	0 (0)	0 (0)	13 (72)	0 (0)	0 (0)	0 (0)	3 (23)	1 (8)	0 (0)	0 (0)
	eosinophilic droplet:proximal tubule		0 (0)	1 (7)	1 (7)	0 (0)	1 (7)	1 (7)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	3 (23)	1 (8)	0 (0)	0 (0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

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HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 8

Organ	Findings	Group Name No. of Animals on Study Grade	Control 15				5 ppm 14				15 ppm 18				45 ppm 13			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
urin bladd			<15>				<14>				<17>				<13>			
	inflammatory infiltration		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 (8)	0 (0)	0 (0)	0 (0)
{Endocrine system}																		
pituitary			<15>				<14>				<18>				<13>			
	cyst		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (17)	0 (0)	0 (0)	0 (0)	2 (15)	0 (0)	0 (0)	0 (0)
	hyperplasia		1 (7)	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)
	focal hypertrophy		0 (0)	0 (0)	0 (0)	0 (0)	2 (14)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
thyroid			<15>				<14>				<18>				<13>			
	follicular hyperplasia		1 (7)	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)
adrenal			<15>				<14>				<18>				<13>			
	spindle-cell hyperplasia		5 (33)	0 (0)	0 (0)	0 (0)	5 (36)	0 (0)	0 (0)	0 (0)	6 (33)	4 (22)	0 (0)	0 (0)	4 (31)	2 (15)	0 (0)	0 (0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 9

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	15				14				18				13			
Organ	Findings	Grade	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
testis	mineralization		<15>				<14>				<18>				<13>			
		5	1	0	0	10	0	0	0	8	1	1	0	6	1	0	0	
		(33)	(7)	(0)	(0)	(71)	(0)	(0)	(0)	(44)	(6)	(6)	(0)	(46)	(8)	(0)	(0)	
epididymis	spermatogenic granuloma		<15>				<14>				<18>				<13>			
		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
		(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
prop/cli gl	cyst		<15>				<14>				<18>				<13>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
{Nervous system}																		
brain	mineralization		<15>				<14>				<18>				<13>			
		6	0	0	0	3	0	0	0	5	0	0	0	0	0	0	0 *	
	(40)	(0)	(0)	(0)	(21)	(0)	(0)	(0)	(28)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		
{Special sense organs/appendage}																		
Harder gl	hyperplasia		<15>				<14>				<18>				<13>			
		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 10

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm			
			15				14				18				13			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Musculoskeletal system)																		
muscle	mineralization		<15>				<14>				<18>				<13>			
			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	arteritis		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
bone	osteosclerosis		<15>				<14>				<18>				<13>			
			0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(15)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference : * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

(HPT150)

BAIS4

APPENDIX L 3

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE
SACRIFICED ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 1

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		35				35				32				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																	
skin/app		<35>				<35>				<32>				<36>			
	inflammation	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	scab	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Respiratory system}																	
nasal cavit		<35>				<35>				<32>				<36>			
	exudate	1	0	0	0	0	0	0	0	1	0	0	0	16	0	0	0 **
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(44)	(0)	(0)	(0)
	angiectasis	0	0	0	0	0	0	0	0	10	0	0	0 **	15	0	0	0 **
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(31)	(0)	(0)	(0)	(42)	(0)	(0)	(0)
	thrombus	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	proliferation:histiocyte	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	11	2	0	0	5	1	0	0	6	0	0	0	9	0	0	0
		(31)	(6)	(0)	(0)	(14)	(3)	(0)	(0)	(19)	(0)	(0)	(0)	(25)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crj[Crl:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				35				35				32				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																					
nasal cavit		<35>				<35>				<32>				<36>							
	eosinophilic change:respiratory epithelium	4 (11)	2 (6)	0 (0)	0 (0)	2 (6)	1 (3)	1 (3)	0 (0)	8 (25)	0 (0)	0 (0)	0 (0)	13 (36)	0 (0)	0 (0)	0 (0)	0 *			
	respiratory metaplasia:olfactory epithelium	5 (14)	0 (0)	0 (0)	0 (0)	4 (11)	0 (0)	0 (0)	0 (0)	25 (78)	2 (6)	0 (0)	0 ** (0)	1 (3)	35 (97)	0 (0)	0 (0)	0 **			
	respiratory metaplasia:gland	6 (17)	2 (6)	0 (0)	0 (0)	7 (20)	0 (0)	0 (0)	0 (0)	30 (94)	2 (6)	0 (0)	0 ** (0)	1 (3)	35 (97)	0 (0)	0 (0)	0 **			
	desquamation:olfactory epithelium	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0			
	cuboidal change:respiratory epithelium	0 (0)	0 (0)	0 (0)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)	18 (56)	9 (28)	0 (0)	0 ** (0)	31 (86)	3 (8)	0 (0)	0 (0)	0 **			
	nodular hyperplasia:transitional epithelium	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	0 (0)	13 (36)	0 (0)	0 (0)	0 (0)	0 **			
	atrophy:olfactory epithelium	4 (11)	1 (3)	0 (0)	0 (0)	6 (17)	0 (0)	0 (0)	0 (0)	4 (13)	0 (0)	0 (0)	0 (0)	5 (14)	1 (3)	0 (0)	0 (0)				
nasopharynx		<35>				<35>				<32>				<36>							
	eosinophilic change	3 (9)	1 (3)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	2 (6)	3 (9)	0 (0)	0 (0)	6 (17)	1 (3)	0 (0)	0 (0)				

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference : * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm							
			35				35				32				36							
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)		
{Respiratory system}																						
lung			<35>				<35>				<32>				<36>							
	inflammatory infiltration		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0		
			(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		
	lymphocytic infiltration		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		
	interstitial pneumonia		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		
	bronchiolar-alveolar cell hyperplasia		1	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0		
			(3)	(3)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)		
{Hematopoietic system}																						
bone marrow			<35>				<35>				<32>				<36>							
	decreased hematopoiesis		1	0	0	0	0	0	0	0	2	0	0	0	5	0	0	0	0	0		
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(0)	(0)		
	erythropoiesis:increased		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
			(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		
	granulopoiesis:increased		0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0		
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
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STUDY NO. : 0438
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 REPORT TYPE : A1
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HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 4

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		35				35				32				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																	
lymph node		<35>				<35>				<32>				<36>			
	plasma cell hyperplasia	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)
spleen		<35>				<35>				<32>				<36>			
	deposit of amyloid	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of melanin	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	plasma cell hyperplasia	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	extramedullary hematopoiesis	3	1	0	0	4	3	0	0	4	4	0	0	3	0	0	0
		(9)	(3)	(0)	(0)	(11)	(9)	(0)	(0)	(13)	(13)	(0)	(0)	(8)	(0)	(0)	(0)
	follicular hyperplasia	2	0	0	0	4	2	0	0	1	1	0	0	5	0	0	0
		(6)	(0)	(0)	(0)	(11)	(6)	(0)	(0)	(3)	(3)	(0)	(0)	(14)	(0)	(0)	(0)
{Circulatory system}																	
heart		<35>				<35>				<32>				<36>			
	mineralization	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 5

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		35				35				32				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}																	
heart		<35>				<35>				<32>				<36>			
	lymphocytic infiltration	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	arteritis	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Digestive system}																	
tooth		<35>				<35>				<32>				<36>			
	dysplasia	13	4	3	2	14	7	1	0	15	4	0	0	19	3	0	0
		(37)	(11)	(9)	(6)	(40)	(20)	(3)	(0)	(47)	(13)	(0)	(0)	(53)	(8)	(0)	(0)
tongue		<35>				<35>				<32>				<35>			
	arteritis	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
salivary gl		<35>				<35>				<32>				<36>			
	lymphocytic infiltration	0	0	0	0	1	0	0	0	3	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	osseous metaplasia	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 6

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		35				35				32				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																	
stomach		<35>				<35>				<32>				<36>			
	erosion	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	inflammatory infiltration	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(6)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:forestomach	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0
		(0)	(3)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(3)	(0)	(0)	(0)
	erosion:glandular stomach	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:glandular stomach	14	21	0	0	12	23	0	0	5	25	0	0 *	18	10	0	0 **
		(40)	(60)	(0)	(0)	(34)	(66)	(0)	(0)	(16)	(78)	(0)	(0)	(50)	(28)	(0)	(0)
liver		<35>				<35>				<32>				<36>			
	angiectasis	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	fatty change:central	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulation	21	2	0	0	22	0	0	0	24	0	0	0	31	2	0	0 *
		(60)	(6)	(0)	(0)	(63)	(0)	(0)	(0)	(75)	(0)	(0)	(0)	(86)	(6)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 7

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		35				35				32				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																	
liver		<35>				<35>				<32>				<36>			
	clear cell focus	3	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	acidophilic cell focus	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(6)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	basophilic cell focus	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)
	bile ductular proliferation	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	biliary cyst	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(3)	(0)	(0)	(0)	(0)	(0)	(0)
gall bladd		<35>				<35>				<32>				<36>			
	intestinal metaplasia	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
pancreas		<35>				<35>				<32>				<36>			
	islet cell hyperplasia	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/CrLj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 8

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		35				35				32				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																	
kidney		<35>				<35>				<32>				<36>			
	basophilic change	29 (83)	2 (6)	0 (0)	0 (0)	27 (77)	4 (11)	0 (0)	0 (0)	29 (91)	2 (6)	0 (0)	0 (0)	28 (78)	0 (0)	0 (0)	0 (0)
	lymphocytic infiltration	1 (3)	0 (0)	0 (0)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	inflammatory polyp	1 (3)	0 (0)	1 (3)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)
	vacuolization of proximal tubule	31 (89)	0 (0)	0 (0)	0 (0)	30 (86)	0 (0)	0 (0)	0 (0)	27 (84)	0 (0)	0 (0)	0 (0)	26 (72)	0 (0)	0 (0)	0 (0)
	hydronephrosis	0 (0)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	1 (3)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)
	retention cyst	0 (0)	1 (3)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	mineralization:cortico-medullary junction	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	mineralization:papilla	4 (11)	0 (0)	0 (0)	0 (0)	8 (23)	0 (0)	0 (0)	0 (0)	2 (6)	1 (3)	0 (0)	0 (0)	8 (22)	0 (0)	0 (0)	0 (0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe

< a > a : Number of animals examined at the site

b : Number of animals with lesion

(c) c : b / a * 100

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 9

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		35				35				32				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																	
kidney		<35>				<35>				<32>				<36>			
	mineralization:cortex	23	2	0	0	24	5	0	0	25	2	0	0	19	1	0	0
		(66)	(6)	(0)	(0)	(69)	(14)	(0)	(0)	(78)	(6)	(0)	(0)	(53)	(3)	(0)	(0)
	hyperplasia:tubular epithelium	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(11)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic droplet:proximal tubule	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
urin bladd		<35>				<35>				<31>				<36>			
	inflammation	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)
	lymphocytic infiltration	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(6)	(0)	(0)	(0)
	xanthogranuloma	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)
{Endocrine system}																	
pituitary		<35>				<35>				<32>				<36>			
	cyst	5	0	0	0	8	0	0	0	4	0	0	0	6	0	0	0
		(14)	(0)	(0)	(0)	(23)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(17)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 10

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	35				35				32				36			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
pituitary			<35>				<35>				<32>				<36>			
	hyperplasia		0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	Rathke pouch		0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	focal hypertrophy		2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
			(6)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
thyroid			<35>				<35>				<32>				<35>			
	C-cell hyperplasia		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
adrenal			<35>				<35>				<32>				<36>			
	spindle-cell hyperplasia		14	6	0	0	17	8	0	0	11	7	0	0	13	9	0	0
			(40)	(17)	(0)	(0)	(49)	(23)	(0)	(0)	(34)	(22)	(0)	(0)	(36)	(25)	(0)	(0)
{Reproductive system}																		
testis			<35>				<35>				<32>				<36>			
	mineralization		22	0	0	0	19	3	1	0	22	2	0	0	26	0	0	0
		(63)	(0)	(0)	(0)	(54)	(9)	(3)	(0)	(69)	(6)	(0)	(0)	(72)	(0)	(0)	(0)	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 11

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		35				35				32				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																	
testis		<35>				<35>				<32>				<36>			
	xanthogranuloma	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)
epididymis		<35>				<35>				<32>				<36>			
	spermatogenic granuloma	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	xanthogranuloma	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)
semin ves		<35>				<35>				<32>				<36>			
	lymphocytic infiltration	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
prostate		<35>				<35>				<32>				<36>			
	lymphocytic infiltration	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
prep/cli gl		<35>				<35>				<32>				<36>			
	cyst	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 12

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				35				35				32				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Nervous system}																					
brain																					
	mineralization	<35>				14	0	0	0	<35>				<32>				<36>			
		(40)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(29)	(0)	(0)	(0)	(34)	(0)	(0)	(0)	(17)	(0)	(0)	(0)
{Special sense organs/appendage}																					
eye																					
	keratitis	<35>				0	0	0	0	<35>				<32>				<36>			
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(3)	(0)
	phthisis bulbi	<35>				0	0	0	0	<35>				<32>				<36>			
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)
Harder gl																					
	lymphocytic infiltration	<35>				2	0	0	0	<35>				<32>				<36>			
		(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia	<35>				1	1	0	0	<35>				<32>				<36>			
		(3)	(3)	(0)	(0)	(3)	(3)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

APPENDIX L 4

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE
ALL ANIMALS

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 15

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm			
			50				50				50				50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																		
skin/app	inflammation		<50>				<50>				<50>				<50>			
			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
subcutis	epidermal cyst		<50>				<50>				<50>				<50>			
			0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
{Respiratory system}																		
nasal cavit	exudate		<50>				<50>				<50>				<50>			
			2	0	0	0	1	0	0	0	1	0	0	0	18	0	0	0 **
			(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(36)	(0)	(0)	(0)
	angiectasis		0	0	0	0	0	0	0	0	4	0	0	0	10	0	0	0 **
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	thrombus		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		11	2	0	0	14	0	0	0	5	0	0	0	17	0	0	0
			(22)	(4)	(0)	(0)	(28)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(34)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 16

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				50				50				50				50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																					
nasal cavit		<50>				<50>				<50>				<50>				<50>			
	eosinophilic change:respiratory epithelium	39	6	0	0	33	9	0	0	24	0	0	0 **	13	1	0	0 **				
		(78)	(12)	(0)	(0)	(66)	(18)	(0)	(0)	(48)	(0)	(0)	(0)	(26)	(2)	(0)	(0)				
	inflammation:respiratory epithelium	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)				
	disarrangement:olfactory epithelium	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0				
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)				
	respiratory metaplasia:olfactory epithelium	1	0	0	0	12	0	0	0 **	40	1	0	0 **	2	48	0	0 **				
		(2)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(80)	(2)	(0)	(0)	(4)	(96)	(0)	(0)				
	respiratory metaplasia:gland	10	0	0	0	12	0	0	0	41	1	0	0 **	2	48	0	0 **				
		(20)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(82)	(2)	(0)	(0)	(4)	(96)	(0)	(0)				
	squamous cell metaplasia:respiratory epithelium	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0				
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)				
	cuboidal change:respiratory epithelium	0	0	0	0	4	0	0	0	48	0	0	0 **	50	0	0	0 **				
		(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(96)	(0)	(0)	(0)	(100)	(0)	(0)	(0)				
	nodular hyperplasia:transitional epithelium	0	0	0	0	0	0	0	0	1	0	0	0	16	0	0	0 **				
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(32)	(0)	(0)	(0)				

