1-クロロ-2-ニトロベンゼンのラットを用いた経口投与によるがん原性試験(混餌試験)報告書

試験番号:0461

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APPENDIX A 1

IDENTITY OF 1-CHLORO-2-NITROBENZENE IN THE 2-YEAR FEED STUDY

IDENTITY OF 1-CHLORO-2-NITROBENZENE IN THE 2-YEAR FEED STUDY

Test Substance

: 1-Chloro-2-nitrobenzene (Wako Pure Chemical Industries, Ltd.)

Lot No.

: LDE9795

1. Spectral Data

Mass Spectrometry

Instrument

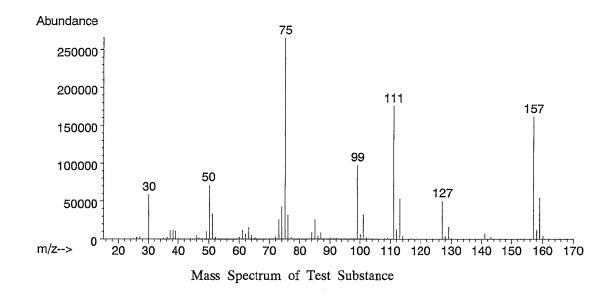
: Hewlett Packard 5989B Mass Spectrometer

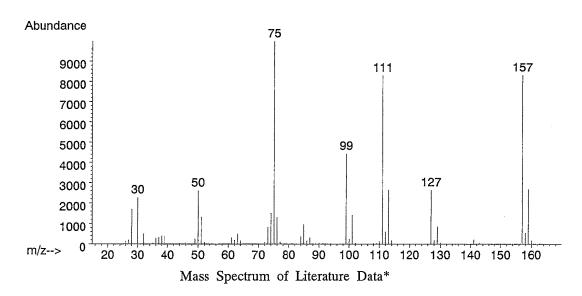
Ionization

: El (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.

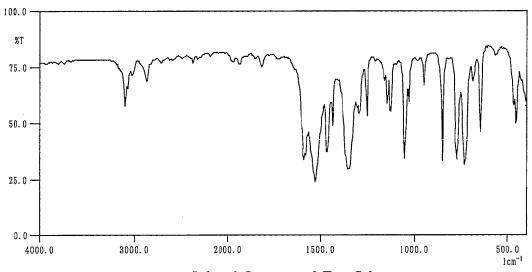
New York, NY: John Wiley and Sons.)

Infrared Spectrometry

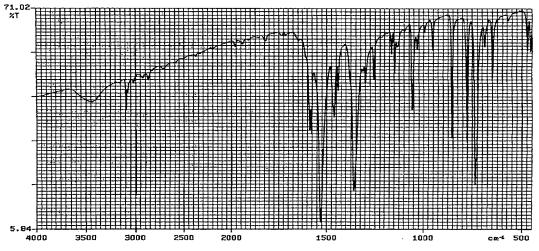
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr

Resolution : 2 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. Conclusion: The test substance was identified as 1-chloro-2-nitrobenzene by mass spectrum and infrared spectrum.

APPENDIX A 2

STABILITY OF 1-CHLORO-2-NITROBENZENE IN THE 2-YEAR FEED STUDY

STABILITY OF 1-CHLORO-2-NITROBENZENE IN THE 2-YEAR FEED STUDY

Test Substance

: 1-Chloro-2-nitrobenzene (Wako Pure Chemical Industries, Ltd.)

Lot No.

: LDE9795

1. Sample

: This lot was used from 2002.11.11 to 2004.11.15. The test substance was

stored in cold storage in a dark place.

2. High Performance Liquid Chromatography

Instrument

: Hewlett Packard 1090 High Performance Liquid Chromatograph

Column

: TSK-GEL ODS-80TM (4.6 mm ϕ \times 15 cm)

Column Temperature: Room Temperature

Mobile Phase

: Acetonitrile : Distilled Water = 1 : 1

Flow Rate

: 1 mL/min

Detector

: UV (254 nm)

Injection Volume

: 20 μL

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)	
2002.10.17	1	7.551	100	
2004.12.21	1	7.449	100	

Result: High performance liquid chromatography indicated one major peak (peak No.1) analyzed on 2002.10.17 and one major peak (peak No.1) analyzed on 2004.12.21. No new trace impurity peak in the test substance analyzed on 2004.12.21 was detected.

3. Conclusion: The test substance was stable for about 26 months in cold storage in a dark place.

APPENDIX A 3

CONCENTRATION OF 1-CHLORO-2-NITROBENZENE

IN FORMULATED DIETS IN THE 2-YEAR FEED STUDY

CONCENTRATION OF 1-CHLORO-2-NITROBENZENE IN FORMULATED DIETS IN THE 2-YEAR FEED STUDY

	-	Target Concentration				
Date Analyzed	80ª	400	2000			
2002.11.11	76.8 (96.0) ^b	380 (95.0)	2100 (105)			
2003.01.27	76.3 (95.4)	393 (98.3)	1920 (96.0)			
2003.04.21	79.9 (99.9)	419 (105)	2090 (105)			
2003.07.14	81.5 (102)	397 (99.3)	2110 (106)			
2003.09.22	79.7 (99.6)	394 (98.5)	1910 (95.5)			
2003.12.15	77.5 (96.9)	392 (98.0)	1950 (97.5)			
2004.03.08	77.2 (96.5)	398 (99.5)	1980 (99.0)			
2004.05.31	77.8 (97.3)	396 (99.0)	1910 (95.5)			
2004.08.23	80.8 (101)	395 (98.8)	1960 (98.0)			

^a ppm ^b %

Analytical Method

: The samples were analyzed by high performance liquid chromatography.

Instrument

: Hewlett Packard 1090 High Performance Liquid Chromatograph

Column

: TSK-GEL ODS-80TM (4.6 mm ϕ × 15 cm)

Column Temperature

: Room Temperature

Mobile Phase

: Acetonitrile : Distilled Water = 1 : 1

Flow Rate : 1 mL/min
Detector : UV (254 nm)

Injection Volume

: 20 μL

APPENDIX A 4

HOMOGENEITY OF 1-CHLORO-2-NITROBENZENE

IN FORMULATED DIETS IN THE 2-YEAR FEED STUDY

HOMOGENEITY OF 1-CHLORO-2-NITROBENZENE IN FORMULATED DIETS IN THE 2-YEAR FEED STUDY

		Target Concentration	
	80ª	400	2000
Coefficient Variation	0.90⁵	4.22	1.39

Analytical Method

: The samples were analyzed by high performance liquid chromatography.

Instrument

: Hewlett Packard 1090 High Performance Liquid Chromatograph

Column

: TSK-GEL ODS-80TM (4.6 mm ϕ \times 15 cm)

Column Temperature

: Room Temperature

Mobile Phase

: Acetonitrile : Distilled Water = 1 : 1

Flow Rate Detector

: 1 mL/min : UV (254 nm)

Injection Volume

: 20 μL

^a ppm
^b % (n=7)

APPENDIX A 5

STABILITY OF 1-CHLORO-2-NITROBENZENE IN FORMULATED DIETS

STABILITY OF 1-CHLORO-2-NITROBENZENE IN FORMULATED DIETS

		Target Concentr	ration
Date Prepared	Date Analyzed	50ª	5000
2001.10.11	2001.10.11	50.3 (100) ^b	4840 (100)
	2001.10.19°	44.7 (88.9)	3890 (80.4)
	2001.11.30 ^d	52.2 (104)	4810 (99.4)

Analytical Method

: The samples were analyzed by high performance liquid chromatography.

Instrument

: Hewlett Packard 1090 High Performance Liquid Chromatograph

Column

: TSK-GEL ODS-80TM (4.6 mm ϕ × 15 cm)

Column Temperature

: Room Temperature

Mobile Phase

: Acetonitrile : Distilled Water = 1 : 1

Flow Rate

: 1 mL/min

Detector

: UV (254 nm)

Injection Volume

: 20 μL

^a ppm
^b % (Percentage was based on the concentration on date of preparation.)

^d Cold storage samples

APPENDIX B 1

CLINICAL OBSERVATION: MALE

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

STUDY NO.: 046I ANIMAL: RAT F344/DuCr1Cr1;[F344/DuCrj] REPORT TYPE: A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-day											
		1-7	2-7	3–7	4-7	5–7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEATH	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ö	ő	0	ő	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm 2000 ppm	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
ABNORMAL GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	Ö	0	Õ	Ö	ŏ	ő	0	0	ő	ő	0	0	ő	ŏ
	400 ppm	0	o o	0	0	0	0	0	Ö	0	Ö	Ö	0	ō	ō
	2000 ppm	0	Ö	0	Ö	ő	Ö	0	ő	ő	ő	Ö	o	o	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	,0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

	· · · · · · · · · · · · · · · · · · ·														TAGE .
Clinical sign	Group Name		stration V												
		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
ВАТИ	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
/LA1111	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	Ö	Ŏ	ō	0	ō	0	0	Ö	0	0	0	Ö	Ö
	2000 ppm	0	0	0	Ō	0	0	0	Ō	0	Ō	0	Ō	ō	0
ORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	. 0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL GAIT	Control	. 0	0	0	0	0	0	0	0	0	0	0	0.	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	2	3	3	3	3	3	3

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

linical sign	Group Name	Admini	stration W	leek-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
ЕАТН	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0 .	0	0	0
	80 ppm	0	0	0	. 0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	D	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm 400 ppm	0 0	0 0	0 0	0 0	0 0	0	0	0 0	0	0 0	0	0 0	0 0	0 0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	4	4	6	5	5	5	7	7	7	7	10	10	10	10

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

STUDY NO. : 0461

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

linical sign	Group Name	Admini	stration W	eek-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
EATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2111	80 ppm	0	Ö	ő	Ö	0	Ö	Ö	0	0	0	Ö	0	0	0
	400 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	ō	0	0	0	0	0	0	1	1	1	1
RIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	, 0	0	0	0	0	0	0	0	0	0	. 0	0	0	0
OLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	10	10	10	11	9	9	9	9	11	11	11	11	14	14

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
EATH	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	1	1	1	1	ı	1	ı	1	1	1	I	1	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
RIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	. 0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	ō	ō	0	0	0	0	0	0	0	0	0
	2000 ppm	14	14	13	13	14	14	14	14	14	14	14	14	14	14

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration W	leek-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
DEATH	Control	I	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	I	1	1	1	2	2	2	2	2
	400 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	1	1	1	3	3	5	7	11	12	13	15	18	20	20
ORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	1	1	1	1	1	i	1
	2000 ppm	1	2	2	2	2	2	2	2	2	2	5	7	8	8
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0,	0	0	0	1	0	0	0	0	0	1
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0
ABNORMAL GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	. 0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	1	2	0	0	0	0	0	1	1	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	. 0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	ō	0	0	ō	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	ō	0
	2000 ppm	11	10	10	8	8	8	8	6	7	7	6	5	3	3

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name		stration %												7
		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
eath	Control	1	1	2	2	4	4	8	5	6	6	6	c	6	7
EATH	80 ppm	2	2	2	2	4 2	4 3	4 3	4	4	4	4	6 4	4	4
	400 ppm	1	ĺ	2	2	2	3	3	3	3	3	3	3	3	3
	2000 ppm	21	23	23	25	25	25	25	26	27	27	30	31	31	32
DRIBUND SACRIFICE	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	1	1	i	1	1	2	2	2	2
	400 ppm	1	i	1	1	1	2	2	2	2	2	3	3	3	3
	2000 ppm	9	9	12	14	14	15	15	15	15	16	16	16	16	16
COMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORMAL GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STING	Control	0	0	1	1	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	1	0	2	0	0	0	0	0	1	0	0	0	0	0
ILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	Ō	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	3	3	2	2	2	1	1	1	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admin	istration '	Week-day			
	or oab Tomo	99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	7	7	8	9	9	9
	80 ppm	4	5	6	7	7	7
	400 ppm	3	4	5	6	7	7
	2000 ppm	32	32	32	32	32	-
MORIBUND SACRIFICE	Control	1	1	. 1	1	1	1
MONIDOND SHORIFICE	80 ppm	3	3	3	3	3	3
	400 ppm	3	3	3	3	3	4
	2000 ppm	16	17	17	17	18	-
	2000 բթա	10	7.1	Y I	T1	10	
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	400 ppm	0	0	0	0	1	0
	2000 ppm	0	0	0	0	-	-
PARALYTIC GAIT	Control	0	0	0	0	0	0
I MODELLEO ONTE	80 ppm	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0
	2000 ppm	ő	0	0	o o	-	-
ABNORMAL GAIT	Control	0	0	0	0	0	0
	80 ppm	1	l	0	0	0	0
	400 ppm	0	0	0	0	0	0
	2000 ррт	0	0	0	0	-	-
WASTING	Control	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	-	_
SOILED	Control	0	0	0	0	0	0
001000	80 ppm	o o	0	0	0	0	0
	400 ppm	Ö	0	0	1	0	0
	2000 ppm	ő	0	0	0	_	-
COLORED	Control	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	-	-

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

(HAN190)

SEX : MALE

Clinical sign	Group Name	Admini	stration We	ek-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
	a . 1			٥	0	0	٥	0	0	0	0	0	0	0	0
ILOERECTION	Control	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0 0	0	0	0	0	0	0	0	0	0	Ō	0	0	ő
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	U	U	U	U	U	v	U	U	U	U	v	v	·	v
DILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	ō	0	ō	0	0	0	0	0	0	0	0	0	0	0
VODUTUM MOC	Ct- 1	٥	0	0	0	0	0	0	0	0	0	0	0	0	0
XOPHTHALMOS	Control	0		-			0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0			0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	υ	U	U	U	U	U	U
ATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	. 0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIDRION OHNIDDR OFNOTTI	80 ppm	0	0	0	0	0	0	Ŏ	0	Õ	0	Ö	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	ő	ŏ	Ö	Ö	Ö	0
	2000 ppm	0	0	0	0	0	0	ő	Ö	0	Ö	ō	0	0	0
NODMAL CROSSES OF TERRES		•	•	0	0	0	٥	0	0	0	0	0	0	0	0
BNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0		0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	-				0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	v	U	U	U
XTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

BAIS 4

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name		stration W								04.5	05.7	00.7	07.7	28-7
		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
r aubrantou	0 . 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ILOERECTION	Control	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm		0	_	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0 0	0	0	0	0	0	0	0	0	0	ŏ	0
	2000 ppm	0	U	U	U	U	U	U	U	v	v	v	v	ŭ	Ü
DILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0 ,	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	Ö	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	Ö	0	ō	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	400 ppm	Ö	Ö	Ö	Ō	0	0	0	0	0	0	0	0	0	0
	2000 ppm	ő	0	0	0	0	0	0	0	0	0	0	0	0	0
DRNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0 .	0	0	0	0	0
orangers of figure	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	ō	0	ō	0	0	0	0	0	0	0	0
	2000 ppm	0	ō	ō	Ō	0	0	0	0	0	0	0	0	0	0
NTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olumbur Olivili	80 ppm	Ö	0	Ö	ō	0	. 0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	Ō	0	0	0	0	0	0	0	0	0	0
	2000 ppm	ő	ō	0	Ō	0	0	0	0	0	0	0	0	0	0
BNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	ō	Ö	ō	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	ō	Ö	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	ő	ō	ō	0	0	0	0	0	0	0	0	0	0	0
XTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	Ö	0	0	0	0	0	0	0	0	1	1	0	0	0
	400 ppm	ő	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ŏ	0	0	ő	0	0	0	0	Ō	Ö	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration V	Yeek-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
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12021201	80 ppm	0	Ö	0	Ö	ŏ	0	Ö	0	ō	Ö	Ö	0	Ö	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0 0	0 0	0 0
	2000 ppm	0	0	0	0	0	0	0	0	U	0	0	U	U	U
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	0	0	0	0	0	0	0	0	0	0	0	1	1	1 .
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	1	2	3	3	2	2	2
	400 ppm	0	1	1	1	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	1	0	0	0	1	1	2

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-dav											
		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
ILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0,	0	0	0	0	0	0
OILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPIITHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	2	2	2	2	2	2	2	2	2	2	2	2	2
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	1	1	1	1	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	1
	80 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	400 ppm	0	0	Ō	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	1	1	0	0	0	0	0	0	0	0	0	0	2

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE: A1 104

SEX : MALE

Clinical sign	Group Name	Admin	istration W	eek-day								*, *,			
ATTAIOUT OIGH	oroap namo	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
			· · ·												
ILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	Ó	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
OILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPIITHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	mqq 08	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	2	2	2	. 2	2	2	2	3	3	4	3	3	3	3
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	, 0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	` 0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0 .	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	I	1	1	1	1	1	1	1	1	1	I	1	1
EXTERNAL MASS	Control	1	3	3	3	2	2	2	2	2	2	2	2	2	2
	80 ppm	2	2	3	3	4	3	3	3	3	5	4	5	5	5
	400 ppm	0	Ţ	1	1	1	1	1	l	1	2	2	2	2	2
	2000 ppm	3	3	3	4	4	4	4	4	4	4	4	6	5	6

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admin	istration W	eek-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
ILOERECTION	Control 1	0	0	0	0	0	0	0	0	0	0	0		0	0
TEOERECTION	Control 80 ppm	0	0 0	0 0	0	0 0	0 0	0	0	0	0	0 0	0 0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	o	0	0	0	0	0	1	0	1	1	0	0	0
OILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	2000 ррш	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XOPIITHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400 ppm	I	1	1	1	1	1	1	1	1	1	1	1	1	2
	2000 ppm	3	2	2	2	2	2	2	2	. 2	2	1	1	0	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1	1	0	0	0	0	0	0	0
NTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
XTERNAL MASS	Control	2	2	2	2	3	2	2	5	4	4	4	4	4	5
	80 ppm	5	5	5	5	5	7	7	7	7	6	6	6	7	8
	400 ppm	2	4	4	5	5	5	5	7	7	8	8	9	9	9
	2000 ppm	6	7	7	7	8	8	8	8	8	8	8	8	8	8

STUDY NO.: 0461
ANIMAL: RAT F344/DuCrlCrlj[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
T opposition	a . 1	•				•	•	•				0	•	•	0
PILOERECTION	Control	0	1	0	I	0	0	0	0 1	0 1	0	0	0 1	1 0	0
	80 ppm	0	0	0	0	0	0	1	-	-	1	•	_		0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
DILED PERI-GENITALIA	Control	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	80 ppm	0	0	0	ő	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	1	1	I	1	1	1	1	I	I	ì	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	v	U	U	v	v	v	Ū	Ů	Ů	•	Ū	v	v	v
ATARACT	Control	1	1	1	2	2	2	2	2	2	2	2	3	3	3
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400 ppm	2	2	2	2	2	2	2	2	2	2	3	3	3	3
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LILLIAN CHEMINAN CHICKIT	80 ppm	0	0	0	0	0	0	ő	0	0	Ö	0	Õ	Õ	ő
	400 ppm	0	0	1	1	1	1	1	1	í	i	0	1	1	1
	2000 ppm	ő	0	0	0	Ô	Ô	0	0	ō	0	0	0	ō	0
BNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
miorimin orosini or regitt	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
												-	0	_	
	400 ppm	0	0	0	0	0	0	0	0	0	0	0		0	0
	2000 ppm	i	1	1	1	1	1	1	1	1	0	0	0	0	0
EXTERNAL MASS	Control	5	5	4	4	5	6	6	6	6	5	5	5	5	5
	80 ppm	8	9	7	7	7	7	6	6	6	8	8	8	9	10
	400 ppm	9	9	9	9	9	10	11	12	11	14	15	16	16	16
	2000 ppm	7	6	5	3	3	2	2	1	1	1	1	0	0	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admin	istration \	Week-day _					
		99-7	100-7	101-7	102-7	103-7	104-7		
TI OPPOZITON	0 . 1	•			,				
PILOERECTION	Control	0	1	1	1 0	1 0	2 0		
	80 ppm	0	1	1		1			
	400 ppm	0	0	0	1	_	2 -		
	2000 ppm	0	0	0	1	_	-		
OILED PERI-GENITALIA	Control	0	0	0	0	0	1		
	80 ppm	0	0	0	0	1	1		
	400 ppm	0	0	0	0	1	1		
	2000 ppm	0	0	0	0	-	-		
EXOPIITIIALMOS	Control	1	ī	1	1	1	1		
	80 ppm	Ô	0	Ô	Ô	0	Ô	•	
	400 ppm	1	1	1	0	0	Ö		
	2000 ppm	Ô	ō	0	ő	-	_		
CATTAD AOT	0 1			0		0	0		
CATARACT	Control	3	3	3	3	3	3		
	80 ppm	1	1	1	1	1	1		
	400 ppm	3	3	3	2	2	2		
	2000 ppm	0	0	0	0	_	-		
CORNEAL OPACITY	Control	0	0	0	0	0	0		
	80 ppm	0	0	0	0	0	0		
	400 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	_	-		
INTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0		
	80 ppm	ō	Ō	0	Ő	0	0		
	400 ppm	1	1	1	1	1	i		
	2000 ppm	Ô	0	Ô	1	_	_		
	2000 ppm	v	v	· ·	1				
ABNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0		
	80 ppm	0	0	0	0	0	0		
	400 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	-	-		
EXTERNAL MASS	Control	5	6	6	7	7	7		
	80 ppm	10	9	8	11	11	12		
	400 ppm	16	17	17	17	17	18		
	2000 ppm	0	0	0	0	_	_		

