

1-ブロモ-3-クロロプロバンのマウスを用いた
吸入によるがん原性試験報告書

試験番号：0418

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APPENDIX A 1

IDENTITY AND IMPURITY OF 1-BROMO-3-CHLOROPROPANEIN THE 2-YEAR INHALATION STUDY

IDENTITY AND IMPURITY OF 1-BROMO-3-CHLOROPROPANE IN THE 2-YEAR
INHALATION STUDY

Test Substance : 1-Bromo-3-chloropropane (Wako Pure Chemical Industries, Ltd.)

A. Lot No. : SEJ4084

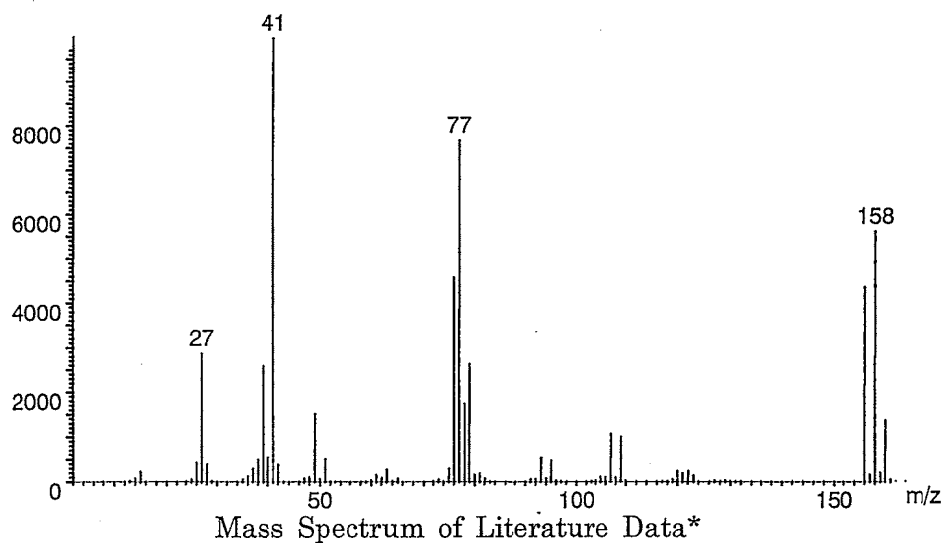
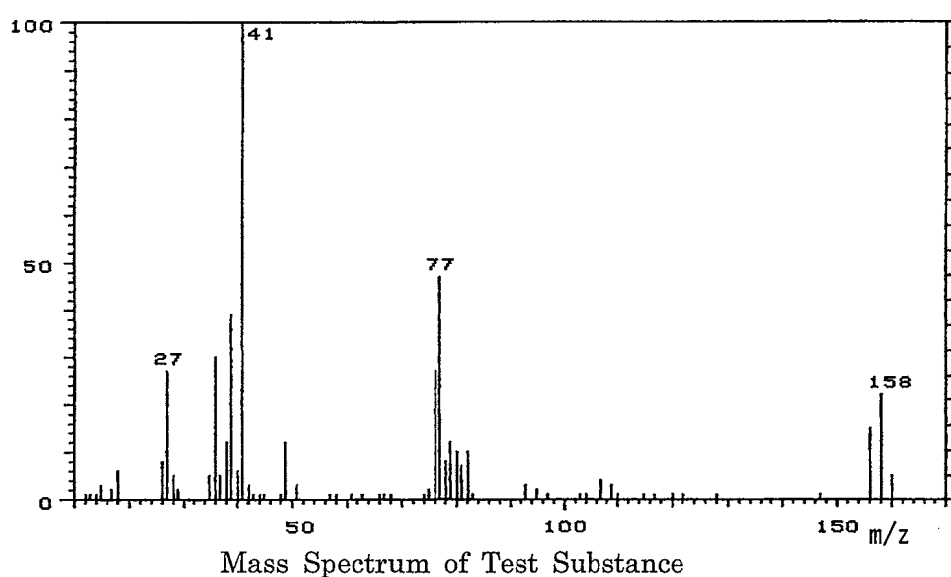
1. Spectral Data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Result: The mass spectrum was consistent with literature spectrum.

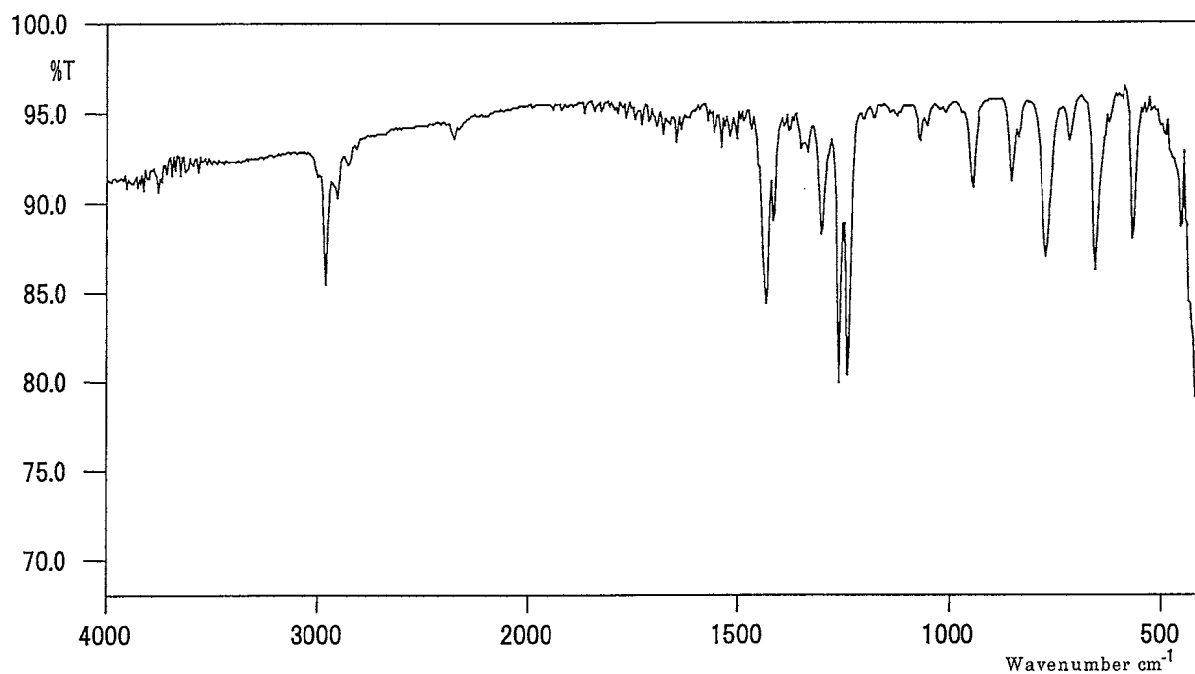
(*McLafferty FW, ed. 1994. Wiley Registry of Mass Spectral Data. 6th ed.
New York, NY:John Wiley and Sons.)

Infrared Spectrometry

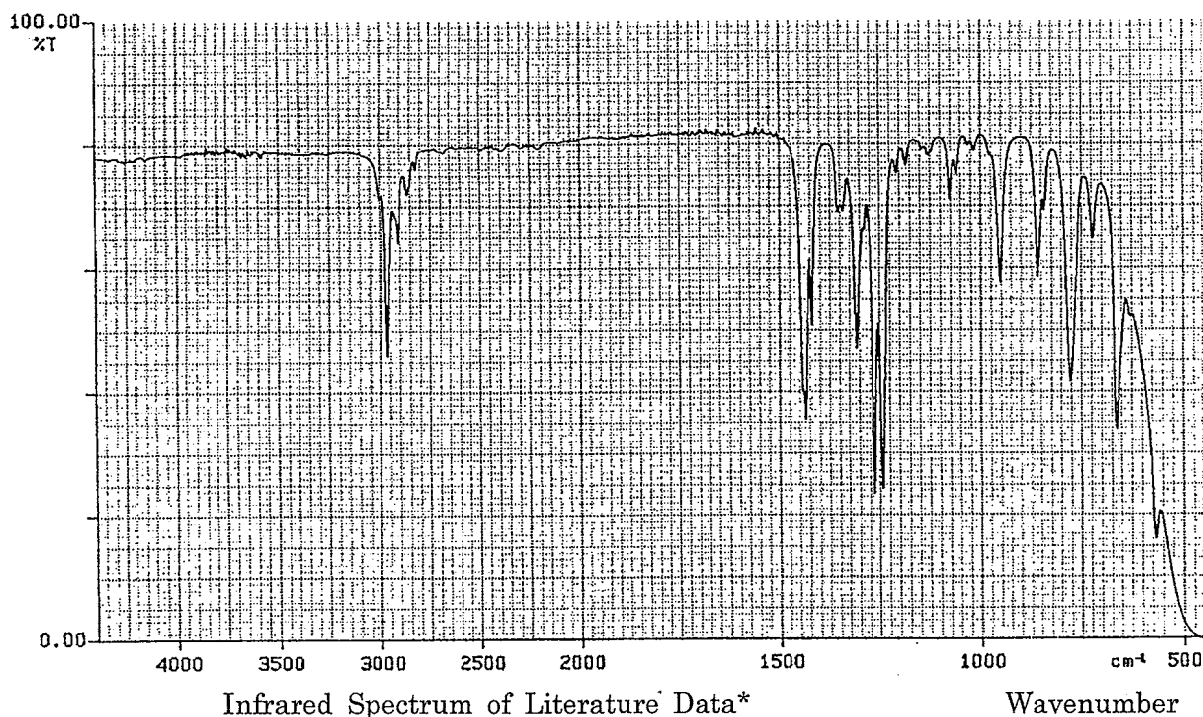
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4 cm^{-1}



Infrared Spectrum of Test Substance



Infrared Spectrum of Literature Data*

Result: The infrared spectrum was consistent with literature spectrum.

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

2. Impurity

Instrument : Hewlett Packard 5890A Gas Chromatograph
Column : Methyl Silicone (0.53 mm ϕ \times 60 m)
Column Temperature : 100° C
Flow Rate : 20 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.046	1,2-Epoxybutane
	2	99.954	1-Bromo-3-chloropropane

Result: Gas chromatography indicated one major peak (peak No. 2) and one impurity. It was identified by comparing GC-MS with that of 1,2-Epoxybutane (peak No. 1) in the 1-bromo-3-chloropropane. The amount in the test substance was 0.046%(The quantity value by the standard sample was 0.045%.) with a gas chromatograph.

3. Conclusion: The test substance was identified as 1-bromo-3-chloropropane by mass spectrum and infrared spectrum. Gas chromatography indicated one major peak(1-bromo-3-chloropropane) and one impurity. The impurity was 1,2-epoxybutane in the test substance.

B. Lot No. : LDK4248

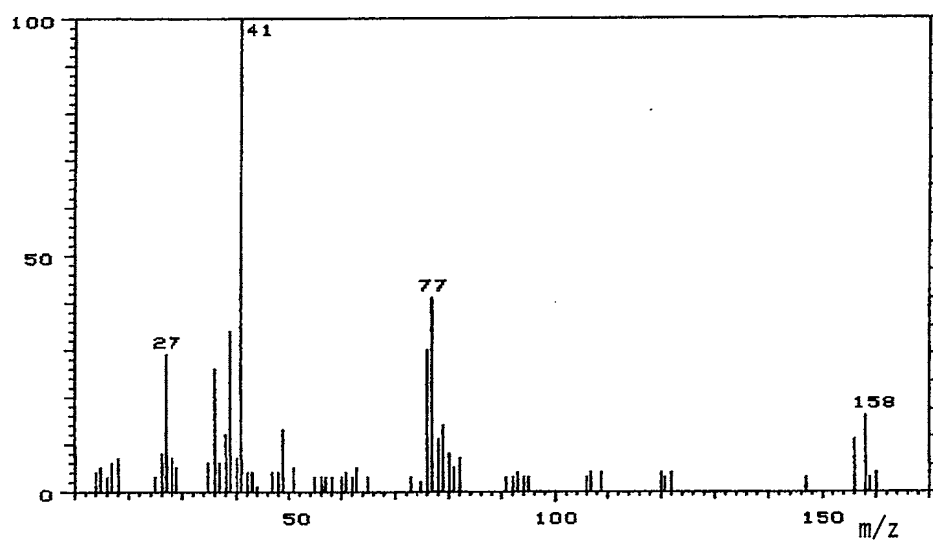
1. Spectral Data

Mass Spectrometry

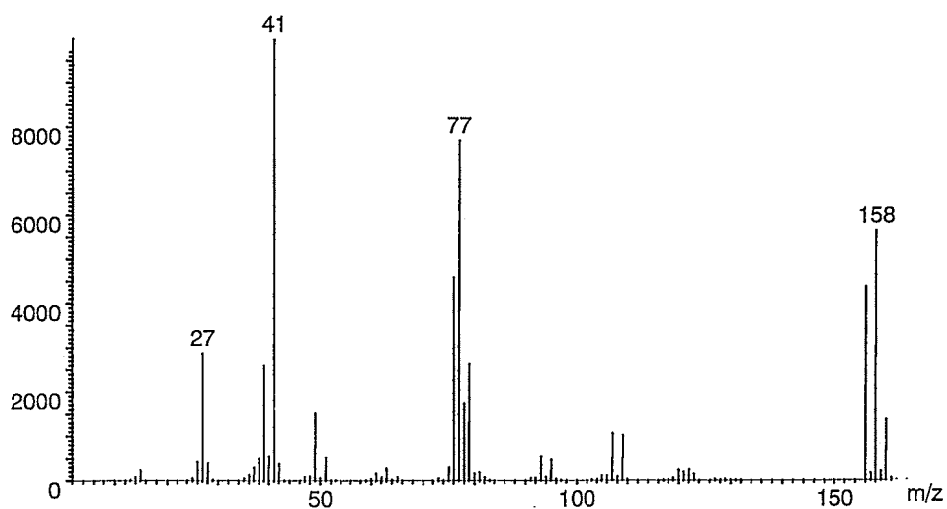
Instrument : Hitachi M-80B Mass Spectrometer

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.

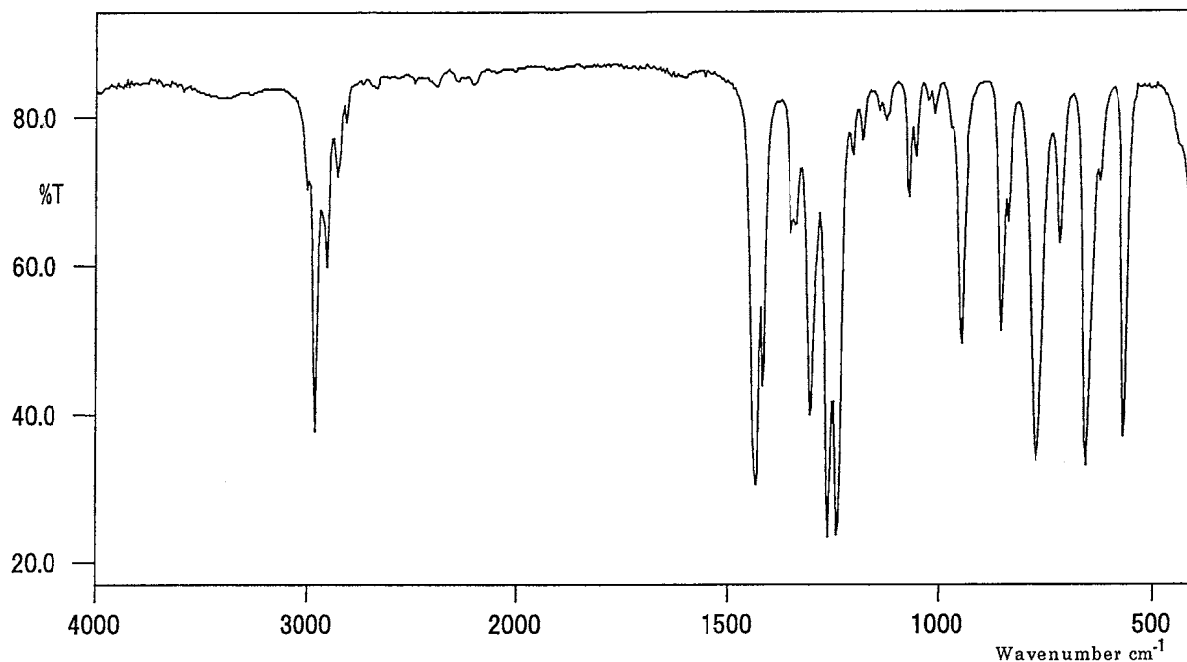
(*McLafferty FW, ed. 1994. Wiley Registry of Mass Spectral Data. 6th ed. New York, NY: John Wiley and Sons.)

Infrared Spectrometry

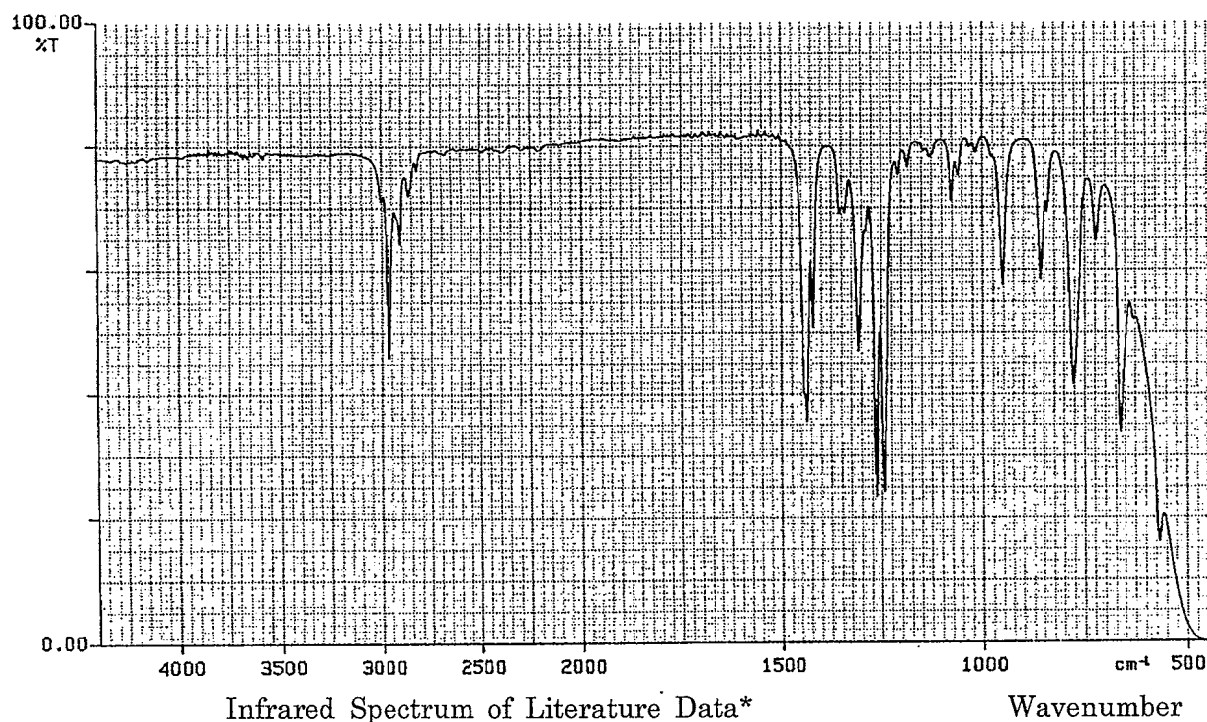
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4 cm^{-1}



Infrared Spectrum of Test Substance



Infrared Spectrum of Literature Data*

Result: The infrared spectrum was consistent with literature spectrum.

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

2. Impurity

Instrument : Hewlett Packard 5890A Gas Chromatograph
Column : Methyl Silicone (0.53 mm ϕ \times 60 m)
Column Temperature : 100° C
Flow Rate : 20 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.046	1,2-Epoxybutane
	2	99.954	1-Bromo-3-chloropropane

Result: Gas chromatography indicated one major peak (peak No. 2) and one impurity. It was identified by comparing GC-MS with that of 1,2-Epoxybutane (peak No. 1) in the 1-bromo-3-chloropropane. The amount in the test substance was 0.046%(The quantity value by the standard sample was 0.045%.) with a gas chromatograph.

3. Conclusion: The test substance was identified as 1-bromo-3-chloropropane by mass spectrum and infrared spectrum. Gas chromatography indicated one major peak(1-bromo-3-chloropropane) and one impurity. The impurity was 1,2-epoxybutane in the test substance.

C. Lot No. : WAN5724

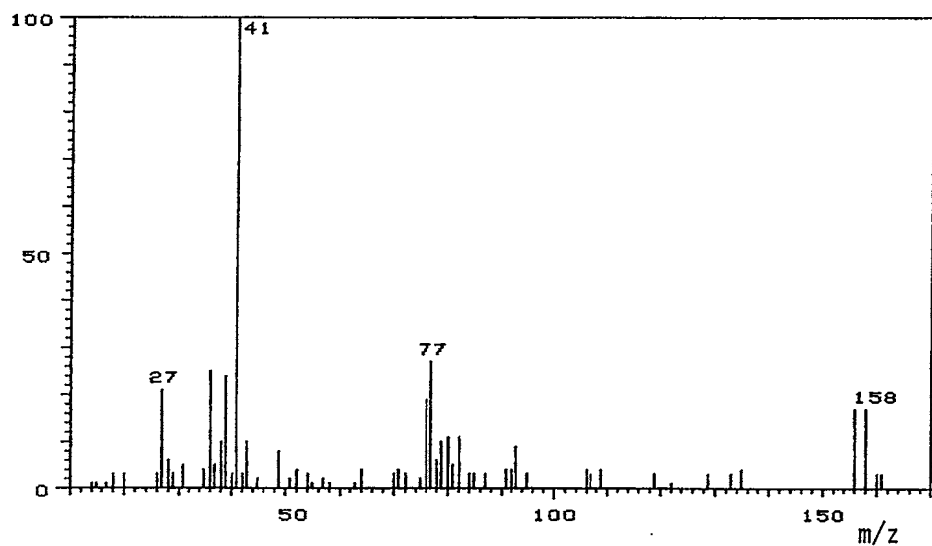
1. Spectral Data

Mass Spectrometry

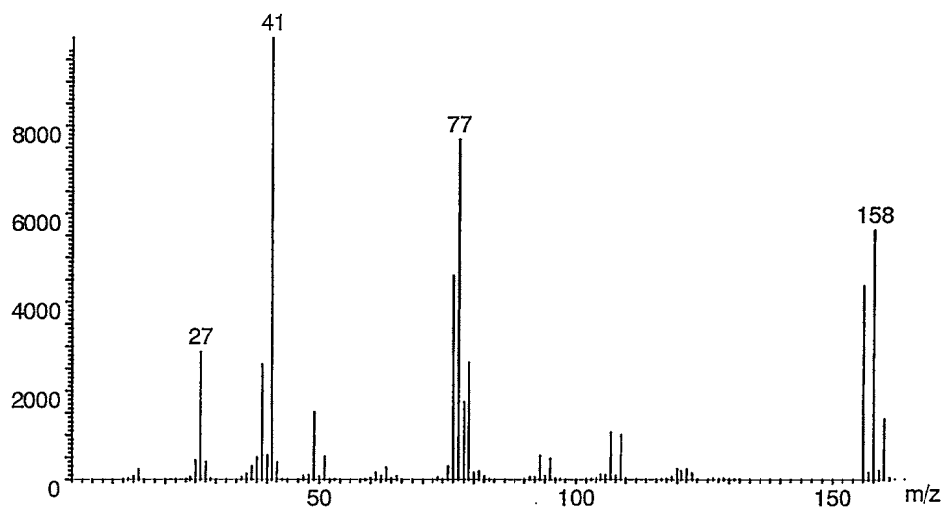
Instrument : Hitachi M-80B Mass Spectrometer

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.