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 17

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				50				50				50			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			<50>				<50>				<50>				<50>			
	atrophy:olfactory epithelium		2	0	0	0	2	0	0	0	3	0	0	0	0	0	0	0
			(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
nasopharynx			<50>				<50>				<50>				<50>			
	eosinophilic change		13	1	0	0	6	2	0	0	3	2	0	0 *	16	3	0	0
			(26)	(2)	(0)	(0)	(12)	(4)	(0)	(0)	(6)	(4)	(0)	(0)	(32)	(6)	(0)	(0)
lung			<50>				<50>				<50>				<50>			
	congestion		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	lymphocytic infiltration		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	bronchiolar-alveolar cell hyperplasia		0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}																		
bone marrow			<50>				<50>				<50>				<50>			
	granulation		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 18

Organ	Findings	Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
{Hematopoietic system}																		
bone marrow			<50>				<50>				<50>				<50>			
	increased hematopoiesis		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	decreased hematopoiesis		1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	myelofibrosis		3	0	0	0	1	0	0	0	0	0	0	1	0	0	0	
			(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	
	erythropoiesis:increased		3	0	0	0	2	0	0	0	5	0	0	2	0	0	0	
			(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(10)	(0)	(0)	(4)	(0)	(0)	(0)	
	granulopoiesis:increased		1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(2)	(0)	
lymph node			<50>				<50>				<50>				<50>			
	atrophy		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
	mastcell hyperplasia		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
spleen			<50>				<50>				<50>				<50>			
	atrophy		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 19

Organ	Findings	Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																		
spleen			<50>				<50>				<50>				<50>			
	deposit of melanin		1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	fibrosis		0 (0)	1 (2)	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)
	extramedullary hematopoiesis		8 (16)	3 (6)	3 (6)	0 (0)	3 (6)	6 (12)	9 (18)	0 (0)	1 (2)	4 (8)	16 (32)	0 ** (0)	9 (18)	4 (8)	10 (20)	0 (0)
	granulopoiesis:increased		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 (2)	0 (0)	0 (0)
	follicular hyperplasia		2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
(Circulatory system)																		
heart			<50>				<50>				<50>				<50>			
	mineralization		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 (4)	0 (0)	0 (0)	0 (0)
	arteritis		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 (2)	0 (0)	0 (0)	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0498
 ANIMAL : MOUSE B6D2F1/Crlj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 20

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				50				50				50			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																		
tooth			<50>				<50>				<50>				<50>			
	dysplasia		12 (24)	6 (12)	0 (0)	0 (0)	9 (18)	5 (10)	0 (0)	0 (0)	1 (2)	4 (8)	0 (0)	0 (0) **	8 (16)	6 (12)	0 (0)	0 (0)
tongue			<50>				<49>				<50>				<50>			
	arteritis		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)
salivary gl			<50>				<50>				<50>				<50>			
	lymphocytic infiltration		5 (10)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
stomach			<50>				<50>				<50>				<50>			
	inflammatory infiltration		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	erosion:forestomach		1 (2)	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)
	hyperplasia:forestomach		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	erosion:glandular stomach		0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 21

Organ	Findings	Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
stomach			<50>				<50>				<50>				<50>			
	hyperplasia:glandular stomach		27	12	0	0	23	16	0	0	23	13	0	0	25	4	0	0 *
			(54)	(24)	(0)	(0)	(46)	(32)	(0)	(0)	(46)	(26)	(0)	(0)	(50)	(8)	(0)	(0)
small intes			<50>				<50>				<50>				<50>			
	inflammation		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	inflammatory infiltration		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
large intes			<50>				<50>				<50>				<50>			
	inflammation		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
liver			<50>				<50>				<50>				<50>			
	angiectasis		0	0	0	0	3	1	0	0	2	2	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(6)	(2)	(0)	(0)	(4)	(4)	(0)	(0)	(0)	(0)	(0)	(0)
	fatty change:central		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulation		10	2	0	0	9	3	0	0	10	8	0	0	15	2	0	0
			(20)	(4)	(0)	(0)	(18)	(6)	(0)	(0)	(20)	(16)	(0)	(0)	(30)	(4)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference : * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Crlj[Crlj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 22

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				15 ppm				45 ppm			
			50				50				50				50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
{Digestive system}																		
liver	acidophilic cell focus		<50>				<50>				<50>				<50>			
		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	
		0 (0)	1 (2)	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)	
	basophilic cell focus		<50>				<50>				<50>				<50>			
		0 (0)	1 (2)	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 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
pancreas	inflammation		<50>				<50>				<50>				<50>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
		0 (0)	1 (2)	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)	
{Urinary system}																		
kidney	infarct		<50>				<50>				<50>				<50>			
		0 (0)	1 (2)	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)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	basophilic change		<50>				<50>				<50>				<50>			
		2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	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)	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 23

Organ	Findings	Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney			<50>				<50>				<50>				<50>			
	deposit of amyloid		1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(2)	(2)	(0)
	lymphocytic infiltration		7	1	0	0	2	0	0	0	4	0	0	0	2	0	0	0
			(14)	(2)	(0)	(0)	(4)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	inflammatory polyp		0	1	0	0	0	1	0	0	0	2	0	0	0	1	0	0
			(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)
	hydronephrosis		0	0	1	0	0	0	1	1	0	0	2	0	0	1	0	1
			(0)	(0)	(2)	(0)	(0)	(0)	(2)	(2)	(0)	(0)	(4)	(0)	(0)	(2)	(0)	(2)
retention cyst		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
mineralization:papilla		2	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	
		(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	
mineralization:tubule		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
dilated pelvis		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 24

Organ	Findings	Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
{Urinary system}																		
kidney	eosinophilic droplet:proximal tubule		<50>				<50>				<50>				<50>			
		0	2	3	0	0	1	8	0	1	2	11	1	2	1	6	0	
		(0)	(4)	(6)	(0)	(0)	(2)	(16)	(0)	(2)	(4)	(22)	(2)	(4)	(2)	(12)	(0)	
urin bladd	inflammation		<50>				<50>				<50>				<50>			
		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
			(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
	lymphocytic infiltration		3	0	0	0	3	0	0	0	1	0	0	0	3	0	0	0
		(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	
{Endocrine system}																		
pituitary	angiectasis		<50>				<50>				<50>				<50>			
		6	1	0	0	11	0	0	0	5	0	0	0	1	0	0	0	
			(12)	(2)	(0)	(0)	(22)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
cyst		5	1	0	0	3	0	0	0	2	0	0	0	3	0	0	0	
			(10)	(2)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	hyperplasia		1	1	0	0	3	1	0	0	1	2	0	0	3	0	0	0
		(2)	(2)	(0)	(0)	(6)	(2)	(0)	(0)	(2)	(4)	(0)	(0)	(6)	(0)	(0)	(0)	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 25

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				50				50				50			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
pituitary			<50>				<50>				<50>				<50>			
	focal hypertrophy		9	2	0	0	6	1	0	0	11	1	0	0	2	1	0	0
		(18)	(4)	(0)	(0)	(12)	(2)	(0)	(0)	(22)	(2)	(0)	(0)	(4)	(2)	(0)	(0)	
adrenal			<50>				<50>				<50>				<50>			
	extramedullary hematopoiesis		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	spindle-cell hyperplasia		9	33	8	0	3	44	2	0 *	2	43	5	0 *	8	35	7	0
			(18)	(66)	(16)	(0)	(6)	(88)	(4)	(0)	(4)	(86)	(10)	(0)	(16)	(70)	(14)	(0)
	focal fatty change:cortex		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	fatty change:corticomedullary junction		0	0	1	0	0	1	1	0	0	0	0	0	0	1	0	0
			(0)	(0)	(2)	(0)	(0)	(2)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	focal hypertrophy:cortex		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Reproductive system}																		
ovary			<50>				<50>				<50>				<50>			
	thrombus		0	0	0	0	0	0	1	0	0	1	2	0	0	1	2	0
		(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(2)	(4)	(0)	(0)	(2)	(4)	(0)	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0498
 ANIMAL : MOUSE B6D2F1/CrLj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 26

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	50				50				50				50			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
{Reproductive system}																		
ovary	cyst		<50>				<50>				<50>				<50>			
		4	5	2	0	7	5	1	0	0	2	5	0	0	5	5	0	
			(8)	(10)	(4)	(0)	(14)	(10)	(2)	(0)	(0)	(4)	(10)	(0)	(0)	(10)	(10)	(0)
uterus	decidual change		<50>				<50>				<50>				<50>			
		0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
				(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)
	leucocytic infiltration		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	cystic endometrial hyperplasia		15	7	1	0	17	8	0	0	16	11	0	0	12	10	0	0
			(30)	(14)	(2)	(0)	(34)	(16)	(0)	(0)	(32)	(22)	(0)	(0)	(24)	(20)	(0)	(0)
{Nervous system}																		
brain	mineralization		<50>				<50>				<50>				<50>			
		9	0	0	0	17	0	0	0	8	0	0	0	7	0	0	0	0
			(18)	(0)	(0)	(0)	(34)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(14)	(0)	(0)	(0)
{Special sense organs/appendage}																		
eye	keratitis		<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 27

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				50				50				50				50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																					
eye		<50>				<50>				<50>				<50>				<50>			
	phthisis bulbi	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization:cornea	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Harder gl		<50>				<50>				<50>				<50>				<50>			
	lymphocytic infiltration	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
{Musculoskeletal system}																					
muscle		<50>				<50>				<50>				<50>				<50>			
	mineralization	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
bone		<50>				<50>				<50>				<50>				<50>			
	osteosclerosis	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
		(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe

< a > a : Number of animals examined at the site

b : Number of animals with lesion

(c) c : b / a * 100

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 28

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				50				50				50				50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Body cavities}																					
peritoneum		<50>				<50>				<50>				<50>				<50>			
	inflammation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	peritonitis	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

(HPT150)

BAIS4

APPENDIX L 5

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE
DEAD AND MORIBUND ANIMALS

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Crj[Crl:BDF1]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 11

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	17				19				23				28			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																		
subcutis			<17>				<19>				<23>				<28>			
	epidermal cyst		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
{Respiratory system}																		
nasal cavit			<17>				<19>				<23>				<28>			
	exudate		1	0	0	0	0	0	0	0	1	0	0	0	8	0	0	0
			(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(29)	(0)	(0)	(0)
	angiectasis		0	0	0	0	0	0	0	0	2	0	0	0	5	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(18)	(0)	(0)	(0)
	thrombus		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(6)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		5	1	0	0	7	0	0	0	2	0	0	0	10	0	0	0
			(29)	(6)	(0)	(0)	(37)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(36)	(0)	(0)	(0)
	eosinophilic change:respiratory epithelium		11	2	0	0	13	3	0	0	10	0	0	0 *	7	0	0	0 **
			(65)	(12)	(0)	(0)	(68)	(16)	(0)	(0)	(43)	(0)	(0)	(0)	(25)	(0)	(0)	(0)
	respiratory metaplasia:olfactory epithelium		1	0	0	0	4	0	0	0	18	1	0	0 **	2	26	0	0 **
			(6)	(0)	(0)	(0)	(21)	(0)	(0)	(0)	(78)	(4)	(0)	(0)	(7)	(93)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 12

Organ	Findings	Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	17				19				23				28			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Respiratory system}

nasal cavit

respiratory metaplasia:gland

<17>

10000

(6)(0)(0)(0)

<19>

0000

(0)(0)(0)(0)

<23>

151000**

(65)(4)(0)(0)

<28>

22600**

(7)(93)(0)(0)

cuboidal change:respiratory epithelium

<17>

0000

(0)(0)(0)(0)

<19>

3000

(16)(0)(0)(0)

<23>

22000**

(96)(0)(0)(0)

<28>

28000**

(100)(0)(0)(0)

nodular hyperplasia:transitional epithelium

<17>

0000

(0)(0)(0)(0)

<19>

0000

(0)(0)(0)(0)

<23>

0000

(0)(0)(0)(0)

<28>

6000

(21)(0)(0)(0)

atrophy:olfactory epithelium

<17>

1000

(6)(0)(0)(0)

<19>

1000

(5)(0)(0)(0)

<23>

2000

(9)(0)(0)(0)

<28>

0000

(0)(0)(0)(0)

nasopharynx

eosinophilic change

<17>

8100

(47)(6)(0)(0)

<19>

3100

(16)(5)(0)(0)

<23>

2000**

(9)(0)(0)(0)

<28>

14100

(50)(4)(0)(0)

lung

congestion

<17>

0000

(0)(0)(0)(0)

<19>

0000

(0)(0)(0)(0)

<23>

1000

(4)(0)(0)(0)

<28>

0000

(0)(0)(0)(0)

lymphocytic infiltration

<17>

0000

(0)(0)(0)(0)

<19>

1000

(5)(0)(0)(0)

<23>

0000

(0)(0)(0)(0)

<28>

0000

(0)(0)(0)(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe

< a > a : Number of animals examined at the site

b : Number of animals with lesion

(c) c : b / a * 100

Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 13

Organ	Findings	Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	17				19				23				28			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
lung			<17>				<19>				<23>				<28>			
	bronchiolar-alveolar cell hyperplasia		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}																		
bone marrow			<17>				<19>				<23>				<28>			
	granulation		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	decreased hematopoiesis		1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
			(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	myelofibrosis		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	erythropoiesis:increased		3	0	0	0	2	0	0	0	5	0	0	0	2	0	0	0
			(18)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	granulopoiesis:increased		1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
			(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)
lymph node			<17>				<19>				<23>				<28>			
	atrophy		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Crj[Crl:BDF1]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 14

Organ	Findings	Group Name No. of Animals on Study Grade	Control 17				5 ppm 19				15 ppm 23				45 ppm 28			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
{Hematopoietic system}																		
spleen			<17>				<19>				<23>				<28>			
	atrophy		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	extramedullary hematopoiesis		2	3	3	0	1	4	8	0	0	2	15	0 *	4	3	9	0
			(12)	(18)	(18)	(0)	(5)	(21)	(42)	(0)	(0)	(9)	(65)	(0)	(14)	(11)	(32)	(0)
	granulopoiesis:increased		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
{Circulatory system}																		
heart			<17>				<19>				<23>				<28>			
	mineralization		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	arteritis		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
{Digestive system}																		
tooth			<17>				<19>				<23>				<28>			
	dysplasia		3	2	0	0	0	2	0	0	0	1	0	0	1	2	0	0
			(18)	(12)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(4)	(0)	(0)	(4)	(7)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 15