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

SEX : MALE															PAGE: 1
Clinical sign	Group Name		stration W												
		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
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0 .	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

SEX : MALE

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
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTERNAL MASS	Control 80 ppm	0	0 0	0	0	0	0	0	0	0	Ö	0	Ö	Ö	Ö
	400 ppm	0	0	0	0	0	0	0	Ö	Ö	0	0	0	0	0
	=	0	0	0	0	0	0	0	0	0	Ö	Ö	0	0	0
	2000 ppm	U	v	U	·	v	v	·	Ů	Ť	Ť				
. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	.0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	80 ppm	Ö	0	ō	Ō	0	0	0	0	0	0	0	0	0	0
	400 ppm	Ö	Ö	Ö	Ö	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ō	0	0	0	0	0	0	0	0	0	0	0	0	0
I. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
i- DAN	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	ō	0	Ö	Ö	0	0	0	0	0	0	0	0	0	0
	2000 ppm	ō	0	0	0	0	0	0	0	0	0	0	0	0	0
I. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
a. FERT DAK	80 ppm	0	0	0	0	0	Ö	Ö	0	0	0	0	0	0	C
	400 ppm	0	0	0	0	0	ő	Ö	0	0	0	0	0	0	C
	2000 ppm	0	0	0	0	ő	0	ō	Ö	ō	ō	0	0	0	C
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	(
II. I VRELIMB	80 ppm	0	0	0	0	0	Ô	Ö	0	ō	Ö	0	0	0	(
	400 ppm	0	0	0	0	0	0	Ō	0	0	0	0	0	0	(
	2000 ppm	o	0	ő	Ö	Ö	Ö	ō	0	0	0	0	0	0	(
		•		0	^	0	٥	0	0	0	0	0	0	0	(
A. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	,
	80 ppm	0	0	0	0	0			0	0	0	0	0	0	(
	400 ppm	0	0	0	0	0	0 0	0	0	0	0	0	0	0	ì
	2000 ppm	0	0	0	0	0	U	0	U	U	U	v	U	v	,

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

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
			_			•	•		٥	0	0	0	0	0	0
NTERNAL MASS	Control	0	0	0	0.	0	0	0	0	0 0	0 0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	υ	U	U	U	U	U	U	U
. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	400 ppm	0	1	1	1	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	1	0	0	0	1	1	2
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

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	55-7
						_		•		0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0		0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0 0	0 0	0	0	Ö	ő	0
	2000 ppm	0	0	0	0	0	0	0	U	U	U	v	Ū	v	v
. NOSE	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	I	1	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ррш	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
I. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0461 CLINICAL OBSERVATION (SUMMARY)
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] ALL ANIMALS

SEX : MALE

REPORT TYPE : A1 104

Clinical sign	Group Name	Admini	stration W	eek-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
											_		_	ď	•
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. NOSE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	.0	0	0	0
. PERI-MOUTH	Control	0	1	1	1	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	0	0	0	0	1	0	1	0	0
	400 ppm	0	1	1	1	0	0	0	0	0	1	1	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
.ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	. 0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-day	 								00.7	00.7	84-7
		71-7	72-7	73-7	74-7	7 5-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	04-1
AMERINAL MARC	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	Ö	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	0	0	ő	Ö	0	0	0	0	0	0	0	0	0
I. NOSE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
I. HOOD	80 ppm	Ô	0	0	0	0	2	1	1	1	1	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ü	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	1	0	0	1	0	0	0	0	0	1
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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 1	0 1
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	-	_
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0		
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	U	U	U
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0 0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	t	1	1	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1		•	_
M. FORELIMB	Control	0	0	0	0	0	0	0	0 0	0	0 0	0	0	0 0	0
	80 ppm	0	0	0	0	0	0	0	_	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	υ	v	-	·	-	•	
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
m. mumul	80 ppm	ő	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	ŏ	0	0	1	1	0	0	1	1	1	1	1	1	1
	2000 ppm	Ö	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

linical sign	Group Name	Admini	stration W	eek-day										07.7	
		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
												_	_		•
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0 ·	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	U	U	U
NOSE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	Ĺ	1	1	1	1	1	1	1	1	1	1	2	2 0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. PERI-MOUTH	Control	I	1	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	2	0	0	0	1	0	0	0	1	1	0	0	1
	400 ppm	0	0	0	0	0	1	1	1	0	0	0	1	1	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORAL CAVITY	Control	0	0	. 0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1 0
	400 ppm	0	0	0 -	0	0	0	0	0	0	0	0	0	0	C
	2000 ppm	0	0	0.	0	0	0	0	0	0	0	0	0	U	U
I. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	-	
	400 ррт	0	0	0	1	I	1	1	1	1	1	1	ı	ı	0
	2000 ррт	0	0	0	0	0	0	0	0	0	O	0	0	0	U
I. PERI EAR	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0 .	0	0	0	(
	400 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
f. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	400 ppm	0	1	i	1	0	0	0	0	0	0	0	0	0	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
I. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	!
	400 ppm	1	1	1	1	1	1	1	1	1	2	2	2	2	3
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

SEX : MALE

PAGE : 24

Clinical sign	Group Name	Admin	istration N	∛eek-day _				
Siintoar Gign	Oxfor Italia	99-7	100-7	101-7	102-7	103-7	104-7	
INTERNAL MASS	Control	0	0	0	0	0	0	
	80 ppm	0	0	0	0	0	0	
	400 ppm	0	0	. 0	0	0	0	
	2000 ppm	0	0	0	0	-	-	
. NOSE	Control	1	1	1	1	1	1	
. RODD	80 ppm	2	2	2	2	2	2	
	400 ppm	ō	0	0	0	0	0	
	2000 ppm	ŏ	ō	0	0	-	-	
I. PERI-MOUTH	Control	0	0	0	0	0	0	
L FERT MOUTH	80 ppm	i	1	0	0	0	0	•
	400 ppm	ō	i	1	1	1	1	
	2000 ppm	ő	0	ō	0	_	_	
	2000 ppm	v	v					
.ORAL CAVITY	Control	0	0	0	0	0	0	
	80 ppm	1	1	1	1	1	1	
	400 ppm	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	-	-	
	Control	0	0	0	0	0	0	
M. EAR		0	0	0	Ő	0	0	
	80 ppm			1	1	1	1	
	400 ppm	1	1	0	Ô	_	_	
	2000 րրա	0	0	U	O			
M. PERI EAR	Control	1	1	1	1	1	1	
	80 ppm	0	0	0	0	0	0	
	400 ppm	1	1	i	1	1	2	
	2000 ppm	0	0	0	0	-	-	
M. FORELIMB	Control	0	0	0	1	1	1	
	80 ppm	0	0	0	0	0	0	
	400 ppm	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	-	-	
M. BREAST	Control	0	1	1	1	1	1	
M. INCAOI	80 ppm	Ö	0	0	0	0	1	
	400 ppm		4	4	4	4	4	
	2000 ppm		0	0	Ô	_	_	
	2000 ppm	U	v	Ų	J			

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration We	eek-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
I. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. Tabosaar	80 ppm	0	Ö	0	Ö	0	ů 0	Ö	Ö	ō	Ō	0	Ō	Ö	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm 2000 ppm	0	0	0	0	0 0	0 0	0	0 0	0 0	0	0 0	0	0 0	0 0
CENTELL TA		•	0				•	•	0	0	^	•	0	•	•
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0 0	0	0	0
	80 ppm	0	•	0	0	0	_	-	0	0	0	0	0	0	0
	400 ppm	0 0	0	0 0	0 0	0 0	0 0	0	0 0	0	0 0	0	0	0	0
	2000 ррш	U	U	U	U	U	U	U	U	U	U	v	U	U	U
M. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admin:	stration P	leek-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
ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	Ö	0	0	0	ŏ	Ö	Ö	Ö	Ö	Ö	ŏ	0	Ö	Ö
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

SEX : MALE

linical sign	Group Name	Admini	stration W	eek-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
						_	•				0	0	0	0	0
. ABDOMEN	Control	0	0	0	0	0	0	0 0	0 1	0 1	0 2	0 2	2	2	2
	80 ppm	0	0	0	0	0	0		0	0	0	ő	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	U	U	U	Ů	Ü	v	J	v
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
AUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
															_
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	1	0	1	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

SEX : MALE

linical sign	Group Name	Admini	istration W												
		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
4 DDOMEN	Control 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. ABDOMEN	Control 80 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	ő	ō	ő	ő	0	ō	0	0
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	1	1	1	2	2	2	2	2	2	2	2	2	1	1
. POSTERIOR DORSUM	Control	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	I	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	3
. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0 1	0 1	0	0
	80 ppm	0	0	1	1	1	1	1	1	Ţ	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0 0	0 0	0 0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	U	U	U	U	U	U	U	U
. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0		0	-	-	-	0	0	0
	400 ppm	0	0	0	0	0 0	0	0 0	0 0	0	0 0	0	1	1	1
	2000 ppm	0	0	0	0	U	υ	U	Ū	U	U	U	1	ı	1
I. SCROTUM	Control	0	0	0	ó	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	U	0	U	U	U	U	v	U
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0 0	0	0
	80 ppm	0	0	0	0	0	0	0	. 0	0	0	0	-	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	2000 ppm	0	0	0	0	0	1	1	1	1	1	0	U	U	1
AUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
•	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration W	ek-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
							_	_	_	_	•	•		0	•
I. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0 3	0 3	0 3	0 3	0 3
	80 ppm	2	2	2	2	2	2	3	4	4		3	3	3	3
	400 ppm	0	0	0	0	0	1	1	2	2	3	2	2	2	2
	2000 ppm	0	1	1	1	2	2	2	2	2	2	2	2		2
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	1	1	1	1	2	2
	400 ppm	1	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	1	1	1	1	1	1	1	0	0	0	0	0	0	0
. POSTERIOR DORSUM	Control	1	1	1	1	1	1	1	2	2	2	2	2	2	2
	80 ppm	1	1	1	1	1	1	1	0	0	0	0	0	0	0
	400 ppm	1	2	2	2	2	2	2	2	2	2	2	3	3	3
	2000 ppm	3	3	3	3	3	3	3	4	4	4	4	4	4	4
. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	i	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. GENITALIA	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	0	0	1	1	5	6	2	3	5	5	3	2	2
AUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
,	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 104

SEX : MALE

linical sign	Group Name	Admini	stration W	eek-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
ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TIDD OMES! (80 ppm	3	3	3	3	3	2	2	2	2	2	2	2	2	2
	400 ppm	3	3	3	. 3	3	3	3	3	3	3	4	4	4	4
	2000 ppm	2	2	1	0	0	ō	Õ	ő	ő	ő	ō	ō	ō	0
ANTERIOR. DORSUM	Control	0	0	0	0	1	1	1	1	1	0	0	0	0	0
	Mqq 08	2	2	2	2	2	1	1	1	1	1	2	3	3	3
	400 ppm	2	2	2	2	2	2	2	3	3	4	4	4	4	4
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
POSTERIOR DORSUM	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	3	3	3	3	3	3	4	4	4	4	4	4	4	4
	2000 ppm	4	3	3	2	2	1	1	1	1	1	1	0	0	0
HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0
GENITALIA	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm 2000 ppm	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 0	0	0 0	0	0 0	0	0
	2000 քրիա	1	ı	1	1	1	1	1	U	U	U	U	U	0	υ
SCROTUM	Control	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm 400 ppm	0	0	0	0	0	0	0 0	0	0	1	1	1	1	1
		0 0	0	0	0	0	0		0	0	0	0	0	0	0
	2000 ppm	U	U	U	U	0	0 .	0	0	0	0	0	0	0	0
emia	Control	0	0	1	1	0	0	0	0	0	1	1	2	2	1
	80 ppm	0	0	0	1	1	0	0	1	0	1	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	2000 ppm	4	5	2	2	2	2	3	2	1	2	0	2	3	2
UNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

SEX : MALE

Clinical sign	Group Name	Admin	istration	Week-day _				
		99-7	100-7	101-7	102-7	103-7	104-7	
•								
M. ABDOMEN	Control	0	0	0	0	0	0	
	80 ppm	2	1	1	1	1	1	
	400 ppm	4	4	4	4	4	4	
	2000 ppm	0	0	0	0	-	-	
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	·
	80 ppm	3	2	2	1	1	1	
	400 ppm	4	4	4	4	4	4	
	2000 ppm	0	0	0	0	-	-	
M. POSTERIOR DORSUM	Control	2	2	2	2	2	2	
	80 ppm	0	0	0	4	4	4	
	400 ppm	4	4	4	4	4	4	
	2000 ppm	0	0	0	0	-	-	•
M. HINDLIMB	Control	0	0	0	0	0	0	
	80 ppm	1	1	1	1	1	1	•
	400 ppm	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	-	-	
M. GENITALIA	Control	1	1	1	1	1	1	
	80 ppm	0	0	0	0	0	0	
	400 ppm	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	-	-	
M. SCROTUM	Control	0	0	0	0	0	0	
	80 ppm	1	1	1	1	1	1	
	400 ppm	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	-	-	
ANEMIA	Control	1	1	2	2	2	3	
	80 ppm	0	0	2	2	2	2	
	400 ppm	1	1	1	0	0	0	
	2000 ppm	2	1	1	1	_	-	
JAUNDICE	Control	0	0	0	0	2	2	
	80 ppm	0	0	0	0	0	0	
	400 ppm	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	-	-	

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Adminis	stration We	eek-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
								_			0	•	0	0	0
RUSTA	Control	0	0	0	0	0	0	0	0	0	0 0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	U	U	υ	U	U
EMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	.0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 рут	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
•	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
MALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
														_	
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
MALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0461 CLINICAL OBSERVATION (SUMMARY)
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] ALL ANIMALS

REPORT TYPE : A1 104

SEX: MALE

Clinical sign	Group Name	Admini	istration W	eek-dav											
		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
wom.	0 . 1	•	2		•	2		•	0	0	0	0	0	0	0
RUSTA	Control 80 ppm	0	0 0	0	0 0	0 0	0	0	0 0	0 0	0	0	0 0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	ő	ő	ō	0
EMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0 0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	U	U
ROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0 0	0	0	0
	80 ppm	0	0	0	0 0	0	0 0	0 0	0 0	0	0	0	0	0	0
	400 ppm 2000 ppm	0 0	0 0	0 0	0	0 0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
MALL STOOL	Control	0	0	0	0	0	0	0	0	0	0 0	0 0	0 0	0 0	0 0
	80 ppm	0	0	0	0	0	0	0	0	0	-	0	0	0	0
	400 ppm	0 0	0 0	0 0	0 0	0 0	0	0	0 0	0	0 0	0	0	0	0
	2000 ppm	U	U	U	U	U	U	U	υ	U	U	U	v	U	Ü

CLINICAL OBSERVATION (SUMMARY) STUDY NO. : 0461

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 104

ALL ANIMALS

		41.		1 1 1				-					•		
Clinical sign	Group Name	43-7	stration V 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
		_ ,				_							-		
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	50	50	50	50	50	50	50	50	50	50	49	49	49	49
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

REPORT TYPE : A1 104

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

SEX : MALE

Clinical sign	Group Name	Admin	istration W	eek-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
RUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORTICOLLIS	Control	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	49	49	49	49	49	49	49	49	49	49	48	48	48	48
MALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	3

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration W												
		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
RUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MOSIN	80 ppm	0	0	0	Ö	Ö	Ö	Ö	Ō	0	0	0	0	0	0
	400 ppm	Ŏ	0	0	Ō	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROLAPSE OF PENIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	1	. 0	0	0	0	0	0	0	1	0	0	1
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0 0	0 0	0 3	0 2	0	0	1
	2000 ppm	I	0	0	0	0	0	0	U	U	ð	2	v	0	1
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	U	U	U	U
ELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	48	47	47	45	45	43	41	37	36	35	30	25	22	22
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	2	0	0
	2000 ppm	1	0	0	0	0	0	0	1	0	2	2	4	1	2

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

linical sign	Group Name	Admini	stration W	eek-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
															_
RUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EMORRHAGE	Control	0	0	1	1	0	0	0	0	0	0	1	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORTICOLLIS	Control	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROLAPSE OF PENIS	Control	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	1	1	1	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	1	1	1	2	2	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	2000 ppm	0	1	1	0	0	1	1	1	1	i	0	0	0	0
ESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	1	1	1	0
	80 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	2000 ррш	20	18	15	11	11	10	10	9	8	7	4	3	3	2
WALL STOOL	Control	0	1	2	1	0	0	0	0	0	1	1	3	2	1
	80 ppm	0	0	0	0	1	3	1	0	0	3	1	1	0	0
	400 ppm	0	0	0	0	0	1	0	0	0	2	0	0	0	0
	2000 ppm	1	0	0	0	0	3	3	3	2	4	2	1	2	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admin	istration	Week-day _				
		99-7	100-7	101-7	102-7	103-7	104-7	
CRUSTA	Control	0	0	0	0	0	0	
	80 ppm	0	0	0	1	1	1	
	400 ppm	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	_	-	
EMORRHAGE	Control	0	0	0	0	0	0	
	and of the state o	0	0	0	0	0	0	
	400 ppm	0	0	0	0	0	0	
	2000 ppm	o	ō	ő	ō	-	-	
ORTICOLLIS	Control	0	0	0	0	0	0	
	80 ppm	Ō	0	0	0	Ö	0	
	400 ppm	o o	0	ő	0	ō	o	
	2000 ppm	ō	0	0	o	_	-	
ROLAPSE OF PENIS	Control	0	0	0	0	0	0	
	80 ppm	0	0	0	0	0	0	
	400 ppm	1	ı	1	1	1	1	
	2000 ppm	0	0	0	0	_	_	
RREGULAR BREATHING	Control	0	0	0	0	0	2	
	80 ppm	i	i	0	0	Ö	0	
	400 ppm	Ô	i	0	1	1	2	
	2000 ppm	0	0	0	0	-	-	
	2000 ppm	U	U	U	U	-	-	
ESPIRATORY SOUND ABNOR	Control	0	1	0	0	0	0	
	80 ppm	0	0	0	0	0	0	
	400 ppm	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	_	-	
LLOW URINE	Control	0	1	0	0	2	2	
	80 ppm	0	0	0	1	1	1	
	400 ppm	0	0	0	0	Ô	ô	
	2000 ppm	2	ĭ	1	i	-	-	
				*				
MALL STOOL	Control	1	4	1	2	1	5	
	80 ppm	1	2	1	1	1	2	
	400 ppm	0	1	0	3	2	3	
	2000 ppm	0	0	0	1	_		

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

PAGE: 41

Clinical sign	Group Name	Admini	stration W	eek-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
DLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	Õ	0	Ö	Ö	0	ŏ	Ö	Ö	Ö	0	ő
	400 ppm	0	0	0	0	0	. 0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ON REMARKABLE	Control	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	80 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	400 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BATS 4

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

PAGE: 42

Clinical sign	Group Name	Admini	stration W	eek-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
OLIGO SWOOT	0. 4. 1	0	0	0	0	0	0	0	0	0	0	0	0	n	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	-	0	0	Ü	-			_	-	0	•	0	0	^
	400 ppm	0	0	0	0	0	0	0	0	0	U	U	•	U	U
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ION REMARKABLE	Control	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	80 ppm	50	50	50	50	50	50	50	50	50	49	49	49	49	49
	400 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

PAGE: 43

Clinical sign	Group Name	Admini	stration W	eek-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
N IGO PTOOL	0. 4. 1		0			0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	U	U	•	Ü	0	U	U	0
	80 ppm	0	0	0	0	0	U	U	U	0	U	U	U	U	U
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ON REMARKABLE	Control	50	50	50	50	50	50	50	50	50	50	50	50	49	49
	80 ppm	49	49	49	49	49	49	49	48	47	46	46	47	47	47
	400 ppm	50	49	49	49	50	50	50	50	50	50	50	50	50	50
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

CLINICAL OBSERVATION (SUMMARY)

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

PAGE: 44

Clinical sign	Group Name	Admini	stration W	eek-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
OLIGO-STOOL	Control	0	0	n	0	0	0	0	0	0	0	0	0	0	0
DIGO DIGOD	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	Ö	0	ō	0	Ö	0	0	Ŏ	0	0	Ö	0
	2000 ppm	0	0	0	0	0	0	0	1	1	1	0	0	0	0
ON REMARKABLE	Control	49	49	49	49	49	49	49	48	48	48	48	48	48	48
	80 ppm	47	47	47	47	47	47	47	47	47	47	47	47	47	47
	400 ppm	49	49	49	49	49	49	49	49	49	49	49	49	49	49
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