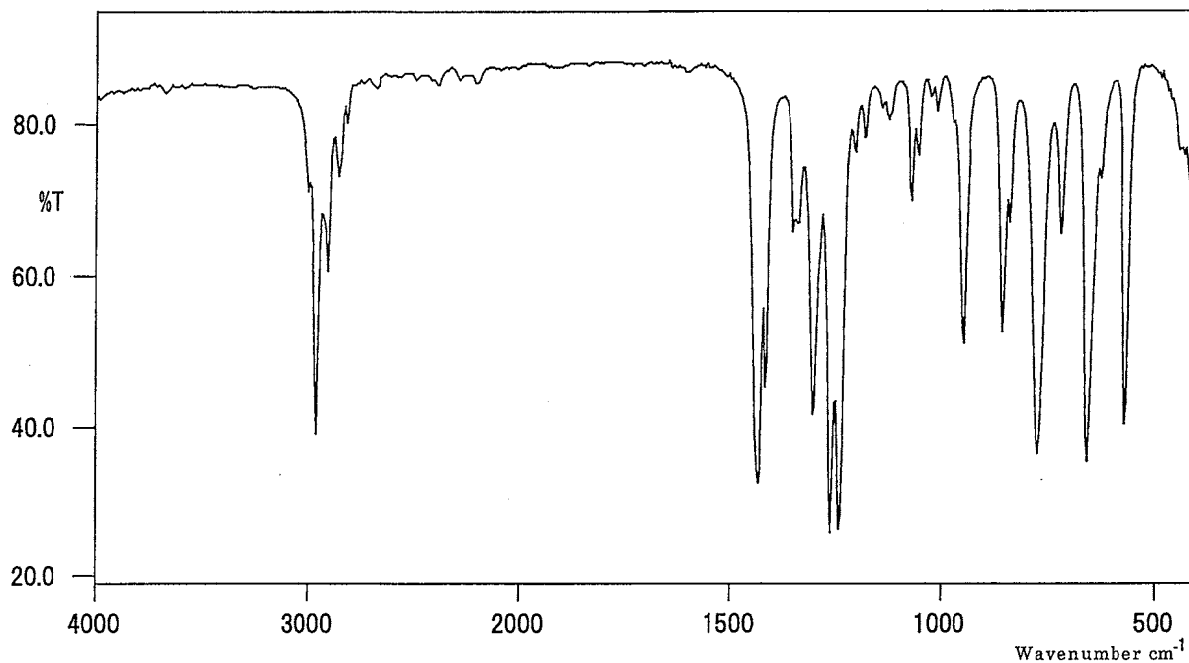
(*McLafferty FW, ed. 1994. Wiley Registry of Mass Spectral Data. 6th ed.
New York, NY:John Wiley and Sons.)

Infrared Spectrometry

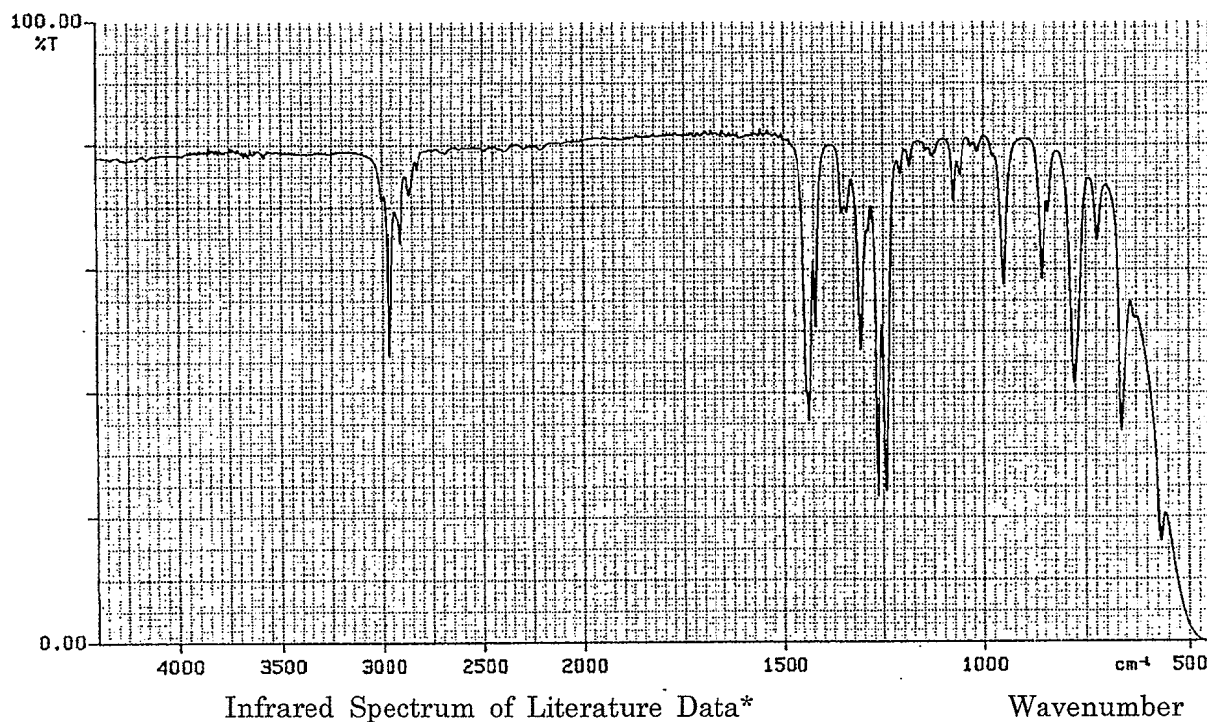
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4 cm^{-1}



Infrared Spectrum of Test Substance



Infrared Spectrum of Literature Data*

Result: The infrared spectrum was consistent with literature spectrum.

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

2. Impurity

Instrument : Hewlett Packard 5890A Gas Chromatograph
Column : Methyl Silicone (0.53 mm ϕ \times 60 m)
Column Temperature : 100° C
Flow Rate : 20 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.041	1,2-Epoxybutane
	2	99.959	1-Bromo-3-chloropropane

Result: Gas chromatography indicated one major peak (peak No. 2) and one impurity. It was identified by comparing GC-MS with that of 1,2-Epoxybutane (peak No. 1) in the 1-bromo-3-chloropropane. The amount in the test substance was 0.041%(The quantity value by the standard sample was 0.041%.) with a gas chromatograph.

3. Conclusion: The test substance was identified as 1-bromo-3-chloropropane by mass spectrum and infrared spectrum. Gas chromatography indicated one major peak(1-bromo-3-chloropropane) and one impurity. The impurity was 1,2-epoxybutane in the test substance.

APPENDIX A 2

STABILITY OF 1-BROMO-3-CHLOROPROPANE IN THE 2-YEAR INHALATION STUDY

STABILITY OF 1-BROMO-3-CHLOROPROPANE IN THE 2-YEAR INHALATION STUDY

Test Substance : 1-Bromo-3-chloropropane (Wako Pure Chemical Industries, Ltd.)

A. Lot No. : SEJ4084

1. Sample : This lot was used from 2000.12.1 to 2001.9.28. 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 : 100° 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 (%)
2000.11.06	1	1.828	0.046
	2	6.667	99.954
2001.10.02	1	1.827	0.059
	2	6.659	99.941

Result: Gas chromatography indicated one major peak (peak No. 2) and one impurity (peak No. 1 < 0.1% of total area) analyzed on 2000.11.6 and one major peak (peak No. 2) and one impurity (peak No. 1 < 0.1% of total area) analyzed on 2001.10.2. No new trace impurity peak in the test substance analyzed on 2001.10.2 was detected.

3. Conclusion: The test substance was stable for about 11 months in a dark place at room temperature.

B. Lot No. : LDK4248

1. Sample : This lot was used from 2001.10.1 to 2002.7.9. 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 : 100° 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 (%)
2001.09.27	1	1.828	0.046
	2	6.665	99.954
2002.07.10	1	1.805	0.045
	2	6.611	99.955

Result: Gas chromatography indicated one major peak (peak No. 2) and one impurity (peak No. 1 < 0.1% of total area) analyzed on 2001.9.27 and one major peak (peak No. 2) and one impurity (peak No. 1 < 0.1% of total area) analyzed on 2002.7.10. No new trace impurity peak in the test substance analyzed on 2001.7.10 was detected.

3. Conclusion: The test substance was stable for about 9 months in a dark place at room temperature.

C. Lot No. : WAN5724

1. Sample : This lot was used from 2002.7.10 to 2002.11.28. 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 : 100° 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 (%)
2002.07.09	1	1.806	0.041
	2	6.618	99.959
2002.12.10	1	1.806	0.041
	2	6.625	99.959

Result: Gas chromatography indicated one major peak (peak No. 2) and one impurity (peak No. 1 < 0.1% of total area) analyzed on 2002.7.9 and one major peak (peak No. 2) and one impurity (peak No. 1 < 0.1% of total area) analyzed on 2002.12.10. No new trace impurity peak in the test substance analyzed on 2002.12.10 was detected.

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

APPENDIX B 1

CONCENTRATION OF 1-BROMO-3-CHLOROPROPANE IN THE INHALATION CHAMBER OF THE 2-YEAR INHALATION STUDY

CONCENTRATION OF 1-BROMO-3-CHLOROPROPANE IN THE
INHALATION CHAMBER OF THE 2-YEAR INHALATION STUDY

Group Name	Concentration(ppm)
	Mean \pm S.D.
Control	0.0 \pm 0.0
25 ppm	25.2 \pm 0.3
100 ppm	100.5 \pm 1.0
400 ppm	400.9 \pm 4.0

APPENDIX B 2

ENVIRONMENTAL CONDITIONS OF INHALATION CHAMBER IN THE 2-YEAR INHALATION STUDY OF 1-BROMO-3-CHLOROPROPANE

ENVIRONMENTAL CONDITIONS OF INHALATION CHAMBER IN THE 2-YEAR
INHALATION STUDY OF 1-BROMO-3-CHLOROPROPANE

Group Name	Temperature (°C)	Humidity (%)	Ventilation Rate (L/min)	Air Change (time/h)
	Mean \pm S.D.	Mean \pm S.D.	Mean \pm S.D.	Mean
Control	22.9 \pm 0.1	55.6 \pm 0.7	744.7 \pm 7.4	12.1
25 ppm	22.9 \pm 0.1	58.2 \pm 0.9	744.7 \pm 5.7	12.1
100 ppm	23.0 \pm 0.1	55.9 \pm 0.7	744.5 \pm 7.2	12.1
400 ppm	22.9 \pm 0.1	55.7 \pm 0.7	740.8 \pm 5.9	12.0

APPENDIX C 1

CLINICAL OBSERVATION : SUMMARY,

MOUSE : MALE

(2-YEAR STUDY)

STUDY NO. : 0418
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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0418
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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		43-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	1	1	1	1	1	1	2	2	2	2
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	1	1	1	1	1	1	1	1	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	1	1	1	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	1	1	1	1	1	1	1	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	1	1	1	1	2	2	2	2	2	2	2	2	2	2
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		57-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	2	2	3	3	4	4	5	5	5	5	5	5	5	5
	25ppm	0	0	0	1	1	1	1	1	1	1	2	3	3	3
	100ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	400ppm	1	1	1	2	2	2	2	2	2	2	2	2	2	2
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	1	1	1	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		71-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	5	5	5	5	6	6	6	6	7	7	7	7	7	8
	25ppm	3	3	3	3	3	3	3	3	3	3	3	4	5	5
	100ppm	3	3	3	3	4	4	4	5	5	5	5	5	5	6
	400ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	0	0	0	0	1	1	1
	400ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	400ppm	1	1	2	2	2	3	3	3	3	3	3	3	3	3

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Clinical sign	Group Name	Administration Week-day													
		85-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	8	8	8	8	9	10	10	10	10	10	10	10	10	10
	25ppm	5	5	5	5	5	5	5	6	7	7	7	7	7	7
	100ppm	7	7	7	7	7	7	7	7	8	8	8	8	10	10
	400ppm	2	3	4	4	4	4	5	5	7	7	7	9	9	9
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	2	2	2	3	3
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400ppm	0	0	0	0	0	1	1	1	1	1	2	2	2	2
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	1	1	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	25ppm	0	0	0	0	1	1	1	0	0	0	0	0	0	1
	100ppm	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	400ppm	2	2	2	2	2	2	2	2	1	1	1	1	1	2
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100ppm	1	1	1	2	2	2	2	2	2	2	2	2	2	1
	400ppm	3	3	3	3	3	3	4	4	4	4	4	4	4	4

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
DEATH	Control	11	11	12	12	12	12
	25ppm	7	9	9	10	11	12
	100ppm	11	11	11	12	12	12
	400ppm	9	9	10	10	11	12
MORIBUND SACRIFICE	Control	0	0	0	0	0	0
	25ppm	4	4	4	4	5	5
	100ppm	1	1	1	1	1	1
	400ppm	2	2	2	2	2	2
ROTATING	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
PILOERRECTION	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	2
	400ppm	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	1	1	1	1
	400ppm	0	0	0	0	0	0
FROG BELLY	Control	1	1	1	1	2	2
	25ppm	1	0	0	0	0	0
	100ppm	0	0	1	0	0	0
	400ppm	2	2	1	1	1	1
EXOPHTHALMOS	Control	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1
	100ppm	1	1	1	1	1	1
	400ppm	4	4	5	5	5	5

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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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLOSED EYELID	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	1	2	2	3	3	3	3
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLOSED EYELID	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	2	2	2
	400ppm	4	4	4	4	4	4	4	4	5	5	5	5	5	5
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLOSED EYELID	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	2	2	2	2	2	1	1	1	1	1	1	1	1	1
	400ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		43-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	1	1	1	1	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLOSED EYELID	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	2	2	2	2	3	3
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	2	2	2	3	3	3	3	2	2	1	1	1	1	1
	400ppm	5	5	5	6	6	6	6	5	5	5	5	5	5	5
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		57-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLOSED EYELID	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	2	3	2	2	2	2	2	2	1	1	1	1	1	2
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400ppm	4	4	4	3	3	3	3	3	3	3	3	3	3	3
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		71-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	1	1	1	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLOSED EYELID	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	1	1	1	1	1	1	1	1	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
EXTERNAL MASS	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
INTERNAL MASS	Control	2	2	2	2	1	1	1	1	1	1	1	1	1	1
	25ppm	0	0	0	0	1	1	1	1	1	1	0	1	1	1
	100ppm	1	1	1	1	1	1	1	0	1	1	1	1	2	1
	400ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	400ppm	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													
		85-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	1	0	1	0	1	1	1	2	2	2
	400ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
CLOSED EYELID	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	1	1	1	1	2	3	3	3	3	3	3	3	3	3
EXTERNAL MASS	Control	0	0	0	1	1	0	0	0	0	0	0	0	1	1
	25ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	100ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
	400ppm	1	2	1	1	1	1	1	2	3	3	3	3	3	3
INTERNAL MASS	Control	2	2	2	2	2	2	2	3	4	4	4	2	3	3
	25ppm	1	1	1	1	2	2	3	4	5	5	5	3	2	2
	100ppm	1	1	1	2	2	2	2	2	1	1	1	1	1	1
	400ppm	3	2	2	2	2	2	2	2	1	1	1	1	1	1
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	1	2	1	1	1	1	1	2	3	3	3	3	3	3
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
	400ppm	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					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	2	2	2	1	1	1
	400ppm	1	1	2	2	2	2
CLOSED EYELID	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	3	3	4	4	4	4
EXTERNAL MASS	Control	1	1	1	2	2	2
	25ppm	1	0	0	0	0	0
	100ppm	0	1	2	2	2	2
	400ppm	3	3	4	4	5	5
INTERNAL MASS	Control	3	4	3	3	4	4
	25ppm	1	1	2	2	2	1
	100ppm	1	1	1	1	1	1
	400ppm	2	2	2	2	2	2
M. EYE	Control	0	0	0	0	0	0
	25ppm	1	0	0	0	0	0
	100ppm	0	1	2	2	2	2
	400ppm	3	3	4	4	4	4
M. ORAL CAVITY	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		43-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	1	1	1	1	1	1	1	1	1	1	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		57-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	400ppm	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													
		71-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	1	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	0
	400ppm	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	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		85-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	1	1	1	2	2
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	1	1	1	1	1	1	1	0	0	0	0	0	0	0
	25ppm	0	0	1	1	1	1	2	1	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	1	1	2	1	0	0	0	0	1	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	1	1	0	0	0

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 24

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
M. BREAST	Control	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	1	1
M. GENITALIA	Control	0	0	0	1	1	1
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
EROSION	Control	1	0	0	0	0	0
	25ppm	2	2	2	2	2	2
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	1	1	1	2	3	3
	400ppm	1	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0
	25ppm	0	1	1	1	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
PROLAPSE OF PENIS	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	1	0	0	1
	400ppm	0	0	0	0	0	0

APPENDIX C 2

CLINICAL OBSERVATION : SUMMARY,

MOUSE : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : 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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILORECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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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	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		43-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	1	1	1	1	1	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	1	1	1	1	1	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1	1	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		57-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	25ppm	1	1	1	2	2	2	2	2	2	2	3	3	3	3
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	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	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	1	1	2	1	1	1	1	1	1	1	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	1	1	1	1	1	1	1	1	1	1	3	3	3

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Clinical sign	Group Name	Administration Week-day													
		71-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	1	1	1	1	1	1	1	2	2	3	4	4	4	4
	25ppm	3	3	3	3	4	4	4	4	5	6	8	8	8	8
	100ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	2
	400ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	1	1	2	2
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	3	4	4	4	4	4	4	4	4
	400ppm	2	2	2	2	2	2	3	3	3	3	3	3	3	3
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	1	1	1	1	1	1	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	1	0	0	0	1	1	2	2	2	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	100ppm	0	0	1	2	3	1	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	1	1	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	3	3	3	5	5	6	8	8	9	9	9	8	8	8

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Clinical sign	Group Name	Administration Week-day													
		85-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	4	4	5	6	6	8	8	9	9	9	9	9	9	10
	25ppm	10	10	10	11	11	12	13	13	15	15	16	17	17	17
	100ppm	2	2	2	2	2	2	2	4	6	6	6	6	6	7
	400ppm	3	3	3	3	3	5	5	5	7	8	9	9	10	10
MORIBUND SACRIFICE	Control	2	2	2	2	2	2	2	2	2	3	3	3	4	4
	25ppm	0	0	0	0	0	0	0	1	2	2	3	3	3	3
	100ppm	4	4	4	4	4	4	4	4	4	4	4	5	5	5
	400ppm	3	3	3	3	3	3	3	3	3	3	4	4	4	4
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	1	1	1	1	0
	25ppm	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	1	0	0	0	0	1	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	1	1	1	1	1	1	1	1	1	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	1	1	1	1	1	1	2	1	2	1	1	1	1	0
	25ppm	1	1	2	2	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	1	1	1	1	1	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	25ppm	1	1	2	1	1	1	2	1	2	2	1	1	1	1
	100ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	1	2	1	1	1	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	8	8	8	8	8	8	8	8	8	8	7	7	7	7

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
DEATH	Control	10	11	12	12	13	14
	25ppm	18	19	20	20	21	21
	100ppm	8	9	11	11	12	12
	400ppm	11	11	11	11	12	13
MORIBUND SACRIFICE	Control	4	5	6	6	6	6
	25ppm	3	4	4	4	4	4
	100ppm	6	6	6	6	6	6
	400ppm	4	4	4	4	4	4
ATAXIC GAIT	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0
	25ppm	0	0	0	1	1	1
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1
	400ppm	0	0	0	0	0	0
FROG BELLY	Control	1	1	0	0	0	1
	25ppm	1	1	1	1	1	2
	100ppm	1	1	0	2	1	0
	400ppm	0	0	0	1	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	1
	25ppm	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1
	400ppm	7	7	7	7	7	7

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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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	0	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	100ppm	1	1	1	1	1	2	2	2	2	2	2	2	2	2
	400ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		43-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	2	2	2	2	2	2	2	3	3	3	3	2	2	3
	100ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	400ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		57-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	2	2	2	1	1	1	1	1	2	2	1	1	1	1
	100ppm	2	2	2	2	2	2	2	2	3	3	3	3	3	5
	400ppm	2	2	1	1	1	1	2	2	3	2	2	2	2	2
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		71-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	1	1	1	1	1	1	1	1	1	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	1	1	1	1	1	1	2	2	5	5	5	6	6	5
ANTERIOR CHAMBER OPACITY	Control	1	1	1	1	1	1	1	1	1	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	1	1	1	1	1	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	1	0	0	0	0	0	1	1	1	1
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	1	1	1	1	2	2	2	1	1	2	1	1	1	1
	25ppm	1	1	1	1	1	1	1	1	2	2	4	3	3	4
	100ppm	5	5	5	5	5	3	2	2	2	2	3	3	3	3
	400ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	400ppm	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													
		85-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	6	6	6	6	7	6	6	6	6	6	5	5	4	4
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	1	1	1	2	2	2	2	2
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400ppm	0	1	1	1	4	4	4	4	4	4	4	4	4	4
INTERNAL MASS	Control	1	1	1	2	2	3	3	4	4	4	5	5	5	4
	25ppm	2	5	6	7	7	8	8	8	6	6	6	5	5	5
	100ppm	3	3	3	5	5	5	6	7	6	6	6	6	7	7
	400ppm	1	1	2	3	4	3	4	4	5	4	3	3	5	5
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	1	1	1	3	4	4	4	4	4	4	4	4	4
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
GUM	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	1	1	2	2
CORNEAL OPACITY	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	4	4	4	4	4	4
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
EXTERNAL MASS	Control	2	3	3	3	3	3
	25ppm	0	0	0	0	0	0
	100ppm	2	2	2	2	2	2
	400ppm	4	4	5	5	5	5
INTERNAL MASS	Control	4	4	2	3	3	2
	25ppm	5	3	2	4	4	5
	100ppm	6	8	6	7	6	6
	400ppm	4	5	5	5	4	4
M. EYE	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	4	4	4	4	4	4
M. EAR	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	1	1	1	1
M. PERI EAR	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	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
		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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
		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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		43-7	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
		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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	1	1	1	1	1	1	1	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		57-7	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
		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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		71-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. NECK	Control	0	0	0	0	0	0	0	1	1	1	1	1	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	1	1	1	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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													
		85-7	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
		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	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400ppm	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	1	2	2
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	1	1	1	1	1	1	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	1	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
M. NECK	Control	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1
	400ppm	0	0	0	0	0	0
M. ABDOMEN	Control	2	1	1	1	1	1
	25ppm	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1
	400ppm	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	1
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
M. GENITALIA	Control	0	1	1	1	1	1
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1
	400ppm	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0
	25ppm	1	1	1	1	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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BAIS 4

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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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 52

Clinical sign	Group Name	Administration Week-day													
		43-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	1	1	1	1	1	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 53

Clinical sign	Group Name	Administration Week-day													
		57-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

PAGE : 54

Clinical sign	Group Name	Administration Week-day													
		71-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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	1	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

PAGE : 55

Clinical sign	Group Name	Administration Week-day													
		85-7	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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	1	1	0	0	0	0	0	0	0
	25ppm	1	1	2	2	1	1	1	1	1	1	1	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	100ppm	0	0	1	1	1	1	1	2	0	0	1	1	1	1
	400ppm	0	0	0	0	1	0	0	1	2	1	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 56

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1
	400ppm	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
	400ppm	0	0	0	0	0	0

(HAN190)

BAIS 4

APPENDIX D 1

BODY WEIGHT CHANGES : SUMMARY,

MOUSE : MALE

(2-YEAR STUDY)

STUDY NO. : 0418
 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	23.0± 0.8	24.0± 0.9	24.9± 1.0	25.6± 1.0	26.2± 1.1	26.7± 1.2	27.3± 1.3
25ppm	23.0± 0.8	24.2± 0.9	25.0± 0.9	25.5± 1.0	25.8± 1.1	26.3± 1.2	27.1± 1.3
100ppm	23.0± 0.8	23.8± 0.8	24.7± 0.9	24.9± 1.0**	26.9± 3.3	26.5± 1.1	26.8± 1.2
400ppm	23.0± 0.8	23.0± 1.1**	23.6± 1.1**	24.1± 1.1**	25.3± 1.2**	24.9± 1.1**	25.6± 1.3**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	27.9± 1.5	28.3± 1.5	29.0± 1.6	29.5± 1.8	30.0± 1.8	30.6± 2.0	31.1± 2.1
25ppm	27.5± 1.4	28.1± 1.5	28.5± 1.6	29.1± 1.8	29.7± 1.8	30.3± 2.0	30.7± 2.3
100ppm	27.1± 1.3*	27.6± 1.4*	28.0± 1.5**	28.4± 1.7**	29.0± 1.8**	29.6± 2.0	30.1± 2.0*
400ppm	26.0± 1.5**	26.6± 1.6**	27.1± 1.6**	27.5± 1.8**	27.9± 1.6**	28.1± 1.9**	28.6± 2.1**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	31.7± 2.2	33.8± 2.5	36.1± 2.8	38.0± 3.2	39.4± 3.6	41.0± 3.9	42.2± 4.3
25ppm	31.4± 2.4	33.7± 2.8	35.9± 3.4	37.9± 3.8	39.1± 3.9	40.7± 4.3	42.0± 4.5
100ppm	30.6± 2.2	32.9± 2.5	35.1± 2.8	36.4± 3.1*	37.7± 3.6	39.2± 3.8	40.0± 4.6*
400ppm	29.4± 2.3**	31.4± 2.7**	33.0± 3.1**	34.5± 3.4**	35.5± 3.8**	36.4± 4.3**	37.9± 4.3**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	43.0± 4.9	43.3± 5.0	44.0± 5.5	45.4± 4.9	45.7± 5.1	45.9± 6.0	47.2± 4.7	
25ppm	42.8± 4.6	43.5± 4.8	44.8± 5.0	45.4± 5.1	46.2± 5.2	47.1± 5.3	47.9± 5.7	
100ppm	40.7± 4.6*	40.9± 4.8*	41.7± 5.0	42.0± 5.0**	42.2± 5.3**	43.2± 5.6	44.3± 5.8*	
400ppm	37.3± 4.5**	38.0± 4.8**	39.2± 5.4**	39.8± 5.7**	40.1± 5.9**	40.6± 6.4**	41.3± 6.8**	
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett								