Organ	Findings	Group Name No. of Animals on Study Grade	Control 17				5 ppm 19				15 ppm 23				45 ppm 28			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
tongue	arteritis		<17>				<18>				<23>				<28>			
			0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
salivary gl	lymphocytic infiltration		<17>				<19>				<23>				<28>			
			0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
stomach	inflammatory infiltration		<17>				<19>				<23>				<28>			
			0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:glandular stomach		9	3	0	0	7	3	0	0	11	1	0	0	13	0	0	0 *
			(53)	(18)	(0)	(0)	(37)	(16)	(0)	(0)	(48)	(4)	(0)	(0)	(46)	(0)	(0)	(0)
small intes	inflammation		<17>				<19>				<23>				<28>			
			0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	inflammatory infiltration		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
large intes	inflammation		<17>				<19>				<23>				<28>			
			0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Grade	1 : Slight	2 : Moderate	3 : Marked	4 : Severe														
< a >	a : Number of animals examined at the site																	
b	b : Number of animals with lesion																	
(c)	c : b / a * 100																	
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square																		

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 16

Organ	Findings	Group Name No. of Animals on Study Grade	Control 17				5 ppm 19				15 ppm 23				45 ppm 28			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver	fatty change:central		<17>				<19>				<23>				<28>			
		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulation		0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
pancreas	inflammation		<17>				<19>				<23>				<28>			
		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Urinary system}																		
kidney	basophilic change		<17>				<19>				<23>				<28>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
	deposit of amyloid		1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
		(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)
	lymphocytic infiltration		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe

< a > a : Number of animals examined at the site

b b : Number of animals with lesion

(c) c : b / a * 100

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 17

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				17				19				23				28			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Urinary system)																					
kidney		<17>				<19>				<23>				<28>							
	inflammatory polyp	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
		(0)	(6)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hydronephrosis	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	0	0	0	1	0
		(0)	(0)	(6)	(0)	(0)	(0)	(5)	(5)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
	mineralization:papilla	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization:tubule	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	dilated pelvis	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic droplet:proximal tubule	0	1	3	0	0	1	7	0	1	2	10	1	0	1	6	0	0	1	6	0
		(0)	(6)	(18)	(0)	(0)	(5)	(37)	(0)	(4)	(9)	(43)	(4)	(0)	(4)	(21)	(0)	(0)	(4)	(21)	(0)
urin bladd		<17>				<19>				<23>				<28>							
	lymphocytic infiltration	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(6)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(Endocrine system)																					
pituitary		<17>				<19>				<23>				<28>							
	angiectasis	1	1	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(6)	(6)	(0)	(0)	(11)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe

< a > a : Number of animals examined at the site

b : Number of animals with lesion

(c) c : b / a * 100

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/CrJ[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 18

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				17				19				23				28			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																					
pituitary		<17>				<19>				<23>				<28>							
	cyst	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	focal hypertrophy	0	1	0	0	1	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0
		(0)	(6)	(0)	(0)	(5)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
adrenal		<17>				<19>				<23>				<28>							
	extramedullary hematopoiesis	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)
	spindle-cell hyperplasia	6	11	0	0	1	18	0	0	2	20	1	0	7	20	1	0	0	0	0	0
		(35)	(65)	(0)	(0)	(5)	(95)	(0)	(0)	(9)	(87)	(4)	(0)	(25)	(71)	(4)	(0)	(0)	(0)	(0)	(0)
	focal fatty change:cortex	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)
	fatty change:corticomedullary junction	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)
{Reproductive system}																					
ovary		<17>				<19>				<23>				<28>							
	thrombus	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 19

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	17				19				23				28			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
ovary	cyst		<17>				<19>				<23>				<28>			
		0	1	0	0	0	3	0	0	0	0	0	0	0	1	1	0	
		(0)	(6)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(4)	(0)
uterus	decidual change		<17>				<19>				<23>				<28>			
		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	
	cystic endometrial hyperplasia		2	1	1	0	5	0	0	0	5	1	0	0	4	1	0	0
		(12)	(6)	(6)	(0)	(26)	(0)	(0)	(0)	(22)	(4)	(0)	(0)	(14)	(4)	(0)	(0)	
{Nervous system}																		
brain	mineralization		<17>				<19>				<23>				<28>			
		1	0	0	0	6	0	0	0	2	0	0	0	4	0	0	0	
	(6)	(0)	(0)	(0)	(32)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(14)	(0)	(0)	(0)		
{Special sense organs/appendage}																		
eye	keratitis		<17>				<19>				<23>				<28>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)		

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 20

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				15 ppm				45 ppm			
		Grade				17				19				23				28			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Special sense organs/appendage)																					
eye		<17>				<19>				<23>				<28>							
	phthisis bulbi	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization:cornea	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Harder gl		<17>				<19>				<23>				<28>							
	lymphocytic infiltration	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(Musculoskeletal system)																					
muscle		<17>				<19>				<23>				<28>							
	mineralization	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
bone		<17>				<19>				<23>				<28>							
	osteosclerosis	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(Body cavities)																					
peritonoum		<17>				<19>				<23>				<28>							
	inflammation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe

< a > a : Number of animals examined at the site

b b : Number of animals with lesion

(c) c : b / a * 100

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 21

Organ_____	Findings_____	Group Name				Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study				17				19				23				28			
		Grade																			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)			

{Body cavities}

peritoneum		<17>				<19>				<23>				<28>			
	peritonitis	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe

< a > a : Number of animals examined at the site

b b : Number of animals with lesion

(c) c : b / a * 100

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

(HPT150)

BAIS4

APPENDIX L 6

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE
SACRIFICED ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/CrJ[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 13

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	33				31				27				22			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																		
skin/app			<33>				<31>				<27>				<22>			
	inflammation		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Respiratory system}																		
nasal cavit			<33>				<31>				<27>				<22>			
	exudate		1	0	0	0	1	0	0	0	0	0	0	0	10	0	0	0 **
			(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(45)	(0)	(0)	(0)
	angiectasis		0	0	0	0	0	0	0	0	2	0	0	0	5	0	0	0 *
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(23)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		6	1	0	0	7	0	0	0	3	0	0	0	7	0	0	0
			(18)	(3)	(0)	(0)	(23)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(32)	(0)	(0)	(0)
	eosinophilic change:respiratory epithelium		28	4	0	0	20	6	0	0	14	0	0	0 **	6	1	0	0 **
			(85)	(12)	(0)	(0)	(65)	(19)	(0)	(0)	(52)	(0)	(0)	(0)	(27)	(5)	(0)	(0)
	inflammation:respiratory epithelium		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	disarrangement:olfactory epithelium		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 14

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		33				31				27				22			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																	
nasal cavit		<33>				<31>				<27>				<22>			
	respiratory metaplasia:olfactory epithelium	0	0	0	0	8	0	0	0 **	22	0	0	0 **	0	22	0	0 **
		(0)	(0)	(0)	(0)	(26)	(0)	(0)	(0)	(81)	(0)	(0)	(0)	(0)	(100)	(0)	(0)
	respiratory metaplasia:gland	9	0	0	0	12	0	0	0	26	0	0	0 **	0	22	0	0 **
		(27)	(0)	(0)	(0)	(39)	(0)	(0)	(0)	(96)	(0)	(0)	(0)	(0)	(100)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(5)	(0)	(0)	(0)
	cuboidal change:respiratory epithelium	0	0	0	0	1	0	0	0	26	0	0	0 **	22	0	0	0 **
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(96)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
	nodular hyperplasia:transitional epithelium	0	0	0	0	0	0	0	0	1	0	0	0	10	0	0	0 **
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(45)	(0)	(0)	(0)
	atrophy:olfactory epithelium	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
nasopharynx		<33>				<31>				<27>				<22>			
	eosinophilic change	5	0	0	0	3	1	0	0	1	2	0	0	2	2	0	0
		(15)	(0)	(0)	(0)	(10)	(3)	(0)	(0)	(4)	(7)	(0)	(0)	(9)	(9)	(0)	(0)
lung		<33>				<31>				<27>				<22>			
	lymphocytic infiltration	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 15

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		33				31				27				22			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																	
lung		<33>				<31>				<27>				<22>			
	bronchiolar-alveolar cell hyperplasia	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}																	
bone marrow		<33>				<31>				<27>				<22>			
	increased hematopoiesis	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	myelofibrosis	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulopoiesis:increased	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lymph node		<33>				<31>				<27>				<22>			
	mastcell hyperplasia	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
spleen		<33>				<31>				<27>				<22>			
	deposit of melanin	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe

< a > a : Number of animals examined at the site

b : Number of animals with lesion

(c) c : b / a * 100

Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 16

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		33				31				27				22			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																	
spleen		<33>				<31>				<27>				<22>			
	fibrosis	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	extramedullary hematopoiesis	6	0	0	0	2	2	1	0	1	2	1	0	5	1	1	0
		(18)	(0)	(0)	(0)	(6)	(6)	(3)	(0)	(4)	(7)	(4)	(0)	(23)	(5)	(5)	(0)
	follicular hyperplasia	2	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0
		(6)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(5)	(0)	(0)
{Digestive system}																	
tooth		<33>				<31>				<27>				<22>			
	dysplasia	9	4	0	0	9	3	0	0	1	3	0	0 *	7	4	0	0
		(27)	(12)	(0)	(0)	(29)	(10)	(0)	(0)	(4)	(11)	(0)	(0)	(32)	(18)	(0)	(0)
tongue		<33>				<31>				<27>				<22>			
	arteritis	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
salivary gl		<33>				<31>				<27>				<22>			
	lymphocytic infiltration	5	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
		(15)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(9)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe

< a > a : Number of animals examined at the site

b : Number of animals with lesion

(c) c : b / a * 100

Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 17

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		33				31				27				22			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																	
stomach		<33>				<31>				<27>				<22>			
	erosion:forestomach	1 (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)
	hyperplasia:forestomach	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	erosion:glandular stomach	0 (0)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	hyperplasia:glandular stomach	18 (55)	9 (27)	0 (0)	0 (0)	16 (52)	13 (42)	0 (0)	0 (0)	12 (44)	12 (44)	0 (0)	0 (0)	12 (55)	4 (18)	0 (0)	0 (0)
liver		<33>				<31>				<27>				<22>			
	angiectasis	0 (0)	0 (0)	0 (0)	0 (0)	3 (10)	1 (3)	0 (0)	0 (0)	2 (7)	2 (7)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	granulation	10 (30)	2 (6)	0 (0)	0 (0)	9 (29)	3 (10)	0 (0)	0 (0)	8 (30)	8 (30)	0 (0)	0 * (0)	14 (64)	2 (9)	0 (0)	0 * (0)
	acidophilic cell focus	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (14)	0 (0)	0 (0)
	basophilic cell focus	0 (0)	1 (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)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 18

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	33				31				27				22			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<33>				<31>				<27>				<22>			
	biliary cyst		1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(4)	(4)	(0)	(0)	(0)	(0)	(0)	(0)
{Urinary system}																		
kidney			<33>				<31>				<27>				<22>			
	infarct		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	basophilic change		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of amyloid		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)
	lymphocytic infiltration		7	0	0	0	2	0	0	0	4	0	0	0	2	0	0	0
			(21)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	inflammatory polyp		0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(5)	(0)	(0)
	hydronephrosis		0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(5)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 19

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	33				31				27				22			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney			<33>				<31>				<27>				<22>			
	retention cyst		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization:papilla		1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	
	eosinophilic droplet:proximal tubule		0	1	0	0	0	0	1	0	0	0	1	0	2	0	0	0
			(0)	(3)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(4)	(0)	(9)	(0)	(0)	(0)
urin bladd			<33>				<31>				<27>				<22>			
	inflammation		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	lymphocytic infiltration		2	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
			(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
{Endocrine system}																		
pituitary			<33>				<31>				<27>				<22>			
	angiectasis		5	0	0	0	9	0	0	0	4	0	0	0	1	0	0	0
		(15)	(0)	(0)	(0)	(29)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 20

		Group Name	Control				5 ppm				15 ppm				45 ppm			
		No. of Animals on Study	33				31				27				22			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
pituitary	cyst		<33>				<31>				<27>				<22>			
		5	1	0	0	3	0	0	0	1	0	0	0	0	0	0	0	
		(15)	(3)	(0)	(0)	(10)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
	hyperplasia	1	1	0	0	2	1	0	0	1	1	0	0	3	0	0	0	
		(3)	(3)	(0)	(0)	(6)	(3)	(0)	(0)	(4)	(4)	(0)	(0)	(14)	(0)	(0)	(0)	
	focal hypertrophy	9	1	0	0	5	1	0	0	9	1	0	0	0	1	0	0 *	
		(27)	(3)	(0)	(0)	(16)	(3)	(0)	(0)	(33)	(4)	(0)	(0)	(0)	(5)	(0)	(0)	
adrenal	spindle-cell hyperplasia		<33>				<31>				<27>				<22>			
		3	22	8	0	2	26	2	0	0	23	4	0	1	15	6	0	
		(9)	(67)	(24)	(0)	(6)	(84)	(6)	(0)	(0)	(85)	(15)	(0)	(5)	(68)	(27)	(0)	
	fatty change:corticomedullary junction	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	
		(0)	(0)	(3)	(0)	(0)	(3)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
	focal hypertrophy:cortex	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
{Reproductive system}																		
ovary	thrombus		<33>				<31>				<27>				<22>			
		0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(9)	(0)	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 21

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		33				31				27				22			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																	
ovary		<33>				<31>				<27>				<22>			
	cyst	4	4	2	0	7	2	1	0	0	2	5	0	0	4	4	0
		(12)	(12)	(6)	(0)	(23)	(6)	(3)	(0)	(0)	(7)	(19)	(0)	(0)	(18)	(18)	(0)
uterus		<33>				<31>				<27>				<22>			
	decidual change	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	leucocytic infiltration	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	cystic endometrial hyperplasia	13	6	0	0	12	8	0	0	11	10	0	0	8	9	0	0
		(39)	(18)	(0)	(0)	(39)	(26)	(0)	(0)	(41)	(37)	(0)	(0)	(36)	(41)	(0)	(0)
{Nervous system}																	
brain		<33>				<31>				<27>				<22>			
	mineralization	8	0	0	0	11	0	0	0	6	0	0	0	3	0	0	0
		(24)	(0)	(0)	(0)	(35)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(14)	(0)	(0)	(0)
{Special sense organs/appendage}																	
eye		<33>				<31>				<27>				<22>			
	mineralization:cornea	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe

< a > a : Number of animals examined at the site

b : Number of animals with lesion

(c) c : b / a * 100

Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 22

Organ	Findings	Control				5 ppm				15 ppm				45 ppm			
		33				31				27				22			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Special sense organs/appendage}

		<33>				<31>				<27>				<22>			
Harder gl	lymphocytic infiltration	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)

{Musculoskeletal system}

		<33>				<31>				<27>				<22>			
bone	osteosclerosis	4	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0
		(12)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b : Number of animals with lesion
 (c) c : b / a * 100
 Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

(HPT150)