PAGE: 45

linical sign	Group Name	Admini	stration W	eek-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
LIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DIGO STOOL	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	Ö	0	0	Ö	0	0	0	0	Ö	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N REMARKABLE	Control	48	46	46	45	46	46	46	46	46	46	46	46	46	46
	80 ppm	47	47	46	46	45	46	46	46	46	44	45	44	44	44
	400 ppm	49	47	47	47	47	47	47	47	47	46	46	46	46	45
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : MALE

PAGE: 46

Clinical sign	Group Name	Admini	stration W	eek-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
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	n	0	n	0	0
PTGO_2100P	80 ppm	0	0	0	1	1	0	0	0	0	0	0	0	0	o
	400 ppm	0	0	Ŏ	0	Ô	Ö	1	0	0	0	0	0	0	0
	2000 ppm	1	ō	ō	Ö	1	0	2	1	2	2	1	2	1	3
ON REMARKABLE	Control	46	46	46	46	45	46	46	43	44	44	44	44	44	43
	80 ppm	44	44	44	43	43	41	41	41	41	41	41	40	40	39
	400 ppm	45	44	44	43	43	43	42	40	40	39	39	36	38	37
	2000 ррш	0	0	0	ο .	0	0	0	0	0	0	0	0	0	0

(HAN190)

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

PAGE: 47

Clinical sign	Group Name	Admini	stration W	eek-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
LIGO-STOOL	Control	2	2	2	2	0	0	n	0	0	0	0	0	0	0
DIGG GIOOD	80 ppm	Õ	0	0	0	1	Ö	1	1	0	1	1	0	0	1
	400 ppm	0	0	0	0	1	0	0	0	1	1	0	1	0	0
	2000 ppm	2	1	0	0	0	0	0	1	1	1	0	0	0	1
ON REMARKABLE	Control	41	41	41	39	38	37	37	36	35	36	35	33	34	34
	80 ppm	39	38	40	40	39	36	38	38	37	34	35	35	34	32
	400 ppm	37	37	35	35	34	31	31	31	31	28	27	25	26	26
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

PAGE: 48

Clinical sign	Group Name	Admin	istration '	Week-day _			
		99-7	100-7	101-7	102-7	103-7	104-7
OLIGO-STOOL	C., A., .]						
OF160-2100F	Control	0	3	2	2	2	3
	80 ppm	1	1	2	1	1	0
	400 ppm	0	1	2	3	2	1
	2000 ppm	1	0	0	1	-	-
NON REMARKABLE	Control	34	29	29	27	27	25
	80 ppm	31	30	31	28	28	26
	400 ppm	26	23	21	20	20	18
	2000 ppm	0	0	0	0	_	_

(HAN190)

APPENDIX B 2

CLINICAL OBSERVATION: FEMALE

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : AI 104

SEX : FEMALE

Clinical sign	Group Name	A desired	stration W	- 1 1			•••								
offinical sign	Group Name	1-7	Stration w	зек-дау <u> —</u> 3-7	4-7	5-7	6-7	7–7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		-										•			
РЕАТН	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	Ö	0	Ō
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	Ō	0	0	Ö	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	ŏ	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	Ö	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	C	0	0	0	0	0	0	Ö	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	Ō	Ö	0	ŏ	Õ	Ö
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	Ö	0	Ö
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	ō	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	ō	0	ō	Ö	Ö
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	ō	0	0	Ö	Ō
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	ō	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	Ō	0	ŏ	0	Ö
	400 ppm	0	0	0	0	0	0	0	0	Ö	1	2	2	2	3
	2000 ppm	0	9	14	14	18	21	21	21	22	26	26	26	27	29
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	Ö	0	0	0	0	Ö
	400 ppm	0	0	0	0	Ô	0	Ö	ő	Ö	0	0	0	0	0
	2000 ppm	0	0	0	Ö	0	0	ő	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admin	stration W	eek-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
EATII	Control	0	0	0	0	0	0	0	2	•	•			_	
S.111	80 ppm	0	0	0	0 0	0	0 0	0 0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0 0	0 0	0 0	0 0	0 0	0	0 0
DRIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	Ō	0	ů.	0	Ô	Ö	0
	400 ppm	0	0	0	0	0	0	Ô	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	ō	ō	Ö	ő	ō	0	ő	ő	0	0
DOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0 -	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 րրա	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	3	3	3	3	3	5	5	6	6	6	7	7	7	7
	2000 ppm	29	29	29	31	31	31	31	31	31	33	33	34	35	35
LOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	. 0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	Ŏ	Ö	0
	400 ppm	0	0	0	0	0	0	0	0	0	Ö	Ö	Ö	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	Ö	0	Ö	Ö	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admin:	istration V	Veek-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
ЕАТН	Control	0	0	0	0	0	0	0	0	0 .	0	0	0	0	0
	80 ppm	Ö	Ö	ō	ŏ	ŏ	0	0	0	Ŏ	0	Ô	0	0	0
	400 ppm	0	0	0	0	0	Ö	0	0	Ö	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	ō	ō	ő	ŏ	0	ő	ő	0
ORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm 2000 ppm	7 35	7	. 7	6	6	6	6	6	6	6	6	6	6	7
	ZUUU ppm	35	35	35	35	35	36	36	36	36	36	36	37	37	40
LOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

REPORT TYPE: A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
SAMIA	0.4.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EATH	Control	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	. 0	0	ő
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	ŏ	0
	2000 ppm	U	U	U	U	U	v	v	v	Ů	·	v	v	·	
DRIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0 .	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	. 0	0	0	0	0	0	0	0	0	0
	80 ppm	Ö	0	Ö	ō	0	0	0	0	0	0	0	0	0	0
	400 ppm	Õ	0	Ö	Ö	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCIDACA FUSITION	80 ppm	0	0	0	0	0	0	Ŏ	Õ	ŏ	Ö	Õ	0	0	0
	400 ppm	Ö	0	ŏ	Ŏ	0	0	Ö	0	Ö	0	0	0	0	0
	2000 ppm	ŏ	Ö	0	Ŏ	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	C+1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALTIIC GAII	Control 80 ppm	0	0	0	0	0	0	0	0	0	0	Õ	0	ő	ŏ
			0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm 2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	U	U	U	U	U	U	U	v	v	v	v	V	•	v
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
•	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	7	7	7	7	7	7	7	7	7	7	7	7	7	8
	2000 ррш	40	40	40	40	40	40	40	39	39	39	39	39	39	40
ILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1555,5511011	80 ppm	0	0	0	0	0	0	Ŏ	0	0	0	0	0	0	0
	400 ppm	0	0	0	o o	0	0	Ö	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name		istration W												
		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
		•	2			0	0	0	0	0		0	0	0	0
DEATH	Control	0	0	0	0 0	0 0	0 0	0 0	0 0	0 0	0	0 0	0	0	0
	80 ppm	0					0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0 0	0 0	0 0	1	1	1	1	1	1	1	1	2
	2000 ppm	0	0	U	U	U	1	1	1	1	1	1		•	
ORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	1	1	1	3
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	400 ppm	8	8	8	9	10	12	12	12	12	11	11	11	11	12
	2000 ppm	40	41	41	42	42	41	41	39	39	39	39	39	39	38
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C

REPORT TYPE : A1 104

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
		•	•	•		٥	,		•	•	,	•	,	2	2
DEATH	Control	0	0	0	0 0	0 0	1 0	1 0	1 0	1 0	1 0	1 0	0 r	0	0
	80 ppm	0	0	0 1	1	1	1	1	1	1	1	1	1	1	i
	400 ppm 2000 ppm	0 2	1 2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppui	2	2	۵	2	٥	2	2	2				•	J	
ORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Second, our movement, whole	80 ppm	Ö	0	0	ő	0	0	Q .	0	0	0	0	0	0	0
	400 ppm	ŏ	0	0	Ö	0	ō	0	0	0	0	0	0	0	0
	2000 ppm	ō	0	0	0	0	0	0	0	0	0	0	0	0	0
TUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IONCIDACK TOSTITON	80 ppm	0	0	0	0	0	0	0	Ö	Ö	Õ	0	0	0	0
	400 ppm	0	0	0	0	0	0	Ö	0	0	Ö	0	0	0	0
	2000 ppm	0	0	0	0	0	0	Ö	ő	ő	0	0	0	ő	0
PARALYTIC GAIT	C41	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALITIC GALI	Control 80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	Ŏ	Õ
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	ő	0	Ö	Ö	Ö	Ö	Ö	0
	a . 1		•	•		•	0	•	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0
	80 ppm	0 0	0	0	0	0 0	0 0	0	0	0	0	0	0	0	0
	400 ppm	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	U	U	U	U	U	U	U	U	U	U	v	Ū	v	Ü
COLORED	Control	3	3	3	1	1	1	2	2	2	2	2	2	2	2
	80 ppm	5	7	7	1	1	1	2	2	3	3	3	3	3	3
	400 ppm	12	12	12	9	9	9	9	9	9	9	9	12	12	12
	2000 ppm	38	40	40	40	40	40	39	39	39	39	39	39	39	39
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY) STUDY NO. : 0461 ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

PAGE: 55 SEX : FEMALE

Clinical sign	Group Name	Admini	stration V	Yeek-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
					-	•		-	r	-	æ	5	6	6	6
DEATH	Control	2	2	2	3	3	4	5 0	5 0	5 0	5 0	0	0	0	1
	mqq 08	0	0	0	0	0	0		1	0	1	,	3	3	3
	400 ppm	1	1	1	1	1	1	1	3	3	3	3	3	5	6
	2000 ppm	2	. 2	2	2	2	2	3	3	3	3	3	3	J	Ü
ORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	ı.	1	Ţ
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	0	0	0	. 0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	2	2	2	2	2	2	1	1	1	1	2
	2000 ppm	0	0	0	ō	0	0	0	0	0	0	0	0	0	0
COLORED	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	80 ppm	4	3	3	3	3	3	3	3	3	3	3	2	2	2
	400 ppm	11	11	11	11	11	11	11	11	11	11	11	11	11	11
	2000 ppm	39	39	39	39	39	39	38	38	38	38	38	37	35	34
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I IDODREOTION	80 ppm	0	0	0	0	0	0	0	0	Ö	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	ő	0	0	0	ō	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	U	U	U	U	U	U	U	U	v	v	v	•	•	·

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admin	istration '	Week-day _			
		99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	7	7	8	8	8	8
	80 ppm	2	4	5	5	7	7
	400 ppm	4	4	4	4	4	4
	2000 ppm	6	7	8	8	8	8
WORLDING CACRIFICE	Control		1	1	1	1	1
MORIBUND SACRIFICE	Control	1				1	1
	80 ppm	1	1	1	1		
	400 ppm	0	0	0	0	0	1
	2000 ppm	0	1	2	2	2	3
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	80 ppm	0	1	0	0	0	0
	400 ppm	0	0	0	0	0	0
•	2000 ppm	0	0	0	0	0	0
		_	•	^	^	^	^
HUNCHBACK POSITION	Control	0	0	0	0	0	0
	80 ppm	0	0	0	1	0	0
	400 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0
	80 ppm	Ö	0	0	0	0	0
	400 ppm	ő	Õ	0	0	Ö	1
	2000 ppm	0	0	0	Ö	Ö	Ô
WASTING	Control	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	400 ppm	1	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0
COLORED	Control	2	2	2	1	1	1
CODOLLOS	80 ppm	2	1	1	î	i	Ô
	400 ppm	10	10	10	8	8	8
	2000 ppm	33	32	30	29	29	27
	досо рры	••					= :
PILOERECTION	Control	0	0	0	0	0	0
	80 ppm	0	0	3	3	1	1
	400 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

SEX : FEMALE															PAGE :
Clinical sign	Group Name		stration W												
		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
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	U
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0 .	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 բթա	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	istration W	leek-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
OSS OF HAIR	Control	0	0	0	0	0	0	0	٥	•		0			0
ODD OF IMIK	80 ppm	0	0	0	0	0	0	0	0	0	0	0 0	0	0 0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
•	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	Ô	0	0	0	0	0	0	Ö
	400 ppm	0	0	0	0	0	0	0	0	Ō	Ô	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	0	0	0	0	0	0	0	0	0	0	0	0	0
ATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	1	1	1	1	1	1	1	1	2	2	2	2
ORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
·	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	1	0	0	0	0	0	0
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0 -	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

SEX : FEMALE

ODA - PEMADE															I AGE .
Clinical sign	Group Name		istration W												
-		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
LOCC OF HAT	0 . 1		•		•	•	0	•	•	•	•	•	•		
LOSS OF HAIR	Control 80 ppm	0	0 0	0 0	0 0	0 0	0 0	0	0	0	0 0	0	0	0	0 0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	ō	0	0	ō	0	0	0	Ö	Ö	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	. 0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	3	4	4	4	4	4	4
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrlcrlj[F344/DuCrj] ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	istration W												
· · · · · · · · · · · · · · · · · · ·		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
OSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	Ŏ	o o	Ŏ	Õ	Õ	Ö	Ö	Ö	ō	ō	Ö	0	Ö	ō
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATARACT	Control	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	. 0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 բբա	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	80 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	2000 ppm	0	0	2	2	2	2	2	2	2	2	2	2	2	2
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration P	Veek-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
OSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	Ö	ő	ő	0	0	0	0	0	ů.	0	0	0	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	Ō	ō
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	1	ı	0
	mqq 08	0	1	1	0	0	0	0	0	0	1	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
ORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0 0	0	0 0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	U	Ü	U	U	0	0	0	0	0	0	0	0	0	0
NTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XTERNAL MASS	Control	3	1	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	2	2	3	5	4
	2000 ppm	2	2	2	2	2	2	2	2	3	3	3	3	3	2
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name		istration N									~			
		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
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400 ppm 2000 ppm	0	0 0	0	0 0	0 0	0 0	0 0	0	0 0	0 0	0 0	0	0	0 0
	Dovo pp	•	•	•	·	·	·	•	·	Ť	Ť	·	v	Ü	Ü
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	Ò	0	1	2	1	1	1	1	1	1	1	1	1
	80 ppm	1	Ţ	1	3	4	4	3	3	3	3	3	3	3	3
	400 ppm	1	0	0	3	3	3	3	3	3	3	3	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
•••••	80 ppm	ī	i	1	1	1	1	i	1	2	2	2	2	2	2
	400 ppm	Ô	0	0	Ô	Ô	Ô	Ô	0	0	0	0	0	0	Õ
	2000 ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CONTRACT (80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMPER ORACITO	0.4.1		•					•			_			_	_
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	1	0	2	3	2	2	2	2	2	3	3	4
	80 ppm	2	1	1	1	1	1	3	3	3	3	4	4	4	5
	400 ppm	3	1	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	2	2	2	3	3	2	2	2	2	2	2	2	2	2
INTERNAL MASS	Control	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	Ô	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	2000 ppm	v	v	U	v	U	U	U	U	U	1	1	1	r	1

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	leek-dav											
	·	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
OSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	. , 0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
OILED PERI-GENITALIA	Control	1	1	1	1	2	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1	1	1	1	1	1	1	0	0	0	0	0
	400 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATARACT	Control	2	2	3	3	3	2	2	2	2	2	2	2	2	2
	80 ppm	2	2	2	2	2	2	2	2	3	3	4	4	4	4
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	4	4	4	4	4	4	4	4	4	4	4	4	3	3
ORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XTERNAL MASS	Control	4	4	6	5	6	6	6	6	7	7	8	7	8	7
	80 ppm	5	5	6	6	7	7	6	6	6	6	7	7	8	8
	400 ppm	2	2	2	2	2	2	2	2	2	2	2	2	3	3
	2000 ppm	2	2	2	2	2	2	2	2	3	4	4	4	4	3
NTERNAL MASS	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	400 ppm	0	0	0	0	0	0	0	1	2	2	2	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admin	istration	Week-day			
	or orb name	99-7	100-7	101-7	102-7	103-7	104-7
LOSS OF HAIR	Control	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1
	400 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0
1 ROO BBBB1	80 ppm	Ö	0	0	0	0	0
			0				
	400 ppm	0		0	0	0	0
	2000 ррт	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	ŧ	1	1	1	1	1
	80 ppm	0	1	0	0	0	1
	400 ppm	0	0	0	0	1	0
	2000 ppm	0	0	0	0	0	0
CATADACM	a		•		•		
CATARACT	Control	2	2	3	3	4	4
	80 ppm	4	4	4	4	4	4
	400 ppm	1	1	1	1	1	0
	2000 ppm	3	3	3	3	3	3
CORNEAL OPACITY	Control	0	0	0	0	0	0
	80 ppm	Ö	Õ	Ö	Õ	1	1
	400 ppm	0	0	0	0	1	
	400 ppm 2000 ppm	0	0	0	0	0	1 0
	2000 ppm	U	υ	U	U	U	U
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	400 ppm	0	0	0	0	1	0
	2000 ppm	0	0	0	0	0	0
EXTERNAL MASS	Control	6	6	6	6	7	7
DATEMENT MAGO	80 ppm	7		6			6
			6		6	6	
	400 ppm	3	3	3	3	4	4
	2000 ppm	4	4	4	4	5	5
INTERNAL MASS	Control	0	0	0	0	0	0
	80 ppm	0	0	0	1	1	1
	400 ppm	0	0	0	õ	Ō	ō
	2000 ppm	2	0	0	Ŏ	ů	0
	2000 ppin	4	v	U	v	v	v

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration We	ek-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. NOSE	Control	0	0	٥	0	0	0	0	0	0	0	0	0	0	0
. NOSE	80 ppm	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0	0	0 0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	U	U	U	U	U	U	U	U	U	U	U	U	U	U
i. eye	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	Ō	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	ŏ	Ö	0	0	o O	Ö	ő	ő	0	Õ	0	0	0	Ö
	400 ppm	0	0	ō	Ö	0	0	0	Ö	Ö	Ō	0	0	0	Ŏ
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	Ö
I. EAR	Control	0	0	0	0	0	Ð	0	0	0	0	0	0	0	0
	80 ppm	Ö	0	0	0	0	0	Ô	0	0	0	0	0	0	ő
	400 ppm	ŏ	Ö	0	0	0	Ö	0	0	0	0	0	0	0	0
	2000 ррш	ő	0	0	ő	0	ő	0	0	0	0	0	0	o	0
I. PERI EAR	0 . 1									•				_	
a. PEKI DAK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm 400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm 2000 ppm	0	0	0 0	0	0 0	0	0	0 0	0	. 0	0	0	0	0
	2000 ppm	U	U	U	U	U	0	U	U	υ	0	υ	U	0	0
I. LIEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ö	ŏ	0	Ö	0	Ô	ő	0	0	0	Ö	Ŏ	0	Ö

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

linical sign	Group Name	Admini	stration W	loolendore				· · · · · · · · · · · · · · · · · · ·							
linical sign	Group Name	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
		**													
. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ЕУЕ	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	1	0	0	0	0	0	0
ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	Ô	0	0	0	Ō	0	0	0	Ö	0	Ö	0	Ō	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	Ö	ŏ	0	0	ō	Ö	Ŏ	o o	0	0	0	Ö
	400 ppm	Ō	0	0	ō	Ō	Ō	Ō	Ō	0	Ö	Ö	Ö	Ö	Ö
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. IIEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	Ö	Õ	Ö	0	0	0	0	0	0	0	0	0	0
	400 ppm	Ö	Ŏ	Ö	Ö	Ö	0	ő	Ö	0	Ŏ	0	0	Ö	0
	2000 ррш	0	Ö	0	ō	0	Ö	ō	Ö	Ö	ő	ō	Ö	Ö	0
. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	Ô	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	ő	0	0	0	0	0	0	0	Ŏ	0	0	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

linical sign	Group Name	Admini	stration W	eek-day											
iinicai sign	огоар наше	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
	· · · · · · · · · · · · · · · · · · ·					·							***		
NOSE	Control	0	0	0	. 0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ЕУЕ	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IIEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

REPORT TYPE : A1 104

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

SEX : FEMALE

Clinical sign	Group Name	Admin	istration R	eek-dav											
		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
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	Ö	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0 .	0	0	.0	0	0	0	0	1	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	80 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 բբա	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

SEX : FEMALE															PAGE :
Clinical sign	Group Name		istration W								 _				
		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
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	. 0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	3	1	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	1	2	2
	2000 ppm	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj] ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