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	47.1± 4.9	47.5± 5.3	47.7± 5.4	48.1± 6.0	49.2± 5.6	48.8± 6.0	48.5± 6.5
25ppm	48.3± 5.9	48.4± 5.9	48.6± 6.4	49.0± 6.6	50.0± 6.6	49.6± 6.6	49.1± 7.0
100ppm	44.6± 6.1	45.1± 5.3	44.8± 5.9	45.3± 6.1	46.3± 6.5	46.3± 6.3	45.6± 6.6
400ppm	41.4± 7.1**	41.3± 7.1**	41.6± 7.2**	42.1± 7.6**	43.1± 7.9**	43.5± 7.8**	42.8± 8.4**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	48.3± 7.2	47.0± 7.1	46.8± 7.1
25ppm	48.3± 7.4	45.9± 7.4	45.5± 7.6
100ppm	45.4± 6.9	42.9± 7.3*	42.2± 7.6*
400ppm	43.2± 7.2**	40.8± 7.0**	40.0± 7.3**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett			

(HAN260)

BAIS 4

APPENDIX D 2

BODY WEIGHT CHANGES : SUMMARY,

MOUSE : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0418
 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	18.6± 0.8	19.1± 0.9	20.0± 1.1	20.5± 1.1	21.0± 1.1	21.5± 1.1	22.1± 1.2
25ppm	18.6± 0.8	19.3± 0.8	20.2± 1.0	20.4± 0.7	20.9± 0.8	21.4± 0.9	22.1± 1.0
100ppm	18.6± 0.8	19.2± 0.9	19.9± 0.9	20.3± 0.9	21.6± 1.0**	21.5± 1.0	22.1± 1.0
400ppm	18.6± 0.8	18.6± 1.1*	19.1± 0.9**	19.6± 0.9**	20.4± 1.0**	20.6± 0.8**	21.1± 1.0**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	22.4± 1.3	22.7± 1.1	23.1± 1.2	23.2± 1.3	23.5± 1.2	23.7± 1.2	24.0± 1.3
25ppm	22.3± 0.9	22.8± 0.9	23.0± 1.0	23.2± 1.1	23.6± 1.2	23.8± 1.3	23.7± 1.1
100ppm	22.2± 1.0	22.5± 1.2	23.2± 1.1	23.0± 1.0	23.3± 1.2	23.8± 1.3	23.7± 1.2
400ppm	21.6± 1.0**	21.9± 0.9**	21.9± 1.0**	22.3± 0.9**	22.7± 1.0**	23.0± 1.0*	23.3± 1.1**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	24.3± 1.4	25.3± 1.6	26.2± 1.9	26.7± 2.0	27.4± 2.3	27.9± 2.4	28.4± 2.7
25ppm	24.2± 1.3	25.4± 1.5	26.2± 1.5	27.0± 1.9	27.8± 1.8	28.5± 1.9	28.7± 2.3
100ppm	24.1± 1.1	25.1± 1.5	25.6± 1.5	26.4± 1.6	26.8± 1.7	27.4± 1.6	27.9± 2.0
400ppm	23.5± 1.0**	24.3± 1.1**	24.8± 1.2**	25.4± 1.4**	25.8± 1.4**	26.1± 1.4**	26.6± 1.6**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	29.1± 2.9	28.8± 2.9	29.7± 3.0	29.8± 2.8	30.0± 2.9	30.4± 3.3	30.6± 3.5
25ppm	29.4± 2.5	29.4± 2.1	29.7± 2.1	30.2± 2.5	30.7± 2.8	31.4± 2.6	32.2± 3.3
100ppm	27.9± 1.9	27.9± 2.0	28.4± 1.9	28.6± 2.2	28.7± 2.0	29.3± 2.2	29.6± 2.3
400ppm	26.4± 1.6**	26.7± 1.8**	26.9± 1.6**	27.0± 1.8**	27.2± 2.1**	27.0± 1.9**	27.2± 2.1**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 4

STUDY NO. : 0418
 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		94-7	
Control	30.7±	4.0	31.4±	4.5	31.8±	4.6	32.0±	4.3	31.6±	4.2	31.6±	4.1	31.5±	4.1
25ppm	31.5±	3.1	32.5±	3.2	32.3±	3.4	32.2±	3.1	33.0±	3.7	33.7±	4.5	33.2±	3.7
100ppm	29.3±	2.4	30.0±	3.4	29.7±	2.0	29.6±	2.6*	29.6±	2.4	29.4±	2.5*	30.2±	2.8
400ppm	27.3±	2.2**	27.2±	2.1**	27.3±	2.1**	27.6±	2.0**	28.3±	2.4**	28.4±	2.6**	28.6±	3.1**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett														

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	32.0± 4.6	31.4± 4.1	31.6± 4.6
25ppm	33.1± 4.4	32.0± 4.1	31.9± 4.3
100ppm	30.2± 2.5	30.5± 3.4	30.4± 3.4
400ppm	28.8± 2.7**	28.1± 2.5**	28.1± 2.4**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett			

(HAN260)

BAIS 4

APPENDIX E 1

FOOD CONSUMPTION CHANGES : SUMMARY,

MOUSE : MALE

(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration week-day(effective)						
	1-7(6)	2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	3.8± 0.3	3.8± 0.2	3.7± 0.2	3.9± 0.2	4.0± 0.2	4.1± 0.2	4.1± 0.3
25ppm	3.8± 0.2	3.7± 0.2	3.8± 0.3	3.9± 0.3	3.9± 0.3	4.1± 0.3	4.0± 0.2
100ppm	3.7± 0.2	3.8± 0.2	3.7± 0.2	3.9± 0.2	4.0± 0.2	3.8± 0.2**	4.0± 0.2
400ppm	3.5± 0.3**	3.5± 0.2**	3.6± 0.2**	3.7± 0.2**	3.8± 0.2**	3.8± 0.2**	3.9± 0.2*

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	4.1± 0.2	4.1± 0.2	4.2± 0.3	4.2± 0.3	4.3± 0.3	4.3± 0.3	4.3± 0.3
25ppm	4.2± 0.2	4.1± 0.2	4.2± 0.3	4.3± 0.3	4.3± 0.3	4.3± 0.2	4.3± 0.2
100ppm	4.0± 0.2*	4.0± 0.2	4.1± 0.2	4.2± 0.2	4.3± 0.2	4.2± 0.3	4.3± 0.3
400ppm	4.0± 0.2**	4.0± 0.2**	4.0± 0.3**	4.1± 0.3**	4.1± 0.4**	4.1± 0.3*	4.2± 0.3

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	4.4± 0.3	4.5± 0.3	4.5± 0.3	4.6± 0.3	4.7± 0.3	4.7± 0.3	4.7± 0.3
25ppm	4.3± 0.3	4.5± 0.3	4.5± 0.3	4.6± 0.3	4.7± 0.3	4.7± 0.4	4.7± 0.4
100ppm	4.3± 0.3*	4.4± 0.3	4.4± 0.3	4.5± 0.3	4.6± 0.3*	4.7± 0.3	4.6± 0.3
400ppm	4.2± 0.3**	4.2± 0.3**	4.4± 0.3	4.4± 0.3**	4.4± 0.5**	4.5± 0.6*	4.3± 0.3**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	4.7± 0.3	4.8± 0.4	4.8± 0.3	4.9± 0.4	4.8± 0.8	4.9± 0.3	4.8± 0.4
25ppm	4.7± 0.3	4.8± 0.3	4.7± 0.3	4.9± 0.4	4.7± 0.4	4.8± 0.4	4.8± 0.4
100ppm	4.6± 0.3	4.6± 0.5	4.7± 0.4	4.6± 0.4**	4.6± 0.4	4.7± 0.5	4.6± 0.5*
400ppm	4.5± 0.4*	4.6± 0.4**	4.5± 0.4**	4.4± 0.4**	4.5± 0.4**	4.6± 0.5**	4.4± 0.5**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	4.7± 0.6	4.9± 0.4	5.0± 0.4	5.1± 0.4	4.9± 0.4	5.0± 0.4	4.9± 0.5
25ppm	4.6± 0.4	4.8± 0.4	5.0± 0.4	4.9± 0.4	4.9± 0.5	4.9± 0.6	4.8± 0.6
100ppm	4.7± 0.5	4.7± 0.5*	4.9± 0.4	4.9± 0.5	4.8± 0.5	4.8± 0.5	4.8± 0.6
400ppm	4.4± 0.4**	4.6± 0.5**	4.6± 0.5**	4.7± 0.5**	4.7± 0.5	4.6± 0.7*	4.6± 0.5

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0418
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± 0.5	4.8± 0.6
25ppm	4.6± 0.8	4.7± 0.7
100ppm	4.6± 0.7	4.6± 0.7
400ppm	4.4± 0.6*	4.3± 0.6**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett		

(HAN260)

BAIS 4

APPENDIX E 2

FOOD CONSUMPTION CHANGES : SUMMARY,

MOUSE : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration week-day(effective)						
	1-7(6)	2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	3.3± 0.3	3.2± 0.3	3.4± 0.2	3.6± 0.2	3.7± 0.2	3.9± 0.2	3.9± 0.3
25ppm	3.3± 0.2	3.3± 0.2	3.4± 0.2	3.6± 0.2	3.7± 0.2	3.8± 0.2	3.8± 0.3
100ppm	3.2± 0.3	3.3± 0.2	3.3± 0.2	3.6± 0.3	3.7± 0.3	3.7± 0.3**	3.9± 0.3
400ppm	3.1± 0.3	3.1± 0.2	3.2± 0.2**	3.4± 0.2**	3.4± 0.2**	3.6± 0.2**	3.7± 0.3**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group Name	Administration week-day(effective)						
	8-7(7)	9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)	14-7(7)
Control	3.9± 0.3	4.0± 0.3	4.0± 0.3	4.0± 0.3	4.1± 0.2	4.0± 0.3	4.1± 0.3
25ppm	3.9± 0.2	3.9± 0.2	4.0± 0.3	4.0± 0.3	4.0± 0.3	4.0± 0.3	4.0± 0.3
100ppm	3.9± 0.3	4.1± 0.3	4.0± 0.3	4.2± 0.3**	4.1± 0.3	4.0± 0.2	4.1± 0.3
400ppm	3.7± 0.2**	3.7± 0.2**	3.7± 0.2**	3.8± 0.2**	3.9± 0.2**	3.9± 0.2*	3.9± 0.3**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	4.1± 0.3	4.1± 0.3	4.2± 0.3	4.3± 0.3	4.5± 0.4	4.3± 0.4	4.4± 0.4
25ppm	4.0± 0.3	4.1± 0.3	4.1± 0.4	4.3± 0.5	4.4± 0.4	4.3± 0.3	4.2± 0.4*
100ppm	4.2± 0.3	4.2± 0.3	4.3± 0.4*	4.5± 0.5	4.5± 0.4	4.5± 0.5*	4.5± 0.5
400ppm	3.9± 0.3**	3.9± 0.3**	4.0± 0.4	4.2± 0.3*	4.3± 0.4	4.3± 0.4	4.1± 0.3**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	4.2± 0.4	4.4± 0.4	4.3± 0.4	4.4± 0.4	4.4± 0.4	4.2± 0.5	4.3± 0.4
25ppm	4.3± 0.4	4.3± 0.4	4.2± 0.4	4.4± 0.5	4.2± 0.4	4.4± 0.4	4.1± 0.5
100ppm	4.4± 0.4	4.4± 0.3	4.3± 0.4	4.3± 0.5	4.3± 0.4	4.3± 0.4	4.1± 0.4
400ppm	4.1± 0.3	4.0± 0.3**	4.0± 0.3**	3.9± 0.3**	3.9± 0.3**	3.8± 0.4**	3.8± 0.3**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 4

STUDY NO. : 0418
 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	4.1± 0.5	4.4± 0.5	4.5± 0.5	4.4± 0.6	4.5± 0.5	4.4± 0.5	4.5± 0.7
25ppm	4.1± 0.5	4.3± 0.6	4.3± 0.4	4.4± 0.5	4.3± 0.7	4.5± 0.8	4.4± 0.9
100ppm	4.3± 0.4*	4.3± 0.4	4.2± 0.4	4.2± 0.4	4.1± 0.4*	4.3± 0.5	4.2± 0.5
400ppm	3.8± 0.3*	3.9± 0.3**	3.9± 0.3**	4.0± 0.3**	4.0± 0.4**	3.9± 0.5**	3.8± 0.5**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0418
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	4.4± 0.6	4.5± 0.6
25ppm	4.3± 0.7	4.3± 0.8
100ppm	4.2± 0.3	4.2± 0.3
400ppm	3.8± 0.3**	3.8± 0.4**

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

Test of Dunnett

(HAN260)

BAIS 4

APPENDIX F 1

HEMATOLOGY : SUMMARY,

MOUSE : MALE

(2-YEAR STUDY)

STUDY NO. : 0418
 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 ³ /μl	
Control	36	9.66±	0.96	13.6±	1.4	44.0±	4.4	45.6±	1.5	14.1±	0.3	30.9±	0.8	1910±	287
25ppm	31	10.21±	1.25	13.8±	1.7	45.0±	6.0	44.1±	2.1*	13.5±	0.6**	30.6±	0.5	2034±	408
100ppm	34	9.68±	0.75	13.4±	1.0	44.0±	3.1	45.4±	1.3	13.9±	0.5	30.5±	0.6**	1923±	286
400ppm	32	8.55±	1.44**	12.3±	1.9**	40.7±	5.6**	48.0±	3.8**	14.5±	0.9	30.2±	0.9**	1518±	539**

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0418
 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	36	2.23±	0.89	1±	1	25±	11	2±	1	0±	0	4±	2	69±	11	0±	1
25ppm	31	2.45±	1.22	1±	1	27±	13	1±	1**	0±	0	3±	1	68±	13	0±	0
100ppm	34	2.11±	1.26	1±	1	23±	9	2±	2	0±	0	4±	2	70±	9	0±	1
400ppm	32	2.35±	3.29	1±	1	29±	13	2±	2	0±	0	4±	2	61±	17	3±	11**

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

APPENDIX F 2

HEMATOLOGY : SUMMARY,

MOUSE : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

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 ⁹ /μl	
Control	30	9.66±	0.83	13.5±	1.3	43.4±	3.6	45.0±	1.4	14.0±	0.5	31.0±	0.8	1296±	259
25ppm	23	9.46±	1.13	13.1±	1.5	42.6±	4.3	45.2±	2.3	13.9±	0.7	30.8±	1.1	1142±	362
100ppm	31	9.13±	1.65	13.1±	2.1	42.4±	5.6	47.1±	5.0*	14.4±	1.0	30.7±	1.5	1042±	384**
400ppm	31	9.25±	1.01	13.3±	1.4	43.4±	4.2	47.0±	2.1**	14.3±	0.5	30.6±	1.1*	1073±	323*

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : FEMALE

HEMATOLOGY (SUMMARY)
ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	WBC 10 ³ /μl		Differential N-BAND		WBC (%) N-SEG		EOSINO		BASO		MONO		LYMPHO		OTHER	
Control	30	1.47±	0.87	1±	1	22±	9	1±	1	0±	0	4±	2	72±	10	0±	1
25ppm	23	1.69±	1.40	1±	1	29±	15	1±	2	0±	0	5±	4	64±	16	1±	1
100ppm	31	1.80±	1.32	2±	2	26±	14	1±	1	0±	0	5±	3	66±	15	1±	2
400ppm	31	2.26±	1.93	1±	1	28±	16	1±	1	0±	0	5±	3	64±	16	1±	2

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

APPENDIX G 1

BIOCHEMISTRY : SUMMARY,

MOUSE : MALE

(2-YEAR STUDY)

STUDY NO. : 0418
 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	37	5.2±	0.5	2.9±	0.3	1.3±	0.2	0.12±	0.01	188±	31	103±	39	37±	17
25ppm	31	5.3±	0.6	2.9±	0.4	1.2±	0.2	0.12±	0.02	190±	43	118±	41	37±	15
100ppm	34	5.2±	0.5	2.9±	0.3	1.3±	0.2	0.12±	0.03	189±	31	100±	34	33±	11
400ppm	34	5.1±	0.5	3.0±	0.4	1.4±	0.2**	0.17±	0.12	170±	43	87±	25*	31±	14

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0418
 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		GOT IU/l		GPT IU/l		LDH IU/l		ALP IU/l		G-GTP IU/l		CPK IU/l	
Control	37	194±	45	64±	38	34±	59	286±	145	141±	53	1±	1	98±	174
25ppm	31	219±	61	84±	67	57±	62*	343±	180	159±	120	1±	1	60±	35
100ppm	34	188±	43	74±	75	39±	42*	288±	169	140±	33	1±	1	56±	28
400ppm	34	163±	36**	126±	174	62±	87**	905±	1578	187±	77**	2±	1*	54±	29

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0418
 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	37	25.7±	9.9	152±	1	4.2±	0.4	122±	2	8.7±	0.4	6.6±	0.7
25ppm	31	24.1±	5.9	153±	2	4.1±	0.3	122±	3	8.9±	0.6	6.6±	1.0
100ppm	34	21.6±	3.2*	153±	1	4.2±	0.4	124±	3**	8.7±	0.4	6.7±	1.1
400ppm	34	19.1±	3.4**	153±	1	4.2±	0.4	130±	4**	8.7±	0.4	7.1±	1.3

Significant difference : * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

APPENDIX G 2

BIOCHEMISTRY : SUMMARY,

MOUSE : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0418
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	30	5.2±	0.6	2.9±	0.4	1.3±	0.2	0.13±	0.06	137±	23	93±	59	26±	17
25ppm	23	5.3±	0.6	3.1±	0.3	1.5±	0.4	0.14±	0.06	120±	38	73±	19	24±	18
100ppm	31	4.8±	0.8**	2.9±	0.4	1.6±	0.3**	0.14±	0.05	140±	38	71±	45	20±	9
400ppm	32	5.0±	0.4	3.1±	0.3	1.6±	0.3**	0.13±	0.03	152±	30	68±	19	21±	11

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0418
 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		GOT IU/l		GPT IU/l		LDH IU/l		ALP IU/l		G-GTP IU/l		CPK IU/l	
Control	30	173±	84	139±	308	118±	441	567±	1463	317±	479	1±	1	104±	62
25ppm	23	138±	32	128±	138	46±	41	717±	1197	230±	103	1±	1	191±	425
100ppm	31	139±	66	124±	131	50±	68	1028±	3064	261±	98	1±	1	136±	123
400ppm	32	134±	28	83±	50	39±	33	394±	706	253±	91	1±	1	73±	44*

Significant difference : * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

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	30	20.2±	14.2	152±	2	3.8±	0.4	122±	3	9.0±	0.6	6.6±	1.1
25ppm	23	25.2±	20.4	152±	1	4.0±	0.5	123±	3	9.2±	0.8	7.0±	1.3
100ppm	31	21.6±	14.2	152±	3	4.1±	0.6	124±	3	8.8±	0.6	6.8±	1.3
400ppm	32	17.4±	3.2	152±	2	4.0±	0.4	127±	4**	8.8±	0.3	7.3±	1.1

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

Test of Dunnett

(HCL074)

BAIS 4

APPENDIX H 1

URINALYSIS : SUMMARY,

MOUSE : MALE

(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 MEASURE TIME : 1
 SEX : MALE

URINALYSIS

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+
Control	38	0	0	4	4	19	7	4		1	10	25	2	0	0		38	0	0	0	0	0		16	20	2	0	0	0		33	1	2	2	0
25ppm	34	0	5	4	5	12	8	0		0	8	22	3	1	0		34	0	0	0	0	0		22	10	2	0	0	0		28	2	2	0	2
100ppm	36	0	5	11	10	5	2	3	**	0	4	23	8	1	0		36	0	0	0	0	0		8	14	12	2	0	0	**	27	1	1	3	4
400ppm	36	0	8	22	4	1	0	1	**	0	0	17	17	2	0	**	36	0	0	0	0	0		4	9	17	6	0	0	**	24	1	3	3	5

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

Test of CHI SQUARE

(HCL101)

BATS 4

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : MALE

URINALYSIS

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	Urobilinogen					CHI
		±	+	2+	3+	4+	
Control	38	38	0	0	0	0	0
25ppm	34	34	0	0	0	0	0
100ppm	36	36	0	0	0	0	0
400ppm	36	36	0	0	0	0	0

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

Test of CHI SQUARE

(HCL101)

BAIS 4

APPENDIX H 2

URINALYSIS : SUMMARY,

MOUSE : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0418
 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	30	0	1	2	2	4	19	2		0	7	13	7	3	0		30	0	0	0	0	0		9	14	6	1	0	0		25	4	0	0	1	
25ppm	24	1	1	4	0	3	15	0		1	4	13	6	0	0		24	0	0	0	0	0		8	13	3	0	0	0		19	1	0	2	2	
100ppm	32	0	3	3	2	3	18	3		0	0	14	16	2	0	*	32	0	0	0	0	0		0	13	15	4	0	0	**	26	4	0	1	1	
400ppm	33	0	3	15	3	6	6	0	**	0	2	12	16	3	0		33	0	0	0	0	0		0	13	9	11	0	0	**	24	2	0	2	5	

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

Test of CHI SQUARE

(HCL101)

BAIS 4

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
MEASURE. TIME : 1
SEX : FEMALE

URINALYSIS

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	Urobilinogen					CHI
		±	+	2+	3+	4+	
Control	30	30	0	0	0	0	0
25ppm	24	24	0	0	0	0	0
100ppm	32	32	0	0	0	0	0
400ppm	33	33	0	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 : SUMMARY,