BAIS4

APPENDIX M 1

NUMBER OF ANIMALS WITH TUMORS
AND NUMBER OF TUMORS-TIME RELATED : MALE

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

NUMBER OF ANIMALS WITH TUMORS AND NUMBER OF TUMORS - TIME RELATED

PAGE : 1

Time-related Weeks	Items	Group Name	Control	5 ppm	15 ppm	45 ppm
0 - 52	NO. OF EXAMINED ANIMALS		2	1	0	0
	NO. OF ANIMALS WITH TUMORS		1	0	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		1	0	0	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	0
	NO. OF MALIGNANT TUMORS		1	0	0	0
	NO. OF TOTAL TUMORS		1	0	0	0
53 - 78	NO. OF EXAMINED ANIMALS		0	1	2	3
	NO. OF ANIMALS WITH TUMORS		0	1	2	3
	NO. OF ANIMALS WITH SINGLE TUMORS		0	1	2	3
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	1
	NO. OF MALIGNANT TUMORS		0	1	2	2
	NO. OF TOTAL TUMORS		0	1	2	3
79 - 104	NO. OF EXAMINED ANIMALS		13	12	16	10
	NO. OF ANIMALS WITH TUMORS		13	12	15	10
	NO. OF ANIMALS WITH SINGLE TUMORS		7	7	7	9
	NO. OF ANIMALS WITH MULTIPLE TUMORS		6	5	8	1
	NO. OF BENIGN TUMORS		10	3	18	1
	NO. OF MALIGNANT TUMORS		12	16	12	10
	NO. OF TOTAL TUMORS		22	19	30	11
105 - 105	NO. OF EXAMINED ANIMALS		35	35	32	36
	NO. OF ANIMALS WITH TUMORS		24	26	25	19
	NO. OF ANIMALS WITH SINGLE TUMORS		13	8	10	12
	NO. OF ANIMALS WITH MULTIPLE TUMORS		11	18	15	7
	NO. OF BENIGN TUMORS		22	27	30	16
	NO. OF MALIGNANT TUMORS		18	28	20	12
	NO. OF TOTAL TUMORS		40	55	50	28

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

NUMBER OF ANIMALS WITH TUMORS AND NUMBER OF TUMORS - TIME RELATED

PAGE : 2

Time-related Weeks	Items	Group Name	Control	5 ppm	15 ppm	45 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	49	50	49
	NO. OF ANIMALS WITH TUMORS		38	39	42	32
	NO. OF ANIMALS WITH SINGLE TUMORS		21	16	19	24
	NO. OF ANIMALS WITH MULTIPLE TUMORS		17	23	23	8
	NO. OF BENIGN TUMORS		32	30	48	18
	NO. OF MALIGNANT TUMORS		31	45	34	24
	NO. OF TOTAL TUMORS		63	75	82	42

(HPT070)

BAIS4

APPENDIX M 2

NUMBER OF ANIMALS WITH TUMORS
AND NUMBER OF TUMORS-TIME RELATED : FEMALE

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

NUMBER OF ANIMALS WITH TUMORS AND NUMBER OF TUMORS - TIME RELATED

PAGE : 3

Time-related Weeks	Items	Group Name	Control	5 ppm	15 ppm	45 ppm
0 - 52	NO. OF EXAMINED ANIMALS		2	0	1	2
	NO. OF ANIMALS WITH TUMORS		2	0	1	0
	NO. OF ANIMALS WITH SINGLE TUMORS		2	0	1	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	0
	NO. OF MALIGNANT TUMORS		2	0	1	0
	NO. OF TOTAL TUMORS		2	0	1	0
53 - 78	NO. OF EXAMINED ANIMALS		4	0	9	8
	NO. OF ANIMALS WITH TUMORS		4	0	9	5
	NO. OF ANIMALS WITH SINGLE TUMORS		3	0	8	4
	NO. OF ANIMALS WITH MULTIPLE TUMORS		1	0	1	1
	NO. OF BENIGN TUMORS		1	0	1	1
	NO. OF MALIGNANT TUMORS		4	0	9	5
	NO. OF TOTAL TUMORS		5	0	10	6
79 - 104	NO. OF EXAMINED ANIMALS		11	19	13	18
	NO. OF ANIMALS WITH TUMORS		11	18	13	17
	NO. OF ANIMALS WITH SINGLE TUMORS		4	12	9	9
	NO. OF ANIMALS WITH MULTIPLE TUMORS		7	6	4	8
	NO. OF BENIGN TUMORS		4	11	4	9
	NO. OF MALIGNANT TUMORS		16	16	13	19
	NO. OF TOTAL TUMORS		20	27	17	28
105 - 105	NO. OF EXAMINED ANIMALS		33	31	27	22
	NO. OF ANIMALS WITH TUMORS		27	23	22	18
	NO. OF ANIMALS WITH SINGLE TUMORS		8	13	11	9
	NO. OF ANIMALS WITH MULTIPLE TUMORS		19	10	11	9
	NO. OF BENIGN TUMORS		30	16	15	9
	NO. OF MALIGNANT TUMORS		22	23	21	19
	NO. OF TOTAL TUMORS		52	39	36	28

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

NUMBER OF ANIMALS WITH TUMORS AND NUMBER OF TUMORS - TIME RELATED

PAGE : 4

Time-related Weeks	Items	Group Name	Control	5 ppm	15 ppm	45 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		44	41	45	40
	NO. OF ANIMALS WITH SINGLE TUMORS		17	25	29	22
	NO. OF ANIMALS WITH MULTIPLE TUMORS		27	16	16	18
	NO. OF BENIGN TUMORS		35	27	20	19
	NO. OF MALIGNANT TUMORS		44	39	44	43
	NO. OF TOTAL TUMORS		79	66	64	62

(HPT070)

BAIS4

APPENDIX N 1

HISTOPATHOLOGICAL FINDINGS :

NEOPLASTIC LESIONS : MALE

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 1

Organ_____	Findings_____	Group Name No. of animals on Study	Control 50	5 ppm 49	15 ppm 50	45 ppm 49
{Integumentary system/appandage}						
skin/app			<50>	<49>	<50>	<49>
			0 (0%)	0 (0%)	0 (0%)	1 (2%)
	trichoepithelioma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	mastcytoma:malignant		0 (0%)	0 (0%)	1 (2%)	0 (0%)
subcutis			<50>	<49>	<50>	<49>
			0 (0%)	0 (0%)	1 (2%)	0 (0%)
	schwannoma:malignant		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	histiocytic sarcoma		1 (2%)	1 (2%)	0 (0%)	0 (0%)
	hemangiosarcoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
{Respiratory system}						
nasal cavit			<50>	<49>	<50>	<49>
			0 (0%)	0 (0%)	0 (0%)	1 (2%)
	schwannoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	hemangioma		0 (0%)	2 (4%)	14 (28%)	8 (16%)
	squamous cell carcinoma		0 (0%)	0 (0%)	0 (0%)	2 (4%)
	histiocytic sarcoma		0 (0%)	2 (4%)	0 (0%)	0 (0%)
lung			<50>	<49>	<50>	<49>
			7 (14%)	6 (12%)	3 (6%)	1 (2%)
	bronchiolar-alveolar adenoma		7 (14%)	6 (12%)	3 (6%)	1 (2%)
	bronchiolar-alveolar carcinoma		6 (12%)	8 (16%)	5 (10%)	2 (4%)
{Hematopoietic system}						
bone marrow			<50>	<49>	<50>	<49>
			0 (0%)	0 (0%)	1 (2%)	0 (0%)
	hemangioma		0 (0%)	0 (0%)	1 (2%)	0 (0%)

< a > a : Number of animals examined at the site
b (c) b : Number of animals with neoplasm c : b / a * 100

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 2

Organ	Findings	Group Name No. of animals on Study	Control 50	5 ppm 49	15 ppm 50	45 ppm 49
{Hematopoietic system}						
bone marrow			<50>	<49>	<50>	<49>
	mastcytoma:malignant		0 (0%)	0 (0%)	1 (2%)	1 (2%)
lymph node			<50>	<49>	<50>	<49>
	malignant lymphoma		8 (16%)	13 (27%)	10 (20%)	4 (8%)
	mastcytoma:malignant		0 (0%)	0 (0%)	1 (2%)	1 (2%)
spleen			<50>	<49>	<50>	<49>
	hemangioma		3 (6%)	2 (4%)	2 (4%)	0 (0%)
	malignant lymphoma		0 (0%)	1 (2%)	1 (2%)	0 (0%)
	mastcytoma:malignant		0 (0%)	0 (0%)	0 (0%)	2 (4%)
{Digestive system}						
tooth			<50>	<49>	<50>	<49>
	hemangiosarcoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
salivary gl			<50>	<49>	<50>	<49>
	histiocytic sarcoma		1 (2%)	1 (2%)	2 (4%)	1 (2%)
stomach			<50>	<49>	<50>	<49>
	carcinoid tumor		0 (0%)	0 (0%)	1 (2%)	0 (0%)
small intes			<50>	<49>	<50>	<49>
	histiocytic sarcoma		0 (0%)	2 (4%)	0 (0%)	0 (0%)
liver			<50>	<49>	<50>	<49>
	hemangioma		5 (10%)	5 (10%)	7 (14%)	1 (2%)
	hepatocellular adenoma		11 (22%)	11 (22%)	12 (24%)	1 (2%)

< a > a : Number of animals examined at the site
b (c) b : Number of animals with neoplasm c : b / a * 100

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 3

Organ	Findings	Group Name No. of animals on Study	Control 50	5 ppm 49	15 ppm 50	45 ppm 49
{Digestive system}						
liver			<50>	<49>	<50>	<49>
	histiocytic sarcoma		3 (6%)	2 (4%)	1 (2%)	3 (6%)
	hemangiosarcoma		0 (0%)	1 (2%)	0 (0%)	1 (2%)
	hepatocellular carcinoma		5 (10%)	7 (14%)	9 (18%)	2 (4%)
	hepatoblastoma		2 (4%)	0 (0%)	0 (0%)	0 (0%)
{Urinary system}						
kidney			<50>	<49>	<50>	<49>
	renal cell carcinoma		1 (2%)	1 (2%)	0 (0%)	0 (0%)
urin bladd			<50>	<49>	<48>	<49>
	histiocytic sarcoma		1 (2%)	3 (6%)	0 (0%)	0 (0%)
{Endocrine system}						
pituitary			<50>	<49>	<50>	<49>
	adenoma		2 (4%)	0 (0%)	0 (0%)	0 (0%)
thyroid			<50>	<49>	<50>	<48>
	C-cell adenoma		0 (0%)	1 (2%)	1 (2%)	0 (0%)
{Reproductive system}						
epididymis			<50>	<49>	<50>	<49>
	histiocytic sarcoma		2 (4%)	1 (2%)	0 (0%)	1 (2%)
	mastcytoma:malignant		0 (0%)	1 (2%)	0 (0%)	0 (0%)

< a > a : Number of animals examined at the site
 b (c) b : Number of animals with neoplasm c : b / a * 100

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 4

Organ	Findings	Group Name No. of animals on Study	Control 50	5 ppm 49	15 ppm 50	45 ppm 49
(Nervous system)						
brain	histiocytic sarcoma		<50> 0 (0%)	<49> 0 (0%)	<50> 0 (0%)	<49> 1 (2%)
	glioma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
periph nerv	histiocytic sarcoma		<50> 0 (0%)	<49> 0 (0%)	<50> 1 (2%)	<49> 1 (2%)
{Special sense organs/appendage}						
Harder gl	adenoma		<50> 4 (8%)	<49> 3 (6%)	<50> 7 (14%)	<49> 5 (10%)
{Body cavities}						
peritoneum	histiocytic sarcoma		<50> 0 (0%)	<49> 0 (0%)	<50> 0 (0%)	<49> 1 (2%)
retroperit	hemangiosarcoma		<50> 0 (0%)	<49> 0 (0%)	<50> 1 (2%)	<49> 0 (0%)

< a > a : Number of animals examined at the site
b (c) b : Number of animals with neoplasm c : b / a * 100

(HPT085)

BAIS4

APPENDIX N 2

HISTOPATHOLOGICAL FINDINGS :

NEOPLASTIC LESIONS : FEMALE

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 5

Organ	Findings	Group Name No. of animals on Study	Control 50	5 ppm 50	15 ppm 50	45 ppm 50
{Integumentary system/appandage}						
skin/app			<50>	<50>	<50>	<50>
	squamous cell papilloma		2 (4%)	0 (0%)	0 (0%)	0 (0%)
subcutis			<50>	<50>	<50>	<50>
	fibrosarcoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	schwannoma:malignant		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	histiocytic sarcoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
{Respiratory system}						
nasal cavit			<50>	<50>	<50>	<50>
	hemangioma		0 (0%)	0 (0%)	2 (4%)	7 (14%)
	squamous cell carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	histiocytic sarcoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
trachea			<50>	<49>	<50>	<50>
	squamous cell papilloma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
lung			<50>	<50>	<50>	<50>
	bronchiolar-alveolar adenoma		7 (14%)	1 (2%)	2 (4%)	1 (2%)
	bronchiolar-alveolar carcinoma		3 (6%)	3 (6%)	3 (6%)	1 (2%)
{Hematopoietic system}						
lymph node			<50>	<50>	<50>	<50>
	malignant lymphoma		22 (44%)	19 (38%)	18 (36%)	16 (32%)

< a > a : Number of animals examined at the site
 b (c) b : Number of animals with neoplasm c : b / a * 100

(HPT085)

BAIS4

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 6

Organ	Findings	Group Name No. of animals on Study	Control 50	5 ppm 50	15 ppm 50	45 ppm 50
{Hematopoietic system}						
thymus			<50>	<50>	<50>	<50>
	malignant lymphoma		2 (4%)	1 (2%)	1 (2%)	1 (2%)
spleen			<50>	<50>	<50>	<50>
	hemangioma		0 (0%)	3 (6%)	0 (0%)	0 (0%)
	malignant lymphoma		2 (4%)	2 (4%)	1 (2%)	2 (4%)
{Digestive system}						
small intes			<50>	<50>	<50>	<50>
	adenoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	histiocytic sarcoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
liver			<50>	<50>	<50>	<50>
	hemangioma		2 (4%)	6 (12%)	1 (2%)	2 (4%)
	hepatocellular adenoma		5 (10%)	2 (4%)	4 (8%)	3 (6%)
	histiocytic sarcoma		1 (2%)	2 (4%)	0 (0%)	2 (4%)
	hepatocellular carcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
pancreas			<50>	<50>	<50>	<50>
	islet cell adenoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
{Endocrine system}						
pituitary			<50>	<50>	<50>	<50>
	adenoma		8 (16%)	8 (16%)	6 (12%)	3 (6%)

< a > a : Number of animals examined at the site
 b (c) b : Number of animals with neoplasm c : b / a * 100

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 7

Organ	Findings	Group Name No. of animals on Study	Control 50	5 ppm 50	15 ppm 50	45 ppm 50
{Reproductive system}						
ovary	cystadenoma		<50> 2 (4%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
	hemangioma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	adenocarcinoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
uterus	hemangioma		<50> 0 (0%)	<50> 3 (6%)	<50> 0 (0%)	<50> 1 (2%)
	endometrial stromal polyp		2 (4%)	1 (2%)	1 (2%)	1 (2%)
	histiocytic sarcoma		6 (12%)	10 (20%)	15 (30%)	15 (30%)
	endometrial stromal sarcoma		2 (4%)	0 (0%)	0 (0%)	0 (0%)
vagina	histiocytic sarcoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
mammary gl	adenocarcinoma		<50> 1 (2%)	<50> 1 (2%)	<50> 1 (2%)	<50> 2 (4%)
{Nervous system}						
brain	glioma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
periph nerv	schwannoma:malignant		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
	histiocytic sarcoma		2 (4%)	0 (0%)	0 (0%)	0 (0%)