112.2 1 2.	0 · V	41								· · · · · · · · · · · · · · · · · · ·					
linical sign	Group Name	71-7	stration W 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
NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERI-MOUTH	Control	0	0	1	0	0	1	0	0	0	0	0	0	0	0
TOTAL MOOTH	80 ppm	1	0	Ô	0	0	Ô	i	i	0	ů.	0	0	0	0
	400 ppm	1	0	Ö	ő	0	0	ò	0	Ö	0	0	Ö	Ö	Ö
	2000 ppm	ō	0	0	Ö	ō	0	Ö	ō	0	Ō	ō	Õ	0	0
ORAL CAVITY	0 . 1	•		•	•	•	•	•		•	•	•	0	•	•
ORAL CAVITI	Control 80 ppm	0 0	0	0 0	0	0	0	0 0	0 0	0 0	0	0	0	0 0	0
	400 ppm	0	0	1	0 1	0	0	0		0	0	0	0		
	2000 ppm	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0
	2000 ppm	Ū	U	U	U	U	U	U	U	U	U	U	U	U	υ
EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	Ö	Ö	Ö	Ō	ō	0	Ŏ	o O	Ö	0	Ŏ	Ö	0	Ö
	400 ppm	0	0	0	0	0	0	Ō	0	0	Ö	0	0	Ō	ō
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IIEAD	Control	0	0	0	0	0	0	0	0	0	0 -	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MEGY				_					_	_					
NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

linical sign	Group Name		stration W												
		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
NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	1	0	1	1	0	0	1	0	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	i	1
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	. 0	0	0	0	0
PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	0
HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NECK	Control	1	1	1	1	1	1	ı	1	1	1	1	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admin	istration	Week-day _				 	
		99-7	100-7	101-7	102-7	103-7	104-7		
I. NOSE	Control	0	0	0	0	0	0		
	80 ppm	0	0	0	0	0	1		
	400 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		
1. EYE	Control	0	0	0	0	0	0		
	80 ppm	0	0	0	0	0	0		
	400 ppm	0	0	0	0	0	0		
	2000 ррш	0	0	0	0	0	0		
M. PERI-MOUTH	Control	0	0	0	0	0	0		
	mqq 08	1	1	1	1	1	1		
	400 ppm	0	0	0	0	1	0		
	2000 ppm	0	0	0	0	0	0		
M. ORAL CAVITY	Control	0	0	0	0	0	0		
	80 ppm	0	0	0	0	0	0		
	400 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		
A. EAR	Control	1	1	1	1	1	1		
	80 ppm	0	0	0	0	0	0		
	400 ppm	0	0	0	0	0	0		
	2000 ppm	0.	0	0	0	0	0		
M. PERI EAR	Control	0	0	0	0	0	0		
	80 ppm	0	0	0	0	0	0		
	400 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		
M. HEAD	Control	0	0	0	0	0	0		
	80 ppm	0	0	0	ō	0	0		
	400 ppm	Ō	0	0	ō	0	0		
	2000 ppm	ō	0	0	0	ō	0		
M. NECK	Control	0	0	0	0	0	0		
	80 ppm	1	1	1	1	1	1		
	400 ppm	ō	ō	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
. Breast	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LCER	Control	0	0	σ	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCr1j[F344/DuCrj] CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

DEA . LEMMER															
Clinical sign	Group Name		istration W	eek-day _											
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
m. DREAGI	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	ő	ő
	400 ppm	0	0	0	0	ő	Ö	Ö	Ö	Ö	Ŏ	0	0	0	0
	2000 ppm	Ō	0	ō	ō	0	o	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
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	. 0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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 0
	80 ppm	0	0	0	0	0	0	0	0 0	0 0	0 0	0	0	0	0
	400 ppm 2000 ppm	0 0	0	0 0	0 0	0 0	0	0 0	0	0	0	0	0	0	0
				_		_			•	•	•	•	•	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0 0	0 0	0	0	0	0 0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm 2000 ppm	0 0	0 0	0 0	0 0	0 0	0	0	0	0	0	0	0	0	0
M. TAIL		0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. IKIL	Control 80 ppm	0	0	0	0	0	0	0	.0	0	0	0	0	0	0
	400 ppm	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 թթա	0	0	0	0	0	0	0	0	0	ő	ő	ŏ	0	Õ
ANEXIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0 .	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj] ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. DREASI	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	Ů	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	U	U	U	U	U	U	U	U	U	v	v	v	V	Ū
ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
. ANTERIOR. DORSUM	C1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIERIOR. DORSOM	Control 80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	Ô
	2000 իրա	v	U	U	Ū	v	٠,	Ū	v	v	Ů	ŭ	v	•	Ŭ
GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0 .	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	ō	0	0	ō	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0461 CLINICAL OBSERVATION (SUMMARY)
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

121 111 111 111 111 111 111

Clinical sign	Group Name	Admini	stration W	eek-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
		_				•			0	0	0	0	0	0	0
. BREAST	Control	0	0	0	0	0	0 0	0 0	0 0	0	0	0	0	0	0
	80 ppm	0	0	0				0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0 0	0 0	0	0	0	0	0	Ô	0	Ö
	2000 ppm	0	0	0	0	U	U	U	U	U	U	v	U	v	·
. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0.	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
I. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	1	1	1	1	1	1	1	1	1	1	1	1
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H (D)(L1)	80 ppm	ō	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ŏ	0	0	0	0	0	0	0	0	0	0	0	0	1
ILCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	Ö	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	ő	Ö	Ö	Ö	0	0	0	1	1	1	1	1	1	1
	2000 ppm	Ô	Ŏ	0	Ö	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
PV09 I OM	80 ppm	0	0	0	0	0	0	0	0	0	o o	0	0	0	0
				0	0	0	0	0	0	0	0	0	0	Ö	0
	400 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	U	0	U	U	U	U	U	Ų	v	v	v	J

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-day											
TIMIONI GIGN		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
BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BREAGI	80 ppm	0	0	Ő	Ö	Ö	Ö	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	ō	ō	0	0	0	0	0	0	0	0
	2000 ppm	0	o	ō	Ö	0	0	0	0	1	1	1	1	1	1
ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	I	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0 0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0 1		1	1	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	. 1	1	1	Ū
. TAIL	Control	0	0	0	0	0	0	0	0	0	0 0	0	0 0	0 0	0
	80 ppm	0	0	0	0	0	0			0	1	1	1	1	Ő
	400 ppm	0	0	0	0	0	0 1	0 1	· 0 1	1	1	1	1	1	1
	2000 ррт	1	1	1	1	1	1	ı	1	1	1	ı	ı	1	•
NEMIA	Control	0	0	0	0	0	0	0 0	0	0 0	0	0	1 0	1 0	0
	80 ppm	0	0	0 0	0 0	0 0	0 0	0	0	0	0	0	0	0	0
	400 ppm 2000 ppm	0 1	0 1	1	1	1	1	1	1	1	1	1	1	1	0
	ZUUU ppm	1	ı	1	1		_		_		-		_		
LCER	Control	0	0	0	0	0	0	0	0	0	0 0	0	0 0	0 0	0
	80 ppm	0	0	0	0	0	0	0	0	0	I	1	1	1	1
	400 ppm	1	1	0	0	0	0 0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	U	U	U	U	U	v	Ū	_	•
ROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY) STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 104

ALL ANIMALS

SEX : FEMALE

linical sign	Group Name	Admini	stration W	eek-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
BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DREAGI	80 ppm	0	ŏ	Ö	ŏ	0	Ö	Ō	Ö	1	1	1	1	1	1
	400 ppm	Ö	Õ	0	Ö	Ō	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ABDOMEN	Control	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1	1	1	1	2	2	2	2	3	3	3	3
	400 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	1	1	1	1	1	1	1	1	I	1	1
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	1	1	1	1	1	1	1	1	1	1	1	Ţ	1	I
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GENITALIA	Control	0	0	0	0	1	1	1	1	1	1	1	2	2	2 0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0			
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	U	U
TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0 0	0 0	0 0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	U	U	υ	U	U	U	U	U	U
NEMIA	Control	0	0	0	1	1	0	0	0	0	0	0	0 0	1 1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0 0	0	0	0	0
	400 ppm	1	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0	U	U	U	U	U	•	1	
CER	Control	0	0	0	0	0	0	0	0	0	0 0	0 0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0				0	0	0
	400 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	U	U	U	Ü
ROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

STUDY NO. : 0461

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W											AH #	
		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
/ DUCACE	Control	0	0	0	0	1	1	1	1	1	1	2	2	2	1
A. BREAST	80 ppm	1	1	i	2	2	2	2	2	2	2	2	2	3	3
	400 ppm	0	0	0	0	Ö	0	0	0	0	0	0	0	1	1
	2000 ppm	1	1	1	1	1	1	1	1	2	2	2	2	2	2
. ABDOMEN	Control	1	1	2	2	2	2	2	2	3	3	3	3	3	3
	80 ppm	3	3	3	3	3	3	. 3	3	3	3	3	3	3	3
	400 ppm	1	1	1	1	i	1	1	1	1	1	1	1	1	1
	2000 ppm	1	i	1	1	1	1	0	0	0	1	1	1	1	1
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	1	1	1	1	1	1	1	1	1	1	1	1	I O	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	U	
. GENITALIA	Control	2	2	3	2	2	2	2	2	2	2	2 0	2	2	2
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	ō
	400 ppm	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	U	U	Ü	U						
M. TAIL	Control	0	0	0	0	0	0	0 0	0 0	0 0	0 0	0	0	0	0
	80 ppm	0	0	0	0	0			0	0	0	0	0	0	Ö
	400 ppm	0	0	0	0	0 0	0 0	0 0	0	0	0	0	0	0	ō
	2000 թբա	0	0	0	0	U	U	U	U	Ü	-	-		-	
ANEMIA	Control	1	1	1	0	1	0	0	0	0	0 0	0 0	0	1	1
	80 ppm	1	l.	1	0	0	0	0	0	0		0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	2000 ррш	1	1	1	1	1	1	0	0	0	0	U	U	Ū	1
ULCER	Control	0	0	0	0	0	0	0	0	0	0 0	0 0	0 0	0 0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0 0	0	0	0	1	i	1
	2000 ppm	0	0	0	0	0	0	0	U	U	U	U	1		•
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
···	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	2000 ppm	0	0	0	0	0	0	0	0	1	1	1	0	0	(

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admin	istration \	Week-day			
OTTHIOGI SIGN	oroab name	99-7	100-7	101-7	102-7	103-7	104-7
M DDC1CT	Control	1	1	1	1	2	2
M. BREAST	80 ppm	1 3	1 2	$rac{1}{2}$	2	2	2
	400 ppm	1	i	1	1	2	2
	2000 ppm	3	3	3	3	3	3
	2000 ррш	J	,	· ·	v	·	v
M. ABDOMEN	Control	3	3	3	3	3	3
III. TEDONESI	80 ppm	2	2	2	2	2	2
	400 ppm	i	1	1	1	1	1
	2000 ppm	1	î	1	î	î	1
	2000 pput		•	•	*	•	•
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0
III III III III IIII IIII IIII IIII IIII	80 ppm	0	0	0	0	Ö	0
	400 ppm	1	1	1	i	1	1
	2000 ppm	0	0	0	Ô	0	ō
	2000 pput	•	J	·	ŭ	-	•
M. GENITALIA	Control	1	1	1	1	1	1
in objections.	80 ppm	ō	0	Ō	0	0	0
	. 400 ppm	0	0	0	0	1	1
	2000 ppm	ŏ	Ö	0	0	1	ĩ
	Stor ppm	-	-	-		_	
M. TAIL	Control	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
ANEMIA	Control	2	2	2	2	2	1
	80 ppm	2	3	2	3	4	4
	400 ppm	0	0	0	0	0	0
	2000 ppm	1	2	1	1	1	1
	• •						
ULCER	Control	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1
	••						
EROSION	Control	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration We	ek-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
			_				_							•	
RUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	.0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	ő	0	ō	0	ō	ō	Ō	0	ō	ō	Ö	Ō	ō
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
ROWN URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	Ö	0	0	0	Ŏ	Ö	0	ŏ	Ö	0	0	0	0
	2000 ppm	Ö	0	0	Ö	Õ	0	Ô	0	0	ō	ő	0	ŏ	0
MALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	Õ	0	Ö	0	ő	Ö	0	ő	ů	0	0	Õ	0
	400 ppm	Ö	ŏ	0	ō	0	0	0	0	Ő	0	Ö	Ö	Ö	0
	2000 ppm	Ö	ŏ	0	ő	Õ	Ŏ	ő	Õ	Ŏ	0	0	ŏ	0	ő

CLINICAL OBSERVATION (SUMMARY) STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

linical sign	Group Name	Admini	stration W	eek-dav											
		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
		_	_			_			_		_	_	•	•	
USTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0 .	0	0	0	0	0	0	0	0	0
MORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	Ó	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
OWN URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0.	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	Ó	0	0	0	0	0
ALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	. 0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	Ö	0	Ö	ō	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrl, [F344/DuCrj]
REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	leek-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
v.tom.															
RUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	Ō
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	ō	0
	2000 ррт	0	0	0	0	0	0	O	0	0	ō	0	ō	Ö	0
LLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	Ō	ō	0	0	Õ	0
	400 ppm	0	0	0	0	Ŏ	ō	ŏ	Ö	ŏ	Ŏ	0	0	0	0
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
OWN URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	ō	Ŏ	0	0	ő	Ö
	400 ppm	0	0	0	0	0	0	0	0	ō	Ö	Õ	Ö	Õ	0
	2000 ppm	0	0	0	0	0	0	ō	0	ō	ō	0	ő	Ö	0
IALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	ō	Ö	Ö	0	Ö	Ô	o 0	0	0	0
	400 ppm	0	0	0	0	Õ	0	Ö	0	0	û	0	Ŏ	0	0
	2000 ppm	0	0	ő	ő	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	istration W	eek-dav											
		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
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CNUSTA	80 ppm	0	Ö	0	0	0	0	0	Ö	Ö	Ö	Õ	0	Ö	ō
	400 ppm	Ö	0	Ö	Ö	Õ	0	0	0	0	0	0	0	0	0
	2000 ppm	Ō	Ö	Ō	0	0	0	0	0	0	0	0	0	0	0
HEMORRIIAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	U	U
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
BROWN URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	. 0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj] ALI

REPORT TYPE : A1 104

STUDY NO. : 0461

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-day	<u>.</u>										
		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
											_	_			
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	1	1	1	1	1	1	1	0	0	0	0	0
	2000 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	2
EMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	ī	0
	80 ppm	0	0	. 0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррт	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELLOW URINE	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	50	50	50	50	50	49	49	49	49	49	49	49	49	48
BROWN URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	. 0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	1	0	0	0	0	1	1	ι	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

CrlCrlj[F344/DuCrj] ALL

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
RUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EMORRHAGE	Control	0	0	0	0	0	. 0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	80 ppm	0	0	0	0	. 0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	48	48	48	48	48	48	48	48	48	48	48	48	48	48
BROWN URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0 -	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALL STOOL	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	1	1	1	0	0	0	0
	400 ppm	i	0	Õ	i	1	1	1	0	0	0	0	0	0	0
	2000 ppm	ô	Ö	0	ō	Ô	0	0	0	0	0	0	0	0	C

CLINICAL OBSERVATION (SUMMARY) ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] ALL ANIMALS

STUDY NO. : 0461 REPORT TYPE : A1 104

SEX : FEMALE

linical sign	Group Name	Admini	stration W	eek-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
				•			•	•			0	0	0	0	0
RUSTA	Control	0	0	0	0	0	0	0	0	0	0 1	1	1	1	1
	80 ppm	1	1	1	1	1	1 0	1	1 0	1 0	0	2	2	2	2
	400 ppm	0	0 2	0 2	0 2	0 2	2	0 2	2	2	2	2	2	2	2
	2000 ppm	2	2	۷	2	2	۷	2	2	۷	2	2	2	2	
MORRHAGE	Control	0	0	1	1	0	0	0	2	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
												•	•	•	•
RREGULAR BREATHING	Control	0	0	0	1	1	1	1	1	1	1	1	0	1	1 0
	80 ppm	0	0	0	0	0	0	0	0	0	0 0	1 0	0	0	0
	400 ppm	0	0	0	0	0	0	0 0	0 0	0	0	0	0	1	0
	2000 ppm	0	0	0	0	1	1	U	υ	U	U	Ų	U	ī	U
SPIRATORY SOUND ABNOR	Control	1	0	0	0	0	1	1	1	1	1	1	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DIDITINO	80 ppm	Ö	Ö	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	Ö	0	0	0	Õ	0	Ö	0	Ö	Ō	0	0	0	0
	2000 ppm	ő	0	0	Ö	Ö	0	Ö	0	0	0	0	0	0	0
T OW TIPTHE	0 . 1		•	•	•			•	0	•	0	0	0	0	0
ELLOW URINE	Control 80 ppm	0	0 0	0 0	0	0 0	0	0	0 0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm 2000 ppm	48	48	48	48	48	48	47	47	47	47	47	47	45	44
	2000 pptii	70	70	70	-10	-10	-20	7.1				1,	•	20	
ROWN URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALL STOOL	Control	0	0	0	1	2	1	1	1	1	1	1	1	1	1
min otoon	80 ppm	0	0	0	0	ő	0	0	0	Ô	1	1	Ô	Ô	ō
	400 ppm	0	0	0	0	0	0	0	0	0	3	3	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ū	v	U	U	U	v	Ū	v	Ū	•	•	•	·	

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admin	istration '	Week-day _			
-	•	99-7	100-7	101-7	102-7	103-7	104-7
CRUSTA	Control	0	0	0	0	0	0
	80 ppm	1	1	1	1	i	1
	400 ppm	2	2	2	2	2	2
	2000 ppm	2	2	2	2	2	2
HEMORRHAGE	0 - 4- 1	0	^	•	^	^	^
HEMORRHAGE	Control	0	0	0	0	0	0
	80 ppm		0	0	0	0	
	400 ppm	0	0	0 0	0	0 0	0 0
	2000 ppm	0	U	U	U	U	U
IRREGULAR BREATHING	Control	0	0	1	1	I	0
	80 ppm	1	0	2	2	1	1
	400 ppm	0	0	0	0	1	0
	2000 ppm	0	0	0	0	2	1
DECRETATION COLUMN ARMOR							
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0
	2000 ррш	0	0	0	0	0	0
VELLOW UDING	0				•	•	
YELLOW URINE	Control 80 ppm	0 0	0 0	0	0	0	0 1
	400 ppm	0	0	0	2 0	1 0	0
	2000 ppm	43	42	40	40	40	39
	2000 ppm	40	4.6	40	40	40	<i>ა</i> ઝ
BROWN URINE	Control	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
CV44.1 OFFICE			_				
SMALL STOOL	Control	0	0	2	1	1	1
	80 ppm	1	1	3	3	1	1
	400 ppm	0	0	0	1	2	2
	2000 ppm	2	0	0	1	1	0

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

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Clinical sign	Group Name	Adminia	stration W	eek-day			1.0								
		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
															•
DLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	U
	80 ppm	0	0	0	0	0	0	0	0	0	Ü	U	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ррш	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	. 0	0	0	0	0	0	0	0	0	0	0
VON REMARKABLE	Control	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	80 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	400 ppm	50	50	50	50	50	50	50	50	50	49	48	48	48	47
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 90

Clinical sign	Group Name	Admini	stration W	eek-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
OL1GO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	I	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	ō	0	0
NON REMARKABLE	Control	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	80 ppm	50	50	50	50	50	50	50	50	50	50	50	49	50	50
	400 ppm	47	47	47	47	47	45	45	44	44	44	43	43	43	43
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	Õ	0

(HAN190)

BAIS 4

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 91

Clinical sign	Group Name	Admini	stration W	eek-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
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 թթա	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	80 ppm	50	50	50	50	50	50	50	50	50	50	50	50	49	49
	400 ppm	43	43	43	44	44	43	44	44	44	44	44	44	44	43
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS

CLINICAL OBSERVATION (SUMMARY)

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 92

Clinical sign	Group Name	Admini	stration W	eek-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
DI TAO OTORI		_	_												
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	Ô
	2000 ppm	0	0	0	Ō	0	0	0	0	ō	0	0	Ö	ŏ	0
ON REMARKABLE	Control	50	49	49	49	49	49	49	49	49	49	49	49	48	48
	80 ppm	49	50	50	50	50	50	50	50	50	50	49	49	49	49
	400 ppm	43	43	43	43	43	43	43	42	42	42	42	42	42	41
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

STUDY NO. : 0461 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj] REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

SEX : FEMALE

PAGE: 93

Clinical sign	Group Name	Admini	stration W	eek-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
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	1	1	1	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	ō	0	ō	Ö
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	46	48	49	49	49	48	49	49	49	48	48	47	47	45
	80 ppm	49	48	48	49	49	49	49	49	49	48	48	48	47	42
	400 ppm	41	41	41	40	39	37	37	37	37	37	37	37	35	35
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

SEX : FEMALE

PAGE: 94

Clinical sign	Group Name	Admini	stration W	eek-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
DL1GO-STOOL	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ON REMARKABLE	Control	44	44	43	44	42	41	41	41	41	41	41	40	39	38
	80 ppm	40	39	38	42	41	41	39	38	36	36	36	36	36	35
	400 ppm	36	36	35	35	35	35	35	35	35	35	35	35	35	35
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 95