MOUSE : MALE

ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control	25ppm		100ppm		400ppm	
			50 (%)	50 (%)	50 (%)	50 (%)	50 (%)	50 (%)	50 (%)
skin/app	wound		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	ulcer		0 (0)	2 (4)	2 (4)	2 (4)	0 (0)	0 (0)	0 (0)
	scab		0 (0)	0 (0)	2 (4)	2 (4)	0 (0)	0 (0)	0 (0)
subcutis	edema		0 (0)	0 (0)	1 (2)	1 (2)	3 (6)	3 (6)	3 (6)
	mass		1 (2)	2 (4)	0 (0)	0 (0)	1 (2)	1 (2)	1 (2)
lung	red		0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)
	white zone		0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	red zone		0 (0)	2 (4)	0 (0)	0 (0)	1 (2)	1 (2)	1 (2)
	nodule		5 (10)	32 (64)	29 (58)	29 (58)	34 (68)	34 (68)	34 (68)
	adhesion		0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)
lymph node	enlarged		5 (10)	5 (10)	4 (8)	4 (8)	5 (10)	5 (10)	5 (10)
spleen	enlarged		3 (6)	3 (6)	1 (2)	1 (2)	4 (8)	4 (8)	4 (8)
	black zone		2 (4)	6 (12)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)
	nodule		4 (8)	2 (4)	2 (4)	2 (4)	1 (2)	1 (2)	1 (2)
heart	white zone		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	1 (2)
tongue	nodule		0 (0)	0 (0)	2 (4)	2 (4)	0 (0)	0 (0)	0 (0)
salivary gl	nodule		1 (2)	0 (0)	1 (2)	1 (2)	1 (2)	1 (2)	1 (2)
forestomach	nodule		1 (2)	2 (4)	1 (2)	1 (2)	8 (16)	8 (16)	8 (16)
cecum	nodule		0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)
liver	enlarged		1 (2)	1 (2)	3 (6)	3 (6)	1 (2)	1 (2)	1 (2)
	white zone		2 (4)	1 (2)	7 (14)	7 (14)	5 (10)	5 (10)	5 (10)
	red zone		2 (4)	4 (8)	1 (2)	1 (2)	5 (10)	5 (10)	5 (10)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control		25ppm		100ppm		400ppm	
			50	(%)	50	(%)	50	(%)	50	(%)
liver	yellow zone		0	(0)	1	(2)	0	(0)	0	(0)
	nodule		12	(24)	22	(44)	18	(36)	17	(34)
	cyst		1	(2)	0	(0)	0	(0)	1	(2)
	rough		0	(0)	0	(0)	0	(0)	1	(2)
pancreas	nodule		0	(0)	1	(2)	2	(4)	0	(0)
kidney	enlarged		1	(2)	2	(4)	0	(0)	1	(2)
	atrophic		1	(2)	1	(2)	0	(0)	0	(0)
	white zone		1	(2)	0	(0)	0	(0)	1	(2)
	black zone		0	(0)	0	(0)	0	(0)	1	(2)
	nodule		1	(2)	0	(0)	1	(2)	0	(0)
	hydronephrosis		2	(4)	0	(0)	1	(2)	5	(10)
ureter	nodule		0	(0)	1	(2)	0	(0)	0	(0)
urin bladd	black zone		1	(2)	0	(0)	1	(2)	0	(0)
	nodule		0	(0)	2	(4)	0	(0)	0	(0)
	urine:marked retention		3	(6)	2	(4)	0	(0)	0	(0)
testis	enlarged		0	(0)	1	(2)	0	(0)	0	(0)
epididymis	nodule		2	(4)	0	(0)	0	(0)	0	(0)
semin ves	nodule		0	(0)	1	(2)	0	(0)	0	(0)
prep/cli gl	nodule		1	(2)	0	(0)	0	(0)	0	(0)
	cyst		1	(2)	0	(0)	0	(0)	0	(0)
brain	elevated		0	(0)	0	(0)	1	(2)	0	(0)
	nodule		0	(0)	0	(0)	1	(2)	0	(0)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control		25ppm		100ppm		400ppm	
			50	(%)	50	(%)	50	(%)	50	(%)
eye	turbid		0	(0)	0	(0)	0	(0)	2	(4)
Harder gl	enlarged		1	(2)	2	(4)	2	(4)	7	(14)
	nodule		2	(4)	1	(2)	0	(0)	2	(4)
bone	nodule		0	(0)	1	(2)	0	(0)	0	(0)
pleura	nodule		0	(0)	0	(0)	0	(0)	2	(4)
mediastinum	nodule		0	(0)	0	(0)	1	(2)	1	(2)
retroperit	mass		0	(0)	1	(2)	0	(0)	0	(0)
	nodular		1	(2)	0	(0)	0	(0)	0	(0)
abdominal c	hemorrhage		1	(2)	1	(2)	2	(4)	0	(0)
	ascites		1	(2)	3	(6)	3	(6)	4	(8)
adipose	nodule		0	(0)	0	(0)	0	(0)	1	(2)
thoracic ca	hemorrhage		0	(0)	1	(2)	0	(0)	4	(8)
	pleural fluid		2	(4)	1	(2)	1	(2)	1	(2)
other	lower jaw:nodule		1	(2)	0	(0)	0	(0)	0	(0)
whole body	anemic		0	(0)	0	(0)	1	(2)	0	(0)

(HPT080)

BAIS 4

APPENDIX I 2

GROSS FINDINGS : SUMMARY,

MOUSE : MALE

DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE 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	25ppm	100ppm	400ppm
			12 (%)	17 (%)	13 (%)	14 (%)
skin/app	wound		1 (8)	0 (0)	0 (0)	0 (0)
subcutis	edema		0 (0)	0 (0)	1 (8)	3 (21)
	mass		0 (0)	2 (12)	0 (0)	0 (0)
lung	red		0 (0)	0 (0)	1 (8)	0 (0)
	white zone		0 (0)	1 (6)	0 (0)	0 (0)
	red zone		0 (0)	2 (12)	0 (0)	1 (7)
	nodule		2 (17)	10 (59)	3 (23)	5 (36)
lymph node	enlarged		3 (25)	4 (24)	3 (23)	3 (21)
spleen	enlarged		2 (17)	3 (18)	1 (8)	2 (14)
	black zone		1 (8)	2 (12)	0 (0)	0 (0)
	nodule		0 (0)	2 (12)	2 (15)	1 (7)
heart	white zone		0 (0)	0 (0)	0 (0)	1 (7)
salivary gl	nodule		0 (0)	0 (0)	1 (8)	0 (0)
forestomach	nodule		0 (0)	1 (6)	1 (8)	1 (7)
liver	enlarged		1 (8)	1 (6)	3 (23)	1 (7)
	white zone		1 (8)	1 (6)	4 (31)	3 (21)
	red zone		0 (0)	2 (12)	0 (0)	0 (0)
	yellow zone		0 (0)	1 (6)	0 (0)	0 (0)
	nodule		4 (33)	8 (47)	6 (46)	1 (7)
pancreas	nodule		0 (0)	0 (0)	1 (8)	0 (0)
kidney	enlarged		1 (8)	2 (12)	0 (0)	1 (7)
	white zone		0 (0)	0 (0)	0 (0)	1 (7)

STUDY NO. : 0418
 ANIMAL : MOUSE 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		25ppm		100ppm		400ppm	
			12	(%)	17	(%)	13	(%)	14	(%)
kidney	nodule		0	(0)	0	(0)	1	(8)	0	(0)
	hydronephrosis		1	(8)	0	(0)	1	(8)	4	(29)
ureter	nodule		0	(0)	1	(6)	0	(0)	0	(0)
urin bladd	black zone		1	(8)	0	(0)	1	(8)	0	(0)
	urine:marked retention		3	(25)	2	(12)	0	(0)	0	(0)
testis	enlarged		0	(0)	1	(6)	0	(0)	0	(0)
semin ves	nodule		0	(0)	1	(6)	0	(0)	0	(0)
prep/cli gl	cyst		1	(8)	0	(0)	0	(0)	0	(0)
brain	nodule		0	(0)	0	(0)	1	(8)	0	(0)
Harder gl	enlarged		0	(0)	2	(12)	0	(0)	2	(14)
pleura	nodule		0	(0)	0	(0)	0	(0)	2	(14)
mediastinum	nodule		0	(0)	0	(0)	1	(8)	1	(7)
retroperit	mass		0	(0)	1	(6)	0	(0)	0	(0)
	nodular		1	(8)	0	(0)	0	(0)	0	(0)
abdominal c	hemorrhage		1	(8)	1	(6)	2	(15)	0	(0)
	ascites		1	(8)	3	(18)	3	(23)	4	(29)
thoracic ca	hemorrhage		0	(0)	1	(6)	0	(0)	3	(21)
	pleural fluid		2	(17)	1	(6)	1	(8)	1	(7)
other	lower jaw:nodule		1	(8)	0	(0)	0	(0)	0	(0)
whole body	anemic		0	(0)	0	(0)	1	(8)	0	(0)

APPENDIX I 3

GROSS FINDINGS : SUMMARY,

MOUSE : MALE

SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

GROSS FINDINGS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control		25ppm		100ppm		400ppm	
			38	(%)	33	(%)	37	(%)	36	(%)
skin/app	ulcer		0	(0)	2	(6)	2	(5)	0	(0)
	scab		0	(0)	0	(0)	2	(5)	0	(0)
subcutis	mass		1	(3)	0	(0)	0	(0)	1	(3)
lung	nodule		3	(8)	22	(67)	26	(70)	29	(81)
	adhesion		0	(0)	0	(0)	1	(3)	0	(0)
lymph node	enlarged		2	(5)	1	(3)	1	(3)	2	(6)
spleen	enlarged		1	(3)	0	(0)	0	(0)	2	(6)
	black zone		1	(3)	4	(12)	1	(3)	0	(0)
	nodule		4	(11)	0	(0)	0	(0)	0	(0)
tongue	nodule		0	(0)	0	(0)	2	(5)	0	(0)
salivary gl	nodule		1	(3)	0	(0)	0	(0)	1	(3)
forestomach	nodule		1	(3)	1	(3)	0	(0)	7	(19)
cecum	nodule		0	(0)	0	(0)	1	(3)	0	(0)
liver	white zone		1	(3)	0	(0)	3	(8)	2	(6)
	red zone		2	(5)	2	(6)	1	(3)	5	(14)
	nodule		8	(21)	14	(42)	12	(32)	16	(44)
	cyst		1	(3)	0	(0)	0	(0)	1	(3)
	rough		0	(0)	0	(0)	0	(0)	1	(3)
	nodule		0	(0)	1	(3)	1	(3)	0	(0)
pancreas	atrophic		1	(3)	1	(3)	0	(0)	0	(0)
kidney	white zone		1	(3)	0	(0)	0	(0)	0	(0)
	black zone		0	(0)	0	(0)	0	(0)	1	(3)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

GROSS FINDINGS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control		25ppm		100ppm		400ppm	
			38	(%)	33	(%)	37	(%)	36	(%)
kidney	nodule		1	(3)	0	(0)	0	(0)	0	(0)
	hydronephrosis		1	(3)	0	(0)	0	(0)	1	(3)
urin bladd	nodule		0	(0)	2	(6)	0	(0)	0	(0)
epididymis	nodule		2	(5)	0	(0)	0	(0)	0	(0)
prep/cli gl	nodule		1	(3)	0	(0)	0	(0)	0	(0)
brain	elevated		0	(0)	0	(0)	1	(3)	0	(0)
eye	turbid		0	(0)	0	(0)	0	(0)	2	(6)
Harder gl	enlarged		1	(3)	0	(0)	2	(5)	5	(14)
	nodule		2	(5)	1	(3)	0	(0)	2	(6)
bone	nodule		0	(0)	1	(3)	0	(0)	0	(0)
adipose	nodule		0	(0)	0	(0)	0	(0)	1	(3)
thoracic ca	hemorrhage		0	(0)	0	(0)	0	(0)	1	(3)

(HPT080)

BAIS 4

APPENDIX I 4

GROSS FINDINGS : SUMMARY,

MOUSE : FEMALE

ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control		25ppm		100ppm		400ppm	
			50	(%)	49	(%)	50	(%)	50	(%)
skin/app	nodule		1	(2)	0	(0)	0	(0)	0	(0)
subcutis	edema		2	(4)	4	(8)	6	(12)	6	(12)
	jaundice		0	(0)	0	(0)	1	(2)	0	(0)
	mass		4	(8)	2	(4)	2	(4)	2	(4)
lung	red		1	(2)	0	(0)	0	(0)	0	(0)
	red zone		0	(0)	1	(2)	0	(0)	0	(0)
	nodule		4	(8)	15	(31)	25	(50)	23	(46)
lymph node	enlarged		7	(14)	9	(18)	6	(12)	4	(8)
thymus	enlarged		1	(2)	1	(2)	0	(0)	0	(0)
spleen	enlarged		5	(10)	16	(33)	7	(14)	5	(10)
	white zone		1	(2)	0	(0)	0	(0)	0	(0)
	nodule		0	(0)	1	(2)	2	(4)	1	(2)
forestomach	nodule		2	(4)	0	(0)	2	(4)	9	(18)
stomach	nodule		0	(0)	1	(2)	0	(0)	0	(0)
small intes	nodule		1	(2)	1	(2)	0	(0)	0	(0)
cecum	nodule		0	(0)	0	(0)	1	(2)	0	(0)
liver	enlarged		1	(2)	2	(4)	4	(8)	7	(14)
	white zone		3	(6)	10	(20)	6	(12)	8	(16)
	red zone		5	(10)	2	(4)	9	(18)	10	(20)
	nodule		5	(10)	7	(14)	9	(18)	14	(28)
	rough		1	(2)	0	(0)	0	(0)	1	(2)
pancreas	nodule		0	(0)	1	(2)	0	(0)	0	(0)

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control		25ppm		100ppm		400ppm	
			50	(%)	49	(%)	50	(%)	50	(%)
kidney	enlarged		0	(0)	1	(2)	2	(4)	0	(0)
	pale		0	(0)	0	(0)	0	(0)	2	(4)
	white zone		0	(0)	1	(2)	0	(0)	0	(0)
	nodule		1	(2)	1	(2)	0	(0)	0	(0)
	hydronephrosis		4	(8)	2	(4)	4	(8)	2	(4)
urin bladd	urine:marked retention		1	(2)	2	(4)	0	(0)	0	(0)
urethra	dilated		0	(0)	1	(2)	0	(0)	0	(0)
pituitary	enlarged		4	(8)	4	(8)	1	(2)	0	(0)
	red zone		3	(6)	0	(0)	0	(0)	0	(0)
	black zone		0	(0)	0	(0)	1	(2)	0	(0)
	nodule		4	(8)	2	(4)	2	(4)	1	(2)
ovary	enlarged		1	(2)	7	(14)	4	(8)	1	(2)
	red		1	(2)	0	(0)	0	(0)	0	(0)
	nodule		0	(0)	0	(0)	0	(0)	1	(2)
	cyst		5	(10)	8	(16)	9	(18)	8	(16)
uterus	nodule		6	(12)	15	(31)	14	(28)	10	(20)
brain	red zone		0	(0)	1	(2)	0	(0)	0	(0)
periph nerv	nodule		1	(2)	0	(0)	1	(2)	0	(0)
eye	turbid		1	(2)	0	(0)	0	(0)	6	(12)
Harder gl	enlarged		3	(6)	0	(0)	1	(2)	11	(22)
	nodule		0	(0)	0	(0)	1	(2)	2	(4)
muscle	nodule		1	(2)	0	(0)	0	(0)	0	(0)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name NO. of Animals	Control		25ppm		100ppm		400ppm	
			50	(%)	49	(%)	50	(%)	50	(%)
vertebra	nodule		0	(0)	0	(0)	0	(0)	1	(2)
mediastinum	nodule		0	(0)	1	(2)	0	(0)	0	(0)
	mass		3	(6)	2	(4)	1	(2)	3	(6)
peritoneum	nodule		0	(0)	1	(2)	0	(0)	0	(0)
	mass		0	(0)	1	(2)	0	(0)	0	(0)
	thick		0	(0)	0	(0)	0	(0)	1	(2)
abdominal c	hemorrhage		0	(0)	5	(10)	2	(4)	2	(4)
	mass		0	(0)	0	(0)	0	(0)	1	(2)
	ascites		4	(8)	5	(10)	4	(8)	7	(14)
thoracic ca	hemorrhage		1	(2)	1	(2)	1	(2)	1	(2)
	pleural fluid		8	(16)	11	(22)	9	(18)	8	(16)
other	ear:nodule		0	(0)	0	(0)	0	(0)	1	(2)
	lower jaw:nodule		0	(0)	0	(0)	1	(2)	0	(0)
	nose:nodule		1	(2)	0	(0)	0	(0)	0	(0)
whole body	anemic		1	(2)	1	(2)	0	(0)	1	(2)

APPENDIX I 5

GROSS FINDINGS : SUMMARY,
MOUSE : FEMALE
DEAD AND MORIBUND ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control	25ppm	100ppm	400ppm
			20 (%)	25 (%)	18 (%)	17 (%)
subcutis	edema		1 (5)	4 (16)	6 (33)	6 (35)
	jaundice		0 (0)	0 (0)	1 (6)	0 (0)
	mass		2 (10)	2 (8)	1 (6)	1 (6)
lung	red		1 (5)	0 (0)	0 (0)	0 (0)
	red zone		0 (0)	1 (4)	0 (0)	0 (0)
	nodule		3 (15)	3 (12)	4 (22)	3 (18)
lymph node	enlarged		7 (35)	7 (28)	3 (17)	3 (18)
thymus	enlarged		1 (5)	1 (4)	0 (0)	0 (0)
spleen	enlarged		5 (25)	14 (56)	6 (33)	5 (29)
	white zone		1 (5)	0 (0)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	1 (6)	1 (6)
forestomach	nodule		0 (0)	0 (0)	0 (0)	3 (18)
small intes	nodule		1 (5)	1 (4)	0 (0)	0 (0)
cecum	nodule		0 (0)	0 (0)	1 (6)	0 (0)
liver	enlarged		1 (5)	2 (8)	3 (17)	7 (41)
	white zone		3 (15)	10 (40)	5 (28)	7 (41)
	red zone		0 (0)	0 (0)	1 (6)	2 (12)
	nodule		2 (10)	5 (20)	3 (17)	2 (12)
	rough		1 (5)	0 (0)	0 (0)	1 (6)
pancreas	nodule		0 (0)	1 (4)	0 (0)	0 (0)
kidney	enlarged		0 (0)	1 (4)	2 (11)	0 (0)
	pale		0 (0)	0 (0)	0 (0)	2 (12)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj: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	25ppm	100ppm	400ppm
			20 (%)	25 (%)	18 (%)	17 (%)
kidney	white zone		0 (0)	1 (4)	0 (0)	0 (0)
	nodule		1 (5)	1 (4)	0 (0)	0 (0)
	hydronephrosis		3 (15)	1 (4)	3 (17)	2 (12)
urin bladd	urine:marked retention		1 (5)	2 (8)	0 (0)	0 (0)
urethra	dilated		0 (0)	1 (4)	0 (0)	0 (0)
pituitary	enlarged		2 (10)	3 (12)	1 (6)	0 (0)
	red zone		1 (5)	0 (0)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	1 (6)	0 (0)
ovary	enlarged		1 (5)	5 (20)	3 (17)	0 (0)
	red		1 (5)	0 (0)	0 (0)	0 (0)
	cyst		2 (10)	1 (4)	1 (6)	1 (6)
uterus	nodule		4 (20)	10 (40)	8 (44)	7 (41)
brain	red zone		0 (0)	1 (4)	0 (0)	0 (0)
periph nerv	nodule		0 (0)	0 (0)	1 (6)	0 (0)
eye	turbid		1 (5)	0 (0)	0 (0)	2 (12)
Harder gl	enlarged		1 (5)	0 (0)	0 (0)	4 (24)
muscle	nodule		1 (5)	0 (0)	0 (0)	0 (0)
mediastinum	nodule		0 (0)	1 (4)	0 (0)	0 (0)
	mass		3 (15)	2 (8)	1 (6)	3 (18)
peritoneum	nodule		0 (0)	1 (4)	0 (0)	0 (0)
	mass		0 (0)	1 (4)	0 (0)	0 (0)
	thick		0 (0)	0 (0)	0 (0)	1 (6)

STUDY NO. : 0418
 ANIMAL : MOUSE 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	25ppm	100ppm	400ppm
			20 (%)	25 (%)	18 (%)	17 (%)
abdominal c	hemorrhage		0 (0)	5 (20)	2 (11)	2 (12)
	mass		0 (0)	0 (0)	0 (0)	1 (6)
	ascites		2 (10)	4 (16)	4 (22)	6 (35)
thoracic ca	hemorrhage		1 (5)	1 (4)	1 (6)	1 (6)
	pleural fluid		8 (40)	10 (40)	8 (44)	6 (35)
other	lower jaw:nodule		0 (0)	0 (0)	1 (6)	0 (0)
	nose:nodule		1 (5)	0 (0)	0 (0)	0 (0)
whole body	anemic		1 (5)	1 (4)	0 (0)	1 (6)

(HPT080)

BAIS 4

APPENDIX I 6

GROSS FINDINGS : SUMMARY,

MOUSE : FEMALE

SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 3

Organ_____	Findings_____	Group Name	Control		25ppm		100ppm		400ppm	
		NO. of Animals	30	(%)	24	(%)	32	(%)	33	(%)
skin/app	nodule		1	(3)	0	(0)	0	(0)	0	(0)
subcutis	edema		1	(3)	0	(0)	0	(0)	0	(0)
	mass		2	(7)	0	(0)	1	(3)	1	(3)
lung	nodule		1	(3)	12	(50)	21	(66)	20	(61)
lymph node	enlarged		0	(0)	2	(8)	3	(9)	1	(3)
spleen	enlarged		0	(0)	2	(8)	1	(3)	0	(0)
	nodule		0	(0)	1	(4)	1	(3)	0	(0)
forestomach	nodule		2	(7)	0	(0)	2	(6)	6	(18)
stomach	nodule		0	(0)	1	(4)	0	(0)	0	(0)
liver	enlarged		0	(0)	0	(0)	1	(3)	0	(0)
	white zone		0	(0)	0	(0)	1	(3)	1	(3)
	red zone		5	(17)	2	(8)	8	(25)	8	(24)
	nodule		3	(10)	2	(8)	6	(19)	12	(36)
kidney	hydronephrosis		1	(3)	1	(4)	1	(3)	0	(0)
pituitary	enlarged		2	(7)	1	(4)	0	(0)	0	(0)
	red zone		2	(7)	0	(0)	0	(0)	0	(0)
	black zone		0	(0)	0	(0)	1	(3)	0	(0)
	nodule		4	(13)	2	(8)	1	(3)	1	(3)
ovary	enlarged		0	(0)	2	(8)	1	(3)	1	(3)
	nodule		0	(0)	0	(0)	0	(0)	1	(3)
	cyst		3	(10)	7	(29)	8	(25)	7	(21)
uterus	nodule		2	(7)	5	(21)	6	(19)	3	(9)

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control		25ppm		100ppm		400ppm	
			30	(%)	24	(%)	32	(%)	33	(%)
periph nerv	nodule		1	(3)	0	(0)	0	(0)	0	(0)
eye	turbid		0	(0)	0	(0)	0	(0)	4	(12)
Harder gl	enlarged		2	(7)	0	(0)	1	(3)	7	(21)
	nodule		0	(0)	0	(0)	1	(3)	2	(6)
vertebra	nodule		0	(0)	0	(0)	0	(0)	1	(3)
abdominal c	ascites		2	(7)	1	(4)	0	(0)	1	(3)
thoracic ca	pleural fluid		0	(0)	1	(4)	1	(3)	2	(6)
other	ear:nodule		0	(0)	0	(0)	0	(0)	1	(3)

(HPT080)

BAIS 4

APPENDIX J 1

ORGAN WEIGHT, ABSOLUTE : SUMMARY,

MOUSE : MALE

(2-YEAR STUDY)

STUDY NO. : 0418
 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	38	42.5± 7.0	0.009±	0.002	0.220±	0.038	0.218±	0.020	0.231±	0.171	0.640±	0.186
25ppm	33	41.4± 7.7	0.009±	0.002	0.213±	0.038	0.220±	0.020	0.335±	0.250	0.620±	0.063
100ppm	37	38.3± 7.4*	0.008±	0.002	0.206±	0.031	0.213±	0.024	0.309±	0.219	0.624±	0.062
400ppm	36	36.1± 7.3**	0.009±	0.002	0.183±	0.033**	0.203±	0.023*	0.304±	0.169	1.006±	2.200

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

Test of Dunnett

(HCL040)

BAIS 4

STUDY NO. : 0418
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	38	0.144±	0.257	1.543±	0.267	0.455±	0.016
25ppm	33	0.077±	0.032	1.838±	0.737	0.457±	0.018
100ppm	37	0.065±	0.027	1.580±	0.315	0.463±	0.022
400ppm	36	0.102±	0.141*	1.729±	0.587	0.442±	0.014**

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

Test of Dunnett

(HCL040)

BAIS 4

APPENDIX J 2

ORGAN WEIGHT, ABSOLUTE : SUMMARY,

MOUSE : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0418
 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	30	27.5± 4.5	0.012±	0.002	0.039±	0.016	0.172±	0.022	0.195±	0.023	0.576±	0.855
25ppm	24	27.9± 4.2	0.012±	0.002	0.105±	0.171	0.185±	0.038	0.272±	0.175**	0.496±	0.309
100ppm	32	26.3± 2.8	0.011±	0.002	0.062±	0.132	0.171±	0.017	0.263±	0.191**	0.518±	0.471
400ppm	33	25.0± 2.4	0.011±	0.003	0.107±	0.252	0.157±	0.015*	0.266±	0.157**	0.441±	0.053

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

Test of Dunnett

(HCL040)

BAIS 4

STUDY NO. : 0418
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	30	0.103±	0.054	1.458±	0.522	0.494±	0.055
25ppm	24	0.204±	0.229	1.581±	0.900	0.472±	0.023
100ppm	32	0.147±	0.165	1.601±	1.111	0.468±	0.020*
400ppm	33	0.097±	0.061	1.379±	0.478	0.445±	0.016**

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

Test of Dunnett

(HCL040)

BAIS 4

APPENDIX K 1

ORGAN WEIGHT, RELATIVE : SUMMARY,

MOUSE : MALE

(2-YEAR STUDY)

STUDY NO. : 0418
 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	38	42.5± 7.0	0.022± 0.007	0.525± 0.098	0.521± 0.068	0.604± 0.747	1.524± 0.415
25ppm	33	41.4± 7.7	0.022± 0.008	0.532± 0.123	0.545± 0.084	0.891± 0.876**	1.529± 0.202
100ppm	37	38.3± 7.4*	0.022± 0.009	0.558± 0.133	0.576± 0.133	0.879± 0.917**	1.672± 0.258**
400ppm	36	36.1± 7.3**	0.025± 0.007	0.522± 0.125	0.576± 0.082**	0.880± 0.550**	2.598± 4.628**