< a > a : Number of animals examined at the site
b (c) b : Number of animals with neoplasm c : b / a * 100

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/CrLj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 8

Organ	Findings	Group Name No. of animals on Study	Control 50	5 ppm 50	15 ppm 50	45 ppm 50
{Special sense organs/appendage}						
Harder gl	adenoma		<50> 3 (6%)	<50> 3 (6%)	<50> 2 (4%)	<50> 1 (2%)
{Musculoskeletal system}						
muscle	fibrosarcoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
{Body cavities}						
peritoneum	hemangioma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
retroperit	hemangiosarcoma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)

< a > a : Number of animals examined at the site
 b (c) b : Number of animals with neoplasm c : b / a * 100

(HPT085)

BAIS4

APPENDIX O 1

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS : MALE

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : nasal cavity TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	0/50(0.0)	2/49(4.1)	14/50(28.0)	8/49(16.3)
Adjusted rates(b)	0.0	5.71	31.11	19.44
Terminal rates(c)	0/35(0.0)	2/35(5.7)	9/32(28.1)	7/36(19.4)
Statistical analysis				
Peto test				
Standard method(d)	P = ———			
Prevalence method(d)	P = 0.0102*			
Combined analysis(d)	P = ———			
Cochran-Armitage test(e)	P = 0.0162*			
Fisher Exact test(e)		P = 0.2424	P < 0.0001**	P = 0.0026**
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	7/50(14.0)	6/49(12.2)	3/50(6.0)	1/49(2.0)
Adjusted rates(b)	16.28	14.29	9.38	2.78
Terminal rates(c)	5/35(14.3)	5/35(14.3)	3/32(9.4)	1/36(2.8)
Statistical analysis				
Peto test				
Standard method(d)	P = ———			
Prevalence method(d)	P = 0.9925			
Combined analysis(d)	P = ———			
Cochran-Armitage test(e)	P = 0.0241*			
Fisher Exact test(e)		P = 0.5158	P = 0.1589	P = 0.0317*
SITE : lung TUMOR : bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	6/50(12.0)	8/49(16.3)	5/50(10.0)	2/49(4.1)
Adjusted rates(b)	14.29	12.20	12.50	5.56
Terminal rates(c)	5/35(14.3)	3/35(8.6)	4/32(12.5)	2/36(5.6)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8638			
Prevalence method(d)	P = 0.9285			
Combined analysis(d)	P = 0.9656			
Cochran-Armitage test(e)	P = 0.0747			
Fisher Exact test(e)		P = 0.3713	P = 0.5000	P = 0.1409

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma, bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	12/50(24.0)	13/49(26.5)	7/50(14.0)	3/49(6.1)
Adjusted rates(b)	28.95	24.39	18.75	8.33
Terminal rates(c)	10/35(28.6)	8/35(22.9)	6/32(18.8)	3/36(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8638			
Prevalence method(d)	P = 0.9964			
Combined analysis(d)	P = 0.9983			
Cochran-Armitage test(e)	P = 0.0053**			
Fisher Exact test(e)		P = 0.4766	P = 0.1540	P = 0.0125*
SITE : lymph node TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	8/50(16.0)	13/49(26.5)	10/50(20.0)	4/49(8.2)
Adjusted rates(b)	8.57	25.71	21.88	8.33
Terminal rates(c)	3/35(8.6)	9/35(25.7)	7/32(21.9)	3/36(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9566			
Prevalence method(d)	P = 0.8435			
Combined analysis(d)	P = 0.9697			
Cochran-Armitage test(e)	P = 0.0678			
Fisher Exact test(e)		P = 0.1502	P = 0.3976	P = 0.1882
SITE : spleen TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	3/50(6.0)	2/49(4.1)	2/50(4.0)	0/49(0.0)
Adjusted rates(b)	8.57	5.71	6.06	0.0
Terminal rates(c)	3/35(8.6)	2/35(5.7)	1/32(3.1)	0/36(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9619			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.1059			
Fisher Exact test(e)		P = 0.5097	P = 0.5000	P = 0.1250

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : liver TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	5/50(10.0)	5/49(10.2)	7/50(14.0)	1/49(2.0)
Adjusted rates(b)	9.09	14.29	9.38	2.78
Terminal rates(c)	3/35(8.6)	5/35(14.3)	3/32(9.4)	1/36(2.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.6738			
Prevalence method(d)	P = 0.9498			
Combined analysis(d)	P = 0.9532			
Cochran-Armitage test(e)	P = 0.0997			
Fisher Exact test(e)		P = 0.6167	P = 0.3798	P = 0.1068
SITE : liver TUMOR : hepatocellular adenoma				
Tumor rate				
Overall rates(a)	11/50(22.0)	11/49(22.4)	12/50(24.0)	1/49(2.0)
Adjusted rates(b)	20.00	26.32	26.19	2.78
Terminal rates(c)	6/35(17.1)	9/35(25.7)	8/32(25.0)	1/36(2.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8648			
Prevalence method(d)	P = 0.9982			
Combined analysis(d)	P = 0.9992			
Cochran-Armitage test(e)	P = 0.0022**			
Fisher Exact test(e)		P = 0.5742	P = 0.5000	P = 0.0021**
SITE : liver TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	2/49(4.1)	1/50(2.0)	3/49(6.1)
Adjusted rates(b)	2.86	2.86	0.0	0.0
Terminal rates(c)	1/35(2.9)	1/35(2.9)	0/32(0.0)	0/36(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1913			
Prevalence method(d)	P = 0.8717			
Combined analysis(d)	P = 0.3874			
Cochran-Armitage test(e)	P = 0.7756			
Fisher Exact test(e)		P = 0.5097	P = 0.3087	P = 0.6515

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : liver TUMOR : hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	5/50(10.0)	7/49(14.3)	9/50(18.0)	2/49(4.1)
Adjusted rates(b)	11.43	17.14	18.75	5.56
Terminal rates(c)	4/35(11.4)	6/35(17.1)	6/32(18.8)	2/36(5.6)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.6804			
Prevalence method(d)	P = 0.9075			
Combined analysis(d)	P = 0.9284			
Cochran-Armitage test(e)	P = 0.1546			
Fisher Exact test(e)		P = 0.3654	P = 0.1940	P = 0.2264
SITE : liver TUMOR : hemangioma, hemangiosarcoma				
Tumor rate				
Overall rates(a)	5/50(10.0)	5/49(10.2)	7/50(14.0)	2/49(4.1)
Adjusted rates(b)	9.09	14.29	9.38	2.78
Terminal rates(c)	3/35(8.6)	5/35(14.3)	3/32(9.4)	1/36(2.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.4064			
Prevalence method(d)	P = 0.9498			
Combined analysis(d)	P = 0.8846			
Cochran-Armitage test(e)	P = 0.2274			
Fisher Exact test(e)		P = 0.6167	P = 0.3798	P = 0.2264
SITE : liver TUMOR : hepatocellular adenoma, hepatocellular carcinoma, hepatoblastoma				
Tumor rate				
Overall rates(a)	14/50(28.0)	18/49(36.7)	18/50(36.0)	3/49(6.1)
Adjusted rates(b)	25.71	42.86	37.50	8.33
Terminal rates(c)	9/35(25.7)	15/35(42.9)	12/32(37.5)	3/36(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9401			
Prevalence method(d)	P = 0.9987			
Combined analysis(d)	P = 0.9997			
Cochran-Armitage test(e)	P = 0.0009**			
Fisher Exact test(e)		P = 0.2377	P = 0.2603	P = 0.0037**

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 5

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : urinary bladder TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	3/49(6.1)	0/48(0.0)	0/49(0.0)
Adjusted rates(b)	2.86	8.57	0.0	0.0
Terminal rates(c)	1/35(2.9)	3/35(8.6)	0/31(0.0)	0/36(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9418			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.1513			
Fisher Exact test(e)		P = 0.3010	P = 0.5102	P = 0.5051
SITE : Harderian gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	4/50(8.0)	3/49(6.1)	7/50(14.0)	5/49(10.2)
Adjusted rates(b)	11.43	8.57	16.28	13.89
Terminal rates(c)	4/35(11.4)	3/35(8.6)	3/32(9.4)	5/36(13.9)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.2803			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.5990			
Fisher Exact test(e)		P = 0.5114	P = 0.2623	P = 0.4870

(HPT360A)

BAIS4

- (a): Number of tumor-bearing animals/number of animals examined at the site.
 (b): Kaplan-Meier estimated tumor incidence at the end of the study after adjusting for intercurrent mortality.
 (c): Observed tumor incidence at terminal kill.
 (d): Beneath the control incidence are the P-values associated with the trend test.
 Standard method : Death analysis
 Prevalence method : Incidental tumor test
 Combined analysis : Death analysis + Incidental tumor test
 (e): The Cochran-Armitage and Fisher exact test compare directly the overall incidence rates.
 ? : The conditional probabilities of the largest and smallest possible outcomes can not be estimated or this P-value is beyond the estimated P-value.
 ----- : There is no data which should be statistical analysis.
 Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$
 N.C. : Statistical value cannot be calculated and was not significant.

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : ALL SITE TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	7/50(14.0)	7/49(14.3)	18/50(36.0)	9/49(18.4)
Adjusted rates(b)	14.29	20.00	33.33	22.22
Terminal rates(c)	5/35(14.3)	7/35(20.0)	10/32(31.3)	8/36(22.2)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.6738			
Prevalence method(d)	P = 0.2479			
Combined analysis(d)	P = 0.3326			
Cochran-Armitage test(e)	P = 0.6331			
Fisher Exact test(e)		P = 0.5971	P = 0.0099**	P = 0.3758
SITE : ALL SITE TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	8/50(16.0)	12/49(24.5)	4/50(8.0)	8/49(16.3)
Adjusted rates(b)	11.43	21.05	3.13	2.78
Terminal rates(c)	4/35(11.4)	7/35(20.0)	1/32(3.1)	1/36(2.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1203			
Prevalence method(d)	P = 0.9863			
Combined analysis(d)	P = 0.6544			
Cochran-Armitage test(e)	P = 0.6801			
Fisher Exact test(e)		P = 0.2116	P = 0.1783	P = 0.5900

(HPT360A)

BAIS4

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : ALL SITE				
TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	8/50(16.0)	14/49(28.6)	11/50(22.0)	4/49(8.2)
Adjusted rates(b)	8.57	25.71	25.00	8.33
Terminal rates(c)	3/35(8.6)	9/35(25.7)	8/32(25.0)	3/36(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9680			
Prevalence method(d)	P = 0.8438			
Combined analysis(d)	P = 0.9753			
Cochran-Armitage test(e)	P = 0.0553			
Fisher Exact test(e)		P = 0.1032	P = 0.3055	P = 0.1882

(HPT360A)

BAIS4

- (a): Number of tumor-bearing animals/number of animals examined at the site.
 (b): Kaplan-Meier estimated tumor incidence at the end of the study after adjusting for intercurrent mortality.
 (c): Observed tumor incidence at terminal kill.
 (d): Beneath the control incidence are the P-values associated with the trend test.
 Standard method : Death analysis
 Prevalence method : Incidental tumor test
 Combined analysis : Death analysis + Incidental tumor test
 (e): The Cochran-Armitage and Fisher exact test compare directly the overall incidence rates.
 ? : The conditional probabilities of the largest and smallest possible outcomes can not be estimated or this P-value is beyond the estimated P-value.
 — : There is no data which should be statistical analysis.
 Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$
 N.C. : Statistical value cannot be calculated and was not significant.

APPENDIX O 2

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS : FEMALE

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 7

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : nasal cavity TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	0/50(0.0)	0/50(0.0)	2/50(4.0)	7/50(14.0)
Adjusted rates(b)	0.0	0.0	7.41	20.69
Terminal rates(c)	0/33(0.0)	0/31(0.0)	2/27(7.4)	3/22(13.6)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P < 0.0001**			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0001**			
Fisher Exact test(e)		P = N. C.	P = 0.2475	P = 0.0062**
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	7/50(14.0)	1/50(2.0)	2/50(4.0)	1/50(2.0)
Adjusted rates(b)	18.18	2.50	5.88	4.35
Terminal rates(c)	6/33(18.2)	0/31(0.0)	1/27(3.7)	0/22(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9503			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0793			
Fisher Exact test(e)		P = 0.0297*	P = 0.0798	P = 0.0297*
SITE : lung TUMOR : bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	3/50(6.0)	3/50(6.0)	1/50(2.0)
Adjusted rates(b)	6.98	6.45	7.41	0.0
Terminal rates(c)	1/33(3.0)	2/31(6.5)	2/27(7.4)	0/22(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2109			
Prevalence method(d)	P = 0.9258			
Combined analysis(d)	P = 0.7445			
Cochran-Armitage test(e)	P = 0.2852			
Fisher Exact test(e)		P = 0.6611	P = 0.6611	P = 0.3087

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Cxj:BDF1]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 8

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma, bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	10/50(20.0)	4/50(8.0)	5/50(10.0)	2/50(4.0)
Adjusted rates(b)	22.22	7.50	12.12	4.35
Terminal rates(c)	7/33(21.2)	2/31(6.5)	3/27(11.1)	0/22(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2109			
Prevalence method(d)	P = 0.9892			
Combined analysis(d)	P = 0.9569			
Cochran-Armitage test(e)	P = 0.0389*			
Fisher Exact test(e)		P = 0.0739	P = 0.1312	P = 0.0139*
SITE : lymph node TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	22/50(44.0)	19/50(38.0)	18/50(36.0)	16/50(32.0)
Adjusted rates(b)	39.39	42.42	40.74	36.36
Terminal rates(c)	13/33(39.4)	13/31(41.9)	11/27(40.7)	8/22(36.4)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3305			
Prevalence method(d)	P = 0.5811			
Combined analysis(d)	P = 0.4530			
Cochran-Armitage test(e)	P = 0.2631			
Fisher Exact test(e)		P = 0.3423	P = 0.2703	P = 0.1515
SITE : spleen TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	0/50(0.0)	3/50(6.0)	0/50(0.0)	0/50(0.0)
Adjusted rates(b)	0.0	3.23	0.0	0.0
Terminal rates(c)	0/33(0.0)	1/31(3.2)	0/27(0.0)	0/22(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.7326			
Prevalence method(d)	P = 0.4702			
Combined analysis(d)	P = 0.8148			
Cochran-Armitage test(e)	P = 0.2607			
Fisher Exact test(e)		P = 0.1212	P = N. C.	P = N. C.