Clinical sign	Group Name	Admini	stration W	eek-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
OLIGO-STOOL	Control	0	0	0	0	1	0	0	0	0	0	0	1	1	2
	80 ppm	0	0	0	0	0	0	0	0	0	1	1	0	1	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	2000 ррш	0	0	0	0	0	0	0	0	0	0	0	0	1	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	400 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	.0	0	0	0	0	0	0	0
NON REMARKABLE	Control	38	38	35	35	34	34	33	32	32	32	31	31	30	30
	mqq 08	36	37	36	36	35	35	36	36	35	35	34	35	33	33
	400 ppm	35	36	36	36	36	36	36	35	34	34	32	32	31	31
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190) BAIS 4

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 96

Clinical sign	Group Name	Admin	istration '	Week-day _			
		99-7	100-7	101-7	102-7	103-7	104-7
OLIGO-STOOL	Control	1	1	2	2	1	2
	80 ppm	0	1	2	3	2	1
	400 ppm	0	0	0	1	1	1
	2000 ppm	2	0	0	1	2	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0
	80 ppm	0	0	0	1	1	0
	400 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
NON REMARKABLE	Control	30	30	29	30	28	26
	80 ppm	32	31	28	29	28	28
	400 ppm	31	31	31	33	32	31
	2000 ppm	0	0	0	0	0	0

(HAN190)

APPENDIX C 1

BODY WEIGHT CHANGES: MALE

BODY WEIGHT CHANGES

(SUMMARY)

STUDY NO. : 0461 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

ALL ANIMALS

UNIT : g
REPORT TYPE : A1 104

SEX : MALE

PAGE: 1

Name	Administ	tration	week		•									
	0		1		2		3		4		5		6	
Control	126±	4	153±	6	186±	8	206生	9	228±	9	243±	11	255±	13
80 ppm	126±	4	154±	7	186±	9	207±	9	231±	9	244±	10	257±	11
400 ppm	126±	5	152±	7	183±	8	203生	9	226±	11	240±	12	253±	12
2000 ррш	126±	4	141±	6**	167土	10**	184±	12**	204生	15 **	218±	16**	231±	16**
Significant difference	e; *:P≦0.0	05	**: P ≤ 0.01				Test of Du	nnett						
N260)	<u> </u>		·		·			•						

BODY WEIGHT CHANGES

(SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g

REPORT TYPE : A1 104

SEX : MALE

oup Name	Admini	stration	week											
	7		8		9		10		11		12		13	
Control	268土	14	278±	15	289±	16	298±	17	308±	18	313±	19	319±	19
80 ppm	271±	11	281±	12	290±	12	299±	13	308±	13	313±	13	320±	13
400 ppm	266±	14	277±	14	286±	15	295±	16	303±	17	307±	18	314±	17
2000 ррт	244±	17**	254±	18**	264±	18**	270±	19**	277±	20**	282±	21**	288±	21**
Significant difference	e; *:P≦0). 05	**: P ≤ 0.0)1			Test of Du	ınnett						

(HAN260)

BAIS 4

PAGE: 2

BODY WEIGHT CHANGES ALL ANIMALS

(SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 104

SEX : MALE

PAGE: 3

		reek											
14		18		22		26		30		34		38	
324±	19	343±	20	356±	21	367±	21	382±	22	392±	22	397生	23
325±	14	345±	15	360±	15	370±	15	387±	16	395±	17	401±	17
319±	17	340±	19	356±	19	367±	18	382±	19	391±	21	396±	21
294±	20**	312±	18**	324±	17**	333±	17 **	342±	17 ★★	349±	18**	352±	17**
*: P ≤ 0). 05 **	*: P ≤ 0.	01			Test of D	unnett						
	325± 319± 294±	325± 14 319± 17 294± 20≠≠	325± 14 345± 319± 17 340± 294± 20≠ 312±	325± 14 345± 15 319± 17 340± 19 294± 20≠ 312± 18≠≠	325± 14 345± 15 360± 319± 17 340± 19 356± 294± 20≠ 312± 18≠ 324±	325± 14 345± 15 360± 15 319± 17 340± 19 356± 19 294± 20≠ 312± 18** 324± 17**	325± 14 345± 15 360± 15 370± 319± 17 340± 19 356± 19 367± 294± 20≠ 312± 18* 324± 17* 333±	325± 14 345± 15 360± 15 370± 15 319± 17 340± 19 356± 19 367± 18 294± 20** 312± 18** 324± 17** 333± 17**	325± 14 345± 15 360± 15 370± 15 387± 319± 17 340± 19 356± 19 367± 18 382± 294± 20** 312± 18** 324± 17** 333± 17** 342±	325± 14 345± 15 360± 15 370± 15 387± 16 319± 17 340± 19 356± 19 367± 18 382± 19 294± 20** 312± 18** 324± 17** 333± 17** 342± 17**	325± 14 345± 15 360± 15 370± 15 387± 16 395± 319± 17 340± 19 356± 19 367± 18 382± 19 391± 294± 20** 312± 18** 324± 17** 333± 17** 342± 17** 349±	325± 14 345± 15 360± 15 370± 15 387± 16 395± 17 319± 17 340± 19 356± 19 367± 18 382± 19 391± 21 294± 20** 312± 18** 324± 17** 333± 17** 342± 17** 349± 18**	325± 14 345± 15 360± 15 370± 15 387± 16 395± 17 401± 319± 17 340± 19 356± 19 367± 18 382± 19 391± 21 396± 294± 20** 312± 18** 324± 17** 333± 17** 342± 17** 349± 18** 352±

(HAN260)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g

BODY WEIGHT CHANGES ALL ANIMALS

(SUMMARY)

REPORT TYPE : A1 104

SEX : MALE

oup Name	Admini	stration	week											
	42	<u> </u>	46		50		54		58		62		66	
Control	406±	23	411±	23	415±	24	419±	24	422 ±	24	429±	24	431±	24
80 ppm	409±	18	415±	19	420±	19	424±	19	426±	20	431±	20	433±	20
400 ppm	404±	22	410±		412±			22	417±	21		21	421±	
2000 ррт	356±	18≉∗	359±	18**	357±	17**	359±	16**	358±	16**	354±	16**	348±	23**
Significant difference	; *: P ≦ 0	0. 05	**: P ≤ 0.0	01			Test of Du	nnett						

(HAN260)

BAIS 4

PAGE: 4

BODY WEIGHT CHANGES

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g

ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

PAGE : 5

p Name	Admini	stration	week											
	70		74		78		82		86		90		94	
Control	432±	25	436±	25	438±	26	435±	27	428±	36	429±	29	421 ±	28
80 ppm	433±	21	435±	24	437士	25	432±	24	427±	29	421±	35	414±	37
400 ppm	419±	21**	420±	23**	419±	20**	410±	20**	403±	20**	395±	20**	381±	30**
2000 рут	339±	20**	331±	19**	318±	27**	306±	34**	297±	36**	301±	27**	274±	43**
Significant differend	e; *:P≦(). 05 4	e*: P ≤ 0.0	01			Test of Du	ınnett						

(SUMMARY)

(HAN260)

BODY WEIGHT CHANGES

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS

(SUMMARY)

UNIT : g
REPORT TYPE : A1 104

SEX : MALE

PAGE: 6

oup Name	Administration	week		
	98	102	104	
Control	415± 30	408± 35	395± 47	
80 ppm	408± 29	400± 22	394± 26	
400 ppm	375± 20**	360± 32**	355± 27**	
2000 ppm	281± 6 ?	213 ?	-	
Significant difference	; *: P ≤ 0.05 *	⇒ : P ≤ 0.01	Test of Dunnett	
?: Significant test is	not applied, because No.	of data in this group	s less than 3.	
N260)				

APPENDIX C 2

BODY WEIGHT CHANGES: FEMALE

BODY WEIGHT CHANGES

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

ALL ANIMALS

(SUMMARY)

UNIT : g
REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 7

oup Name	Admini	stration	week											•
	0		1		2		3		4		5		6	
Control	99±	3	111±	4	124±	5	130±	6	140土	7	146±	8	150±	9
80 ppm	99±	3	110±	4	123±	5	129±	5	138±	6	144±	7	148±	8
400 ppm	99±	3	110±	4	123±	5	129±	6	139±	7	145±	8	149±	9
2000 ppm	99±	3	104±	3**	119±	5**	125±	5 **	134±	6 **	141±	7**	144土	7**
Significant differenc	e; *:P≦0	. 05	** : P ≤ 0.0	1			Test of Du	ınnett						

(HAN260)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g

BODY WEIGHT CHANGES ALL ANIMALS

(SUMMARY)

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 8

Name	Administr	tion week											
	7	8		9		10		11	-	12		13	
Control	154± 10	157±	11	160±	11	164±	12	167生	12	168生	12	170±	13
80 ppm	152± 9	154±	9	157±	10	160±	10	164±	11	165±	11	166±	10
400 ppm	151± 10	155±	10	158±	11	161±	12	164±	11	165±	12	167±	12
2000 ррт	147± 7	★ 150±	8**	152±	8 * *	155±	8 **	160±	9**	161生	9**	163±	9**
Significant differenc	e; *:P≦0.05	** : P ≤ 0.	. 01			Test of Du	Innett						

(HAN260)

BODY WEIGHT CHANGES

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS

UNIT : g REPORT TYPE : AI 104

SEX : FEMALE

14 18 22 26 30 34 38 171± 13 178± 14 182± 15 188± 15 192± 17 196± 18 199± 19 167± 10 174± 12 178± 12 183± 14 188± 14 191± 15 194± 16 168± 12 175± 12 179± 14 184± 14 189± 15 192± 17 196± 18 163± 9** 169± 9** 172± 9** 176± 10** 180± 10** 183± 10** 185± 11**	oup Name	Admini	stration	week											
$167\pm \ 10$ $174\pm \ 12$ $178\pm \ 12$ $183\pm \ 14$ $188\pm \ 14$ $191\pm \ 15$ $194\pm \ 16$ $168\pm \ 12$ $175\pm \ 12$ $179\pm \ 14$ $184\pm \ 14$ $189\pm \ 15$ $192\pm \ 17$ $196\pm \ 18$		14		18		22		26		30		34		38	
$168\pm\ 12$ $175\pm\ 12$ $179\pm\ 14$ $184\pm\ 14$ $189\pm\ 15$ $192\pm\ 17$ $196\pm\ 18$	Control	171±	13	178±	14	182±	15	188±	15	192±	17	196土	18	199±	19
	80 ppm	167±	10	174±	12	178±	12	183±	14	188±	14	191±	15	194±	16
163士 9** 169士 9** 172士 9** 176士 10** 180士 10** 183士 10** 185士 11**	400 ppm	168±	12	175±	12	179±	14	184±	14	189±	15	192±	17	196±	18
	2000 ppm	163±	9≉*	169±	9**	172±	9**	176±	10**	180土	10**	183±	10**	185±	11**
	2000 ppm	163±	9**	169±	9**	172±	9 **	176±	10**	180±	10**	183±	10**		185±

(SUMMARY)

(HAN260)

BAIS 4

PAGE: 9

BODY WEIGHT CHANGES ALL ANIMALS

(SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 10

p Name	Admini	stration '	week											
	42		46		50		54		58		62		66	
Control	203±	19	208±	21	211±	23	215±	25	221±	25	227±	28	231 土	30
80 ppm	199±	17	202±	19	206±	20	210±	22	214±	22	221±	24	226±	25
400 ppm	200±	18	204±	19	207±	20	211±	22	216±	23	221±	26	227±	28
2000 ppm	189±	11**	190±	1[**	193±	11**	196±	1[**	199±	12**	203±	13**	207±	15**
Significant difference	; *: P ≦ 1	0.05 *	*: P ≤ 0.0)1			Test of Du	mnett						

(HAN260)

STUDY NO. : 0461
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
UNIT : g

BODY WEIGHT CHANGES ALL ANIMALS

(SUMMARY)

REPORT TYPE : A1 104 SEX : FEMALE

PAGE: 11

up Name	Admini	stration	week					•						
	70		74		78		82		86		90		94	
Control	232土	30	244±	31	250±	31	253±	30	257±	30	262±	31	262±	33
80 ppm	230±	27	240±	29	250±	30	254±	28	259±	27	264±	28	266±	30
400 ppm	230±	30	239±	30	248±	32	249±	31	255±	30	257土	29	258±	28
2000 ррт	210±	15**	215±	15**	220±	14**	217±	14**	221±	15**	221±	15**	222±	17**
Significant difference	e; *:P≦(). 05	**: P ≤ 0.0)1			Test of Du	nnett						

(HAN260)

BODY WEIGHT CHANGES ALL ANIMALS

(SUMMARY)

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

UNIT : g

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 12

p Name	Administration	week		
	98	102	104	
Control	264± 32	265± 29	265± 30	
80 ppm	269± 33	263± 34	266± 32	
400 ppm	258± 31	259± 28	256± 29	
2000 ррт	220± 18**	217± 20**	216± 21**	
Significant difference;	*: P ≤ 0.05	++ : P ≤ 0.01	Test of Dunnett	
N260)				

(HAN260)

APPENDIX D 1

FOOD CONSUMPTION CHANGES: MALE

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

UNIT : g

REPORT TYPE : A1 104

SEX : MALE

PAGE: 1

ıp Name	Administration	week					· · · · · · · · · · · · · · · · · · ·
	1	2	3	4	5	6	7
Control	12.5± 0.7	13.6± 0.8	14.3± 0.8	14.6± 0.7	14.6± 0.8	14.0± 0.9	14.4± 0.9
80 ppm	12.5± 0.7	13.8± 0.9	14.5± 0.8	14.8± 0.9	14.9± 0.9	14.4± 0.9	14.7± 1.0
400 ppm	12.3± 0.6	13.4± 0.7	14.1± 0.7	14.6± 0.8	14.8± 0.8	14.1± 0.9	14.4± 0.9
2000 ррт	10.5± 0.6≉	12.4± 1.0**	13.0± 1.1≠	13.5± 1.3**	13.7± 1.2**	13.4± 1.1**	13.7± 1.2**
Significant differenc	re; *: P ≤ 0.05	* : P ≤ 0.01		Test of Dunnett			
260)	e, +.r <u>2</u> 0.00			lest of Dunnett			

(HAN260)

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g

REPORT TYPE : A1 104

SEX : MALE

PAGE: 2

Name	Administration	week					
	8	9	10	11	12	13	14
Control	14.2± 0.9	14.3± 1.0	14.5± 1.1	14.7± 1.0	14.6± 1.1	14.6± 1.1	14.4± 1.0
80 ppm	14.6± 1.1	14.7± 1.2	14.7± 1.3	14.9± 1.2	14.7± 1.3	14.8± 1.3	14.6± 1.3
400 ppm	14.5± 0.8	14.4± 0.9	14.6± 0.9	14.7± 0.9	14.4± 0.9	14.7± 0.9	14.5± 0.9
2000 ррт	13.9± 1.2	13.8± 1.1	13.8± 1.3₩	13.9± 1.3**	14.0± 1.2*	14.0± 1.2*	13.9± 1.2*
Significant difference	e; *:P≦0.05	**: P ≤ 0.01		Test of Dunnett			

(HAN260)

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g
REPORT TYPE : A1 104

SEX : MALE

PAGE: 3

ip Name	Administration week										
	18	22	26	30	34	38	42				
Control	14.5± 0.9	14.5± 1.0	14.8± 1.3	15.0± 1.1	15.3± 1.1	15.1± 1.3	15.2± 1.1				
80 ppm	14.8± 1.2	14.9± 1.4	15.2± 1.3	15.3± 1.3	15.5± 1.4	15.6± 1.3	15.5± 1.4				
400 ppm	14.7± 0.9	15.2± 1.1*	15.3± 1.2	15.4± 1.4	15.6± 1.4	15.6± 1.4	15.5± 1.6				
2000 ррш	14.3± 1.1	14.6± 1.4	15.0± 1.6	15.0± 1.5	15.6± 2.0	15.4± 1.7	15.3± 1.8				
Significant differen	ce; *: P ≦ 0.05	**: P ≤ 0.01		Test of Dunnett							

(HAN260)

FOOD CONSUMPTION CHANGES (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g

ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

PAGE: 4

ıp Name	Administration	n week					
·	46	50	54	58	62	66	70
Control	15.4± 1.1	15.5± 1.4	15.5± 1.5	15.7± 1.3	15.9± 1.4	15.5± 1.6	15.7± 1.6
80 ppm	15.6± 1.5	15.9± 1.7	15.9± 1.6	15.7± 1.6	16.0± 1.6	15.6± 1.4	15.8± 1.8
400 ppm	15.9± 1.4	15.8± 1.4	15.9± 1.3	16.0± 1.2	16.3± 1.4	16.0± 1.6	16.3± 1.9
2000 ррш	15.6± 1.9	15.6± 1.7	15.7± 1.7	15.6± 1.6	15.6± 1.8	15.1± 2.2	15.2± 2.2
Significant difference	; *: P ≤ 0.05	**: P ≤ 0.01		Test of Dunnett			

(HAN260)

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g

REPORT TYPE : A1 104

SEX : MALE

PAGE: 5

oup Name	Administration	week						•
	74	78	82	86	90	94	98	
Control	15.9± 1.6	16.3± 1.8	15.7± 1.3	15.4生 3.2	15.9± 1.5	15.2± 1.2	15.4± 1.5	
80 ppm	16.0± 1.8	16.1± 1.4	15.6± 1.6	15.5± 1.6	16.1± 1.5	15.5± 1.6	15.2± 1.7	
400 ppm	16.4± 1.6	16.5± 1.8	15.7± 1.3	16.0± 1.8	15.8± 1.8	15.4± 3.1	15.4± 1.8	
2000 ppm	14.5± 2.2**	14.5± 2.8**	13.3± 2.7★★	14.1± 4.3*	13.4± 1.8**	11.7± 3.8*	13.0± 0.8 ?	
Significant differen	ce; *: P ≤ 0.05	**: P ≤ 0.01		Test of Dunnett				
	ce; $*: P \leq 0.05$ is not applied, because No.		is less than 3.	Test of Dunnett				
N260)								В

FOOD CONSUMPTION CHANGES (SUMMARY)

ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g REPORT TYPE : A1 104

SEX : MALE

up Name	Administration	week		
	102	104		
Control	15.1± 2.7	14.8± 3.5		
80 ppm	14.7± 2.5	15.4± 1.9		
400 ppm	15.4± 3.1	16.3± 2.0		
2000 ррт	7.6 ?	-		
Significant difference	pe; *: P ≤ 0.05	** : P ≤ 0.01	Test of Dunnett	
? : Significant test	is not applied, because No.	of data in this group is less	than 3.	
N260)			**	BAI

BAIS 4

PAGE: 6

APPENDIX D 2

FOOD CONSUMPTION CHANGES: FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

UNIT : g

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 7

up Name	Administration	week					
	1	2	3	4	5	6	7
Control	9.5± 0.5	9.4± 0.6	9.6± 0.6	9.6± 0.6	9.8± 0.8	9.2± 0.9	9.4生 1.0
80 ppm	9.3± 0.4*	9.3± 0.5	9.4± 0.6	9.4± 0.6	9.4± 0.6*	8.9± 0.7	8.9± 0.7**
400 ppm	9.2± 0.5**	9.5± 1.1	9.6± 0.7	9.7± 0.7	9.9± 0.9	9.1± 0.8	9.0± 0.8*
2000 ррш	7.5± 0.4**	9.3± 0.5	9.4± 0.7	9.4± 0.5	9.7± 0.6	9.1± 0.6	9.1± 0.7*
Significant difference	e; *:P≦0.05 *	*: P ≤ 0.01		Test of Dunnett	<u></u>		
260)							В

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

PAGE: 8

up Name	Administration week							
	8	9	10	11	12	13	14	
Control	9.3± 1.1	9.4± 1.1	9.4± 1.0	9.7± 0.9	9.5± 1.0	9.5± 1.1	9.3± 1.1	
80 ppm	8.8± 0.7*	8.8± 0.9*	8.8± 0.7*	9.1± 0.6**	9.0± 0.7*	8.9± 0.7*	8.8± 0.8*	
400 ppm	9.0± 0.9	9.0± 0.9	8.9± 0.9*	9.1± 1.0**	8.9± 1.0**	9.1± 1.0	9.1± 1.0	
2000 ррт	9.0± 0.7	9.0± 0.7	8.8± 0.6**	9.1± 0.7**	8.9± 0.7≉≉	9.1± 0.7	9.0± 0.8	
Significant difference;	*: P ≤ 0.05	** : P ≤ 0.01		Test of Dunnett				
Significant difference;	*: P ≦ 0.05	**: P ≤ 0.01		Test of Dunnett				

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 9

p Name	Administration week							
	18	22	26	30	34	38	42	
Control	9.5± 1.2	9.8± 1.4	10.1± 1.4	9.8± 1.4	10.4± 1.6	10.3± 1.7	10.5生 1.7	
80 ppm	9.1± 0.9	9.2± 0.9	9.4± 1.0**	9.5± 1.0	9.7± 1.0	9.7± 1.0	9.9± 1.2	
400 ppm	9.1± 1.0	9.5± 1.1	9.6± 1.0	9.7± 1.1	10.1± 1.4	10.4± 1.7	10.2± 1.5	
2000 ррт	9.1± 0.7	9.4± 0.9	9.5± 1.0*	9.5± 0.9	9.8± 1.0	9.9± 1.2	10.0± 1.2	
Significant difference;	$*: P \leq 0.05$	**: P ≤ 0.01		Test of Dunnett				
260)								