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

Test of Dunnett

(HCL042)

BAYS 4

STUDY NO. : 0418
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	38	0.354± 0.651	3.679± 0.616	1.102± 0.198
25ppm	33	0.187± 0.072	4.564± 1.937*	1.141± 0.217
100ppm	37	0.175± 0.080	4.246± 1.124**	1.268± 0.343*
400ppm	36	0.312± 0.489	4.956± 2.176**	1.268± 0.232**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett				
(HCL042)				BAYS 4

APPENDIX K 2

ORGAN WEIGHT, RELATIVE : SUMMARY,

MOUSE : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0418
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	30	27.5± 4.5	0.044± 0.010	0.142± 0.061	0.639± 0.106	0.721± 0.086	2.108± 3.014
25ppm	24	27.9± 4.2	0.043± 0.007	0.357± 0.541	0.668± 0.125	1.042± 0.940	1.802± 1.163
100ppm	32	26.3± 2.8	0.043± 0.010	0.226± 0.430	0.652± 0.071	1.024± 0.861**	1.926± 1.486*
400ppm	33	25.0± 2.4	0.046± 0.013	0.432± 1.047	0.635± 0.081	1.071± 0.626**	1.779± 0.246**

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

Test of Dunnett

(HCL042)

BAIS 4

STUDY NO. : 0418
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	30	0.368± 0.149	5.296± 1.447	1.848± 0.396
25ppm	24	0.743± 0.874	5.622± 2.766	1.727± 0.253
100ppm	32	0.531± 0.491	5.924± 3.237	1.797± 0.188
400ppm	33	0.394± 0.253	5.568± 2.047	1.801± 0.187
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett				
(HCL042)				BAIS 4

APPENDIX L 1

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : SUMMARY,
MOUSE : MALE :
ALL ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study Grade	Control				25ppm				100ppm				400ppm			
			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	ulcer		<50>				<50>				<50>				<50>			
			0 (0)	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)
	inflammation		1 (2)	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)
	hyperplasia:epidermis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
{Respiratory system}																		
nasal cavit	exudate		<50>				<50>				<50>				<50>			
			0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)
	eosinophilic change:olfactory epithelium		10 (20)	1 (2)	0 (0)	0 (0)	14 (28)	0 (0)	0 (0)	0 (0)	18 (36)	0 (0)	0 (0)	0 (0)	17 (34)	5 (10)	0 (0)	0 * (0)
	eosinophilic change:respiratory epithelium		2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)
	respiratory metaplasia:olfactory epithelium		4 (8)	1 (2)	0 (0)	0 (0)	3 (6)	1 (2)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	29 (58)	19 (38)	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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

Organ	Findings	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study				50				50				50			
		Grade				1				1				1			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																	
nasal cavit																	
	respiratory metaplasia:gland	<50>				<50>				<50>				<50>			
		8	0	0	0	9	0	0	0	9	0	0	0	23	23	1	0 **
		(16)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(46)	(46)	(2)	(0)
	atrophy:olfactory epithelium	0	1	0	0	0	1	0	0	0	0	0	0	37	0	0	0 **
		(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(74)	(0)	(0)	(0)
	necrosis:olfactory epithelium	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)
nasopharynx																	
	exudate	<50>				<50>				<50>				<50>			
		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)	(4)	(0)	(0)	(0)
	eosinophilic change	5	0	0	0	3	0	0	0	6	1	0	0	34	3	0	0 **
		(10)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(12)	(2)	(0)	(0)	(68)	(6)	(0)	(0)
lung																	
	hemorrhage	<50>				<50>				<50>				<50>			
		0	0	0	0	1	0	0	0	1	0	0	0	1	1	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(2)	(0)	(0)
	inflammatory infiltration	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(2)	(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

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

		Group Name	Control				25ppm				100ppm				400ppm			
		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}																		
lung			<50>				<50>				<50>				<50>			
	bronchiolar-alveolar cell hyperplasia		3 (6)	1 (2)	0 (0)	0 (0)	20 (40)	4 (8)	0 (0)	0 (0)	** (0)	23 (46)	3 (6)	0 (0)	0 (0)	** (0)	27 (54)	6 (12)
{Hematopoietic system}																		
bone marrow			<50>				<50>				<50>				<50>			
	myelofibrosis		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)
	granulopoiesis:increased		0 (0)	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)
lymph node			<50>				<50>				<50>				<50>			
	lymphadenitis		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)
	follicular hyperplasia		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)	0 (0)	0 (0)	0 (0)
spleen			<50>				<50>				<50>				<50>			
	deposit of melanin		3 (6)	0 (0)	0 (0)	0 (0)	9 (18)	0 (0)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	2 (4)	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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 4

		Group Name	Control				25ppm				100ppm				400ppm			
		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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
spleen			<50>				<50>				<50>				<50>			
	extramedullary hematopoiesis		3	0	1	0	1	1	2	0	2	3	0	0	2	2	0	0
			(6)	(0)	(2)	(0)	(2)	(2)	(4)	(0)	(4)	(6)	(0)	(0)	(4)	(4)	(0)	(0)
	follicular hyperplasia		7	0	0	0	6	0	0	0	5	0	0	0	6	0	0	0
			(14)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
{Circulatory system}																		
heart			<50>				<50>				<50>				<50>			
	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)
	mineralization		0	0	0	0	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)
	arteritis		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Digestive system}																		
tongue			<50>				<50>				<50>				<50>			
	arteritis		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 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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 5

Organ	Findings	Group Name	Control				25ppm				100ppm				400ppm			
		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>			
	erosion:forestomach		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)	(0)	(0)	(0)	(0)
	ulcer: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	0	0	0	0	0	0	0	0	0	0	0	0
			(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:glandular stomach		34	0	0	0	32	0	0	0	28	0	0	0	17	0	0	0 **
			(68)	(0)	(0)	(0)	(64)	(0)	(0)	(0)	(56)	(0)	(0)	(0)	(34)	(0)	(0)	(0)
	squamous cell hyperplasia:forestomach		2	0	0	0	1	2	0	0	4	0	0	0	17	1	0	0 **
			(4)	(0)	(0)	(0)	(2)	(4)	(0)	(0)	(8)	(0)	(0)	(0)	(34)	(2)	(0)	(0)
liver			<50>				<50>				<50>				<50>			
	angiectasis		0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	thrombus		0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(2)	(0)	(0)
	necrosis:central		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)

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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 6

Organ	Findings	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study				50				50				50			
		Grade				1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																	
liver																	
	necrosis:focal	<50>				0	0	0	0	<50>				1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	clear cell focus	1	0	0	0	(2)	(0)	(0)	(0)	1	0	0	0	(2)	(0)	(0)	(0)
		(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	acidophilic cell focus	2	0	0	0	(4)	(0)	(0)	(0)	1	0	0	0	(2)	(0)	(0)	(0)
		(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	basophilic cell focus	1	0	0	0	(2)	(0)	(0)	(0)	2	0	0	0	(4)	(0)	(0)	(0)
		(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
	biliary cyst	1	0	0	0	(2)	(0)	(0)	(0)	0	0	0	0	(2)	(0)	(0)	(0)
		(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
pancreas																	
	islet cell hyperplasia	<50>				1	0	0	0	<50>				0	0	0	0
		(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Urinary system}																	
kidney																	
	infarct	<50>				1	0	0	0	<50>				1	0	0	0
		(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 7

Organ	Findings	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study				50				50				50			
		Grade				1 2 3 4				1 2 3 4				1 2 3 4			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																	
kidney																	
	cyst	<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)
	hyaline droplet	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)
	hyaline cast	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)
	osseous metaplasia	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)
	inflammatory polyp	1	0	0	0	1	0	0	0	1	0	0	0	4	0	0	0
		(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	arteritis	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hydronephrosis	3	0	0	0	2	0	0	0	0	0	0	1	1	0	4	0
		(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(2)	(0)	(8)	(0)
	mineralization:papilla	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)

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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 8

		Group Name	Control				25ppm				100ppm				400ppm			
		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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney			<50>				<50>				<50>				<50>			
	dilatation:tubular lumen		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)
	eosinophilic droplet:proximal tubule		2	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0
			(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
ureter			<50>				<50>				<50>				<50>			
	dilatation		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)
urin bladd			<50>				<50>				<49>				<50>			
	dilatation		0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(6)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	simple hyperplasia:transitional epithelium		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)
	nodular hyperplasia:transitional 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)
{Endocrine system}																		
pituitary			<50>				<50>				<50>				<50>			
	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 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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 9

Organ	Findings	Group Name No. of Animals on Study Grade	Control				25ppm				100ppm				400ppm			
			50				50				50				50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
{Endocrine system}																		
pituitary	Rathke pouch		<50>				<50>				<50>				<50>			
		4 (8)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	
thyroid	ultimibranhial body remanet		<50>				<50>				<50>				<49>			
		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)	
adrenal	spindle-cell hyperplasia		<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)	0 (0)	0 (0)	0 (0)	
	hyperplasia:cortical cell		8 (16)	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)	
{Reproductive system}																		
testis	interstitial cell hyperplasia		<50>				<50>				<50>				<50>			
		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)	
epididymis	spermatogenic granuloma		<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)	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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 10

Organ	Findings	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study				50				50				50			
		Grade				1				1				1			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																	
semin ves		<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)
mammary gl		<50>				<50>				<50>				<50>			
	duct ectasia	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)
prep/cli gl		<50>				<50>				<50>				<50>			
	cyst	2	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)	(0)	(0)	(0)	(0)
{Nervous system}																	
brain		<50>				<50>				<50>				<50>			
	necrosis:focal	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	17	0	0	0	24	0	0	0	16	0	0	0	10	0	0	0
		(34)	(0)	(0)	(0)	(48)	(0)	(0)	(0)	(32)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
{Special sense organs/appendage}																	
eye		<50>				<50>				<50>				<50>			
	cataract	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)

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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 11

Organ	Findings	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study				50				50				50			
		Grade				1				1				1			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																	
eye	keratitis	<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)
Harder gl	hyperplasia	<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
{Musculoskeletal system}																	
muscle	mineralization	<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)
	arteritis	<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)
{Body cavities}																	
pleura	pleuritis	<50>				<50>				<50>				<50>			
		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)

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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 12

Organ	Findings	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study				50				50				50			
		Grade				1				1				1			
						(%)				(%)				(%)			

{Body cavities}

retroperit

hemorrhage

<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)	(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 L 2

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : SUMMARY,
MOUSE : MALE :
DEAD AND MORIBUND ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj: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 Grade	Control				25ppm				100ppm				400ppm			
			12				17				13				14			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
{Integumentary system/appandage}																		
skin/app			<12>				<17>				<13>				<14>			
	inflammation		1 (8)	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)	
{Respiratory system}																		
nasal cavit			<12>				<17>				<13>				<14>			
	exudate		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (14)	0 (0)	0 (0)	0 (0)	
	eosinophilic change:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	3 (18)	0 (0)	0 (0)	0 (0)	0 (0)	5 (38)	0 (0)	0 (0)	0 (0)	3 (21)	1 (7)	0 (0)
	eosinophilic change:respiratory epithelium		0 (0)	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 (7)	0 (0)	0 (0)
	respiratory metaplasia:olfactory epithelium		1 (8)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	11 (79)	1 (7)	0 (0)
	respiratory metaplasia:gland		2 (17)	0 (0)	0 (0)	0 (0)	4 (24)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	8 (57)	3 (21)	0 (0)
	atrophy:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	7 (50)	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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	12				17				13				14			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit	necrosis:olfactory epithelium		<12>				<17>				<13>				<14>			
		0	0	0	0	1	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)
nasopharynx	exudate		<12>				<17>				<13>				<14>			
		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)	(7)	(0)	(0)	(0)
	eosinophilic change		0	0	0	0	0	0	0	0	2	0	0	0	9	1	0	0 **
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(64)	(7)	(0)	(0)
lung	hemorrhage		<12>				<17>				<13>				<14>			
		0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	bronchiolar-alveolar cell hyperplasia		0	0	0	0	3	1	0	0	4	0	0	0	5	0	0	0
			(0)	(0)	(0)	(0)	(18)	(6)	(0)	(0)	(31)	(0)	(0)	(0)	(36)	(0)	(0)	(0)
{Hematopoietic system}																		
bone marrow	granulopoiesis:increased		<12>				<17>				<13>				<14>			
		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)	(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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	12				17				13				14			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
{Hematopoietic system}																		
spleen			<12>				<17>				<13>				<14>			
	deposit of melanin		1	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0
			(8)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	extramedullary hematopoiesis		0	0	1	0	1	1	2	0	1	2	0	0	0	1	0	0
			(0)	(0)	(8)	(0)	(6)	(6)	(12)	(0)	(8)	(15)	(0)	(0)	(0)	(7)	(0)	(0)
	follicular hyperplasia		0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Circulatory system}																		
heart			<12>				<17>				<13>				<14>			
	thrombus		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization		0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(14)	(0)	(0)	(0)
	arteritis		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Digestive system}																		
tongue			<12>				<17>				<13>				<14>			
	arteritis		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(8)	(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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	12				17				13				14			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Organ	Findings		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
stomach			<12>				<17>				<13>				<14>			
	ulcer: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)	(7)	(0)	(0)	(0)
	hyperplasia:glandular stomach		2	0	0	0	6	0	0	0	4	0	0	0	0	0	0	0
			(17)	(0)	(0)	(0)	(35)	(0)	(0)	(0)	(31)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	squamous cell hyperplasia:forestomach		1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(14)	(0)	(0)	(0)
liver			<12>				<17>				<13>				<14>			
	angiectasis		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)	(0)	(0)	(0)	(0)
	necrosis:central		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)	(7)	(0)	(0)	(0)
	necrosis:focal		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)	(7)	(0)	(0)	
	basophilic cell focus		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)	(0)	(0)	(0)	(0)
{Urinary system}																		
kidney			<12>				<17>				<13>				<14>			
	inflammatory polyp		0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(21)	(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. : 0418
ANIMAL : MOUSE 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				25ppm				100ppm				400ppm			
			12				17				13				14			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney	arteritis		<12>				<17>				<13>				<14>			
			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hydronephrosis		1	0	0	0	1	0	0	0	0	0	0	1	0	0	4	0
			(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(29)	(0)
	dilatation:tubular lumen		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)	(0)	(0)	(0)	(0)
	eosinophilic droplet:proximal tubule		2	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0
			(17)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(23)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
ureter	dilatation		<12>				<17>				<13>				<14>			
			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)	(0)	(0)	(0)	(0)
urin bladd	dilatation		<12>				<17>				<13>				<14>			
			0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(25)	(0)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	simple hyperplasia:transitional 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)	(8)	(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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 6

Organ	Findings	Control				25ppm				100ppm				400ppm			
		Group Name				12				17				13			
		No. of Animals on Study				Grade				Grade				Grade			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																	
epididymis		<12>				<17>				<13>				<14>			
	spermatogenic granuloma	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
semin ves		<12>				<17>				<13>				<14>			
	inflammation	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)	(0)	(0)	(0)	(0)
mammary gl		<12>				<17>				<13>				<14>			
	duct ectasia	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)	(7)	(0)	(0)	(0)
prep/cli gl		<12>				<17>				<13>				<14>			
	cyst	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Nervous system}																	
brain		<12>				<17>				<13>				<14>			
	mineralization	4	0	0	0	7	0	0	0	3	0	0	0	3	0	0	0
		(33)	(0)	(0)	(0)	(41)	(0)	(0)	(0)	(23)	(0)	(0)	(0)	(21)	(0)	(0)	(0)
{Special sense organs/appendage}																	
Harder gl		<12>				<17>				<13>				<14>			
	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)	(7)	(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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 7

Organ_____	Findings_____	Group Name				Control				25ppm				100ppm				400ppm			
		No. of Animals on Study				12				17				13				14			
		Grade																			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)			

{Musculoskeletal system}

muscle		<12>				<17>				<13>				<14>			
	mineralization	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)	(7)	(0)	(0)	(0)
	arteritis	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

{Body cavities}

retroperit		<12>				<17>				<13>				<14>			
	hemorrhage	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(8)	(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

(HPT150)

BAIS4

APPENDIX L 3

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : SUMMARY,
MOUSE : MALE :
SACRIFICED ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

Organ	Findings	Control				25ppm				100ppm				400ppm			
		38				33				37				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																	
skin/app		<38>				<33>				<37>				<36>			
	ulcer	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)
	hyperplasia:epidermis	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Respiratory system}																	
nasal cavit		<38>				<33>				<37>				<36>			
	exudate	0	1	0	0	0	1	0	0	0	1	0	0	1	0	0	0
		(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(3)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	10	1	0	0	11	0	0	0	13	0	0	0	14	4	0	0
		(26)	(3)	(0)	(0)	(33)	(0)	(0)	(0)	(35)	(0)	(0)	(0)	(39)	(11)	(0)	(0)
	eosinophilic change:respiratory epithelium	2	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0
		(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(8)	(0)	(0)	(0)
	respiratory metaplasia:olfactory epithelium	3	1	0	0	2	1	0	0	5	0	0	0	18	18	0	0 **
		(8)	(3)	(0)	(0)	(6)	(3)	(0)	(0)	(14)	(0)	(0)	(0)	(50)	(50)	(0)	(0)
	respiratory metaplasia:gland	6	0	0	0	5	0	0	0	8	0	0	0	15	20	1	0 **
		(16)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(42)	(56)	(3)	(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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Organ	Findings	Control				25ppm				100ppm				400ppm			
		38				33				37				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																	
nasal cavit		<38>				<33>				<37>				<36>			
	atrophy:olfactory epithelium	0	1	0	0	0	1	0	0	0	0	0	0	30	0	0	0 **
		(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(83)	(0)	(0)	(0)
nasopharynx		<38>				<33>				<37>				<36>			
	exudate	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	5	0	0	0	3	0	0	0	4	1	0	0	25	2	0	0 **
		(13)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(11)	(3)	(0)	(0)	(69)	(6)	(0)	(0)
lung		<38>				<33>				<37>				<36>			
	hemorrhage	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)
	inflammatory infiltration	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)
	bronchiolar-alveolar cell hyperplasia	3	1	0	0	17	3	0	0 **	19	3	0	0 **	22	6	0	0 **
		(8)	(3)	(0)	(0)	(52)	(9)	(0)	(0)	(51)	(8)	(0)	(0)	(61)	(17)	(0)	(0)
{Hematopoietic system}																	
bone marrow		<38>				<33>				<37>				<36>			
	myelofibrosis	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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

Organ	Findings	Control				25ppm				100ppm				400ppm			
		38				33				37				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																	
bone marrow		<38>				<33>				<37>				<36>			
	granulopoiesis:increased	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)
lymph node		<38>				<33>				<37>				<36>			
	lymphadenitis	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)
	follicular hyperplasia	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
spleen		<38>				<33>				<37>				<36>			
	deposit of melanin	2	0	0	0	6	0	0	0	3	0	0	0	1	0	0	0
		(5)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	extramedullary hematopoiesis	3	0	0	0	0	0	0	0	1	1	0	0	2	1	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(3)	(0)	(0)	(6)	(3)	(0)	(0)
	follicular hyperplasia	7	0	0	0	3	0	0	0	5	0	0	0	6	0	0	0
		(18)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(17)	(0)	(0)	(0)
{Digestive system}																	
stomach		<38>				<33>				<37>				<36>			
	erosion:forestomach	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)	(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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

Organ_____	Findings_____	Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	38				33				37				36			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
(Digestive system)																		
stomach																		
			<38>				<33>				<37>				<36>			
	erosion:glandular stomach		2	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)
	hyperplasia:glandular stomach		32	0	0	0	26	0	0	0	24	0	0	0	17	0	0	0 **
			(84)	(0)	(0)	(0)	(79)	(0)	(0)	(0)	(65)	(0)	(0)	(0)	(47)	(0)	(0)	(0)
	squamous cell hyperplasia:forestomach		1	0	0	0	1	2	0	0	3	0	0	0	15	1	0	0 **
			(3)	(0)	(0)	(0)	(3)	(6)	(0)	(0)	(8)	(0)	(0)	(0)	(42)	(3)	(0)	(0)
liver																		
			<38>				<33>				<37>				<36>			
	angiectasis		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	thrombus		0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(3)	(0)	(0)
	necrosis:focal		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)
	clear cell focus		1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	acidophilic cell focus		2	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(8)	(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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 5

		Group Name	Control				25ppm				100ppm				400ppm				
		No. of Animals on Study	38				33				37				36				
Organ_____	Findings_____	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Digestive system}																			
liver			<38>				<33>				<37>				<36>				
	basophilic cell focus		1 (3)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	6 (16)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	biliary cyst		1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	
pancreas			<38>				<33>				<37>				<36>				
	islet cell hyperplasia		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)	0 (0)
{Urinary system}																			
kidney			<38>				<33>				<37>				<36>				
	infarct		1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)
	cyst		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 (3)	0 (0)	0 (0)	0 (0)	0 (0)
	hyaline droplet		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (5)	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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study				Control				25ppm				100ppm				400ppm			
		Grade				38				33				37				36			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																					
kidney		<38>				<33>				<37>				<36>							
	hyaline cast	0	0	0	0	1	0	0	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)	(0)	(0)
	osseous metaplasia	0	0	0	0	1	0	0	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)	(0)	(0)
	inflammatory polyp	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	arteritis	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)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hydronephrosis	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	mineralization:papilla	0	0	0	0	1	0	0	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)	(0)	(0)
urin bladd		<38>				<33>				<36>				<36>							
	simple hyperplasia:transitional epithelium	0	0	0	0	1	0	0	0	1	0	0	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)
	nodular hyperplasia:transitional 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)	(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 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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 7

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	38				33				37				36			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
pituitary			<38>				<33>				<37>				<36>			
	hyperplasia		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)
	Rathke pouch		4 (11)	0 (0)	0 (0)	0 (0)	4 (12)	0 (0)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	0 (0)
thyroid			<38>				<33>				<37>				<36>			
	ultimibranhial body remanet		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)
adrenal			<38>				<33>				<37>				<36>			
	spindle-cell hyperplasia		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)
	hyperplasia:cortical cell		8 (21)	0 (0)	0 (0)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 * (0)	3 (8)	0 (0)	0 (0)	0 (0)
{Reproductive system}																		
testis			<38>				<33>				<37>				<36>			
	interstitial cell hyperplasia		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)

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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 8

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	38				33				37				36			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
epididymis	spermatogenic granuloma		<38>				<33>				<37>				<36>			
			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)
prep/cli gl	cyst		<38>				<33>				<37>				<36>			
			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)
{Nervous system}																		
brain	necrosis:focal		<38>				<33>				<37>				<36>			
			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)
	mineralization		13	0	0	0	17	0	0	0	13	0	0	0	7	0	0	0
			(34)	(0)	(0)	(0)	(52)	(0)	(0)	(0)	(35)	(0)	(0)	(0)	(19)	(0)	(0)	(0)
{Special sense organs/appendage}																		
eye	cataract		<38>				<33>				<37>				<36>			
			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)

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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 9

Organ	Findings	Group Name No. of Animals on Study Grade	Control 38				25ppm 33				100ppm 37				400ppm 36			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye	keratitis		<38>				<33>				<37>				<36>			
		0 (0)	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 (3)	0 (0)	0 (0)	
Harder gl	hyperplasia		<38>				<33>				<37>				<36>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	0 (0)	
{Body cavities}																		
pleura	pleuritis		<38>				<33>				<37>				<36>			
		0 (0)	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)	

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 L 4

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : SUMMARY,
MOUSE : FEMALE :
ALL ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 13

Organ	Findings	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study															
		Grade															
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																	
skin/app	scab	<50>				<49>				<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)
	epidermal 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)
subcutis	hemorrhage	<50>				<49>				<50>				<50>			
		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)	(2)	(0)
{Respiratory system}																	
nasal cavit	exudate	<50>				<49>				<50>				<50>			
		0	0	0	0	0	0	0	0	2	0	0	0	20	0	0	0 **
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(40)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	23	3	1	0	16	4	4	0	22	3	0	0	9	32	8	1 **
		(46)	(6)	(2)	(0)	(33)	(8)	(8)	(0)	(44)	(6)	(0)	(0)	(18)	(64)	(16)	(2)
	eosinophilic change:respiratory epithelium	41	2	0	0	38	6	1	0	44	3	0	0	39	3	1	0
		(82)	(4)	(0)	(0)	(78)	(12)	(2)	(0)	(88)	(6)	(0)	(0)	(78)	(6)	(2)	(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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 14