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 9

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : liver TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	2/50(4.0)	6/50(12.0)	1/50(2.0)	2/50(4.0)
Adjusted rates(b)	6.06	12.90	3.70	9.09
Terminal rates(c)	2/33(6.1)	4/31(12.9)	1/27(3.7)	2/22(9.1)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.7170			
Prevalence method(d)	P = 0.4625			
Combined analysis(d)	P = 0.5927			
Cochran-Armitage test(e)	P = 0.4369			
Fisher Exact test(e)		P = 0.1343	P = 0.5000	P = 0.6913
SITE : liver TUMOR : hepatocellular adenoma				
Tumor rate				
Overall rates(a)	5/50(10.0)	2/50(4.0)	4/50(8.0)	3/50(6.0)
Adjusted rates(b)	15.15	5.71	11.11	11.54
Terminal rates(c)	5/33(15.2)	1/31(3.2)	3/27(11.1)	2/22(9.1)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.4334			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.7209			
Fisher Exact test(e)		P = 0.2180	P = 0.5000	P = 0.3575
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	8/50(16.0)	8/50(16.0)	6/50(12.0)	3/50(6.0)
Adjusted rates(b)	20.59	21.05	18.52	7.41
Terminal rates(c)	6/33(18.2)	6/31(19.4)	5/27(18.5)	0/22(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2372			
Prevalence method(d)	P = 0.9336			
Combined analysis(d)	P = 0.8833			
Cochran-Armitage test(e)	P = 0.0836			
Fisher Exact test(e)		P = 0.6071	P = 0.3871	P = 0.0999

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 10

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : uterus TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	0/50(0.0)	3/50(6.0)	0/50(0.0)	1/50(2.0)
Adjusted rates(b)	0.0	6.25	0.0	0.0
Terminal rates(c)	0/33(0.0)	1/31(3.2)	0/27(0.0)	0/22(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1127			
Prevalence method(d)	P = 0.8364			
Combined analysis(d)	P = 0.4436			
Cochran-Armitage test(e)	P = 0.8850			
Fisher Exact test(e)		P = 0.1212	P = N.C.	P = 0.5000
SITE : uterus TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	6/50(12.0)	10/50(20.0)	15/50(30.0)	15/50(30.0)
Adjusted rates(b)	7.50	9.68	7.41	29.17
Terminal rates(c)	1/33(3.0)	3/31(9.7)	2/27(7.4)	6/22(27.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0853			
Prevalence method(d)	P = 0.0116*			
Combined analysis(d)	P = 0.0085**			
Cochran-Armitage test(e)	P = 0.0513			
Fisher Exact test(e)		P = 0.2070	P = 0.0239*	P = 0.0239*

(HPT360A)

BAIS4

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 11

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : Harderian gland				
TUMOR : adenoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	3/50(6.0)	2/50(4.0)	1/50(2.0)
Adjusted rates(b)	9.09	6.98	7.41	4.55
Terminal rates(c)	3/33(9.1)	2/31(6.5)	2/27(7.4)	1/22(4.5)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.7660			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.2717			
Fisher Exact test(e)		P = 0.6611	P = 0.5000	P = 0.3087

(HPT360A)

BAIS4

- (a): Number of tumor-bearing animals/number of animals examined at the site.
 (b): Kaplan-Meier estimated tumor incidence at the end of the study after adjusting for intercurrent mortality.
 (c): Observed tumor incidence at terminal kill.
 (d): Beneath the control incidence are the P-values associated with the trend test.
 Standard method : Death analysis
 Prevalence method : Incidental tumor test
 Combined analysis : Death analysis + Incidental tumor test
 (e): The Cochran-Armitage and Fisher exact test compare directly the overall incidence rates.
 ? : The conditional probabilities of the largest and smallest possible outcomes cannot be estimated or this P-value is beyond the estimated P-value.
 ----- : There is no data which should be statistical analysis.
 Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$
 N.C. : Statistical value cannot be calculated and was not significant.

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : ALL SITE TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	4/50(8.0)	9/50(18.0)	3/50(6.0)	10/50(20.0)
Adjusted rates(b)	12.12	16.13	11.11	28.00
Terminal rates(c)	4/33(12.1)	5/31(16.1)	3/27(11.1)	5/22(22.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5079			
Prevalence method(d)	P = 0.0104*			
Combined analysis(d)	P = 0.0222*			
Cochran-Armitage test(e)	P = 0.1570			
Fisher Exact test(e)		P = 0.1168	P = 0.5000	P = 0.0739
SITE : ALL SITE TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	9/50(18.0)	12/50(24.0)	19/50(38.0)	17/50(34.0)
Adjusted rates(b)	7.89	9.68	15.63	29.17
Terminal rates(c)	1/33(3.0)	3/31(9.7)	4/27(14.8)	6/22(27.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1127			
Prevalence method(d)	P = 0.0190*			
Combined analysis(d)	P = 0.0170*			
Cochran-Armitage test(e)	P = 0.0992			
Fisher Exact test(e)		P = 0.3121	P = 0.0220*	P = 0.0548

(HPT360A)

BAIS4

STUDY No. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	5 ppm	15 ppm	45 ppm
SITE : ALL SITE				
TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	26/50(52.0)	22/50(44.0)	20/50(40.0)	19/50(38.0)
Adjusted rates(b)	51.52	51.61	48.15	45.45
Terminal rates(c)	17/33(51.5)	16/31(51.6)	13/27(48.1)	10/22(45.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2154			
Prevalence method(d)	P = 0.6057			
Combined analysis(d)	P = 0.3756			
Cochran-Armitage test(e)	P = 0.2242			
Fisher Exact test(e)		P = 0.2742	P = 0.1579	P = 0.1138

(HPT360A)

BAIS4

- (a): Number of tumor-bearing animals/number of animals examined at the site.
 (b): Kaplan-Meier estimated tumor incidence at the end of the study after adjusting for intercurrent mortality.
 (c): Observed tumor incidence at terminal kill.
 (d): Beneath the control incidence are the P-values associated with the trend test.
 Standard method : Death analysis
 Prevalence method : Incidental tumor test
 Combined analysis : Death analysis + Incidental tumor test
 (e): The Cochran-Armitage and Fisher exact test compare directly the overall incidence rates.
 ? : The conditional probabilities of the largest and smallest possible outcomes can not be estimated or this P-value is beyond the estimated P-value.
 — : There is no data which should be statistical analysis.
 Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$
 N.C. : Statistical value cannot be calculated and was not significant.

APPENDIX P 1

HISTOPATHOLOGICAL FINDINGS :

METASTASIS OF TUMOR :

MALE : ALL ANIMALS

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 1

		Group Name No. of Animals on Study	Control 50	5 ppm 49	15 ppm 50	45 ppm 49
Organ	Findings					
{Integumentary system/appendage}						
skin/app			<50>	<49>	<50>	<49>
	metastasis:bone marrow tumor		0	0	1	0
subcutis			<50>	<49>	<50>	<49>
	leukemic cell infiltration		0	1	1	0
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:skin/appendage tumor		0	0	1	0
{Respiratory system}						
nasal cavit			<50>	<49>	<50>	<49>
	leukemic cell infiltration		0	0	1	1
	metastasis:liver tumor		0	0	0	1
	metastasis:brain tumor		0	0	0	1
	metastasis:peripheral nerve tumor		0	0	0	1
	metastasis:lymph node tumor		0	0	0	1
trachea			<50>	<49>	<50>	<49>
	leukemic cell infiltration		2	0	0	1
lung			<50>	<49>	<50>	<49>
	leukemic cell infiltration		4	1	4	1
	metastasis:liver tumor		2	2	2	1
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:epididymis tumor		1	0	0	1

< a > a : Number of animals examined at the site
b b : Number of animals with lesion

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 2

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	50	49	50	49
Organ	Findings					
{Respiratory system}						
lung	metastasis:salivary gland tumor		<50> 0	<49> 1	<50> 0	<49> 0
{Hematopoietic system}						
bone marrow	leukemic cell infiltration		<50> 4	<49> 4	<50> 3	<49> 1
	metastasis:liver tumor		2	0	0	1
	metastasis:skin/appendage tumor		0	0	1	0
	metastasis:salivary gland tumor		0	1	0	0
	metastasis:lymph node tumor		0	0	1	1
lymph node	metastasis:liver tumor		<50> 2	<49> 0	<50> 0	<49> 0
	metastasis:peritoneum tumor		0	0	0	1
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:skin/appendage tumor		0	0	1	0
	metastasis:salivary gland tumor		0	0	1	0
thymus	leukemic cell infiltration		<50> 0	<49> 0	<50> 1	<49> 1
spleen	leukemic cell infiltration		<50> 6	<49> 10	<50> 9	<49> 2
	metastasis:liver tumor		1	0	0	2

< a > a : Number of animals examined at the site
b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 3

		Group Name No. of Animals on Study	Control 50	5 ppm 49	15 ppm 50	45 ppm 49
Organ	Findings					
{Hematopoietic system}						
spleen			<50>	<49>	<50>	<49>
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:skin/appendage tumor		0	0	1	0
	metastasis:lymph node tumor		0	0	1	1
{Circulatory system}						
heart			<50>	<49>	<50>	<49>
	metastasis:spleen tumor		0	0	0	1
	metastasis:bone marrow tumor		0	0	1	0
{Digestive system}						
salivary gl			<50>	<49>	<50>	<49>
	leukemic cell infiltration		2	1	2	0
	metastasis:epididymis tumor		0	1	0	0
stomach			<50>	<49>	<50>	<49>
	leukemic cell infiltration		1	0	1	0
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:skin/appendage tumor		0	0	1	0
small intes			<50>	<49>	<50>	<49>
	leukemic cell infiltration		2	4	2	1
large intes			<50>	<49>	<50>	<49>
	leukemic cell infiltration		0	1	0	0

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 4

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	50	49	50	49
Organ	Findings					
{Digestive system}						
liver			<50>	<49>	<50>	<49>
	leukemic cell infiltration		3	6	6	1
	metastasis:peritoneum tumor		0	0	0	1
	metastasis:subcutis tumor		1	0	0	0
	metastasis:brain tumor		0	0	0	1
	metastasis:spleen tumor		0	0	0	2
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:epididymis tumor		2	0	0	1
	metastasis:skin/appendage tumor		0	0	1	0
	metastasis:salivary gland tumor		0	1	2	0
	metastasis:lymph node tumor		0	0	0	1
pancreas			<50>	<49>	<50>	<49>
	leukemic cell infiltration		2	1	1	0
{Urinary system}						
kidney			<50>	<49>	<50>	<49>
	leukemic cell infiltration		2	0	6	0
	metastasis:liver tumor		1	1	0	0
	metastasis:peritoneum tumor		0	0	0	1
	metastasis:urinary bladder tumor		0	1	0	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 5

Group Name No. of Animals on Study		Control 50	5 ppm 49	15 ppm 50	45 ppm 49
Organ	Findings				
{Urinary system}					
kidney	metastasis:bone marrow tumor	<50> 0	<49> 0	<50> 1	<49> 0
	metastasis:skin/appendage tumor	0	0	1	0
	metastasis:salivary gland tumor	0	1	0	0
	metastasis:lymph node tumor	0	0	1	1
urin bladd	leukemic cell infiltration	<50> 0	<49> 1	<50> 3	<49> 0
	metastasis:subcutis tumor	0	0	1	0
{Endocrine system}					
pituitary	leukemic cell infiltration	<50> 0	<49> 0	<50> 1	<49> 0
	metastasis:brain tumor	0	1	0	0
	metastasis:peripheral nerve tumor	0	0	1	0
thyroid	leukemic cell infiltration	<50> 0	<49> 1	<50> 0	<49> 0
	metastasis:lymph node tumor	<50> 0	<49> 0	<50> 0	<49> 1
{Reproductive system}					
testis	leukemic cell infiltration	<50> 0	<49> 0	<50> 1	<49> 0

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 6

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	50	49	50	49
Organ	Findings					
{Reproductive system}						
testis			<50>	<49>	<50>	<49>
	metastasis:liver tumor		0	1	0	0
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:epididymis tumor		1	0	0	0
epididymis			<50>	<49>	<50>	<49>
	leukemic cell infiltration		2	0	3	0
	metastasis:peritoneum tumor		0	0	0	1
semin ves			<50>	<49>	<50>	<49>
	leukemic cell infiltration		1	0	0	0
prostate			<50>	<49>	<50>	<49>
	leukemic cell infiltration		1	0	1	0
	metastasis:small intestine tumor		0	1	0	0
mammary gl			<50>	<49>	<50>	<49>
	leukemic cell infiltration		1	1	0	0
{Nervous system}						
brain			<50>	<49>	<50>	<49>
	leukemic cell infiltration		0	0	0	1
	metastasis:liver tumor		0	0	0	1
	metastasis:peripheral nerve tumor		0	0	1	1
periph nerv			<50>	<49>	<50>	<49>
	leukemic cell infiltration		1	0	0	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 7

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	50	49	50	49
Organ	Findings					
{Special sense organs/appendage}						
Harder gl			<50>	<49>	<50>	<49>
	leukemic cell infiltration		0	0	3	1
	metastasis:liver tumor		0	0	0	1
{Musculoskeletal system}						
muscle			<50>	<49>	<50>	<49>
	metastasis:bone marrow tumor		0	0	1	0
{Body cavities}						
mediastinum			<50>	<49>	<50>	<49>
	metastasis:spleen tumor		0	0	0	1
	metastasis:lymph node tumor		0	0	0	1
peritoneum			<50>	<49>	<50>	<49>
	metastasis:small intestine tumor		0	1	0	0
retroperit			<50>	<49>	<50>	<49>
	metastasis:skin/appendage tumor		0	0	1	0
< a >		a : Number of animals examined at the site				
b		b : Number of animals with lesion				

(JPT150)

BAIS4

APPENDIX P 2

HISTOPATHOLOGICAL FINDINGS :

METASTASIS OF TUMOR :

MALE : DEAD AND MORIBUND ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 1

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	15	14	18	13
Organ	Findings					
{Integumentary system/appendage}						
skin/app			<15>	<14>	<18>	<13>
	metastasis:bone marrow tumor		0	0	1	0
subcutis			<15>	<14>	<18>	<13>
	leukemic cell infiltration		0	1	1	0
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:skin/appendage tumor		0	0	1	0
{Respiratory system}						
nasal cavit			<15>	<14>	<18>	<13>
	leukemic cell infiltration		0	0	1	1
	metastasis:liver tumor		0	0	0	1
	metastasis:brain tumor		0	0	0	1
	metastasis:peripheral nerve tumor		0	0	0	1
trachea			<15>	<14>	<18>	<13>
	leukemic cell infiltration		2	0	0	1
lung			<15>	<14>	<18>	<13>
	leukemic cell infiltration		1	0	1	1
	metastasis:liver tumor		2	1	0	1
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:epididymis tumor		0	0	0	1
	metastasis:salivary gland tumor		0	1	0	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 2

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	15	14	18	13
Organ	Findings					
{Hematopoietic system}						
bone marrow		<15>		<14>	<18>	<13>
	leukemic cell infiltration	3		2	0	1
	metastasis:liver tumor	2		0	0	1
	metastasis:skin/appendage tumor	0		0	1	0
	metastasis:salivary gland tumor	0		1	0	0
lymph node		<15>		<14>	<18>	<13>
	metastasis:liver tumor	2		0	0	0
	metastasis:peritoneum tumor	0		0	0	1
	metastasis:bone marrow tumor	0		0	1	0
	metastasis:skin/appendage tumor	0		0	1	0
	metastasis:salivary gland tumor	0		0	1	0
thymus		<15>		<14>	<18>	<13>
	leukemic cell infiltration	0		0	0	1
spleen		<15>		<14>	<18>	<13>
	leukemic cell infiltration	4		4	3	1
	metastasis:liver tumor	1		0	0	2
	metastasis:bone marrow tumor	0		0	1	0
	metastasis:skin/appendage tumor	0		0	1	0
{Circulatory system}						
heart		<15>		<14>	<18>	<13>
	metastasis:bone marrow tumor	0		0	1	0