(HAN260)

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 10

up Name	Administration	Administration week								
· · · ·	46	50	54	58	62	66	70			
Control	10.7± 1.7	11.0± 1.9	11.2± 1.8	11.6± 1.8	11.9± 2.0	11.7± 2.1	11.7± 1.9			
80 ppm	10.4± 1.3	10.7± 1.4	10.9± 1.5	11.2± 1.8	11.6± 1.8	11.5± 1.6	11.9± 1.9			
400 ppm	10.5± 1.5	10.8± 1.6	11.1± 1.5	11.4± 1.7	11.8± 1.8	11.9± 1.8	11.9± 1.8			
2000 ррт	10.2± 1.1	10.4± 1.2	10.7± 1.3	10.9± 1.6	11.4± 1.7	11.5± 1.8	11.6± 1.6			
Significant difference	ce; *: P ≤ 0.05	**: P ≤ 0.01		Test of Dunnett						
(260)										

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

UNIT : g
REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 11

Administration week								
74	78	82	86	90	94	98		
12.9± 2.1	12.9± 2.0	12.4± 1.9	12.8± 1.8	13.2± 2.1	12.5± 2.0	12.5± 2.6		
12.9± 2.1	13. 2± 2. 1	12.8± 1.9	12.9± 2.1	13.3± 2.1	12.5± 2.3	12.6± 2.4		
12.5± 1.8	13.0± 1.9	12.4± 1.7	13.0± 1.8	13.1± 1.8	12.4± 2.1	12.7± 2.2		
12.1± 1.6	12.7± 1.8	12.3± 1.7	12.8± 1.6	13.0± 1.8	12.8± 1.7	12.8± 2.3		
; *: P ≤ 0.05	** : P ≤ 0.01		Test of Dunnett					
	74 12.9± 2.1 12.9± 2.1 12.5± 1.8 12.1± 1.6	74 78 12.9 ± 2.1 12.9 ± 2.0 12.9 ± 2.1 13.2 ± 2.1 12.5 ± 1.8 13.0 ± 1.9 12.1 ± 1.6 12.7 ± 1.8	74 78 82 12.9 ± 2.1 12.9 ± 2.0 12.4 ± 1.9 12.9 ± 2.1 13.2 ± 2.1 12.8 ± 1.9 12.5 ± 1.8 13.0 ± 1.9 12.4 ± 1.7 12.1 ± 1.6 12.7 ± 1.8 12.3 ± 1.7	74 78 82 86 $12.9\pm$ 2.1 $12.9\pm$ 2.0 $12.4\pm$ 1.9 $12.8\pm$ 1.8 $12.9\pm$ 2.1 $13.2\pm$ 2.1 $12.8\pm$ 1.9 $12.9\pm$ 2.1 $12.5\pm$ 1.8 $13.0\pm$ 1.9 $12.4\pm$ 1.7 $13.0\pm$ 1.8 $12.1\pm$ 1.6 $12.7\pm$ 1.8 $12.3\pm$ 1.7 $12.8\pm$ 1.6	74 78 82 86 90 $12.9\pm$ 2.1 $12.9\pm$ 2.0 $12.4\pm$ 1.9 $12.8\pm$ 1.8 $13.2\pm$ 2.1 $12.9\pm$ 2.1 $13.2\pm$ 2.1 $12.8\pm$ 1.9 $12.9\pm$ 2.1 $13.3\pm$ 2.1 $12.5\pm$ 1.8 $13.0\pm$ 1.9 $12.4\pm$ 1.7 $13.0\pm$ 1.8 $13.1\pm$ 1.8 $12.1\pm$ 1.6 $12.7\pm$ 1.8 $12.3\pm$ 1.7 $12.8\pm$ 1.6 $13.0\pm$ 1.8	74 78 82 86 90 94 $12.9\pm$ 2.1 $12.9\pm$ 2.0 $12.4\pm$ 1.9 $12.8\pm$ 1.8 $13.2\pm$ 2.1 $12.5\pm$ 2.0 $12.9\pm$ 2.1 $13.2\pm$ 2.1 $12.8\pm$ 1.9 $12.9\pm$ 2.1 $13.3\pm$ 2.1 $12.5\pm$ 2.3 $12.5\pm$ 1.8 $13.0\pm$ 1.9 $12.4\pm$ 1.7 $13.0\pm$ 1.8 $13.1\pm$ 1.8 $12.4\pm$ 2.1 $12.1\pm$ 1.6 $12.7\pm$ 1.8 $12.3\pm$ 1.7 $12.8\pm$ 1.6 $13.0\pm$ 1.8 $12.8\pm$ 1.7		

FOOD CONSUMPTION CHANGES (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

. N

ALL ANIMALS

UNIT : g
REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 12

Group Name	Administratio	on week		
	102	104		
Control	12.6± 2.3	12.8± 2.7		
80 ppm	12.1± 3.5	13.0± 2.6		
400 ppm	12.9± 2.1	12.9± 2.3		
2000 ррт	13.0± 2.2	13.3± 2.1		
			, , , , , , , , , , , , , , , , , , , 	
Significant difference	; *: P ≤ 0.05	** : P ≤ 0.01	Test of Dunnett	
(HAN260)				BAIS 4

APPENDIX E 1

CHEMICAL INTAKE CHANGES: MALE

CHEMICAL INTAKE CHANGES (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
UNIT : g / kg / d a y
REPORT TYPE : A1 104

ALL ANIMALS

SEX : MALE

PAGE: 1

oup Name	Administration (weeks)							
	1	2	3	4	5	6	7	
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	
80 ppm	0.007± 0.001	0.006± 0.000	0.006± 0.000	0.005± 0.000	0.005± 0.000	0.004± 0.000	0.004± 0.000	
400 ppm	0.032± 0.001	0.029± 0.001	0.028± 0.001	0.026± 0.001	0.025± 0.001	0.022± 0.001	0.022± 0.001	
2000 ppm	0.148± 0.005	0.149± 0.006	0.141± 0.005	0.132± 0.005	0.126± 0.004	0.116± 0.004	0.112± 0.005	

(HAN300)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

CHEMICAL INTAKE CHANGES (SUMMARY) ALL ANIMALS

UNIT : g/kg/day
REPORT TYPE : A1 104
SEX : MALE

Froup Name	Administration	(weeks)					
	8	9	10	11	12	13	14
Control	0.000 ± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
80 ppm	0.004± 0.000	0.004± 0.000	0.004± 0.000	0.004± 0.000	0.004± 0.000	0.004± 0.000	0.004± 0.001
во ррш	0.0041 0.000	0.0041 0.000	0.0047 0.000	0.0041 0.000	0.0041 0.000	0.0012 0.000	0.0012 0.001
400 ppm	0.021± 0.001	0.020± 0.001	0.020± 0.001	0.019± 0.001	0.019± 0.001	0.019± 0.001	0.018± 0.001
2000 ppm	0.110 ± 0.004	0.105± 0.005	0.102± 0.004	0.100± 0.004	0.099± 0.004	0.097± 0.004	0.094 ± 0.005

(HAN300)

BAIS 4

PAGE: 2

CHEMICAL INTAKE CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

UNIT : g/kg/day REPORT TYPE : A1 104

SEX : MALE

PAGE: 3

oup Name	Administration	(weeks)					
	18	22	26	30	34	38	42
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000土 0.000
80 ppm	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003± 0.000
400 ppm	0.017± 0.001	0.017± 0.001	0.017± 0.001	0.016± 0.001	0.016± 0.001	0.016± 0.001	0.015± 0.001
2000 ppm	0.092± 0.004	0.090± 0.008	0.090± 0.009	0.087± 0.008	0.089± 0.011	0.087± 0.009	0.086± 0.010

(HAN300)

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

UNIT : g/kg/day

REPORT TYPE : A1 104

SEX : MALE

PAGE: 4

oup Name	Administration	(weeks)					
	46	50	54	58	62	66	70
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
80 ppm	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003± 0.000
400 ppm	0.016± 0.001	0.015± 0.001	0.015± 0.001	0.015± 0.001	0.016± 0.001	0.015± 0.002	0.016± 0.002
2000 ррт	0.087± 0.010	0.088± 0.010	0.088± 0.009	0.087± 0.008	0.088± 0.010	0.087± 0.010	0.089± 0.011

(HAN300)

CHEMICAL INTAKE CHANGES (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g/kg/day

ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

PAGE: 5

Froup Name	Administration (weeks)								
	74	78	82	86	90	94	98		
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
80 ppm	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003± 0.000	0.003 ± 0.000		
400 ppm	0.016± 0.002	0.016± 0.002	0.015± 0.002	0.016± 0.002	0.016± 0.002	0.016± 0.004	0.017± 0.002		
2000 ppm	0.087± 0.011	0.090± 0.014	0.088± 0.012	0.094± 0.025	0.088± 0.006	0.084± 0.018	0.093± 0.008		

(HAN300)

CHEMICAL INTAKE CHANGES (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS

UNIT : g/kg/day
REPORT TYPE : AI 104
SEX : MALE

(HAN300)

PAGE: 6

roup Name	Administration (reeks)	· - · · · · · · · · · · · · · · · · · ·	
Control	0.000± 0.000	0.000± 0.000		
Control	0.000 ± 0.000	0.000± 0.000		
80 ppm	0.003± 0.000	0.003± 0.000		
400 ppm	0.017± 0.004	0.018± 0.003		
2000 ррт	0.071	-		

APPENDIX E 2

CHEMICAL INTAKE CHANGES: FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)

STUDY NO.: 0461
ANIMAL: RAT F344/DuCr1Cr1;[F344/DuCrj]
UNIT: g /kg/d a y
REPORT TYPE: A1 104

ALL ANIMALS

SEX : FEMALE

PAGE: 7

oup Name	Administration	(weeks)					
	1	2	3	4	5	6	7
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
80 ppm	0.007± 0.000	0.006± 0.000	0.006± 0.000	0.005± 0.000	0.005± 0.000	0.005± 0.000	0.005± 0.000
400 ppm	0.033± 0.001	0.031± 0.003	0.030± 0.002	0.028± 0.001	0.027± 0.002	0.024± 0.001	0.024± 0.001
2000 ppm	0.145± 0.006	0.156± 0.005	0.149± 0.009	0.140± 0.004	0.138± 0.005	0.126± 0.005	0.123± 0.006

(HAN300)

CHEMICAL INTAKE CHANGES (SUMMARY) ALL ANIMALS

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

UNIT : g/kg/day REPORT TYPE : Al 104

SEX : FEMALE

PAGE: 8

oup Name	Administration (weeks)									
··	8	9	10	11	12	13	14			
Control	0.000 ± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000生 0.000			
80 ppm	0.005± 0.000	0.004± 0.001	0.004± 0.000	0.004± 0.000	0.004± 0.000	0.004± 0.000	0.004± 0.000			
400 ppm	0.023± 0.002	0.023± 0.001	0.022± 0.001	0.022± 0.002	0.022± 0.002	0.022± 0.002	0.022± 0.002			
2000 ррт	0.120± 0.007	0.118± 0.007	0.113± 0.006	0.114± 0.006	0.111± 0.006	0.111± 0.006	0.110± 0.006			

(HAN300)

CHEMICAL INTAKE CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g/kg/day

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 9

oup Name	Administration	(weeks)					
	18	22	26	30	34	38	42
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
80 ppm	0.004± 0.000	0.004± 0.000	0.004± 0.000	0.004± 0.000	0.004± 0.000	0.004± 0.000	0.004± 0.000
400 ppm	0.021± 0.002	0.021± 0.002	0.021± 0.001	0.021± 0.002	0.021± 0.002	0.021± 0.003	0.020± 0.002
2000 ррт	0.108± 0.006	0.109± 0.009	0.108± 0.009	0.105± 0.007	0.107± 0.009	0.107± 0.010	0.106± 0.010

(HAN300)

CHEMICAL INTAKE CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
UNIT : g /kg / d a y
REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 10

oup Name	Administration (weeks)								
	46	50	54	58	62	66	70		
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
80 ppm	0.004± 0.000	0.004± 0.001	0.004± 0.000	0.004± 0.001	0.004± 0.000	0.004± 0.000	0.004± 0.001		
400 ppm	0.021± 0.002	0.021± 0.003	0.021± 0.002	0.021± 0.002	0.021± 0.003	0.021± 0.003	0.021± 0.003		
2000 ppm	0.108± 0.009	0.108± 0.009	0.109± 0.010	0.110± 0.013	0.113± 0.013	0.111± 0.014	0.111± 0.012		

(HAN300)

CHEMICAL INTAKE CHANGES (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
UNIT : g / kg / d a y
REPORT TYPE : A1 104

ALL ANIMALS

SEX : FEMALE

PAGE: 11

Administration	(weeks)					
74	78	82	86	90	94	98
0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
0.004± 0.001	0.004± 0.001	0.004± 0.001	0.004± 0.001	0.004± 0.001	0.004± 0.001	0.004± 0.001
0.021± 0.003	0.021± 0.003	0.020± 0.003	0.021± 0.003	0.020± 0.003	0.019± 0.003	0.020± 0.003
0.113± 0.012	0.116± 0.014	0.113± 0.014	0.116± 0.012	0.118± 0.014	0.116± 0.014	0.117± 0.018
	74 0.000± 0.000 0.004± 0.001 0.021± 0.003	74 78 0.000± 0.000 0.000± 0.000 0.004± 0.001 0.004± 0.001 0.021± 0.003 0.021± 0.003	74 78 82 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.004± 0.001 0.004± 0.001 0.004± 0.001 0.021± 0.003 0.021± 0.003 0.020± 0.003	74 78 82 86 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.004± 0.001 0.004± 0.001 0.004± 0.001 0.004± 0.001 0.021± 0.003 0.021± 0.003 0.020± 0.003 0.021± 0.003	74 78 82 86 90 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.004± 0.001 0.004± 0.001 0.004± 0.001 0.004± 0.001 0.004± 0.001 0.021± 0.003 0.021± 0.003 0.020± 0.003 0.021± 0.003 0.020± 0.003	74 78 82 86 90 94 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.004± 0.001 0.004± 0.001 0.004± 0.001 0.004± 0.001 0.004± 0.001 0.004± 0.001 0.021± 0.003 0.021± 0.003 0.020± 0.003 0.021± 0.003 0.020± 0.003 0.019± 0.003

(HAN300)

CHEMICAL INTAKE CHANGES (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1;[F344/DuCr;]
UNIT : g /kg / d a y
REPORT TYPE : A1 104
SEX : FEMALE

ALL ANIMALS

PAGE: 12

roup Name	Administration 102	(weeks)
Control	0.000± 0.000	0.000± 0.000
80 ppm	0.004± 0.001	0.004± 0.001
400 ppm	0.020± 0.003	0.020± 0.003
2000 ppm	0.120± 0.017	0.123± 0.018

(HAN300)

APPENDIX F 1

HEMATOLOGY: MALE

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

MEASURE. TIME : 1 SEX : MALE

HEMATOLOGY (SUMMARY) ALL ANIMALS (105W)

up Name	NO. of Animals	RED BLOOD CELL 1 0⁵/µL	HEMOGLOBIN g∕dl	HEMATOCRIT %	MCV f l		MCH pg		MCHC g/dl		PLATELE 1 0 ³ /1	
Control	39	7.44± 1.94	12.9± 3.5	37.1± 8.	6 51.8±	10.0	17.6±	2.8	34.3±	2.8	786±	274
80 ppm	40	8.30± 1.24*	14.0± 2.1	40.4± 4.	8 49.2±	5.5*	16.9±	1.4*	34.5±	1.9	833±	277
400 ppm	39	7.42± 1.18	12.3± 1.8	▶ 35.5± 4.	8** 48.1±	2.5**	16.6±	1.0**	34.5±	1.0	949±	154**
2000 ppm	0	-	-		-		-		_		-	

(HCL070)

HEMATOLOGY (SUMMARY) ALL ANIMALS (105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

MEASURE. TIME: 1

SEX : MALE

REPORT TYPE : A1

Al PAGE: 2

Group Name	NO. of Animals	RETICUL %	осуте	METHEMOG %	LOBIN			 	
Control	39	5.7±	6.8	0.3±	0. 1				
80 ppm	40	3.6±	2.8	0.3±	0.1				
400 ppm	39	3.4±	1.6	0.4±	0.2**				
2000 ppm	0	-		-					
Significant	difference;	*: P ≤ 0	. 05	**: P ≤ 0.01		Test of Du	nnett		
(1101.070)									

(HCL070)

HEMATOLOGY (SUMMARY) ALL ANIMALS (105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

MEASURE. TIME: 1 SEX : MALE

REPORT TYPE : A1

PAGE: 3

oup Name	NO. of Animals	WBC 1 O³∕µl	Dif N-BAND	fferential	WBC (% N-SEG	5)	EOSINO		BASO		MONO		LYMPIIO		OTHER	
Control	39	12.03± 27.28	<u>1 -1-</u>	3	43±	13	2±	1	0±	0	4土	2	40±	13	10土	22
80 ppm	40	8.72± 19.18	0±	1	47±	11	1±	1	0±	0	4±	2	41±	11	5±	15
400 ppm	39	7.21± 8.09	0±	1	48±	11	1±	1	0±	0	5±	2	40±	10	6±	15
2000 ppm	0	_	_		_		_		-		_		-		_	

(HCL070)

APPENDIX F 2

HEMATOLOGY: FEMALE

HEMATOLOGY (SUMMARY) ALL ANIMALS (105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

MEASURE. TIME: 1

SEX : FEMALE

REPORT TYPE : A1

PAGE: 4

ip Name	NO. of Animals	RED BLA	OOD CELL µl	HEMOGLO g/dl	BIN	HEMATOC %	RIT	MCV f &		рв		MCHC g/dl		PLATELE 1 0³/µ	
Control	41	7.82±	0.86	14.7±	1.6	40. 7 <u>±</u>	3. 6	52.3±	2. 9	18.9±	1.0	36.1±	1. 4	612±	142
80 ppm	42	7.61±	1. 48	14.2±	2.8	39.7±	6. 1	53.8±	9. 4	18.8±	1. 3	35.4±	3. 2	644±	154
400 ppm	45	7.80±	0. 55	14.1±	1.2**	39.8±	2. 9	51.0±	1.7**	18.1±	1.0**	35.4±	1. 1**	725±	123**
2000 ppm	38	6.71±	0. 57**	12.2±	0.9**	35.4±	2. 4**	52.9±	2. 3	18.2±	0.7**	34.4±	0.6**	730±	115**

(HCL070)

HEMATOLOGY (SUMMARY) ALL ANIMALS (105%)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

MEASURE. TIME: 1 SEX: FEMALE

REPORT TYPE : A1

up Name	NO. of Animals	RETICULO %	ОСУТЕ	METHEMO %	in	
Control	41	3.3±	2.9	0.3±	1	
80 ppm	42	4.6±	8. 1	0.3±	1	
400 ppm	45	3.1±	1. 4	0.4±	2***	
2000 ppm	38	5.7±	1. 4**	1.3±	4* *	

(HCL070)

BAIS 4

PAGE: 5

HEMATOLOGY (SUMMARY) ALL ANIMALS (105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

MEASURE. TIME: 1 SEX : FEMALE

REPORT TYPE : A1

PAGE: 6

Group Name	NO. of Animals	WBC 1 O³∕µl	Dif N-BAND	ferentia	1 WBC (% N-SEG	6)	EOSINO		BAS0		MONO		LYMPHO		OTHER	
Control	41	3.63± 2.09	0±	1	40±	10	2±	1	0±	0	4±	2	50±	11	4±	9
80 ppm	42	7.90± 22.29	0±	0	38±	10	2±	1	0±	0	4±	2	50±	15	6±	17
400 ppm	45	3.30± 1.33	0±	1	42±	9	2±	1	0±	0	4±	2	49±	9	3±	5
2000 ppm	38	6.15± 15.18*	0±	1	46±	11*	1±	2	0±	0	3±	2	44±	12	5±	15

(HCL070)

APPENDIX G 1

BIOCHEMISTRY: MALE

BIOCHEMISTRY (SUMMARY) ALL ANIMALS (105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : AI

PAGE: 1

p Name	NO. of Animals	TOTAL P g/dl	PROTEIN	ALBUMIN g/dl		A/G RAT	10	T-BILI mg/dl		GLUCOSE mg/dl		T-CHOLES mg/dl	STEROL	TRIGLYC mg/dl	ERIDE
Control	39	6.5±	0.4	2.9±	0.2	0.8±	0.1	0.23±	0. 28	154±	32	159±	43	89±	63
80 ppm	40	6.7生	0.4	2.9±	0. 2	0.8±	0.1	0.19±	0.09	161±	19	191±	42**	93±	51
400 ppm	39	6.6±	0.5	2.7±	0.3**	0.7±	0. 1**	0.18±	0. 15	154±	32	277±	52**	207±	88**
2000 ppm	0	_		_		-		-		_		_			