Organ	Findings	Group Name No. of Animals on Study Grade	Control				25ppm				100ppm				400ppm			
			50				49				50				50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			<50>				<49>				<50>				<50>			
	inflammation:respiratory epithelium		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)
	respiratory metaplasia:olfactory epithelium		5	0	0	0	6	0	0	0	9	0	0	0	4	42	3	0 **
			(10)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(8)	(84)	(6)	(0)
	respiratory metaplasia:gland		8	0	0	0	9	0	0	0	11	0	0	0	13	32	1	0 **
			(16)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(26)	(64)	(2)	(0)
	atrophy:olfactory epithelium		0	0	0	0	0	0	0	0	0	0	0	25	0	0	0 **	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	
nasopharynx			<50>				<49>				<50>				<50>			
	exudate		0	0	0	0	0	0	0	0	1	0	0	0	17	0	0	0 **
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(34)	(0)	(0)	(0)
	eosinophilic change		10	1	0	0	11	3	0	0	22	2	0	0 *	38	5	0	0 **
			(20)	(2)	(0)	(0)	(22)	(6)	(0)	(0)	(44)	(4)	(0)	(0)	(76)	(10)	(0)	(0)
lung			<50>				<49>				<50>				<50>			
	hemorrhage		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)

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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 15

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	50				49				50				50			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
lung			<50>				<49>				<50>				<50>			
	lymphocytic infiltration		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)
	bronchiolar-alveolar cell hyperplasia		7	0	0	0	20	1	0	0 **	28	3	0	0 **	20	7	0	0 **
			(14)	(0)	(0)	(0)	(41)	(2)	(0)	(0)	(56)	(6)	(0)	(0)	(40)	(14)	(0)	(0)
{Hematopoietic system}																		
bone marrow			<50>				<48>				<50>				<50>			
	granulation		1	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	erythropoiesis:increased		1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulopoiesis:increased		0	0	0	0	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)
lymph node			<50>				<49>				<50>				<50>			
	plasma cell hyperplasia		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)

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. : 0418
ANIMAL : MOUSE 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 Grade	Control				25ppm				100ppm				400ppm			
			50				49				50				50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
spleen			<50>				<49>				<50>				<50>			
	deposit of hemosiderin		3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of melanin		4	0	0	0	0	0	0	0	3	0	0	0	6	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
	fibrosis		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)
	extramedullary hematopoiesis		3	2	3	0	3	8	1	0	4	6	2	0	2	6	1	0
			(6)	(4)	(6)	(0)	(6)	(16)	(2)	(0)	(8)	(12)	(4)	(0)	(4)	(12)	(2)	(0)
	follicular hyperplasia		5	0	0	0	5	1	0	0	2	1	0	0	3	0	0	0
			(10)	(0)	(0)	(0)	(10)	(2)	(0)	(0)	(4)	(2)	(0)	(0)	(6)	(0)	(0)	(0)
{Circulatory system}																		
heart			<50>				<49>				<50>				<50>			
	thrombus		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization		1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(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	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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 17

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control				25ppm				100ppm				400ppm			
			50				49				50				50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
tongue			<50>				<49>				<49>				<50>			
	arteritis		1	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)	(2)	(0)	(0)	(0)
stomach			<50>				<49>				<50>				<50>			
	erosion:forestomach		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)
	ulcer:forestomach		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	erosion:glandular stomach		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)
	hyperplasia:glandular stomach		30	0	0	0	22	0	0	0	22	0	0	0	6	0	0	0 **
			(60)	(0)	(0)	(0)	(45)	(0)	(0)	(0)	(44)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
	squamous cell hyperplasia:forestomach		2	2	0	0	2	0	0	0	10	1	0	0 *	18	3	0	0 **
			(4)	(4)	(0)	(0)	(4)	(0)	(0)	(0)	(20)	(2)	(0)	(0)	(36)	(6)	(0)	(0)
liver			<50>				<49>				<50>				<50>			
	angiectasis		1	0	0	0	2	0	0	0	2	0	0	0	5	0	0	0
			(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(10)	(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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 18

Organ	Findings	Group Name No. of Animals on Study				Control				25ppm				100ppm				400ppm			
		Grade				50				49				50				50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																					
liver		<50>				<49>				<50>				<50>				<50>			
	thrombus	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)
	cyst	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)
	granulation	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	clear cell focus	1	0	0	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)
	acidophilic cell focus	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	basophilic cell focus	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	biliary cyst	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)	(0)	(0)	(0)	(0)
{Urinary system}																					
kidney		<50>				<49>				<50>				<50>				<50>			
	hyaline droplet	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 : Number of animals with lesion
(c) c : b / a * 100
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 19

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	50				49				50				50			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney			<50>				<49>				<50>				<50>			
	osseous metaplasia		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)
	inflammatory polyp		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)
	hydronephrosis		2	0	1	0	2	0	0	1	3	0	0	0	0	0	0	0
			(4)	(0)	(2)	(0)	(4)	(0)	(0)	(2)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic droplet:proximal tubule		5	0	0	0	7	0	0	0	8	0	0	0	6	0	0	0
			(10)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
urin bladd			<50>				<49>				<50>				<50>			
	dilatation		0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(2)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
urethra			<50>				<49>				<50>				<50>			
	dilatation		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)
{Endocrine system}																		
pituitary			<50>				<49>				<50>				<49>			
	angiectasis		4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 20

Organ	Findings	Group Name No. of Animals on Study Grade	Control				25ppm				100ppm				400ppm			
			50				49				50				50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
pituitary			<50>				<49>				<50>				<49>			
	hyperplasia		4	0	0	0	3	0	0	0	4	0	0	0	3	0	0	0
			(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	Rathke pouch		0	0	0	0	1	0	0	0	1	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
thyroid			<50>				<49>				<49>				<50>			
	cystic thyroid follicle		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)
	vacuolar change:follicular cell		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)	(0)	(0)
adrenal			<50>				<49>				<50>				<50>			
	fatty change		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	hyperplasia:cortical cell		1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
{Reproductive system}																		
ovary			<50>				<49>				<50>				<49>			
	thrombus		0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 21

Organ	Findings	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study				Grade				Grade				Grade			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																	
ovary	cyst	<50>				<49>				<50>				<49>			
		6	0	0	0	8	0	0	0	9	0	0	0	6	0	0	0
		(12)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
uterus	dilatation	<50>				<49>				<50>				<50>			
		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)
	thrombus	<50>				<49>				<50>				<50>			
		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)
	cystic endometrial 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)
{Nervous system}																	
brain	mineralization	<50>				<49>				<50>				<50>			
		21	0	0	0	10	0	0	0 *	16	0	0	0	4	0	0	0 **
		(42)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(32)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	epidermal cyst	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)

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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 22

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	50				49				50				50			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye			<50>				<49>				<50>				<50>			
	cataract		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)
	keratitis		0 (0)	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)
Harder gl			<50>				<49>				<50>				<50>			
	degeneration		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)
	hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
{Musculoskeletal system}																		
muscle			<50>				<49>				<50>				<50>			
	mineralization		1 (2)	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)

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 5

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : SUMMARY,
MOUSE : FEMALE :
DEAD AND MORIBUND ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 8

Organ_____	Findings_____	Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	20				25				18				17			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Integumentary system/appandage}

skin/app

scab

1

0

0

0

(5)

(0)

(0)

(0)

0

0

0

0

(0)

(0)

(0)

(0)

0

0

0

0

(0)

(0)

(0)

(0)

0

0

0

0

(0)

(0)

(0)

(0)

epidermal cyst

0

0

0

0

(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)

subcutis

hemorrhage

0

0

0

0

(0)

(0)

(0)

(0)

0

0

0

0

(0)

(0)

(0)

(0)

0

0

0

0

(0)

(0)

(0)

(0)

0

0

1

0

(0)

(0)

(6)

(0)

{Respiratory system}

nasal cavit

exudate

0

0

0

0

(0)

(0)

(0)

(0)

0

0

0

0

(0)

(0)

(0)

(0)

1

0

0

0

(6)

(0)

(0)

(0)

5

0

0

0 *

(29)

(0)

(0)

(0)

eosinophilic change:olfactory epithelium

7

1

1

0

(35)

(5)

(5)

(0)

8

2

1

0

(32)

(8)

(4)

(0)

7

2

0

0

(39)

(11)

(0)

(0)

4

10

3

0 **

(24)

(59)

(18)

(0)

eosinophilic change:respiratory epithelium

14

0

0

0

(70)

(0)

(0)

(0)

20

2

0

0

(80)

(8)

(0)

(0)

14

2

0

0

(78)

(11)

(0)

(0)

11

2

1

0

(65)

(12)

(6)

(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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 9

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control				25ppm				100ppm				400ppm			
			20				25				18				17			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			<20>				<25>				<18>				<17>			
	respiratory metaplasia:olfactory epithelium		4 (20)	0 (0)	0 (0)	0 (0)	2 (8)	0 (0)	0 (0)	0 (0)	5 (28)	0 (0)	0 (0)	0 (0)	3 (18)	11 (65)	2 (12)	0 ** (0)
	respiratory metaplasia:gland		2 (10)	0 (0)	0 (0)	0 (0)	2 (8)	0 (0)	0 (0)	0 (0)	4 (22)	0 (0)	0 (0)	0 (0)	5 (29)	8 (47)	0 (0)	0 ** (0)
	atrophy:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (18)	0 (0)	0 (0)	0 (0)	
nasopharynx			<20>				<25>				<18>				<17>			
	exudate		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6 (35)	0 (0)	0 (0)	0 * (0)	
	eosinophilic change		5 (25)	0 (0)	0 (0)	0 (0)	4 (16)	1 (4)	0 (0)	0 (0)	9 (50)	2 (11)	0 (0)	0 (0)	13 (76)	2 (12)	0 (0)	0 ** (0)
lung			<20>				<25>				<18>				<17>			
	hemorrhage		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)
	bronchiolar-alveolar cell hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	6 (24)	0 (0)	0 (0)	0 (0)	5 (28)	0 (0)	0 (0)	0 * (0)	5 (29)	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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 10

Organ_____	Findings_____	Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	20				25				18				17			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
bone marrow																		
	granulation		<20>				<25>				<18>				<17>			
			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)	(0)	(0)	(0)	(0)
	erythropoiesis:increased		1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulopoiesis:increased		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
lymph node																		
	plasma cell hyperplasia		<20>				<25>				<18>				<17>			
			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)	(0)	(0)	(0)	(0)
spleen																		
	deposit of hemosiderin		<20>				<25>				<18>				<17>			
			2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	fibrosis		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)	(0)	(0)	(0)	(0)
	extramedullary hematopoiesis		1	2	3	0	1	6	1	0	3	3	2	0	0	5	1	0
			(5)	(10)	(15)	(0)	(4)	(24)	(4)	(0)	(17)	(17)	(11)	(0)	(0)	(29)	(6)	(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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 11

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	20				25				18				17			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}																		
heart			<20>				<25>				<18>				<17>			
	thrombus		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization		1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
			(5)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)
{Digestive system}																		
tongue			<20>				<25>				<18>				<17>			
	arteritis		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)	(0)	(0)	(0)	(0)
stomach			<20>				<25>				<18>				<17>			
	ulcer:forestomach		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	erosion:glandular stomach		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)	(0)	(0)	(0)	(0)
	hyperplasia:glandular stomach		10	0	0	0	5	0	0	0	5	0	0	0	2	0	0	0 *
			(50)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(28)	(0)	(0)	(0)	(12)	(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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 12

Organ	Findings	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study															
		Grade															
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																	
stomach		<20>				<25>				<18>				<17>			
	squamous cell hyperplasia:forestomach	1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
		(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
liver		<20>				<25>				<18>				<17>			
	angiectasis	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)	(6)	(0)	(0)	(0)
	acidophilic cell focus	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)	(0)	(0)	(0)	(0)
{Urinary system}																	
kidney		<20>				<25>				<18>				<17>			
	osseous metaplasia	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)	(0)	(0)	(0)	(0)
	inflammatory polyp	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)	(0)	(0)	(0)	(0)
	hydronephrosis	1	0	1	0	1	0	0	1	2	0	0	0	0	0	0	0
		(5)	(0)	(5)	(0)	(4)	(0)	(0)	(4)	(11)	(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. : 0418
ANIMAL : MOUSE Crj: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				25ppm				100ppm				400ppm			
		No. of Animals on Study	20				25				18				17			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney	eosinophilic droplet:proximal tubule		<20>				<25>				<18>				<17>			
		5	0	0	0	6	0	0	0	6	0	0	0	6	0	0	0	
		(25)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(33)	(0)	(0)	(0)	(35)	(0)	(0)	(0)	
urin bladd	dilatation		<20>				<25>				<18>				<17>			
		0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	
			(0)	(0)	(5)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
urethra	dilatation		<20>				<25>				<18>				<17>			
		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)	(0)	(0)	(0)	
{Endocrine system}																		
pituitary	angiectasis		<20>				<25>				<18>				<17>			
		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
		(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
	hyperplasia		<20>				<25>				<18>				<17>			
		2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
	Rathke pouch		<20>				<25>				<18>				<17>			
		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)	(6)	(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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 14

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	20				25				18				17			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
thyroid			<20>				<25>				<18>				<17>			
	vacuolar change;follicular cell		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)	(0)	(0)
{Reproductive system}																		
ovary			<20>				<25>				<18>				<16>			
	thrombus		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)	(0)	(0)	(0)	(0)
	cyst		2	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
uterus			<20>				<25>				<18>				<17>			
	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)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Nervous system}																		
brain			<20>				<25>				<18>				<17>			
	mineralization		5	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0
			(25)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(28)	(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. : 0418
 ANIMAL : MOUSE 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				25ppm				100ppm				400ppm			
			20				25				18				17			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye			<20>				<25>				<18>				<17>			
	cataract		1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
			(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
{Musculoskeletal system}																		
muscle			<20>				<25>				<18>				<17>			
	mineralization		1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(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 : 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 : SUMMARY,
MOUSE : FEMALE :
SACRIFICED ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 10

Organ	Findings	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study				Grade				Grade				Grade			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																	
nasal cavit		<30>				<24>				<32>				<33>			
	exudate	0	0	0	0	0	0	0	0	1	0	0	0	15	0	0	0 **
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(45)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	16	2	0	0	8	2	3	0	15	1	0	0	5	22	5	1 **
		(53)	(7)	(0)	(0)	(33)	(8)	(13)	(0)	(47)	(3)	(0)	(0)	(15)	(67)	(15)	(3)
	eosinophilic change:respiratory epithelium	27	2	0	0	18	4	1	0	30	1	0	0	28	1	0	0
		(90)	(7)	(0)	(0)	(75)	(17)	(4)	(0)	(94)	(3)	(0)	(0)	(85)	(3)	(0)	(0)
	inflammation:respiratory epithelium	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)
	respiratory metaplasia:olfactory epithelium	1	0	0	0	4	0	0	0	4	0	0	0	1	31	1	0 **
		(3)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(3)	(94)	(3)	(0)
	respiratory metaplasia:gland	6	0	0	0	7	0	0	0	7	0	0	0	8	24	1	0 **
		(20)	(0)	(0)	(0)	(29)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(24)	(73)	(3)	(0)
	atrophy:olfactory epithelium	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0 **
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(67)	(0)	(0)	(0)
nasopharynx		<30>				<24>				<32>				<33>			
	exudate	0	0	0	0	0	0	0	0	1	0	0	0	11	0	0	0 **
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(33)	(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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 11

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	30				24				32				33			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasopharynx	eosinophilic change		<30>				<24>				<32>				<33>			
			5	1	0	0	7	2	0	0	13	0	0	0	25	3	0	0 **
			(17)	(3)	(0)	(0)	(29)	(8)	(0)	(0)	(41)	(0)	(0)	(0)	(76)	(9)	(0)	(0)
lung	lymphocytic infiltration		<30>				<24>				<32>				<33>			
			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)	(0)
	bronchiolar-alveolar cell hyperplasia		7	0	0	0	14	1	0	0 *	23	3	0	0 **	15	7	0	0 **
			(23)	(0)	(0)	(0)	(58)	(4)	(0)	(0)	(72)	(9)	(0)	(0)	(45)	(21)	(0)	(0)
{Hematopoietic system}																		
bone marrow	granulation		<30>				<23>				<32>				<33>			
			1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(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)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
spleen	deposit of hemosiderin		<30>				<24>				<32>				<33>			
			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. : 0418
ANIMAL : MOUSE Crl:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 12

Organ	Findings	Group Name No. of Animals on Study Grade	Control 30				25ppm 24				100ppm 32				400ppm 33			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
spleen			<30>				<24>				<32>				<33>			
	deposit of melanin		4 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)	6 (18)	0 (0)	0 (0)	0 (0)
	extramedullary hematopoiesis		2 (7)	0 (0)	0 (0)	0 (0)	2 (8)	2 (8)	0 (0)	0 (0)	1 (3)	3 (9)	0 (0)	0 (0)	2 (6)	1 (3)	0 (0)	0 (0)
	follicular hyperplasia		5 (17)	0 (0)	0 (0)	0 (0)	5 (21)	1 (4)	0 (0)	0 (0)	2 (6)	1 (3)	0 (0)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)
{Digestive system}																		
tongue			<30>				<24>				<31>				<33>			
	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 (3)	0 (0)	0 (0)	0 (0)
stomach			<30>				<24>				<32>				<33>			
	erosion:forestomach		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
	hyperplasia:glandular stomach		20 (67)	0 (0)	0 (0)	0 (0)	17 (71)	0 (0)	0 (0)	0 (0)	17 (53)	0 (0)	0 (0)	0 (0)	4 (12)	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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 13

Organ	Findings	Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	30				24				32				33			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
stomach			<30>				<24>				<32>				<33>			
	squamous cell hyperplasia:forestomach		1	2	0	0	2	0	0	0	8	1	0	0 *	17	3	0	0 **
			(3)	(7)	(0)	(0)	(8)	(0)	(0)	(0)	(25)	(3)	(0)	(0)	(52)	(9)	(0)	(0)
liver			<30>				<24>				<32>				<33>			
	angiectasis		1	0	0	0	2	0	0	0	2	0	0	0	4	0	0	0
			(3)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
	thrombus		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)
	cyst		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		1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)
	clear cell focus		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	acidophilic cell focus		0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	basophilic cell focus		0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(3)	(0)	(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 : 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. : 0418
ANIMAL : MOUSE Cri:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 14

Organ	Findings	Group Name No. of Animals on Study Grade	Control				25ppm				100ppm				400ppm			
			30				24				32				33			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
{Digestive system}																		
liver	biliary cyst		<30>				<24>				<32>				<33>			
		0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
{Urinary system}																		
kidney	hyaline droplet		<30>				<24>				<32>				<33>			
		2 (7)	0 (0)	0 (0)	0 (0)	1 (4)	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 (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)	
	hydronephrosis		1 (3)	0 (0)	0 (0)	0 (0)	1 (4)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	eosinophilic droplet:proximal tubule		0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
{Endocrine system}																		
pituitary	angiectasis		<30>				<24>				<32>				<32>			
		3 (10)	0 (0)	0 (0)	0 (0)	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. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 15

Organ	Findings	Group Name No. of Animals on Study Grade	Control				25ppm				100ppm				400ppm			
			30				24				32				33			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
{Endocrine system}																		
pituitary	hyperplasia		<30>				<24>				<32>				<32>			
		2	0	0	0	3	0	0	0	3	0	0	0	3	0	0	0	
		(7)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	
	Rathke pouch		0	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	
thyroid	cystic thyroid follicle		<30>				<24>				<31>				<33>			
		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)	(0)	(0)	(0)	(0)	
adrenal	fatty change		<30>				<24>				<32>				<33>			
		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	
		(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	
	hyperplasia:cortical cell		1	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)	(9)	(0)	(0)	(0)	
{Reproductive system}																		
ovary	thrombus		<30>				<24>				<32>				<33>			
		0	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	
		(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(3)	(0)	(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 : Number of animals with lesion

(c) c : b / a * 100

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

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 16

		Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	30				24				32				33			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
{Reproductive system}																		
ovary	cyst		<30>				<24>				<32>				<33>			
		4 (13)	0 (0)	0 (0)	0 (0)	7 (29)	0 (0)	0 (0)	0 (0)	9 (28)	0 (0)	0 (0)	0 (0)	5 (15)	0 (0)	0 (0)	0 (0)	
uterus	dilatation		<30>				<24>				<32>				<33>			
		0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	cystic endometrial hyperplasia		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)
{Nervous system}																		
brain	mineralization		<30>				<24>				<32>				<33>			
		16 (53)	0 (0)	0 (0)	0 (0)	5 (21)	0 (0)	0 (0)	0 (0)	11 (34)	0 (0)	0 (0)	0 (0)	4 (12)	0 (0)	0 (0)	0 (0)	0 **
	epidermal cyst		0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
{Special sense organs/appendage}																		
eye	cataract		<30>				<24>				<32>				<33>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (9)	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. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 17

Organ_____	Findings_____	Group Name	Control				25ppm				100ppm				400ppm			
		No. of Animals on Study	30				24				32				33			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye			<30>				<24>				<32>				<33>			
	keratitis		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)
Harder gl			<30>				<24>				<32>				<33>			
	degeneration		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)	(0)	(0)	(0)
	hyperplasia		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)	(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,

MOUSE : MALE

(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE 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	25ppm	100ppm	400ppm
0 - 52	NO. OF EXAMINED ANIMALS		1	0	2	0
	NO. OF ANIMALS WITH TUMORS		1	0	1	0
	NO. OF ANIMALS WITH SINGLE TUMORS		1	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		1	0	1	0
	NO. OF TOTAL TUMORS		1	0	1	0
53 - 78	NO. OF EXAMINED ANIMALS		5	3	3	2
	NO. OF ANIMALS WITH TUMORS		2	3	2	0
	NO. OF ANIMALS WITH SINGLE TUMORS		1	1	2	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		1	2	0	0
	NO. OF BENIGN TUMORS		0	2	0	0
	NO. OF MALIGNANT TUMORS		3	4	2	0
	NO. OF TOTAL TUMORS		3	6	2	0
79 - 104	NO. OF EXAMINED ANIMALS		6	14	8	12
	NO. OF ANIMALS WITH TUMORS		6	14	8	12
	NO. OF ANIMALS WITH SINGLE TUMORS		4	5	2	7
	NO. OF ANIMALS WITH MULTIPLE TUMORS		2	9	6	5
	NO. OF BENIGN TUMORS		2	11	2	6
	NO. OF MALIGNANT TUMORS		6	17	13	13
	NO. OF TOTAL TUMORS		8	28	15	19
105 - 105	NO. OF EXAMINED ANIMALS		38	33	37	36
	NO. OF ANIMALS WITH TUMORS		19	27	34	34
	NO. OF ANIMALS WITH SINGLE TUMORS		14	9	14	7
	NO. OF ANIMALS WITH MULTIPLE TUMORS		5	18	20	27
	NO. OF BENIGN TUMORS		15	30	36	58
	NO. OF MALIGNANT TUMORS		11	26	28	30
	NO. OF TOTAL TUMORS		26	56	64	88

STUDY NO. : 0418
ANIMAL : MOUSE 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	25ppm	100ppm	400ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		28	44	45	46
	NO. OF ANIMALS WITH SINGLE TUMORS		20	15	19	14
	NO. OF ANIMALS WITH MULTIPLE TUMORS		8	29	26	32
	NO. OF BENIGN TUMORS		17	43	38	64
	NO. OF MALIGNANT TUMORS		21	47	44	43
	NO. OF TOTAL TUMORS		38	90	82	107

(HPT070)

BAIS4

APPENDIX M 2

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

MOUSE : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE 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	25ppm	100ppm	400ppm
0 - 52	NO. OF EXAMINED ANIMALS		1	0	1	0
	NO. OF ANIMALS WITH TUMORS		0	0	1	0
	NO. OF ANIMALS WITH SINGLE TUMORS		0	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		0	0	1	0
	NO. OF TOTAL TUMORS		0	0	1	0
53 - 78	NO. OF EXAMINED ANIMALS		1	4	3	4
	NO. OF ANIMALS WITH TUMORS		1	3	3	4
	NO. OF ANIMALS WITH SINGLE TUMORS		0	3	2	1
	NO. OF ANIMALS WITH MULTIPLE TUMORS		1	0	1	3
	NO. OF BENIGN TUMORS		0	0	1	3
	NO. OF MALIGNANT TUMORS		2	3	3	4
	NO. OF TOTAL TUMORS		2	3	4	7
79 - 104	NO. OF EXAMINED ANIMALS		18	21	14	13
	NO. OF ANIMALS WITH TUMORS		18	21	14	13
	NO. OF ANIMALS WITH SINGLE TUMORS		13	9	6	2
	NO. OF ANIMALS WITH MULTIPLE TUMORS		5	12	8	11
	NO. OF BENIGN TUMORS		6	11	12	14
	NO. OF MALIGNANT TUMORS		17	26	15	16
	NO. OF TOTAL TUMORS		23	37	27	30
105 - 105	NO. OF EXAMINED ANIMALS		30	24	32	33
	NO. OF ANIMALS WITH TUMORS		17	21	30	31
	NO. OF ANIMALS WITH SINGLE TUMORS		10	8	9	8
	NO. OF ANIMALS WITH MULTIPLE TUMORS		7	13	21	23
	NO. OF BENIGN TUMORS		16	25	30	46
	NO. OF MALIGNANT TUMORS		12	23	32	27
	NO. OF TOTAL TUMORS		28	48	62	73