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 3

		Group Name No. of Animals on Study	Control 15	5 ppm 14	15 ppm 18	45 ppm 13
Organ	Findings					
{Digestive system}						
salivary gl			<15>	<14>	<18>	<13>
	leukemic cell infiltration		2	1	0	0
stomach			<15>	<14>	<18>	<13>
	leukemic cell infiltration		1	0	1	0
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:skin/appendage tumor		0	0	1	0
small intes			<15>	<14>	<18>	<13>
	leukemic cell infiltration		1	1	0	0
liver			<15>	<14>	<18>	<13>
	leukemic cell infiltration		2	3	3	1
	metastasis:peritoneum tumor		0	0	0	1
	metastasis:subcutis tumor		1	0	0	0
	metastasis:brain tumor		0	0	0	1
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:epididymis tumor		1	0	0	1
	metastasis:skin/appendage tumor		0	0	1	0
	metastasis:salivary gland tumor		0	1	2	0
pancreas			<15>	<14>	<18>	<13>
	leukemic cell infiltration		2	1	0	0
{Urinary system}						
kidney			<15>	<14>	<18>	<13>
	leukemic cell infiltration		1	0	2	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 4

Organ	Findings	Group Name No. of Animals on Study	Control 15	5 ppm 14	15 ppm 18	45 ppm 13
{Urinary system}						
kidney			<15>	<14>	<18>	<13>
	metastasis:liver tumor		1	0	0	0
	metastasis:peritoneum tumor		0	0	0	1
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:skin/appendage tumor		0	0	1	0
	metastasis:salivary gland tumor		0	1	0	0
urin bladd			<15>	<14>	<17>	<13>
	leukemic cell infiltration		0	0	1	0
	metastasis:subcutis tumor		0	0	1	0
{Endocrine system}						
pituitary			<15>	<14>	<18>	<13>
	leukemic cell infiltration		0	0	1	0
	metastasis:brain tumor		0	1	0	0
{Reproductive system}						
testis			<15>	<14>	<18>	<13>
	leukemic cell infiltration		0	0	1	0
	metastasis:liver tumor		0	1	0	0
	metastasis:bone marrow tumor		0	0	1	0
	metastasis:epididymis tumor		1	0	0	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 5

		Group Name No. of Animals on Study	Control 15	5 ppm 14	15 ppm 18	45 ppm 13
Organ	Findings					
{Reproductive system}						
epididymis	leukemic cell infiltration		<15> 0	<14> 0	<18> 1	<13> 0
	metastasis:peritoneum tumor		0	0	0	1
prostate	leukemic cell infiltration		<15> 1	<14> 0	<18> 0	<13> 0
	metastasis:small intestine tumor		0	1	0	0
mammary gl	leukemic cell infiltration		<15> 1	<14> 1	<18> 0	<13> 0
{Nervous system}						
brain	leukemic cell infiltration		<15> 0	<14> 0	<18> 0	<13> 1
	metastasis:liver tumor		0	0	0	1
	metastasis:peripheral nerve tumor		0	0	0	1
periph nerv	leukemic cell infiltration		<15> 1	<14> 0	<18> 0	<13> 0
{Special sense organs/appendage}						
Harder gl	leukemic cell infiltration		<15> 0	<14> 0	<18> 2	<13> 1
	metastasis:liver tumor		0	0	0	1
{Musculoskeletal system}						
muscle	metastasis:bone marrow tumor		<15> 0	<14> 0	<18> 1	<13> 0
< a >		a : Number of animals examined at the site				
b		b : Number of animals with lesion				

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 6

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	15	14	18	13
Organ_____	Findings_____					
{Body cavities}						
peritoneum			<15>	<14>	<18>	<13>
	metastasis:small intestine tumor		0	1	0	0
retroperit			<15>	<14>	<18>	<13>
	metastasis:skin/appendage tumor		0	0	1	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					
(JPT150)						BAIS4

APPENDIX P 3

HISTOPATHOLOGICAL FINDINGS :

METASTASIS OF TUMOR :

MALE : SACRIFICED ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 1

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	35	35	32	36
Organ	Findings					
{Respiratory system}						
nasal cavit			<35>	<35>	<32>	<36>
	metastasis:lymph node tumor		0	0	0	1
lung			<35>	<35>	<32>	<36>
	leukemic cell infiltration		3	1	3	0
	metastasis:liver tumor		0	1	2	0
	metastasis:epididymis tumor		1	0	0	0
{Hematopoietic system}						
bone marrow			<35>	<35>	<32>	<36>
	leukemic cell infiltration		1	2	3	0
	metastasis:lymph node tumor		0	0	1	1
thymus			<35>	<35>	<32>	<36>
	leukemic cell infiltration		0	0	1	0
spleen			<35>	<35>	<32>	<36>
	leukemic cell infiltration		2	6	6	1
	metastasis:lymph node tumor		0	0	1	1
{Circulatory system}						
heart			<35>	<35>	<32>	<36>
	metastasis:spleen tumor		0	0	0	1
{Digestive system}						
salivary gl			<35>	<35>	<32>	<36>
	leukemic cell infiltration		0	0	2	0

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/CrLj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 2

		Group Name No. of Animals on Study	Control 35	5 ppm 35	15 ppm 32	45 ppm 36
Organ	Findings					
{Digestive system}						
salivary gl	metastasis:epididymis tumor		<35> 0	<35> 1	<32> 0	<36> 0
small intes	leukemic cell infiltration		<35> 1	<35> 3	<32> 2	<36> 1
large intes	leukemic cell infiltration		<35> 0	<35> 1	<32> 0	<36> 0
liver	leukemic cell infiltration		<35> 1	<35> 3	<32> 3	<36> 0
	metastasis:spleen tumor		0	0	0	2
	metastasis:epididymis tumor		1	0	0	0
	metastasis:lymph node tumor		0	0	0	1
pancreas	leukemic cell infiltration		<35> 0	<35> 0	<32> 1	<36> 0
{Urinary system}						
kidney	leukemic cell infiltration		<35> 1	<35> 0	<32> 4	<36> 0
	metastasis:liver tumor		0	1	0	0
	metastasis:urinary bladder tumor		0	1	0	0
	metastasis:lymph node tumor		0	0	1	1
urin bladd	leukemic cell infiltration		<35> 0	<35> 1	<32> 2	<36> 0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 3

		Group Name No. of Animals on Study	Control 35	5 ppm 35	15 ppm 32	45 ppm 36
Organ	Findings					
{Endocrine system}						
pituitary			<35>	<35>	<32>	<36>
	metastasis:peripheral nerve tumor		0	0	1	0
thyroid			<35>	<35>	<32>	<36>
	leukemic cell infiltration		0	1	0	0
adrenal			<35>	<35>	<32>	<36>
	metastasis:lymph node tumor		0	0	0	1
{Reproductive system}						
epididymis			<35>	<35>	<32>	<36>
	leukemic cell infiltration		2	0	2	0
semin ves			<35>	<35>	<32>	<36>
	leukemic cell infiltration		1	0	0	0
prostate			<35>	<35>	<32>	<36>
	leukemic cell infiltration		0	0	1	0
{Nervous system}						
brain			<35>	<35>	<32>	<36>
	metastasis:peripheral nerve tumor		0	0	1	0
{Special sense organs/appendage}						
Harder gl			<35>	<35>	<32>	<36>
	leukemic cell infiltration		0	0	1	0
{Body cavities}						
mediastinum			<35>	<35>	<32>	<36>
	metastasis:spleen tumor		0	0	0	1

< a > a : Number of animals examined at the site
 b : Number of animals with lesion

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 4

Organ	Findings	Group Name No. of Animals on Study	Control 35	5 ppm 35	15 ppm 32	45 ppm 36
-------	----------	---------------------------------------	---------------	-------------	--------------	--------------

{Body cavities}

mediastinum	metastasis:lymph node tumor	<35> 0	<35> 0	<32> 0	<36> 1
-------------	-----------------------------	-----------	-----------	-----------	-----------

< a > a : Number of animals examined at the site
b b : Number of animals with lesion

(JPT150)

BAIS4

APPENDIX P 4

HISTOPATHOLOGICAL FINDINGS :

METASTASIS OF TUMOR :

FEMALE : ALL ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 8

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	50	50	50	50
Organ	Findings					
{Integumentary system/appandage}						
skin/app			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	2	1
	metastasis:mammary gland tumor		0	0	0	1
subcutis			<50>	<50>	<50>	<50>
	leukemic cell infiltration		2	1	1	2
{Respiratory system}						
nasal cavit			<50>	<50>	<50>	<50>
	leukemic cell infiltration		2	0	3	1
	metastasis:uterus tumor		0	1	1	0
	metastasis:peripheral nerve tumor		1	0	0	1
larynx			<50>	<50>	<50>	<50>
	leukemic cell infiltration		2	0	0	1
trachea			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	0	2	0
lung			<50>	<50>	<50>	<50>
	leukemic cell infiltration		21	16	12	10
	metastasis:liver tumor		0	1	0	1
	metastasis:uterus tumor		3	6	7	7
	metastasis:ovary tumor		0	1	0	0
	metastasis:peripheral nerve tumor		2	0	0	0
	metastasis:mammary gland tumor		0	0	0	1
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0438
ANIMAL : MOUSE B6D2F1/Crlj[Crlj:BDF1]
REPORT TYPE : A1
SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 9

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	50	50	50	50
Organ	Findings					
{Hematopoietic system}						
bone marrow		<50>	<50>	<50>	<50>	
	leukemic cell infiltration	13	6	6	6	
	metastasis:liver tumor	0	2	0	2	
	metastasis:uterus tumor	1	1	0	1	
	metastasis:subcutis tumor	0	0	1	0	
lymph node		<50>	<50>	<50>	<50>	
	leukemic cell infiltration	1	0	1	1	
	metastasis:liver tumor	0	1	0	0	
	metastasis:uterus tumor	1	2	2	1	
	metastasis:peripheral nerve tumor	0	0	0	1	
thymus		<50>	<50>	<50>	<50>	
	leukemic cell infiltration	2	0	1	1	
spleen		<50>	<50>	<50>	<50>	
	leukemic cell infiltration	16	11	15	9	
	metastasis:liver tumor	0	1	0	0	
	metastasis:uterus tumor	0	3	0	1	
{Circulatory system}						
heart		<50>	<50>	<50>	<50>	
	leukemic cell infiltration	7	6	5	6	
	metastasis:uterus tumor	1	1	0	0	
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crj[Crlj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 10

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	50	50	50	50
Organ	Findings					
{Digestive system}						
tongue			<50>	<50>	<50>	<50>
	leukemic cell infiltration		4	4	4	1
salivary gl			<50>	<50>	<50>	<50>
	leukemic cell infiltration		9	14	8	8
stomach			<50>	<50>	<50>	<50>
	leukemic cell infiltration		11	1	1	0
	metastasis:uterus tumor		1	0	0	0
small intes			<50>	<50>	<50>	<50>
	leukemic cell infiltration		2	2	1	0
	metastasis:uterus tumor		0	1	0	0
liver			<50>	<50>	<50>	<50>
	leukemic cell infiltration		20	12	12	10
	metastasis:uterus tumor		3	9	15	10
	metastasis:peripheral nerve tumor		2	0	0	1
gall bladd			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	1	0	0
pancreas			<50>	<50>	<50>	<50>
	leukemic cell infiltration		10	2	3	4
	metastasis:uterus tumor		1	1	3	0
{Urinary system}						
kidney			<50>	<50>	<50>	<50>
	leukemic cell infiltration		17	11	13	7
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 11

		Group Name No. of Animals on Study	Control 50	5 ppm 50	15 ppm 50	45 ppm 50
Organ	Findings					
{Urinary system}						
kidney	metastasis:liver tumor		<50> 1	<50> 1	<50> 0	<50> 1
	metastasis:uterus tumor		1	3	4	2
urin bladd	leukemic cell infiltration		<50> 10	<50> 16	<50> 11	<50> 5
	metastasis:uterus tumor		1	1	4	1
{Endocrine system}						
pituitary	leukemic cell infiltration		<50> 1	<50> 2	<50> 0	<50> 0
	metastasis:peripheral nerve tumor		2	0	0	1
thyroid	leukemic cell infiltration		<50> 2	<50> 0	<50> 0	<50> 0
parathyroid	leukemic cell infiltration		<50> 1	<50> 0	<50> 0	<50> 0
adrenal	leukemic cell infiltration		<50> 8	<50> 2	<50> 2	<50> 0
	metastasis:uterus tumor		0	1	0	0
{Reproductive system}						
ovary	leukemic cell infiltration		<50> 14	<50> 7	<50> 9	<50> 5
	metastasis:liver tumor		0	0	0	1

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 12

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	50	50	50	50
Organ	Findings					
{Reproductive system}						
ovary			<50>	<50>	<50>	<50>
	metastasis:uterus tumor		1	7	12	6
	metastasis:subcutis tumor		0	0	1	0
uterus			<50>	<50>	<50>	<50>
	leukemic cell infiltration		9	4	4	3
	metastasis:subcutis tumor		0	0	1	0
	metastasis:peripheral nerve tumor		1	0	0	0
vagina			<50>	<50>	<50>	<50>
	leukemic cell infiltration		10	5	4	3
	metastasis:uterus tumor		1	1	8	0
	metastasis:subcutis tumor		0	0	2	0
mammary gl			<50>	<50>	<50>	<50>
	leukemic cell infiltration		8	5	5	4
	metastasis:uterus tumor		0	0	2	0
{Nervous system}						
brain			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	2	2	0
	metastasis:peripheral nerve tumor		1	0	0	0
spinal cord			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	1	1	0
{Special sense organs/appendage}						
eye			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	2	2	0

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 13

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	50	50	50	50
Organ	Findings					
{Special sense organs/appendage}						
eye			<50>	<50>	<50>	<50>
	metastasis:uterus tumor		0	0	1	0
Harder gl			<50>	<50>	<50>	<50>
	leukemic cell infiltration		7	2	3	2
	metastasis:liver tumor		1	0	0	0
	metastasis:uterus tumor		0	0	1	0
{Musculoskeletal system}						
muscle			<50>	<50>	<50>	<50>
	leukemic cell infiltration		2	4	4	4
{Body cavities}						
mediastinum			<50>	<50>	<50>	<50>
	leukemic cell infiltration		4	2	2	1
peritoneum			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	1
	metastasis:uterus tumor		0	0	1	0
retroperit			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	1	0	0
< a > a : Number of animals examined at the site						
b b : Number of animals with lesion						

APPENDIX P 5

HISTOPATHOLOGICAL FINDINGS :

METASTASIS OF TUMOR :

FEMALE : DEAD AND MORIBUND ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 7