(HCL074)

BAIS 4

1

BIOCHEMISTRY (SUMMARY) ALL ANIMALS (105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

MEASURE. TIME: 1

SEX : MALE

REPORT TYPE : AI

PAGE: 2

oup Name	NO. of Animals	PHOSPHOI mg/dl	LIPID	AST IU/J	2	ALT I U/l		LDH I U/J	2	ALP IU/J	2	G-GTP I U/L		CK IU/	2
Control	39	235土	68	135±	147	51±	37	254±	296	305±	365	6±	3	127±	42
80 ppm	40	261±	57	121±	114	52±	46	176±	96	235±	122	13±	6**	132±	48
400 ppm	39	377±	76 **	128±	105	69±	42	166±	90*	230±	91	35±	23**	149±	110
2000 թթա	0	-		-		_		-		_		_		-	

(HCL074)

BIOCHEMISTRY (SUMMARY) ALL ANIMALS (105W)

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
MEASURE. TIME : 1
SEX : MALE REPORT TYPE : A1

PAGE: 3

ip Name	NO. of Animals	UREA N mg∕dl	ITOROGEN	CREATIN mg/dl	IINE	SODIUM mEq/l		POTASSI mEq/1		CHLORIDE m Eq / 1		CALCIUM mg/dl		INORGAN mg/dl	IC PHOSPHORU
Control	39	18.0±	4. 1	0.6±	0. 1	142±	1	3.6±	0. 4	105生	2	10.4±	0. 4	4. 2 1 -	0.7
80 ppm	40	19.4±	3. 2	0.6±	0. 1	141±	1	3.7±	0.3	104士	2	10.5±	0.3	4.3±	0. 5
400 ppm	39	43.9±	31. 7**	0.9±	0.3**	141±	2	3.8±	0.4	103±	2**	11.2±	0.6**	5.7±	2. 2**
2000 ppm	0	_		_		<u>-</u>		_		_		_		_	

(HCL074) BAIS 4

APPENDIX G 2

BIOCHEMISTRY: FEMALE

STUDY NO. : 0461
ANIMAL : RAT F344/DuCr1Cr1;[F344/DuCrj]
MEASURE. TIME : 1
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY) ALL ANIMALS (105W)

up Name	NO. of Animals	TOTAL F g/dl	PROTEIN	ALBUMIN g/dl	I	A/G RAT	10	T-BILI) mg∕dl		GLUCOSE mg/dl	·	T-CHOLES mg/dl	STEROL	TRIGLYC mg/dl	ERIDE
Control	41	6.9±	0.5	3.6±	0. 4	1.1±	0. 1	0.15±	0. 05	148±	20	126±	28	66 1.	65
80 ppm	42	7.0±	0.6	3.6±	0. 4	1.1±	0, 1	0.29±	0.96	155±	25	146±	40	70±	54
400 ppm	45	7.1±	0. 4	3.6±	0.3	1.0±	0.1	0.14±	0.02	160±	18*	188±	48**	77±	44
2000 ppm	38	6.9±	0.6	3.2±	0.3**	0.9±	0. 1**	0.21±	0.03**	158±	14	267±	61**	211±	107**

(HCL074)

BAIS 4

PAGE: 4

BIOCHEMISTRY (SUMMARY) ALL ANIMALS (105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] MEASURE. TIME: 1

SEX : FEMALE

REPORT TYPE : A1

PAGE: 5

oup Name	NO. of Animals	PHOSPHO mg/dl	LIPID	AST IU/1	2	ALT IU/1	<u>.</u>	LDII I U / A	2	ALP IU/s	!	G-GTP I U / L		CK I U/s	2
Control	41	223±	49	169±	177	67±	70	268土	93	139±	78	2±	2	115±	44
80 ppm	42	256±	101	162±	209	73±	89	285±	229	167±	346	3±	3	132±	168
400 ppm	45	292±	70**	126±	61	67±	28	200±	70**	110±	64**	6±	3**	103±	31
2000 ppm	38	414±	93**	214±	261	134±	117**	189±	73**	161±	35**	77±	25**	104±	24

(HCL074) BAIS 4

BIOCHEMISTRY (SUMMARY) ALL ANIMALS (105W)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME: 1 SEX: FEMALE

REPORT TYPE : A1

PAGE: 6

oup Name	NO. of Animals	UREA N mg∕dl	ITOROGEN	CREATIN mg/dl	INE	SODIUM mEq/l		POTASSI m Eq / .		CHLORIDE m Eq / L		CALCIUW mg/dl		INORGAN mg/dl	IC PHOSPHORU
Control	41	16.1±	2. 7	0.5±	0. 1	141±	2	3.5±	0.4	103±	2	10.7生	0. 9	4.1±	0.7
80 ppm	42	17.7±	4. 8	0.5±	0. 1	140±	2	3.5±	0.4	103±	2	10.5±	0.3	4.0±	0.7
400 ppm	45	18.0±	4. 2*	0.5±	0.1	140±	2	3.5±	0.3	103±	2	10.8±	0.4	4.0±	0.6
2000 ppm	38	28.8±	12. 7**	0.6±	0.2*	139±	2*	3.6±	0.3	102±	2**	11.2±	0. 4**	5.0±	1.3**

(HCL074)

APPENDIX H 1

URINALYSIS: MALE

URINALYSIS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

MEASURE. TIME: 1

SEX : MALE

REPORT TYPE : A1

Group Name	NO. of Animals	pH5.0 6.0 6.	5 7.0 7.5 8.0 8.5 CIII	Protein - ± + 2+ 3+ 4+ CHI	Glucose - ± + 2+ 3+ 4+ CHI	Ketone body $-\pm +2+3+4+$ CHI	Bilirubin - + 2+ 3+ CHI	
Control	40	0 3 0	o 7 21 9 0	0 0 1 4 24 11	40 0 0 0 0 0	35 4 1 0 0 0	37 1 1 1	

PAGE: 1

Significant difference ; $*: P \le 0.05$ **: $P \le 0.01$ Test of CHI SQUARE

(HCL101) BAIS 4

URINALYSIS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME: 1 SEX: MALE

oup Name	NO. of Animals	Occult blood - ± + 2+ 3+ CHI	Urobilinogen ± + 2+ 3+ 4+ CHI	
Control	40	39 0 0 0 1	38 0 1 1 0	
80 ppm	40	39 0 0 1 0	40 0 0 0 0	
400 ppm	39	39 0 0 0 0	39 0 0 0 0	
2000 ppm	0			

(HCL101)

APPENDIX H 2

URINALYSIS: FEMALE

URINALYSIS

STUDY NO. : 0461 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

MEASURE. TIME: 1

SEX : FEMALE

REPORT TYPE : A1

PAGE: 3

p Name	NO. of Animals	pH_ 5. 0	6.0	6. 5	7.0	7.5	8.0	8.5	CIII	Protein	+ CHI	Glucose - ± + 2+ 3+ 4+ CHI	Ketone body − ± + 2+ 3+ 4+ CHI	Bilirubin - + 2+ 3+ CIII
Control	41	0	1	1	9	7	17	3		0 5 12 14 7	3	41 0 0 0 0 0	12 29 0 0 0 0	41 0 0 0
80 ppm	42	0	3	4	11	5	18	i		0 1 12 14 11	4	42 0 0 0 0 0	8 34 0 0 0 0	42 0 0 0
400 ppm	46	0	1	3	7	15	19	1		0 0 2 9 24 1	1 **	46 0 0 0 0 0	14 29 2 0 0 1	41 5 0 0 *
2000 ppm	40	0	1	9	16	9	5	0	*	0 0 0 1 23	l6 **	35 3 2 0 0 0	36 4 0 0 0 0 **	21 19 0 0 **

(HCL101)

URINALYSIS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

MEASURE. TIME: 1

SEX : FEMALE

REPORT TYPE : A1

PAGE: 4

Group Name	NO. of Animals	Occult blood - ± + 2+ 3+ CHI	Urobilinogen ± + 2+ 3+ 4+ CHI		
Control	41	40 0 0 0 1	41 0 0 0 0		
80 ppm	42	40 0 1 1 0	42 0 0 0 0		
400 ppm	46	42 2 0 1 1	46 0 0 0 0		
2000 ppm	40	39 0 0 1 0	40 0 0 0 0		
Significant	difference	; *: $P \le 0.05$	⊭ : P ≤ 0.01	Test of CHI SQUARE	
(HCL101)					BATS 4

(HCL101)

APPENDIX I 1

GROSS FINDINGS: MALE

ALL ANIMALS

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

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

SEX : MALE

PAGE: 1

gan	Findings	Group Name Control NO. of Animals 50 (%)	. 80 ppm 50 (%)	400 ppm 50 (%)	2000 ppm 50 (%)
skin/app	nodule	3 (6)	8 (16)	9 (18)	4 (8)
	scab	0 (0)	1 (2)	0 (0)	0 (0)
	forelimb:nodule	1 (2)	0 (0)	0 (0)	0 (0)
subcutis	j aundice	3 (6)	0 (0)	1 (2)	0 (0)
	mass	3 (6)	11 (22)	10 (20)	4 (8)
lung	white zone	0 (0)	0 (0)	1 (2)	2 (4)
	red zone	1 (2)	1 (2)	0 (0)	2 (4)
	edema	0 (0)	0 (0)	1 (2)	1 (2)
	nodule	1 (2)	1 (2)	1 (2)	0 (0)
	voluminus	0 (0)	0 (0)	0 (0)	1 (2)
mph node	enlarged	4 (8)	2 (4)	0 (0)	2 (4)
	brown	0 (0)	0 (0)	0 (0)	1 (2)
	nodule	1 (2)	0 (0)	0 (0)	0 (0)
ıymus	enlarged	0 (0)	0 (0)	1 (2)	0 (0)
spleen	enlarged	18 (36)	6 (12)	2 (4)	1 (2)
	black	0 (0)	0 (0)	0 (0)	1 (2)
	white zone	1 (2)	1 (2)	2 (4)	0 (0)
	nodule	1 (2)	0 (0)	0 (0)	2 (4)
	deformed	0 (0)	0 (0)	1 (2)	0 (0)
	granular	0 (0)	0 (0)	0 (0)	25 (50)
art	nodule	0 (0)	0 (0)	1 (2)	0 (0)
	fluid:red	0 (0)	0 (0)	1 (2)	0 (0)

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

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1

SEX : MALE

PAGE: 2

rgan	Findings	Group Name Control NO. of Animals 50 (%)	80 ppm 50 (%)	400 ppm 50 (%)	2000 ppm 50 (%)
eart	fluid:brown	0 (0)	0 (0)	1 (2)	0 (0)
rtery/aort	induration	0 (0)	0 (0)	0 (0)	12 (24)
ral cavity	mass	0 (0)	1 (2)	0 (0)	0 (0)
ongue	nodule	0 (0)	0 (0)	1 (2)	0 (0)
orestomach	nodule	0 (0)	1 (2)	0 (0)	1 (2)
	ulcer ·	0 (0)	1 (2)	2 (4)	0 (0)
1 stomach	red zone	0 (0)	0 (0)	1 (2)	0 (0)
tomach	nodule	0 (0)	0 (0)	1 (2)	0 (0)
	ulcer	1 (2)	0 (0)	0 (0)	0 (0)
mall intes	nodule	1 (2)	0 (0)	0 (0)	0 (0)
iver	enlarged	1 (2)	0 (0)	1 (2)	0 (0)
	brown	0 (0)	0 (0)	1 (2)	48 (96)
	white zone	0 (0)	1 (2)	4 (8)	1 (2)
	red zone	0 (0)	0 (0)	5 (10)	0 (0)
	brown zone	0 (0)	0 (0)	0 (0)	1 (2)
	black zone	0 (0)	0 (0)	1 (2)	0 (0)
	nodule	2 (4)	4 (8)	16 (32)	3 (6)
	rough	5 (10)	2 (4)	0 (0)	0 (0)
	nodular	0 (0)	1 (2)	0 (0)	0 (0)
	herniation	5 (10)	1 (2)	5 (10)	1 (2)
ancreas	nodule	0 (0)	0 (0)	0 (0)	2 (4)
idney	black	0 (0)	0 (0)	0 (0)	1 (2)

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1
SEX : MALE

rgan	Findings	Group Name NO. of Animals	Control 50 (%)	80 ppm 50 (%)	400 ppm 50 (%)	2000 ppm 50 (%)
idney	white zone		0 (0)	1 (2)	0 (0)	0 (0)
	nodule		1 (2)	0 (0)	2 (4)	3 (6)
	cyst		0 (0)	1 (2)	5 (10)	8 (16)
	granular		4 (8)	9 (18)	41 (82)	49 (98)
rin bladd	urine:marked retention		0 (0)	1 (2)	0 (0)	1 (2)
ituitary	enlarged		6 (12)	5 (10)	4 (8)	0 (0)
	red zone		2 (4)	2 (4)	2 (4)	1 (2)
	nodule		6 (12)	1 (2)	3 (6)	0 (0)
	cyst		0 (0)	0 (0)	1 (2)	0 (0)
hyroid	enlarged		5 (10)	1 (2)	2 (4)	0 (0)
	nodule		0 (0)	2 (4)	0 (0)	0 (0)
estis	nodule		34 (68)	39 (78)	44 (88)	25 (50)
pididymis	adhesion		0 (0)	0 (0)	0 (0)	1 (2)
rain	red zone		2 (4)	0 (0)	1 (2)	0 (0)
eriph nerv	hypertrophy		0 (0)	1 (2)	0 (0)	0 (0)
ye	turbid		0 (0)	0 (0)	1 (2)	2 (4)
	white		3 (6)	2 (4)	3 (6)	5 (10)
ymbal gl	тиdule		1 (2)	0 (0)	0 (0)	1 (2)
uscle	nodule		1 (2)	1 (2)	0 (0)	1 (2)
one	nodule		1 (2)	0 (0)	0 (0)	0 (0)
leura	nodule		0 (0)	1 (2)	0 (0)	0 (0)
eritoneum	nodule		1 (2)	2 (4)	3 (6)	1 (2)

STUDY NO. : 0461
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

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

REPORT TYPE : A1

SEX : MALE

PAGE: 4

Organ	Findings	Group Name NO. of Animals	50	Control (%)	50	80 ppm (%)	50	400 ppm (%)	50	2000 ppm (%)
abdominal c	ascites		1	(2)	0	(0)	2	(4)	0	(0)
thoracic ca	hemorrhage		0	(0)	0	(0)	1	(2)	0	(0)
	mass		0	(0)	0	(0)	1	(2)	0	(0)
	pleural fluid		0	(0)	1	(2)	0	(0)	8	(16)
other	scab		0	(0)	1	(2)	0	(0)	0	(0)
	hindlimb:nodule		0	(0)	0	(0)	0	(0)	1	(2)

(HPT080)

BAIS 4

APPENDIX I 2

GROSS FINDINGS : MALE

DEAD AND MORIBUND ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1

SEX : MALE

rgan	Findings	Group Name NO. of Animals	10	Control (%)	10	80 ppm) (%)	11	400 ppm (%)	50	2000 ppm (%)
kin/app	nodule		0	(0)	2	2 (20)	() (0)	4	(8)
ubcutis	jaundice		2	(20)	() (0)	1	. (9)	0	(0)
	mass		1	(10)	3	3 (30)	() (0)	4	(8)
ung	white zone		0	(0)	() (0)	((0)	2	(4)
	red zone		1	(10)	(0)	((0)	2	(4)
edema	edema		0	(0)	(0)	1	(9)	1	(2)
	nodule		1	(10)	1	1 (10)	:	1 (9)	0	(0)
	voluminus		0	(0)	(0)	() (0)	1	(2)
ymph node	enlarged		1	(10)	:	1 (10)	1) (0)	2	(4)
	brown		0	(0)	(0 (0)	((0)	1	(2)
	nodule		1	(10)	(0 (0)	1	0)	0	(0)
hymus	enlarged		0	(0)	t	0 (0)		(9)	0	(0)
pleen	enlarged		6	(60)	:	2 (20)		1 (9)	1	(2)
	black		C	(0)	(0 (0)		0)	1	(2)
	white zone		1	(10)	ı	0 (0)		1 (9)	0	(0)
	nodule		C	(0)	•	0 (0)	1	0)	2	(4)
	granular		((0)		0 (0)	1	0 (0)	25	(50)
eart	fluid:red		C	(0)	1	0 (0)		1 (9)	0	(0)
rtery/aort	induration		((0)	1	0 (0)	1	0 (0)	12	(24)
ongue	nodule		((0)	1	0 (0)		1 (9)	0	(0)
Corestomach	nodule		((0)		0 (0)	:	0 (0)	1	(2)
	ulcer		((0)		1 (10)		2 (18)	0	(0)

STUDY NO. : 0461 ANIMAL : RAT F3

: RAT F344/DuCrlCrlj[F344/DuCrj]

GROSS FINDINGS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1 SEX : MALE

rgan	Findings	Group Name NO. of Animals	10	Control (%)	10	80 ppm (%)	11	400 ppm (%)	50	2000 ppm (%)
l stomach	red zone		0	(0)	0	(0)	1	(9)	0	(0)
mall intes	nodule		1	(10)	0	(0)	0	(0)	0	(0)
iver	enlarged		1	(10)	0	(0)	0	(0)	0	(0)
	brown		0	(0)	0	(0)	0	(0)	48	(96)
	white zone		0	(0)	1	(10)	0	(0)	1	(2)
red zone brown zone	red zone		0	(0)	0	(0)	2	(18)	0	(0)
		0	(0)	0	(0)	0	(0)	1	(2)	
	nodule		0	(0)	1	(10)	0	(0)	3	(6)
rough	rough		1	(10)	0	(0)	0	(0)	0	(0)
	herniation		2	(20)	0	(0)	1	(9)	1	(2)
ancreas	nodule		0	(0)	0	(0)	0	(0)	2	(4)
idney	black		0	(0)	0	(0)	0	(0)	1	(2)
	white zone		0	(0)	1	(10)	0	(0)	0	(0)
	nodule		1	(10)	0	(0)	2	(18)	3	(6)
	cyst		0	(0)	0	(0)	0	(0)	8	(16)
	granular		0	(0)	2	(20)	5	(45)	49	(98)
rin bladd	urine:marked retention		0	(0)	1	(10)	0	(0)	1	(2)
ituitary	enlarged		3	(30)	4	(40)	3	(27)	0	(0)
	red zone		0	(0)	0	(0)	1	(9)	1	(2)
	nodule		1	(10)	0	(0)	0	(0)	0	(0)
nyroid	enlarged		1	(10)	0	(0)	0	(0)	0	(0)
	nodule		0	(0)	1	(10)	0	(0)	0	(0)

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

GROSS FINDINGS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1

SEX : MALE

Control

Organ	Findings	Group Name NO. of Animals	Control 10 (%)	80 ppm 10 (%)	400 ppm 11 (%)	50	2000 ppm (%)
testis	nodule		2 (20)	4 (40)	7 (64)	25	(50)
epididymis	adhesion		0 (0)	0 (0)	0 (0)	1	(2)
brain	red zone		2 (20)	0 (0)	1 (9)	0	(0)
periph nerv	hypertrophy		0 (0)	1 (10)	0 (0)	0	(0)
өуө	turbid		0 (0)	0 (0)	1 (9)	2	(4)
	white		0 (0)	1 (10)	1 (9)	5	(10)
Zymbal gl	nodule		0 (0)	0 (0)	0 (0)	1	(2)
muscle	nodule		1 (10)	1 (10)	0 (0)	1	(2)
bone	nodule		1 (10)	0 (0)	0 (0)	0	(0)
pleura	nodule		0 (0)	1 (10)	0 (0)	0	(0)
peritoneum	nodule		0 (0)	1 (10)	1 (9)	1	(2)
abdominal c	ascites		0 (0)	0 (0)	1 (9)	0	(0)
thoracic ca	hemorrhage		0 (0)	0 (0)	1 (9)	0	(0)
•	mass		0 (0)	0 (0)	1 (9)	0	(0)
	pleural fluid		0 (0)	1 (10)	0 (0)	8	(16)
other	hindlimb:nodule		0 (0)	0 (0)	0 (0)	i	(2)

(HPT080)