STUDY NO. : 0418
ANIMAL : MOUSE 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	25ppm	100ppm	400ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	49	50	50
	NO. OF ANIMALS WITH TUMORS		36	45	48	48
	NO. OF ANIMALS WITH SINGLE TUMORS		23	20	18	11
	NO. OF ANIMALS WITH MULTIPLE TUMORS		13	25	30	37
	NO. OF BENIGN TUMORS		22	36	43	63
	NO. OF MALIGNANT TUMORS		31	52	51	47
	NO. OF TOTAL TUMORS		53	88	94	110

(HPT070)

BAIS4

APPENDIX N 1

HISTOPATHOLOGICAL FINDINGS :
NEOPLASTIC LESIONS : SUMMARY,
MOUSE : MALE
(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE 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	25ppm 50	100ppm 50	400ppm 50
[Integumentary system/appandage]						
subcutis			<50>	<50>	<50>	<50>
	hemangioma		1 (2%)	1 (2%)	0 (0%)	0 (0%)
{Respiratory system}						
lung			<50>	<50>	<50>	<50>
	bronchiolar-alveolar adenoma		5 (10%)	21 (42%)	20 (40%)	26 (52%)
	squamous cell carcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	adenosquamous carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	bronchiolar-alveolar carcinoma		3 (6%)	29 (58%)	26 (52%)	26 (52%)
{Hematopoietic system}						
bone marrow			<50>	<50>	<50>	<50>
	hemangioma		0 (0%)	2 (4%)	0 (0%)	0 (0%)
lymph node			<50>	<50>	<50>	<50>
	malignant lymphoma		3 (6%)	4 (8%)	4 (8%)	2 (4%)
spleen			<50>	<50>	<50>	<50>
	hemangioma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
	malignant lymphoma		5 (10%)	1 (2%)	0 (0%)	5 (10%)
	mastcytoma:malignant		0 (0%)	1 (2%)	0 (0%)	1 (2%)
	hemangiosarcoma		1 (2%)	1 (2%)	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. : 0418
 ANIMAL : MOUSE 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	25ppm 50	100ppm 50	400ppm 50
{Digestive system}						
tongue	squamous cell papilloma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
	squamous cell carcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
salivary gl	histiocytic sarcoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<49> 0 (0%)
stomach	squamous cell papilloma		<50> 1 (2%)	<50> 1 (2%)	<50> 2 (4%)	<50> 8 (16%)
liver	hemangioma		<50> 2 (4%)	<50> 1 (2%)	<50> 1 (2%)	<50> 2 (4%)
	hepatocellular adenoma		4 (8%)	10 (20%)	8 (16%)	14 (28%)
	histiocytic sarcoma		1 (2%)	3 (6%)	3 (6%)	3 (6%)
	hemangiosarcoma		0 (0%)	2 (4%)	1 (2%)	1 (2%)
	hepatocellular carcinoma		3 (6%)	5 (10%)	3 (6%)	3 (6%)
	hepatoblastoma		0 (0%)	0 (0%)	1 (2%)	1 (2%)
gall bladd	papillary adenoma		<50> 0 (0%)	<50> 1 (2%)	<50> 1 (2%)	<50> 0 (0%)
{Urinary system}						
kidney	renal cell adenoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<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

STUDY NO. : 0418
ANIMAL : MOUSE 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	25ppm 50	100ppm 50	400ppm 50
{Urinary system}						
urin bladd	histiocytic sarcoma		<50> 2 (4%)	<50> 1 (2%)	<49> 0 (0%)	<50> 0 (0%)
{Reproductive system}						
testis	histiocytic sarcoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
epididymis	histiocytic sarcoma		<50> 2 (4%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
prostate	histiocytic sarcoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
{Nervous system}						
periph nerv	histiocytic sarcoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
{Special sense organs/appendage}						
Harder gl	adenoma		<50> 4 (8%)	<50> 4 (8%)	<50> 4 (8%)	<50> 13 (26%)
{Musculoskeletal system}						
bone	osteoma		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 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 : SUMMARY,
MOUSE : FEMALE
(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name No. of animals on Study	Control 50	25ppm 49	100ppm 50	400ppm 50
{Integumentary system/appandage}						
skin/app			<50>	<49>	<50>	<50>
	squamous cell papilloma		1 (2%)	0 (0%)	0 (0%)	1 (2%)
subcutis			<50>	<49>	<50>	<50>
	hemangioma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	hemangiosarcoma		1 (2%)	1 (2%)	0 (0%)	0 (0%)
{Respiratory system}						
lung			<50>	<49>	<50>	<50>
	bronchiolar-alveolar adenoma		2 (4%)	19 (39%)	25 (50%)	30 (60%)
	bronchiolar-alveolar carcinoma		2 (4%)	12 (24%)	20 (40%)	13 (26%)
	hemangiosarcoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
{Hematopoietic system}						
bone marrow			<50>	<48>	<50>	<50>
	hemangioma		0 (0%)	1 (2%)	1 (2%)	1 (2%)
lymph node			<50>	<49>	<50>	<50>
	malignant lymphoma		7 (14%)	10 (20%)	7 (14%)	5 (10%)
spleen			<50>	<49>	<50>	<50>
	hemangioma		1 (2%)	1 (2%)	1 (2%)	0 (0%)
	malignant lymphoma		12 (24%)	13 (27%)	5 (10%)	8 (16%)
	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. : 0418
 ANIMAL : MOUSE 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	25ppm 49	100ppm 50	400ppm 50
{Hematopoietic system}						
spleen	hemangiosarcoma		<50> 0 (0%)	<49> 0 (0%)	<50> 1 (2%)	<50> 1 (2%)
{Digestive system}						
stomach	squamous cell papilloma		<50> 0 (0%)	<49> 0 (0%)	<50> 1 (2%)	<50> 8 (16%)
	squamous cell carcinoma		0 (0%)	1 (2%)	0 (0%)	1 (2%)
small intes	adenocarcinoma		<50> 0 (0%)	<49> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
large intes	leiomyosarcoma		<50> 0 (0%)	<49> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
liver	hemangioma		<50> 1 (2%)	<49> 0 (0%)	<50> 7 (14%)	<50> 2 (4%)
	hepatocellular adenoma		2 (4%)	3 (6%)	1 (2%)	2 (4%)
	histiocytic sarcoma		1 (2%)	0 (0%)	0 (0%)	1 (2%)
	hemangiosarcoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
	hepatocellular carcinoma		1 (2%)	1 (2%)	1 (2%)	4 (8%)
pancreas	islet cell adenoma		<50> 0 (0%)	<49> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
{Endocrine system}						
pituitary	adenoma		<50> 9 (18%)	<49> 7 (14%)	<50> 2 (4%)	<49> 2 (4%)

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

STUDY NO. : 0418
 ANIMAL : MOUSE 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	25ppm 49	100ppm 50	400ppm 50
{Endocrine system}						
adrenal	pheochromocytoma:malignant		<50> 0 (0%)	<49> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
{Reproductive system}						
ovary	cystadenoma		<50> 0 (0%)	<49> 2 (4%)	<50> 0 (0%)	<49> 2 (4%)
	hemangioma		0 (0%)	1 (2%)	1 (2%)	0 (0%)
uterus	hemangioma		<50> 0 (0%)	<49> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
	endometrial stromal polyp		2 (4%)	1 (2%)	1 (2%)	0 (0%)
	histiocytic sarcoma		5 (10%)	12 (24%)	14 (28%)	11 (22%)
mammary gl	adenocanthoma		<50> 1 (2%)	<49> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
	adenocarcinoma		1 (2%)	0 (0%)	1 (2%)	0 (0%)
{Nervous system}						
periph nerv	histiocytic sarcoma		<50> 0 (0%)	<49> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
{Special sense organs/appendage}						
Harder gl	adenoma		<50> 3 (6%)	<49> 0 (0%)	<50> 2 (4%)	<50> 14 (28%)

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

STUDY NO. : 0418
ANIMAL : MOUSE 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	25ppm 49	100ppm 50	400ppm 50
-------	----------	---------------------------------------	---------------	-------------	--------------	--------------

{Musculoskeletal system}

bone			<50>	<48>	<50>	<50>
	osteosarcoma		0 (0%)	0 (0%)	0 (0%)	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,

MOUSE : MALE

(2-YEAR STUDY)

STUDY No. : 0418
 ANIMAL : MOUSE Crj:BDF1
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	25ppm	100ppm	400ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	5/50(10.0)	21/50(42.0)	20/50(40.0)	26/50(52.0)
Adjusted rates(b)	12.20	54.29	54.05	66.67
Terminal rates(c)	4/38(10.5)	17/33(51.5)	20/37(54.1)	24/36(66.7)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0008**			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0013**			
Fisher Exact test(e)		P = 0.0002**	P = 0.0005**	P < 0.0001**
SITE : lung TUMOR : bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	29/50(58.0)	26/50(52.0)	26/50(52.0)
Adjusted rates(b)	6.52	61.11	58.97	55.56
Terminal rates(c)	2/38(5.3)	19/33(57.6)	21/37(56.8)	20/36(55.6)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2280			
Prevalence method(d)	P = 0.0145*			
Combined analysis(d)	P = 0.0119*			
Cochran-Armitage test(e)	P = 0.0153*			
Fisher Exact test(e)		P < 0.0001**	P < 0.0001**	P < 0.0001**
SITE : lung TUMOR : bronchiolar-alveolar adenoma, bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	8/50(16.0)	35/50(70.0)	34/50(68.0)	38/50(76.0)
Adjusted rates(b)	17.39	75.00	79.49	83.33
Terminal rates(c)	6/38(15.8)	24/33(72.7)	29/37(78.4)	30/36(83.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2280			
Prevalence method(d)	P = 0.0001**			
Combined analysis(d)	P = 0.0002**			
Cochran-Armitage test(e)	P = 0.0001**			
Fisher Exact test(e)		P < 0.0001**	P < 0.0001**	P < 0.0001**

STUDY No. : 0418
 ANIMAL : MOUSE Crj:BDF1
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	25ppm	100ppm	400ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma, bronchiolar-alveolar carcinoma, squamous cell carcinoma, adenosquamous carcinoma				
Tumor rate				
Overall rates(a)	8/50(16.0)	35/50(70.0)	35/50(70.0)	39/50(78.0)
Adjusted rates(b)	17.39	75.00	82.05	86.11
Terminal rates(c)	6/38(15.8)	24/33(72.7)	30/37(81.1)	31/36(86.1)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2280			
Prevalence method(d)	P < 0.0001**			
Combined analysis(d)	P = 0.0001**			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P < 0.0001**	P < 0.0001**	P < 0.0001**
SITE : lymph node TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	4/50(8.0)	4/50(8.0)	2/50(4.0)
Adjusted rates(b)	2.63	3.03	0.0	2.78
Terminal rates(c)	1/38(2.6)	1/33(3.0)	0/37(0.0)	1/36(2.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8058			
Prevalence method(d)	P = 0.4128			
Combined analysis(d)	P = 0.7563			
Cochran-Armitage test(e)	P = 0.4650			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	P = 0.5000
SITE : spleen TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	5/50(10.0)	1/50(2.0)	0/50(0.0)	5/50(10.0)
Adjusted rates(b)	7.89	0.0	0.0	5.56
Terminal rates(c)	3/38(7.9)	0/33(0.0)	0/37(0.0)	2/36(5.6)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1500			
Prevalence method(d)	P = 0.3255			
Combined analysis(d)	P = 0.1468			
Cochran-Armitage test(e)	P = 0.2583			
Fisher Exact test(e)		P = 0.1022	P = 0.0281*	P = 0.6297

STUDY No. : 0418
 ANIMAL : MOUSE Crj:BDF1
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	25ppm	100ppm	400ppm
SITE : stomach TUMOR : squamous cell papilloma				
Tumor rate				
Overall rates(a)	1/50(2.0)	1/50(2.0)	2/50(4.0)	8/50(16.0)
Adjusted rates(b)	2.63	3.03	4.55	21.62
Terminal rates(c)	1/38(2.6)	1/33(3.0)	1/37(2.7)	7/36(19.4)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0008**			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0006**			
Fisher Exact test(e)		P = 0.7525	P = 0.5000	P = 0.0154*
SITE : liver TUMOR : hepatocellular adenoma				
Tumor rate				
Overall rates(a)	4/50(8.0)	10/50(20.0)	8/50(16.0)	14/50(28.0)
Adjusted rates(b)	7.89	24.24	20.00	36.11
Terminal rates(c)	3/38(7.9)	8/33(24.2)	7/37(18.9)	13/36(36.1)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8650			
Prevalence method(d)	P = 0.0067**			
Combined analysis(d)	P = 0.0173*			
Cochran-Armitage test(e)	P = 0.0263*			
Fisher Exact test(e)		P = 0.0739	P = 0.1783	P = 0.0087**
SITE : liver TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	3/50(6.0)	3/50(6.0)	3/50(6.0)
Adjusted rates(b)	0.0	0.0	0.0	2.78
Terminal rates(c)	0/38(0.0)	0/33(0.0)	0/37(0.0)	1/36(2.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5062			
Prevalence method(d)	P = 0.1563			
Combined analysis(d)	P = 0.3131			
Cochran-Armitage test(e)	P = 0.5933			
Fisher Exact test(e)		P = 0.3087	P = 0.3087	P = 0.3087

STUDY No. : 0418
ANIMAL : MOUSE Crj:BDF1
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	25ppm	100ppm	400ppm
SITE : liver TUMOR : hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	5/50(10.0)	3/50(6.0)	3/50(6.0)
Adjusted rates(b)	5.26	12.12	5.41	8.33
Terminal rates(c)	2/38(5.3)	4/33(12.1)	2/37(5.4)	3/36(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8284			
Prevalence method(d)	P = 0.4403			
Combined analysis(d)	P = 0.6331			
Cochran-Armitage test(e)	P = 0.7119			
Fisher Exact test(e)		P = 0.3575	P = 0.6611	P = 0.6611
SITE : liver TUMOR : hemangioma, hemangiosarcoma				
Tumor rate				
Overall rates(a)	2/50(4.0)	3/50(6.0)	2/50(4.0)	3/50(6.0)
Adjusted rates(b)	5.26	3.03	5.13	8.33
Terminal rates(c)	2/38(5.3)	1/33(3.0)	1/37(2.7)	3/36(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8107			
Prevalence method(d)	P = 0.1911			
Combined analysis(d)	P = 0.3531			
Cochran-Armitage test(e)	P = 0.7409			
Fisher Exact test(e)		P = 0.5000	P = 0.6913	P = 0.5000
SITE : liver TUMOR : hepatocellular adenoma, hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	7/50(14.0)	15/50(30.0)	11/50(22.0)	15/50(30.0)
Adjusted rates(b)	13.16	36.36	25.00	38.89
Terminal rates(c)	5/38(13.2)	12/33(36.4)	9/37(24.3)	14/36(38.9)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9443			
Prevalence method(d)	P = 0.0385*			
Combined analysis(d)	P = 0.1306			
Cochran-Armitage test(e)	P = 0.2225			
Fisher Exact test(e)		P = 0.0448*	P = 0.2178	P = 0.0448*

STUDY No. : 0418
ANIMAL : MOUSE Crj:BDF1
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 5

Group Name	Control	25ppm	100ppm	400ppm
SITE : liver				
TUMOR : hepatocellular adenoma, hepatocellular carcinoma, hepatoblastoma				
Tumor rate				
Overall rates(a)	7/50(14.0)	15/50(30.0)	12/50(24.0)	16/50(32.0)
Adjusted rates(b)	13.16	36.36	27.50	41.67
Terminal rates(c)	5/38(13.2)	12/33(36.4)	10/37(27.0)	15/36(41.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9443			
Prevalence method(d)	P = 0.0229*			
Combined analysis(d)	P = 0.0893			
Cochran-Armitage test(e)	P = 0.1481			
Fisher Exact test(e)		P = 0.0448*	P = 0.1540	P = 0.0279*
SITE : Harderian gland				
TUMOR : adenoma				
Tumor rate				
Overall rates(a)	4/50(8.0)	4/50(8.0)	4/50(8.0)	13/50(26.0)
Adjusted rates(b)	10.53	10.26	10.81	31.58
Terminal rates(c)	4/38(10.5)	2/33(6.1)	4/37(10.8)	11/36(30.6)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0012**			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0012**			
Fisher Exact test(e)		P = 0.6425	P = 0.6425	P = 0.0155*

(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. : 0418
ANIMAL : MOUSE Crj:BDF1
SEX : MALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	25ppm	100ppm	400ppm
SITE : ALL SITE TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	3/50(6.0)	4/50(8.0)	1/50(2.0)	2/50(4.0)
Adjusted rates(b)	7.89	6.38	2.70	5.56
Terminal rates(c)	3/38(7.9)	0/33(0.0)	1/37(2.7)	2/36(5.6)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.4955			
Prevalence method(d)	P = 0.6668			
Combined analysis(d)	P = 0.7391			
Cochran-Armitage test(e)	P = 0.5249			
Fisher Exact test(e)		P = 0.5000	P = 0.3087	P = 0.5000
SITE : ALL SITE TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	6/50(12.0)	4/50(8.0)	6/50(12.0)	3/50(6.0)
Adjusted rates(b)	10.26	3.03	5.41	2.78
Terminal rates(c)	3/38(7.9)	1/33(3.0)	2/37(5.4)	1/36(2.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.6234			
Prevalence method(d)	P = 0.8258			
Combined analysis(d)	P = 0.8108			
Cochran-Armitage test(e)	P = 0.3692			
Fisher Exact test(e)		P = 0.3703	P = 0.6202	P = 0.2435
SITE : ALL SITE TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	8/50(16.0)	5/50(10.0)	4/50(8.0)	7/50(14.0)
Adjusted rates(b)	10.53	3.03	0.0	8.33
Terminal rates(c)	4/38(10.5)	1/33(3.0)	0/37(0.0)	3/36(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5004			
Prevalence method(d)	P = 0.3332			
Combined analysis(d)	P = 0.4142			
Cochran-Armitage test(e)	P = 0.8113			
Fisher Exact test(e)		P = 0.2768	P = 0.1783	P = 0.5000

STUDY No. : 0418
ANIMAL : MOUSE Crj:BDF1
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	25ppm	100ppm	400ppm
SITE : ALL SITE				
TUMOR : hemangiosarcoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	3/50(6.0)	2/50(4.0)	1/50(2.0)
Adjusted rates(b)	2.50	4.26	2.56	2.78
Terminal rates(c)	0/38(0.0)	1/33(3.0)	0/37(0.0)	1/36(2.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.6546			
Prevalence method(d)	P = 0.5968			
Combined analysis(d)	P = 0.7097			
Cochran-Armitage test(e)	P = 0.5565			
Fisher Exact test(e)		P = 0.3087	P = 0.5000	P = 0.7525

(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,

MOUSE : FEMALE

(2-YEAR STUDY)

STUDY No. : 0418
ANIMAL : MOUSE Crj:BDF1
SEX : FEMALE

NEOPLASTIC LESIONS--INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 6

Group Name	Control	25ppm	100ppm	400ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	2/50(4.0)	19/49(38.8)	25/50(50.0)	30/50(60.0)
Adjusted rates(b)	4.44	70.83	59.38	67.57
Terminal rates(c)	0/30(0.0)	17/24(70.8)	19/32(59.4)	22/33(66.7)
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 < 0.0001**	P < 0.0001**	P < 0.0001**
SITE : lung TUMOR : bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	2/50(4.0)	12/49(24.5)	20/50(40.0)	13/50(26.0)
Adjusted rates(b)	5.00	42.31	50.00	32.35
Terminal rates(c)	1/30(3.3)	9/24(37.5)	16/32(50.0)	10/33(30.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5971			
Prevalence method(d)	P = 0.1279			
Combined analysis(d)	P = 0.1640			
Cochran-Armitage test(e)	P = 0.1722			
Fisher Exact test(e)		P = 0.0033**	P < 0.0001**	P = 0.0019**
SITE : lung TUMOR : bronchiolar-alveolar adenoma, bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	4/50(8.0)	23/49(46.9)	33/50(66.0)	38/50(76.0)
Adjusted rates(b)	8.89	76.92	78.13	83.78
Terminal rates(c)	1/30(3.3)	18/24(75.0)	25/32(78.1)	27/33(81.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5971			
Prevalence method(d)	P < 0.0001**			
Combined analysis(d)	P < 0.0001**			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P < 0.0001**	P < 0.0001**	P < 0.0001**

STUDY No. : 0418
ANIMAL : MOUSE Crj:BDF1
SEX : FEMALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 7

Group Name	Control	25ppm	100ppm	400ppm
SITE : lymph node TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	7/50(14.0)	10/49(20.4)	7/50(14.0)	5/50(10.0)
Adjusted rates(b)	5.41	20.83	12.50	9.09
Terminal rates(c)	1/30(3.3)	5/24(20.8)	4/32(12.5)	3/33(9.1)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9107			
Prevalence method(d)	P = 0.6594			
Combined analysis(d)	P = 0.8999			
Cochran-Armitage test(e)	P = 0.2727			
Fisher Exact test(e)		P = 0.2817	P = 0.6129	P = 0.3798
SITE : spleen TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	12/50(24.0)	13/49(26.5)	5/50(10.0)	8/50(16.0)
Adjusted rates(b)	26.67	16.67	9.38	7.32
Terminal rates(c)	8/30(26.7)	4/24(16.7)	3/32(9.4)	2/33(6.1)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5729			
Prevalence method(d)	P = 0.9477			
Combined analysis(d)	P = 0.8954			
Cochran-Armitage test(e)	P = 0.2670			
Fisher Exact test(e)		P = 0.4766	P = 0.0542	P = 0.2270
SITE : stomach TUMOR : squamous cell papilloma				
Tumor rate				
Overall rates(a)	0/50(0.0)	0/49(0.0)	1/50(2.0)	8/50(16.0)
Adjusted rates(b)	0.0	0.0	3.13	16.67
Terminal rates(c)	0/30(0.0)	0/24(0.0)	1/32(3.1)	4/33(12.1)
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 = 0.5000	P = 0.0029**

STUDY No. : 0418
ANIMAL : MOUSE Crj:BDF1
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 8

Group Name	Control	25ppm	100ppm	400ppm
SITE : stomach TUMOR : squamous cell papilloma, squamous cell carcinoma				
Tumor rate				
Overall rates(a)	0/50(0.0)	1/49(2.0)	1/50(2.0)	9/50(18.0)
Adjusted rates(b)	0.0	4.17	3.13	18.75
Terminal rates(c)	0/30(0.0)	1/24(4.2)	1/32(3.1)	5/33(15.2)
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 = 0.4949	P = 0.5000	P = 0.0013**
SITE : liver TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	1/50(2.0)	0/49(0.0)	7/50(14.0)	2/50(4.0)
Adjusted rates(b)	3.33	0.0	17.95	6.06
Terminal rates(c)	1/30(3.3)	0/24(0.0)	5/32(15.6)	2/33(6.1)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.3655			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.7113			
Fisher Exact test(e)		P = 0.5051	P = 0.0297*	P = 0.5000
SITE : liver TUMOR : hepatocellular adenoma				
Tumor rate				
Overall rates(a)	2/50(4.0)	3/49(6.1)	1/50(2.0)	2/50(4.0)
Adjusted rates(b)	5.41	8.57	3.13	6.06
Terminal rates(c)	1/30(3.3)	1/24(4.2)	1/32(3.1)	2/33(6.1)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.5937			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.8578			
Fisher Exact test(e)		P = 0.4903	P = 0.5000	P = 0.6913

STUDY No. : 0418
 ANIMAL : MOUSE Crj:BDF1
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 9