		Group Name No. of Animals on Study	Control 17	5 ppm 19	15 ppm 23	45 ppm 28
Organ	Findings					
{Integumentary system/appandage}						
skin/app			<17>	<19>	<23>	<28>
	leukemic cell infiltration		0	0	2	1
subcutis			<17>	<19>	<23>	<28>
	leukemic cell infiltration		2	1	1	2
{Respiratory system}						
nasal cavit			<17>	<19>	<23>	<28>
	leukemic cell infiltration		1	0	3	1
	metastasis:uterus tumor		0	1	1	0
	metastasis:peripheral nerve tumor		1	0	0	1
larynx			<17>	<19>	<23>	<28>
	leukemic cell infiltration		1	0	0	1
trachea			<17>	<19>	<23>	<28>
	leukemic cell infiltration		1	0	2	0
lung			<17>	<19>	<23>	<28>
	leukemic cell infiltration		9	5	5	4
	metastasis:liver tumor		0	1	0	1
	metastasis:uterus tumor		3	5	6	6
	metastasis:peripheral nerve tumor		2	0	0	0
	metastasis:mammary gland tumor		0	0	0	1
{Hematopoietic system}						
bone marrow			<17>	<19>	<23>	<28>
	leukemic cell infiltration		5	2	4	4
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 8

		Group Name No. of Animals on Study	Control 17	5 ppm 19	15 ppm 23	45 ppm 28
Organ	Findings					
{Hematopoietic system}						
bone marrow			<17>	<19>	<23>	<28>
	metastasis:liver tumor		0	2	0	2
	metastasis:uterus tumor		1	1	0	1
	metastasis:subcutis tumor		0	0	1	0
lymph node			<17>	<19>	<23>	<28>
	leukemic cell infiltration		0	0	0	1
	metastasis:liver tumor		0	1	0	0
	metastasis:uterus tumor		1	2	2	1
	metastasis:peripheral nerve tumor		0	0	0	1
spleen			<17>	<19>	<23>	<28>
	leukemic cell infiltration		8	4	5	5
	metastasis:liver tumor		0	1	0	0
	metastasis:uterus tumor		0	3	0	1
{Circulatory system}						
heart			<17>	<19>	<23>	<28>
	leukemic cell infiltration		4	2	4	3
	metastasis:uterus tumor		1	0	0	0
{Digestive system}						
tongue			<17>	<19>	<23>	<28>
	leukemic cell infiltration		3	2	4	1
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 9

		Group Name No. of Animals on Study	Control 17	5 ppm 19	15 ppm 23	45 ppm 28
Organ	Findings					
{Digestive system}						
salivary gl			<17>	<19>	<23>	<28>
	leukemic cell infiltration		4	4	4	4
stomach			<17>	<19>	<23>	<28>
	leukemic cell infiltration		5	0	1	0
	metastasis:uterus tumor		1	0	0	0
small intes			<17>	<19>	<23>	<28>
	leukemic cell infiltration		1	0	0	0
	metastasis:uterus tumor		0	1	0	0
liver			<17>	<19>	<23>	<28>
	leukemic cell infiltration		8	5	4	7
	metastasis:uterus tumor		2	7	14	8
	metastasis:peripheral nerve tumor		2	0	0	1
pancreas			<17>	<19>	<23>	<28>
	leukemic cell infiltration		6	2	3	2
	metastasis:uterus tumor		1	1	3	0
{Urinary system}						
kidney			<17>	<19>	<23>	<28>
	leukemic cell infiltration		5	2	5	4
	metastasis:liver tumor		1	1	0	1
	metastasis:uterus tumor		0	3	3	1
urin bladd			<17>	<19>	<23>	<28>
	leukemic cell infiltration		4	4	4	4

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 10

Group Name No. of Animals on Study		Control 17	5 ppm 19	15 ppm 23	45 ppm 28
Organ	Findings				
{Urinary system}					
urin bladd	metastasis:uterus tumor	<17> 0	<19> 1	<23> 4	<28> 1
{Endocrine system}					
pituitary	leukemic cell infiltration	<17> 1	<19> 0	<23> 0	<28> 0
	metastasis:peripheral nerve tumor	2	0	0	1
adrenal	leukemic cell infiltration	<17> 6	<19> 0	<23> 2	<28> 0
	metastasis:uterus tumor	0	1	0	0
{Reproductive system}					
ovary	leukemic cell infiltration	<17> 8	<19> 4	<23> 6	<28> 5
	metastasis:liver tumor	0	0	0	1
	metastasis:uterus tumor	1	6	11	5
	metastasis:subcutis tumor	0	0	1	0
uterus	leukemic cell infiltration	<17> 6	<19> 3	<23> 3	<28> 3
	metastasis:subcutis tumor	0	0	1	0
	metastasis:peripheral nerve tumor	1	0	0	0
vagina	leukemic cell infiltration	<17> 5	<19> 3	<23> 3	<28> 3
< a > a : Number of animals examined at the site b b : Number of animals with lesion					

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 11

		Group Name No. of Animals on Study	Control 17	5 ppm 19	15 ppm 23	45 ppm 28
Organ	Findings					
{Reproductive system}						
vagina			<17>	<19>	<23>	<28>
	metastasis:uterus tumor		1	1	7	0
	metastasis:subcutis tumor		0	0	1	0
mammary gl			<17>	<19>	<23>	<28>
	leukemic cell infiltration		3	4	4	3
	metastasis:uterus tumor		0	0	2	0
{Nervous system}						
brain			<17>	<19>	<23>	<28>
	leukemic cell infiltration		0	0	2	0
	metastasis:peripheral nerve tumor		1	0	0	0
spinal cord			<17>	<19>	<23>	<28>
	leukemic cell infiltration		0	0	1	0
{Special sense organs/appendage}						
eye			<17>	<19>	<23>	<28>
	leukemic cell infiltration		0	2	2	0
	metastasis:uterus tumor		0	0	1	0
Harder gl			<17>	<19>	<23>	<28>
	leukemic cell infiltration		3	0	2	2
	metastasis:liver tumor		1	0	0	0
	metastasis:uterus tumor		0	0	1	0

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 12

		Group Name No. of Animals on Study	Control 17	5 ppm 19	15 ppm 23	45 ppm 28
Organ	Findings					
{Musculoskeletal system}						
muscle			<17>	<19>	<23>	<28>
	leukemic cell infiltration		2	2	4	3
{Body cavities}						
mediastinum			<17>	<19>	<23>	<28>
	leukemic cell infiltration		3	1	2	1
peritoneum			<17>	<19>	<23>	<28>
	leukemic cell infiltration		0	0	0	1
	metastasis:uterus tumor		0	0	1	0
retroperit			<17>	<19>	<23>	<28>
	leukemic cell infiltration		0	1	0	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

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APPENDIX P 6

HISTOPATHOLOGICAL FINDINGS :

METASTASIS OF TUMOR :

FEMALE : SACRIFICED ANIMALS

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 5

		Group Name No. of Animals on Study	Control 33	5 ppm 31	15 ppm 27	45 ppm 22
Organ	Findings					
{Integumentary system/appandage}						
skin/app	metastasis:mammary gland tumor		<33> 0	<31> 0	<27> 0	<22> 1
{Respiratory system}						
nasal cavit	leukemic cell infiltration		<33> 1	<31> 0	<27> 0	<22> 0
larynx	leukemic cell infiltration		<33> 1	<31> 0	<27> 0	<22> 0
lung	leukemic cell infiltration		<33> 12	<31> 11	<27> 7	<22> 6
	metastasis:uterus tumor		0	1	1	1
	metastasis:ovary tumor		0	1	0	0
{Hematopoietic system}						
bone marrow	leukemic cell infiltration		<33> 8	<31> 4	<27> 2	<22> 2
lymph node	leukemic cell infiltration		<33> 1	<31> 0	<27> 1	<22> 0
thymus	leukemic cell infiltration		<33> 2	<31> 0	<27> 1	<22> 1
spleen	leukemic cell infiltration		<33> 8	<31> 7	<27> 10	<22> 4
{Circulatory system}						
heart	leukemic cell infiltration		<33> 3	<31> 4	<27> 1	<22> 3

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 6

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	33	31	27	22
Organ	Findings					
{Circulatory system}						
heart			<33>	<31>	<27>	<22>
	metastasis:uterus tumor		0	1	0	0
{Digestive system}						
tongue			<33>	<31>	<27>	<22>
	leukemic cell infiltration		1	2	0	0
salivary gl			<33>	<31>	<27>	<22>
	leukemic cell infiltration		5	10	4	4
stomach			<33>	<31>	<27>	<22>
	leukemic cell infiltration		6	1	0	0
small intes			<33>	<31>	<27>	<22>
	leukemic cell infiltration		1	2	1	0
liver			<33>	<31>	<27>	<22>
	leukemic cell infiltration		12	7	8	3
	metastasis:uterus tumor		1	2	1	2
gall bladd			<33>	<31>	<27>	<22>
	leukemic cell infiltration		0	1	0	0
pancreas			<33>	<31>	<27>	<22>
	leukemic cell infiltration		4	0	0	2
{Urinary system}						
kidney			<33>	<31>	<27>	<22>
	leukemic cell infiltration		12	9	8	3
	metastasis:uterus tumor		1	0	1	1

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Crlj[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 7

Group Name No. of Animals on Study		Control 33	5 ppm 31	15 ppm 27	45 ppm 22
Organ	Findings				
{Urinary system}					
urin bladd	leukemic cell infiltration	<33> 6	<31> 12	<27> 7	<22> 1
	metastasis:uterus tumor	1	0	0	0
{Endocrine system}					
pituitary	leukemic cell infiltration	<33> 0	<31> 2	<27> 0	<22> 0
	leukemic cell infiltration	<33> 2	<31> 0	<27> 0	<22> 0
thyroid	leukemic cell infiltration	<33> 2	<31> 0	<27> 0	<22> 0
	leukemic cell infiltration	<33> 1	<31> 0	<27> 0	<22> 0
parathyroid	leukemic cell infiltration	<33> 1	<31> 0	<27> 0	<22> 0
	leukemic cell infiltration	<33> 2	<31> 2	<27> 0	<22> 0
adrenal	leukemic cell infiltration	<33> 2	<31> 2	<27> 0	<22> 0
	leukemic cell infiltration	<33> 2	<31> 2	<27> 0	<22> 0
{Reproductive system}					
ovary	leukemic cell infiltration	<33> 6	<31> 3	<27> 3	<22> 0
	metastasis:uterus tumor	0	1	1	1
uterus	leukemic cell infiltration	<33> 3	<31> 1	<27> 1	<22> 0
	leukemic cell infiltration	<33> 5	<31> 2	<27> 1	<22> 0
vagina	leukemic cell infiltration	<33> 5	<31> 2	<27> 1	<22> 0
	metastasis:uterus tumor	0	0	1	0

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

STUDY NO. : 0438
 ANIMAL : MOUSE B6D2F1/Cr1j[Crj:BDF1]
 REPORT TYPE : A1
 SEX : FEMALE

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 8

		Group Name	Control	5 ppm	15 ppm	45 ppm
		No. of Animals on Study	33	31	27	22
Organ	Findings					
{Reproductive system}						
vagina			<33>	<31>	<27>	<22>
	metastasis:subcutis tumor		0	0	1	0
mammary gl			<33>	<31>	<27>	<22>
	leukemic cell infiltration		5	1	1	1
{Nervous system}						
brain			<33>	<31>	<27>	<22>
	leukemic cell infiltration		1	2	0	0
spinal cord			<33>	<31>	<27>	<22>
	leukemic cell infiltration		1	1	0	0
{Special sense organs/appendage}						
Harder gl			<33>	<31>	<27>	<22>
	leukemic cell infiltration		4	2	1	0
{Musculoskeletal system}						
muscle			<33>	<31>	<27>	<22>
	leukemic cell infiltration		0	2	0	1
{Body cavities}						
mediastinum			<33>	<31>	<27>	<22>
	leukemic cell infiltration		1	1	0	0

< a > a : Number of animals examined at the site
 b b : Number of animals with lesion

APPENDIX Q

METHODS, UNITS AND DECIMAL PLACE FOR
HEMATOLOGY AND BIOCHEMISTRY IN THE 2-YEAR
INHALATION STUDY OF BUTYL 2,3-EPOXYPROPYL ETHER

METHODS, UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE 2-YEAR INHALATION STUDY OF BUTYL 2,3-EPOXYPROPYL ETHER

Item	Method	Unit	Decimal place
Hematology			
Red blood cell (RBC)	Light scattering method ¹⁾	$\times 10^6/\mu\text{L}$	2
Hemoglobin(Hgb)	Cyanmethemoglobin method ¹⁾	g/dL	1
Hematocrit(Hct)	Calculated as $\text{RBC} \times \text{MCV}/10$ ¹⁾	%	1
Mean corpuscular volume(MCV)	Light scattering method ¹⁾	fL	1
Mean corpuscular hemoglobin(MCH)	Calculated as $\text{Hgb}/\text{RBC} \times 10$ ¹⁾	pg	1
Mean corpuscular hemoglobin concentration (MCHC)	Calculated as $\text{Hgb}/\text{Hct} \times 100$ ¹⁾	g/dL	1
Platelet	Light scattering method ¹⁾	$\times 10^3/\mu\text{L}$	0
White blood cell(WBC)	Light scattering method ¹⁾	$\times 10^3/\mu\text{L}$	2
Differential WBC	Pattern recognition method ²⁾ (Wright staining)	%	0
Biochemistry			
Total protein(TP)	Biuret method ³⁾	g/dL	1
Albumin (Alb)	BCG method ³⁾	g/dL	1
A/G ratio	Calculated as $\text{Alb}/(\text{TP} - \text{Alb})$ ³⁾	—	1
T-bilirubin	Alkaline azobilirubin method ³⁾	mg/dL	2
Glucose	GlcK·G-6-PDH method ³⁾	mg/dL	0
T-cholesterol	CE·COD·POD method ³⁾	mg/dL	0
Triglyceride	LPL·GK·GPO·POD method ³⁾	mg/dL	0
Phospholipid	PLD·ChOD·POD method ³⁾	mg/dL	0
Aspartate aminotransferase (AST)	JSCC method ³⁾	IU/L	0
Alanine aminotransferase (ALT)	JSCC method ³⁾	IU/L	0
Lactate dehydrogenase (LDH)	SFBC method ³⁾	IU/L	0
Alkaline phosphatase (ALP)	GSCC method ³⁾	IU/L	0
γ -Glutamyl transpeptidase (γ -GTP)	JSCC method ³⁾	IU/L	0
Creatine kinase (CK)	JSCC method ³⁾	IU/L	0
Urea nitrogen	Urease·GLDH method ³⁾	mg/dL	1
Sodium	Ion selective electrode method ³⁾	mEq/L	0
Potassium	Ion selective electrode method ³⁾	mEq/L	1
Chloride	Ion selective electrode method ³⁾	mEq/L	0
Calcium	OCPC method ³⁾	mg/dL	1
Inorganic phosphorus	PNP·XOD·POD method ³⁾	mg/dL	1

1) Automatic blood cell analyzer (ADVIA120 : Bayer Corporation)

2) Automatic blood cell differential analyzer (MICROX HEG-120NA : OMRON Corporation)

3) Automatic analyzer (Hitachi 7070 : Hitachi,Ltd.)