Group Name	Control	25ppm	100ppm	400ppm
SITE : liver TUMOR : hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	1/49(2.0)	1/50(2.0)	4/50(8.0)
Adjusted rates(b)	3.33	4.17	3.13	12.12
Terminal rates(c)	1/30(3.3)	1/24(4.2)	1/32(3.1)	4/33(12.1)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0520			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0531			
Fisher Exact test(e)		P = 0.7475	P = 0.7525	P = 0.1811
SITE : liver TUMOR : hemangioma, hemangiosarcoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	1/49(2.0)	7/50(14.0)	2/50(4.0)
Adjusted rates(b)	3.33	0.0	17.95	6.06
Terminal rates(c)	1/30(3.3)	0/24(0.0)	5/32(15.6)	2/33(6.1)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.4940			
Prevalence method(d)	P = 0.3655			
Combined analysis(d)	P = 0.4502			
Cochran-Armitage test(e)	P = 0.8836			
Fisher Exact test(e)		P = 0.7475	P = 0.0297*	P = 0.5000
SITE : liver TUMOR : hepatocellular adenoma, hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	4/49(8.2)	2/50(4.0)	6/50(12.0)
Adjusted rates(b)	8.11	11.43	6.25	18.18
Terminal rates(c)	2/30(6.7)	2/24(8.3)	2/32(6.3)	6/33(18.2)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.1464			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.2239			
Fisher Exact test(e)		P = 0.4886	P = 0.5000	P = 0.2435

STUDY No. : 0418
 ANIMAL : MOUSE Crj:BDF1
 SEX : FEMALE

NEOPLASTIC LESIONS--INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 10

Group Name	Control	25ppm	100ppm	400ppm
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	9/50(18.0)	7/49(14.3)	2/50(4.0)	2/49(4.1)
Adjusted rates(b)	23.33	14.29	6.06	6.25
Terminal rates(c)	7/30(23.3)	3/24(12.5)	1/32(3.1)	2/32(6.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9726			
Prevalence method(d)	P = 0.9482			
Combined analysis(d)	P = 0.9911			
Cochran-Armitage test(e)	P = 0.0334*			
Fisher Exact test(e)		P = 0.4101	P = 0.0256*	P = 0.0277*
SITE : uterus TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	5/50(10.0)	12/49(24.5)	14/50(28.0)	11/50(22.0)
Adjusted rates(b)	2.22	19.35	21.88	12.12
Terminal rates(c)	0/30(0.0)	3/24(12.5)	7/32(21.9)	4/33(12.1)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3092			
Prevalence method(d)	P = 0.4598			
Combined analysis(d)	P = 0.3330			
Cochran-Armitage test(e)	P = 0.5387			
Fisher Exact test(e)		P = 0.0492*	P = 0.0198*	P = 0.0857

(HPT360A)

BAIS4

STUDY No. : 0418
ANIMAL : MOUSE Crj:BDF1
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 11

Group Name	Control	25ppm	100ppm	400ppm
SITE : Harderian gland				
TUMOR : adenoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	0/49(0.0)	2/50(4.0)	14/50(28.0)
Adjusted rates(b)	6.82	0.0	6.06	30.00
Terminal rates(c)	2/30(6.7)	0/24(0.0)	1/32(3.1)	9/33(27.3)
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 = 0.1250	P = 0.5000	P = 0.0032**

(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. : 0418
ANIMAL : MOUSE Crj:BDF1
SEX : FEMALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	25ppm	100ppm	400ppm
SITE : ALL SITE TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	1/50(2.0)	4/49(8.2)	9/50(18.0)	4/50(8.0)
Adjusted rates(b)	3.33	11.11	20.51	12.12
Terminal rates(c)	1/30(3.3)	2/24(8.3)	6/32(18.8)	4/33(12.1)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.3750			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.7243			
Fisher Exact test(e)		P = 0.1748	P = 0.0078**	P = 0.1811
SITE : ALL SITE TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	6/50(12.0)	12/49(24.5)	15/50(30.0)	12/50(24.0)
Adjusted rates(b)	2.27	19.35	21.88	15.15
Terminal rates(c)	0/30(0.0)	3/24(12.5)	7/32(21.9)	5/33(15.2)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3923			
Prevalence method(d)	P = 0.3236			
Combined analysis(d)	P = 0.3152			
Cochran-Armitage test(e)	P = 0.4773			
Fisher Exact test(e)		P = 0.0880	P = 0.0239*	P = 0.0961

(HPT360A)

BAIS4

STUDY No. : 0418
ANIMAL : MOUSE Crj:BDF1
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	25ppm	100ppm	400ppm
SITE : ALL SITE				
TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	19/50(38.0)	23/49(46.9)	12/50(24.0)	13/50(26.0)
Adjusted rates(b)	30.00	37.50	21.88	15.38
Terminal rates(c)	9/30(30.0)	9/24(37.5)	7/32(21.9)	5/33(15.2)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8514			
Prevalence method(d)	P = 0.9489			
Combined analysis(d)	P = 0.9704			
Cochran-Armitage test(e)	P = 0.0815			
Fisher Exact test(e)		P = 0.2432	P = 0.0971	P = 0.1419

(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.

APPENDIX P 1

HISTOPATHOLOGICAL FINDINGS :
METASTASIS OF TUMOR : SYMMARY,
MOUSE : MALE :
ALL ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study	Control 50	25ppm 50	100ppm 50	400ppm 50
{Integumentary system/appandage}						
subcutis	metastasis:liver tumor		<50> 0	<50> 1	<50> 0	<50> 1
{Respiratory system}						
nasal cavit	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
	metastasis:liver tumor		1	0	0	0
nasopharynx	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
lung	leukemic cell infiltration		<50> 2	<50> 1	<50> 1	<50> 2
	metastasis:liver tumor		1	2	2	1
{Hematopoietic system}						
bone marrow	leukemic cell infiltration		<50> 2	<50> 2	<50> 0	<50> 3
	metastasis:liver tumor		0	0	1	1
lymph node	leukemic cell infiltration		<50> 3	<50> 2	<50> 0	<50> 4
	metastasis:lung tumor		0	0	0	1
spleen	leukemic cell infiltration		<50> 2	<50> 1	<50> 2	<50> 1
{Circulatory system}						
heart	leukemic cell infiltration		<50> 1	<50> 0	<50> 0	<50> 0

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

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study	Control 50	25ppm 50	100ppm 50	400ppm 50
{Circulatory system}						
heart	metastasis:lung tumor		<50> 0	<50> 0	<50> 0	<50> 1
{Digestive system}						
oral cavity	metastasis:liver tumor		<50> 1	<50> 0	<50> 0	<50> 0
salivary gl	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
	metastasis:liver tumor		0	0	1	0
liver	leukemic cell infiltration		<50> 2	<50> 1	<50> 1	<50> 4
pancreas	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 2
{Urinary system}						
kidney	leukemic cell infiltration		<50> 0	<50> 1	<50> 1	<50> 2
	metastasis:liver tumor		0	2	0	0
	metastasis:lung tumor		0	0	0	1
	metastasis:salivary gland tumor		1	0	0	0
{Endocrine system}						
pituitary	metastasis:peripheral nerve tumor		<50> 0	<50> 0	<50> 1	<50> 0

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

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study	Control 50	25ppm 50	100ppm 50	400ppm 50
{Reproductive system}						
testis	metastasis:liver tumor		<50> 0	<50> 1	<50> 0	<50> 0
epididymis	metastasis:liver tumor		<50> 0	<50> 1	<50> 0	<50> 0
	metastasis:salivary gland tumor		1	0	0	0
prostate	metastasis:liver tumor		<50> 0	<50> 0	<50> 0	<50> 1
{Nervous system}						
brain	metastasis:peripheral nerve tumor		<50> 0	<50> 0	<50> 1	<50> 0
{Special sense organs/appendage}						
Harder gl	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
{Body cavities}						
pleura	metastasis:lung tumor		<50> 0	<50> 0	<50> 0	<50> 1
mediastinum	metastasis:lung tumor		<50> 0	<50> 0	<50> 0	<50> 2
peritoneum	metastasis:lung tumor		<50> 0	<50> 0	<50> 0	<50> 1
retroperit	metastasis:liver tumor		<50> 0	<50> 1	<50> 0	<50> 0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

		Group Name	Control	25ppm	100ppm	400ppm
Organ	Findings	No. of Animals on Study	50	50	50	50
{Body cavities}						
adipose	metastasis:liver tumor		<50> 0	<50> 0	<50> 0	<50> 1
< 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 : SYMMARY,
MOUSE : MALE :
DEAD AND MORIBUND ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study	Control 12	25ppm 17	100ppm 13	400ppm 14
{Integumentary system/appandage}						
subcutis	metastasis:liver tumor		<12> 0	<17> 1	<13> 0	<14> 0
{Respiratory system}						
nasal cavit	leukemic cell infiltration		<12> 0	<17> 0	<13> 0	<14> 1
	metastasis:liver tumor		1	0	0	0
nasopharynx	leukemic cell infiltration		<12> 0	<17> 0	<13> 0	<14> 1
lung	leukemic cell infiltration		<12> 1	<17> 1	<13> 1	<14> 1
	metastasis:liver tumor		1	2	2	0
{Hematopoietic system}						
bone marrow	leukemic cell infiltration		<12> 2	<17> 2	<13> 0	<14> 2
	metastasis:liver tumor		0	0	1	0
lymph node	leukemic cell infiltration		<12> 1	<17> 2	<13> 0	<14> 2
	metastasis:lung tumor		0	0	0	1
spleen	leukemic cell infiltration		<12> 2	<17> 1	<13> 2	<14> 1
{Circulatory system}						
heart	leukemic cell infiltration		<12> 1	<17> 0	<13> 0	<14> 0

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

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

Group Name		Control	25ppm	100ppm	400ppm	
Organ	Findings	No. of Animals on Study	12	17	13	14
{Circulatory system}						
heart		<12>	<17>	<13>	<14>	
	metastasis:lung tumor	0	0	0	1	
{Digestive system}						
oral cavity		<12>	<17>	<13>	<14>	
	metastasis:liver tumor	1	0	0	0	
salivary gl		<12>	<17>	<13>	<14>	
	metastasis:liver tumor	0	0	1	0	
liver		<12>	<17>	<13>	<14>	
	leukemic cell infiltration	2	1	1	2	
pancreas		<12>	<17>	<13>	<14>	
	leukemic cell infiltration	0	0	0	1	
{Urinary system}						
kidney		<12>	<17>	<13>	<14>	
	leukemic cell infiltration	0	1	1	1	
	metastasis:liver tumor	0	2	0	0	
	metastasis:lung tumor	0	0	0	1	
{Endocrine system}						
pituitary		<12>	<17>	<13>	<14>	
	metastasis:peripheral nerve tumor	0	0	1	0	
{Reproductive system}						
testis		<12>	<17>	<13>	<14>	
	metastasis:liver tumor	0	1	0	0	

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

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study	Control 12	25ppm 17	100ppm 13	400ppm 14
{Reproductive system}						
epididymis	metastasis:liver tumor		<12> 0	<17> 1	<13> 0	<14> 0
prostate	metastasis:liver tumor		<12> 0	<17> 0	<13> 0	<14> 1
{Nervous system}						
brain	metastasis:peripheral nerve tumor		<12> 0	<17> 0	<13> 1	<14> 0
{Special sense organs/appendage}						
Harder gl	leukemic cell infiltration		<12> 0	<17> 0	<13> 0	<14> 1
{Body cavities}						
pleura	metastasis:lung tumor		<12> 0	<17> 0	<13> 0	<14> 1
mediastinum	metastasis:lung tumor		<12> 0	<17> 0	<13> 0	<14> 2
peritoneum	metastasis:lung tumor		<12> 0	<17> 0	<13> 0	<14> 1
retroperit	metastasis:liver tumor		<12> 0	<17> 1	<13> 0	<14> 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 : SYMMARY,
MOUSE : MALE :
SACRIFICED ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

		Group Name No. of Animals on Study	Control 38	25ppm 33	100ppm 37	400ppm 36
Organ	Findings					
{Integumentary system/appandage}						
subcutis	metastasis:liver tumor		<38> 0	<33> 0	<37> 0	<36> 1
{Respiratory system}						
lung	leukemic cell infiltration		<38> 1	<33> 0	<37> 0	<36> 1
	metastasis:liver tumor		0	0	0	1
{Hematopoietic system}						
bone marrow	leukemic cell infiltration		<38> 0	<33> 0	<37> 0	<36> 1
	metastasis:liver tumor		0	0	0	1
lymph node	leukemic cell infiltration		<38> 2	<33> 0	<37> 0	<36> 2
{Digestive system}						
salivary gl	leukemic cell infiltration		<38> 0	<33> 0	<37> 0	<36> 1
liver	leukemic cell infiltration		<38> 0	<33> 0	<37> 0	<36> 2
pancreas	leukemic cell infiltration		<38> 0	<33> 0	<37> 0	<36> 1
{Urinary system}						
kidney	leukemic cell infiltration		<38> 0	<33> 0	<37> 0	<36> 1

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

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

		Group Name	Control	25ppm	100ppm	400ppm
		No. of Animals on Study	38	33	37	36
Organ	Findings					
{Urinary system}						
kidney			<38>	<33>	<37>	<36>
	metastasis:salivary gland tumor		1	0	0	0
{Reproductive system}						
epididymis			<38>	<33>	<37>	<36>
	metastasis:salivary gland tumor		1	0	0	0
{Body cavities}						
adipose			<38>	<33>	<37>	<36>
	metastasis:liver tumor		0	0	0	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 : SYMMARY,
MOUSE : FEMALE :
ALL ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name No. of Animals on Study	Control 50	25ppm 49	100ppm 50	400ppm 50
{Integumentary system/appandage}						
skin/app	leukemic cell infiltration		<50> 1	<49> 1	<50> 2	<50> 0
subcutis	leukemic cell infiltration		<50> 1	<49> 1	<50> 1	<50> 0
{Respiratory system}						
nasal cavit	metastasis:peripheral nerve tumor		<50> 0	<49> 0	<50> 1	<50> 0
lung	leukemic cell infiltration		<50> 11	<49> 16	<50> 4	<50> 7
	metastasis:liver tumor		1	1	0	2
	metastasis:uterus tumor		0	1	3	1
	metastasis:bone tumor		0	0	0	1
{Hematopoietic system}						
bone marrow	leukemic cell infiltration		<50> 2	<49> 3	<50> 1	<50> 1
	metastasis:liver tumor		1	0	0	0
	metastasis:uterus tumor		0	1	1	2
	metastasis:spleen tumor		0	0	0	1
lymph node	leukemic cell infiltration		<50> 4	<49> 8	<50> 4	<50> 5
< a > a : Number of animals examined at the site b b : Number of animals with lesion						

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study	Control 50	25ppm 49	100ppm 50	400ppm 50
{Hematopoietic system}						
lymph node	metastasis:liver tumor		<50> 1	<49> 0	<50> 0	<50> 0
	metastasis:uterus tumor		0	3	0	0
spleen	leukemic cell infiltration		<50> 2	<49> 2	<50> 3	<50> 3
	metastasis:liver tumor		1	0	0	0
{Circulatory system}						
heart	leukemic cell infiltration		<50> 0	<49> 0	<50> 1	<50> 0
	metastasis:uterus tumor		0	0	1	0
{Digestive system}						
tongue	leukemic cell infiltration		<50> 1	<49> 1	<50> 0	<50> 0
	leukemic cell infiltration		<50> 3	<49> 0	<50> 0	<50> 2
stomach	leukemic cell infiltration		<50> 2	<49> 3	<50> 1	<50> 1
	metastasis:uterus tumor		0	0	0	1
small intes	leukemic cell infiltration		<50> 1	<49> 2	<50> 0	<50> 0
	leukemic cell infiltration		<50> 5	<49> 9	<50> 3	<50> 8

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

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

		Group Name No. of Animals on Study	Control 50	25ppm 49	100ppm 50	400ppm 50
Organ	Findings					
{Digestive system}						
liver		<50>	<49>	<50>	<50>	
	metastasis:uterus tumor	4	7	10	9	
	metastasis:spleen tumor	0	1	0	1	
pancreas		<50>	<49>	<50>	<50>	
	leukemic cell infiltration	1	0	0	1	
	metastasis:uterus tumor	0	1	1	0	
{Urinary system}						
kidney		<50>	<49>	<50>	<50>	
	leukemic cell infiltration	8	6	3	2	
	metastasis:uterus tumor	0	0	2	1	
	metastasis:spleen tumor	0	1	0	0	
urin bladd		<50>	<49>	<50>	<50>	
	leukemic cell infiltration	1	2	0	0	
{Reproductive system}						
ovary		<50>	<49>	<50>	<50>	
	leukemic cell infiltration	2	5	0	3	
	metastasis:uterus tumor	2	5	9	6	
uterus		<50>	<49>	<50>	<50>	
	leukemic cell infiltration	1	4	0	2	
{Nervous system}						
brain		<50>	<49>	<50>	<50>	
	leukemic cell infiltration	0	1	0	1	
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 8

Organ	Findings	Group Name No. of Animals on Study	Control 50	25ppm 49	100ppm 50	400ppm 50
{Nervous system}						
spinal cord	leukemic cell infiltration		<50> 0	<49> 1	<50> 0	<50> 0
{Special sense organs/appendage}						
eye	leukemic cell infiltration		<50> 0	<49> 2	<50> 0	<50> 0
Harder gl	leukemic cell infiltration		<50> 0	<49> 2	<50> 0	<50> 3
{Musculoskeletal system}						
muscle	leukemic cell infiltration		<50> 1	<49> 0	<50> 0	<50> 0
{Body cavities}						
peritoneum	leukemic cell infiltration		<50> 0	<49> 1	<50> 0	<50> 1
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

(JPT150)

BAIS4

APPENDIX P 5

HISTOPATHOLOGICAL FINDINGS :
METASTASIS OF TUMOR : SYMMARY,
MOUSE : FEMALE :
DEAD AND MORIBUND ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 4

Group Name		Control	25ppm	100ppm	400ppm
No. of Animals on Study		20	25	18	17
Organ	Findings				
{Integumentary system/appandage}					
skin/app	leukemic cell infiltration	<20> 1	<25> 1	<18> 1	<17> 0
subcutis	leukemic cell infiltration	<20> 1	<25> 1	<18> 1	<17> 0
{Respiratory system}					
nasal cavit	metastasis:peripheral nerve tumor	<20> 0	<25> 0	<18> 1	<17> 0
lung	leukemic cell infiltration	<20> 6	<25> 11	<18> 2	<17> 5
	metastasis:liver tumor	1	0	0	0
	metastasis:uterus tumor	0	1	2	1
{Hematopoietic system}					
bone marrow	leukemic cell infiltration	<20> 1	<25> 3	<18> 1	<17> 1
	metastasis:liver tumor	1	0	0	0
	metastasis:uterus tumor	0	1	0	2
	metastasis:spleen tumor	0	0	0	1
lymph node	leukemic cell infiltration	<20> 3	<25> 5	<18> 1	<17> 4
	metastasis:liver tumor	1	0	0	0

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

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 5

		Group Name	Control	25ppm	100ppm	400ppm
		No. of Animals on Study	20	25	18	17
Organ	Findings					
{Hematopoietic system}						
lymph node	metastasis:uterus tumor		<20> 0	<25> 3	<18> 0	<17> 0
spleen	leukemic cell infiltration		<20> 2	<25> 2	<18> 2	<17> 2
	metastasis:liver tumor		1	0	0	0
{Circulatory system}						
heart	metastasis:uterus tumor		<20> 0	<25> 0	<18> 1	<17> 0
{Digestive system}						
tongue	leukemic cell infiltration		<20> 1	<25> 1	<18> 0	<17> 0
salivary gl	leukemic cell infiltration		<20> 3	<25> 0	<18> 0	<17> 1
stomach	leukemic cell infiltration		<20> 2	<25> 1	<18> 0	<17> 1
small intes	leukemic cell infiltration		<20> 1	<25> 2	<18> 0	<17> 0
liver	leukemic cell infiltration		<20> 4	<25> 7	<18> 2	<17> 5
	metastasis:uterus tumor		4	7	7	7
	metastasis:spleen tumor		0	1	0	1
< a > a : Number of animals examined at the site						
b b : Number of animals with lesion						

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 6

Group Name No. of Animals on Study		Control 20	25ppm 25	100ppm 18	400ppm 17
Organ	Findings				
{Digestive system}					
pancreas	leukemic cell infiltration	<20> 1	<25> 0	<18> 0	<17> 1
	metastasis:uterus tumor	0	1	1	0
{Urinary system}					
kidney	leukemic cell infiltration	<20> 5	<25> 4	<18> 1	<17> 1
	metastasis:uterus tumor	0	0	1	1
	metastasis:spleen tumor	0	1	0	0
urin bladd	leukemic cell infiltration	<20> 1	<25> 2	<18> 0	<17> 0
{Reproductive system}					
ovary	leukemic cell infiltration	<20> 2	<25> 5	<18> 0	<17> 3
	metastasis:uterus tumor	2	5	6	5
uterus	leukemic cell infiltration	<20> 1	<25> 3	<18> 0	<17> 2
{Nervous system}					
brain	leukemic cell infiltration	<20> 0	<25> 1	<18> 0	<17> 1
spinal cord	leukemic cell infiltration	<20> 0	<25> 1	<18> 0	<17> 0

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

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 7

Group Name		Control	25ppm	100ppm	400ppm
No. of Animals on Study		20	25	18	17
Organ	Findings				
{Special sense organs/appendage}					
eye		<20>	<25>	<18>	<17>
	leukemic cell infiltration	0	2	0	0
Harder gl		<20>	<25>	<18>	<17>
	leukemic cell infiltration	0	2	0	2
{Musculoskeletal system}					
muscle		<20>	<25>	<18>	<17>
	leukemic cell infiltration	1	0	0	0
{Body cavities}					
peritoneum		<20>	<25>	<18>	<17>
	leukemic cell infiltration	0	1	0	1
<hr/>					
< a >		a : Number of animals examined at the site			
b		b : Number of animals with lesion			

(JPT150)

BAIS4

APPENDIX P 6

HISTOPATHOLOGICAL FINDINGS :
METASTASIS OF TUMOR : SYMMARY,
MOUSE : FEMALE :
SACRIFICED ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0418
 ANIMAL : MOUSE Crj:BDF1
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study	Control 30	25ppm 24	100ppm 32	400ppm 33
{Integumentary system/appandage}						
skin/app	leukemic cell infiltration		<30> 0	<24> 0	<32> 1	<33> 0
{Respiratory system}						
lung	leukemic cell infiltration		<30> 5	<24> 5	<32> 2	<33> 2
	metastasis:liver tumor		0	1	0	2
	metastasis:uterus tumor		0	0	1	0
	metastasis:bone tumor		0	0	0	1
{Hematopoietic system}						
bone marrow	leukemic cell infiltration		<30> 1	<24> 0	<32> 0	<33> 0
	metastasis:uterus tumor		0	0	1	0
lymph node	leukemic cell infiltration		<30> 1	<24> 3	<32> 3	<33> 1
spleen	leukemic cell infiltration		<30> 0	<24> 0	<32> 1	<33> 1
{Circulatory system}						
heart	leukemic cell infiltration		<30> 0	<24> 0	<32> 1	<33> 0
{Digestive system}						
salivary gl	leukemic cell infiltration		<30> 0	<24> 0	<32> 0	<33> 1

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

STUDY NO. : 0418
ANIMAL : MOUSE Crj:BDF1
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 4

		Group Name No. of Animals on Study	Control 30	25ppm 24	100ppm 32	400ppm 33
Organ	Findings					
{Digestive system}						
stomach	leukemic cell infiltration		<30> 0	<24> 2	<32> 1	<33> 0
	metastasis:uterus tumor		0	0	0	1
liver	leukemic cell infiltration		<30> 1	<24> 2	<32> 1	<33> 3
	metastasis:uterus tumor		0	0	3	2
{Urinary system}						
kidney	leukemic cell infiltration		<30> 3	<24> 2	<32> 2	<33> 1
	metastasis:uterus tumor		0	0	1	0
{Reproductive system}						
ovary	metastasis:uterus tumor		<30> 0	<24> 0	<32> 3	<33> 1
uterus	leukemic cell infiltration		<30> 0	<24> 1	<32> 0	<33> 0
{Special sense organs/appendage}						
Harder gl	leukemic cell infiltration		<30> 0	<24> 0	<32> 0	<33> 1

< 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
1-BROMO-3-CHLOROPROPANE

METHODS, UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY
IN THE 2-YEAR INHALATION STUDY OF 1-BROMO-3-CHLOROPROPANE

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
Glutamic oxaloacetic transaminase (GOT)	JSCC method ³⁾	IU/L	0
Glutamic pyruvic transaminase (GPT)	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)	L· γ -Glutamyl-p-nitroanilide method ³⁾	IU/L	0
Creatine phosphokinase (CPK)	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.)