APPENDIX I 3

GROSS FINDINGS : MALE

SACRIFICED ANIMALS

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

REPORT TYPE : A1

SEX : MALE

rgan	Findings	Group Name Control NO. of Animals 40 (%)	80 ppm 40 (%)	400 ppm 39 (%)	2000 ppm 0 (%)
kin/app	nodule	3 (8)	6 (15)	9 (23)	- (-)
	scab	0 (0)	1 (3)	0 (0)	- (-)
	forelimb:nodule	1 (3)	0 (0)	0 (0)	- (-)
bcutis	jaundice	1 (3)	0 (0)	0 (0)	- (-)
	mass	2 (5)	8 (20)	10 (26)	- (-)
ıng	white zone	0 (0)	0 (0)	1 (3)	- (-)
	red zone	0 (0)	1 (3)	0 (0)	- (-)
mph node	enlarged	3 (8)	1 (3)	0 (0)	- (-)
leen	enlarged	12 (30)	4 (10)	1 (3)	- (-)
	white zone	0 (0)	1 (3)	1 (3)	- (-)
	nodule	1 (3)	0 (0)	0 (0)	- (-)
	deformed	0 (0)	0 (0)	1 (3)	- (-)
eart	nodule	0 (0)	0 (0)	1 (3)	- (-)
	fluid:brown	0 (0)	0 (0)	1 (3)	- (-)
cal cavity	mass	0 (0)	1 (3)	0 (0)	- (-)
restomach	nodule	0 (0)	1 (3)	0 (0)	()
omach	nodule .	0 (0)	0 (0)	I (3)	- (-)
	ulcer	1 (3)	0 (0)	0 (0)	- (-)
ver	enlarged	0 (0)	0 (0)	1 (3)	- (-)
	brown	0 (0)	0 (0)	1 (3)	- (-)
	white zone	0 (0)	0 (0)	4 (10)	- (-)
	red zone	0 (0)	0 (0)	3 (8)	- (-)

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

REPORT TYPE : A1

SEX : MALE

Prgan	Findings	Group Name Control NO. of Animals 40 (%)	80 ppm 40 (%)	400 ppm 39 (%)	2000 ppm 0 (%)
iver	black zone	0 (0)	0 (0)	1 (3)	- (-)
	nodule	2 (5)	3 (8)	16 (41)	- (-)
	rough	4 (10)	2 (5)	0 (0)	- (-)
	nodular	0 (0)	1 (3)	0 (0)	- (-)
	herniation	3 (8)	1 (3)	4 (10)	- (-)
i dney	cyst	0 (0)	1 (3)	5 (13)	- (-)
	granular	4 (10)	7 (18)	36 (92)	- (-)
oituitary	enlarged	3 (8)	1 (3)	1 (3)	- (-)
	red zone	2 (5)	2 (5)	1 (3)	- (-)
	nodule	5 (13)	1 (3)	3 (8)	- (-)
	cyst	0 (0)	0 (0)	1 (3)	- (-)
hyroid	enlarged	4 (10)	1 (3)	2 (5)	- (-)
	nodule	0 (0)	1 (3)	0 (0)	- (-)
estis	nodule	32 (80)	35 (88)	37 (95)	- (-)
eye	white	3 (8)	1 (3)	2 (5)	- (-)
ymbal gl	nodule	1 (3)	0 (0)	0 (0)	()
eritoneum	nodule	1 (3)	1 (3)	2 (5)	- (-)
bdominal c	ascites	1 (3)	0 (0)	1 (3)	- (-)
ther	scab	0 (0)	1 (3)	0 (0)	- (-)

APPENDIX I 4

GROSS FINDINGS : FEMALE

ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1

: FEMALE SEX

	PAGE	:	5
	 		_

rgan	Findings	Group Name Control NO. of Animals 50 (%)	80 ppm 50 (%)	400 ppm 50 (%)	2000 ppm 50 (%)
kin/app	nodule	2 (4)	1 (2)	1 (2)	0 (0)
	ulcer	0 (0)	0 (0)	0 (0)	1 (2)
	scab	0 (0)	2 (4)	2 (4)	0 (0)
	ear:nodule	1 (2)	0 (0)	0 (0)	0 (0)
	nose:nodule	0 (0)	0 (0)	0 (0)	1 (2)
ubcutis	jaundice	2 (4)	1 (2)	0 (0)	0 (0)
	mass	8 (16)	7 (14)	3 (6)	8 (16)
ung	red	0 (0)	0 (0)	0 (0)	1 (2)
	white zone	0 (0)	2 (4)	0 (0)	3 (6)
	nodule	3 (6)	1 (2)	0 (0)	1 (2)
ymph node	enlarged	1 (2)	2 (4)	1 (2)	0 (0)
lıymus	enlarged	1 (2)	0 (0)	0 (0)	0 (0)
pleen	enlarged	6 (12)	5 (10)	2 (4)	4 (8)
	dark	0 (0)	0 (0)	0 (0)	1 (2)
	white zone	0 (0)	0 (0)	0 (0)	1 (2)
	nodule	0 (0)	1 (2)	0 (0)	0 (0)
	granular	0 (0)	0 (0)	0 (0)	38 (76)
eart	fluid:red	0 (0)	0 (0)	1 (2)	0 (0)
ral cavity	nodule	0 (0)	1 (2)	0 (0)	0 (0)
l stomach	White zone	0 (0)	0 (0)	0 (0)	1 (2)
tomach	nodule	0 (0)	0 (0)	0 (0)	1 (2)
iver	brown	0 (0)	0 (0)	0 (0)	44 (88)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1

SEX : FEMALE

rgan	Findings	Group Name NO. of Animals	Control 50 (%)	80 ppm 50 (%)	400 ppm 50 (%)	2000 ppm 50 (%)
iver	white zone		2 (4)	0 (0)	0 (0)	1 (2)
	red zone		1 (2)	0 (0)	2 (4)	16 (32)
	nodule		1 (2)	0 (0)	2 (4)	35 (70)
	rough		2 (4)	2 (4)	0 (0)	1 (2)
	herniation		11 (22)	4 (8)	7 (14)	11 (22)
	accentuation of lobular structure		0 (0)	0 (0)	0 (0)	17 (34)
ancreas	nodule	•	0 (0)	0 (0)	0 (0)	1 (2)
idney	nodule		0 (0)	1 (2)	0 (0)	0 (0)
cyst granula	cyst		0 (0)	0 (0)	0 (0)	2 (4)
	granular		0 (0)	1 (2)	4 (8)	37 (74)
rin bladd	nodule		0 (0)	0 (0)	0 (0)	1 (2)
	urine:marked retention		0 (0)	1 (2)	1 (2)	1 (2)
	fluid:red		0 (0)	0 (0)	1 (2)	0 (0)
ituitary	enlarged		9 (18)	9 (18)	5 (10)	4 (8)
	red		0 (0)	1 (2)	0 (0)	0 (0)
	red zone		11 (22)	5 (10)	7 (14)	4 (8)
	nodule		4 (8)	4 (8)	2 (4)	2 (4)
iyroid	enlarged		2 (4)	0 (0)	1 (2)	1 (2)
	nodule		3 (6)	0 (0)	0 (0)	0 (0)
irenal	enlarged		0 (0)	0 (0)	1 (2)	0 (0)
ary	enlarged		0 (0)	1 (2)	0 (0)	1 (2)
	nodule		0 (0)	0 (0)	0 (0)	2 (4)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

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

REPORT TYPE : A1
SEX : FEMALE

PAGE	:	-7

rgan	Findings	Group Name Con NO. of Animals 50 (%)	ntrol 80 ppm 50 (%)	400 ppm 50 (%)	20 50 (%	000 ppm
					_ , .	-3
vary	cyst	3 (6)		0 (0)	7 (1	
terus	nodule	11 (22)	7 (14)	10 (20)	5 (1	
	cyst	0 (0)	1 (2)	1 (2)	1 (2)
	invagination	0 (0)	1 (2)	0 (0)	0 (0)
agina	nodule	1 (2)	0 (0)	0 (0)	0 (0)
ammary gl	nodule	0 (0)	1 (2)	0 (0)	0 (0)
rep/cli gl	nodule	0 (0)	0 (0)	0 (0)	1 (2)
rain	white zone	0 (0)	0 (0)	0 (0)	1 (2)
	red zone	0 (0)	1 (2)	0 (0)	0 (0)
re	turbid	0 (0	1 (2)	2 (4)	0 (0)
	white	4 (8	4 (8)	1 (2)	4 (8)
	fluid:red	0 (0	0 (0)	1 (2)	0 (0)
mbal gl	nodule	0 (0	0 (0)	0 (0)	1 (2)
eritoneum	nodule	1 (2	2) 1 (2)	0 (0)	1 (2)
	mass	0 (0	1 (2)	0 (0)	0 (0)
etroperit	mass	0 (0	0 (0)	0 (0)	1 (2)
odominal c	hemorrhage	0 (0	0 (0)	0 (0)	1 (2)
	ascites	1 (2	0 (0)	1 (2)	1 (2)
oracic ca	pleural fluid	0 (0	0 (0)	1 (2)	2 (4)
her	lower jaw:nodule	0 (0		1 (2)	0 (
	tail:scab	0 (0		0 (0)	1 (

APPENDIX I 5

GROSS FINDINGS : FEMALE

DEAD AND MORIBUND ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

GROSS FINDINGS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

)rgan	Findings	Group Name NO. of Animals	Control 9 (%)	80 ppm 8 (%)	400 ppm 5 (%)	2000 11 (%)	mqq
skin/app	nose:nodule		0 (0)	0 (0)	0 (0)	1 (9)	
subcutis	jaundice		2 (22)	0 (0)	0 (0)	0 (0)	
	mass		2 (22)	2 (25)	0 (0)	2 (18)	
lung	red		0 (0)	0 (0)	0 (0)	1 (9)	
	white zone		0 (0)	2 (25)	0 (0)	1 (9)	
	nodule		2 (22)	1 (13)	0 (0)	0 (0)	
lymph node	enlarged		1 (11)	1 (13)	1 (20)	0 (0)	
tlıymus	enlarged		1 (11)	0 (0)	0 (0)	0 (0)	
spleen	enlarged		4 (44)	1 (13)	2 (40)	3 (27)	
	white zone		0 (0)	0 (0)	0 (0)	1 (9)	
	nodule		0 (0)	1 (13)	0 (0)	0 (0)	
	granular		0 (0)	0 (0)	0 (0)	3 (27)	
heart	fluid:red		0 (0)	0 (0)	1 (20)	0 (0)	
liver	brown		0 (0)	0 (0)	0 (0)	6 (55)	
	white zone		0 (0)	0 (0)	0 (0)	1 (9)	;
	red zone		0 (0)	0 (0)	0 (0)	1 (9))
	nodule		1 (11)	0 (0)	0 (0)	1 (9)	,
	rough		2 (22)	0 (0)	0 (0)	0 (0)	ļ
	herniation		3 (33)	0 (0)	0 (0)	3 (27))
pancreas	nodule		0 (0)	0 (0)	0 (0)	1 (9)	,
kidney	nodule		0 (0)	1 (13)	0 (0)	0 (0))
	granular		0 (0)	0 (0)	0 (0)	4 (36)	,

STUDY NO. : 0461 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

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

REPORT TYPE : A1 SEX : FEMALE

rgan	Findings	Group Name NO. of Animals	Control 9 (%)	80 ppm 8 (%)	400 ppm 5 (%)	2000 ppm 11 (%)
rin bladd	nodule		0 (0)	0 (0)	0 (0)	1 (9)
	urine:marked retention		0 (0)	1 (13)	1 (20)	i (9)
	fluid:red		0 (0)	0 (0)	1 (20)	0 (0)
ituitary	enlarged		2 (22)	2 (25)	2 (40)	1 (9)
	red zone		2 (22)	0 (0)	0 (0)	0 (0)
hyroid	nodule		1 (11)	0 (0)	0 (0)	0 (0)
vary	enlarged		0 (0)	0 (0)	0 (0)	1 (9)
	nodule		0 (0)	0 (0)	0 (0)	2 (18)
	cyst		0 (0)	0 (0)	0 (0)	2 (18)
terus	nodule		3 (33)	3 (38)	2 (40)	3 (27)
agina	nodule		1 (11)	0 (0)	0 (0)	0 (0)
ammary gl	nodule		0 (0)	1 (13)	0 (0)	0 (0)
rep/cli gl	nodule		0 (0)	0 (0)	0 (0)	1 (9)
rain	white zone		0 (0)	0 (0)	0 (0)	1 (9)
	red zone		0 (0)	1 (13)	0 (0)	0 (0)
ye	turbid		0 (0)	0 (0)	1 (20)	0 (0)
	white		1 (11)	0 (0)	1 (20)	1 (9)
	fluid:red		0 (0)	0 (0)	1 (20)	0 (0)
ymbal gl	nodule		0 (0)	0 (0)	0 (0)	1 (9)
eritoneum	nodule		1 (11)	1 (13)	0 (0)	1 (9)
	mass		0 (0)	1 (13)	0 (0)	0 (0)
etroperit	mass		0 (0)	0 (0)	0 (0)	1 (9)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

GROSS FINDINGS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

PAGE: 6

Organ	Findings	Group Name NO. of Animals	9	Control (%)	8	80 ppm (%)	5	400 ppm (%)	11	2000 ppm (%)
abdominal c	hemorrhage		0	(0)	0	(0)	0	(0)	1	(9)
	ascites		1	(11)	0	(0)	1	(20)	1	(9)
horacic ca	pleural fluid		0	(0)	0	(0)	0	(0)	1	(9)
other	lower jaw:nodule		0	(0)	0	(0)	1	(20)	0	(0)
other	lower jaw:nodule		0	(0)	0	(0)		1	1 (20)	1 (20) 0
T080)										

APPENDIX I 6

GROSS FINDINGS : FEMALE

SACRIFICED ANIMALS

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

SEX : FEMALE

organ	Findings	Group Name Control NO. of Animals 41 (%)	80 ppm 42 (%)	400 ppm 45 (%)	2000 ppm 39 (%)
kin/app	nodule	2 (5)	1 (2)	1 (2)	0 (0)
	ulcer	0 (0)	0 (0)	0 (0)	1 (3)
	scab	0 (0)	2 (5)	2 (4)	0 (0)
	ear:nodule	1 (2)	0 (0)	0 (0)	0 (0)
ubcutis	jaundice	0 (0)	1 (2)	0 (0)	0 (0)
	mass	6 (15)	5 (12)	3 (7)	6 (15)
ung	white zone	0 (0)	0 (0)	0 (0)	2 (5)
	nodule	1 (2)	0 (0)	0 (0)	1 (3)
mph node	enlarged	0 (0)	1 (2)	0 (0)	0 (0)
leen	enlarged	2 (5)	4 (10)	0 (0)	1 (3)
	dark	0 (0)	0 (0)	0 (0)	1 (3)
	granular	0 (0)	0 (0)	0 (0)	35 (90)
ral cavity	nodule	0 (0)	1 (2)	0 (0)	0 (0)
l stomach	white zone	0 (0)	0 (0)	0 (0)	1 (3)
tomach	nodule	0 (0)	0 (0)	0 (0)	1 (3)
iver	brown	0 (0)	0 (0)	0 (0)	38 (97)
	white zone	2 (5)	0 (0)	0 (0)	0 (0)
	red zone	1 (2)	0 (0)	2 (4)	15 (38)
	nodu1e	0 (0)	0 (0)	2 (4)	34 (87)
	rough	0 (0)	2 (5)	0 (0)	1 (3)
	herniation	8 (20)	4 (10)	7 (16)	8 (21)
	accentuation of lobular structure	0 (0)	0 (0)	0 (0)	17 (44)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

REPORT TYPE : A1

SEX : FEMALE

rgan	Findings	Group Name Control NO. of Animals 41 (%)	80 ppm 42 (%)	400 ppm 45 (%)	2000 ppm 39 (%)
idney	cyst	0 (0)	0 (0)	0 (0)	2 (5)
	granular	0 (0)	1 (2)	4 (9)	33 (85)
ituitary	enlarged	7 (17)	7 (17)	3 (7)	3 (8)
	red	0 (0)	1 (2)	0 (0)	0 (0)
	red zone	9 (22)	5 (12)	7 (16)	4 (10)
	nodule	4 (10)	4 (10)	2 (4)	2 (5)
nyroid	enlarged	2 (5)	0 (0)	1 (2)	1 (3)
	nodule	2 (5)	0 (0)	0 (0)	0 (0)
drenal	enlarged	0 (0)	0 (0)	1 (2)	0 (0)
/ary	enlarged	0 (0)	1 (2)	0 (0)	0 (0)
	cyst	3 (7)	7 (17)	0 (0)	5 (13)
terus	nodule	8 (20)	4 (10)	8 (18)	2 (5)
	cyst	0 (0)	1 (2)	1 (2)	1 (3)
	invagination	0 (0)	1 (2)	0 (0)	0 (0)
ye	turbid	0 (0)	1 (2)	1 (2)	0 (0)
	white	3 (7)	4 (10)	0 (0)	3 (8)
horacic ca	pleural fluid	0 (0)	0 (0)	1 (2)	1 (3)
ther	tail:scab	0 (0)	0 (0)	0 (0)	1 (3)

APPENDIX J 1

ORGAN WEIGHT, ABSOLUTE: MALE

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

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 SEX : MALE UNIT: g

PAGE: 1

oup Name	NO. of Animals	Body Weight	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS	
Control	40	376± 47	0.068± 0.013	2. 987± 1. 529	1. 256± 0. 133	1.480± 0.330	2.846± 0.488	
80 ppm	40	375± 26	0.069± 0.035	3.333± 1.649	1. 239± 0. 164	1.430± 0.215	2.867± 0.273	
400 ppm	39	334± 27**	0.066± 0.009	2.795± 1.107	1.186± 0.090	1.345± 0.118*	3.175± 0.380**	
2000 ppm	0	-	-	-	-	-	-	
Significant	difference;	*: P ≤ 0.05 **:	P ≤ 0.01	Test	of Dunnett			
CL040)]

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

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 SEX : MALE UNIT: g

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN	
Control	40	1.875± 1.944	10.985± 1.234	2.111± 0.053	
80 ppm	40	1.484± 2.403	11.916± 1.482**	2. 124± 0. 043	
400 ppm	39	1.023± 0.288	14.722± 1.500★★	2. 129± 0. 057	
2000 ppm	0	-	-	-	
Significant	difference;	* : P ≤ 0.05	** : P ≤ 0.01	Test of Dunnett	
(HCL040)					BATS 4

APPENDIX J 2

ORGAN WEIGHT, ABSOLUTE: FEMALE

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 SEX : FEMALE UNIT: g

ORGAN WEIGHT: ABSOLUTE (SUMMARY)

SURVIVAL ANIMALS (105W)

up Name	NO. of Animals	Body	Weight	ADRE	VALS	OVAR	IES	HEAR	T	LUNG		KIDNI	EYS	
Control	41	251±	30	0.069±	0.009	0. 143±	0.063	0.868±	0. 082	0.993±	0. 196	1.753±	0. 151	
80 ppm	42	252±	33	0.068±	0.008	0.274±	0. 482	0.895±	0.094	0.985±	0. 116	1.776±	0. 153	
400 ppm	45	242±	29	0.070±	0.034	0.126±	0.017	0.875±	0.076	0.959±	0. 133	1.889±	0.216*	
2000 ppm	39	201±	21**	0.058±	0.010**	0.193±	0.321	0.866±	0.065	0.937±	0.081	2.503±	0. 292**	

(HCL040) BAIS 4

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1 SEX : FEMALE

UNIT: g

oup Name	NO. of Animals	SPL	EEN	LIV	ER	BRA	IN
Control	41	0.820±	0. 962	6.621±	1. 325	1.910±	0. 052
80 ppm	42	0.993±	1.613	7.355±	1. 056*	1.911±	0. 053
400 ppm	4 5	0.614±	0. 183	8.662±	1.468**	1.918±	0. 041
2000 ppm	39	1.040±	0.308**	14.596±	1. 258**	1.909±	0. 050

(HCL040)

BAIS 4

APPENDIX K 1

ORGAN WEIGHT, RELATIVE : MALE

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

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 SEX : MALE UNIT: %

PAGE: 1

oup Name	NO. of Animals	Body Weight (g)	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS
Control	40	376± 47	0.019± 0.007	0.801± 0.401	0.342± 0.081	0.409± 0.160	0.782± 0.273
80 ppm	40	375± 26	0.019± 0.010	0.895± 0.460	0.332± 0.052	0.383± 0.066	0.769± 0.102
400 ppm	39	334± 27**	0.020± 0.004**	0.834± 0.327	0.357± 0.040**	0.404± 0.041**	0.961± 0.180**
2000 ppm	0	_	-	-	-	-	- -

(HCL042)

BAIS 4

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

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1

SEX : MALE UNIT: %

roup Name	NO. of Animals	SPLEEN	LIVER	BRAIN	
Control	40	0.551± 0.684	2.990± 0.672	0.573± 0.095	
80 ppm	40	0.393± 0.605	3.184± 0.408*	0.569± 0.042	
400 ppm	39	0.306± 0.085	4.424± 0.471**	0.642± 0.056**	
2000 ppm	0	-	-	- -	
Significant	difference;	*: P ≤ 0.05 **:	P ≤ 0.01	Test of Dunnett	
(HCL042)					BAIS 4

APPENDIX K 2

ORGAN WEIGHT, RELATIVE : FEMALE

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

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

REPORT TYPE : A SEX : FEMALE UNIT: %

PAGE: 3

p Name	NO. of Animals		Weight (g)	ADRENALS	OVARIES	HEART	LUNGS	KIDNEYS
Control	41	251土	30	0.028± 0.005	0.057± 0.024	0.349± 0.035	0.400± 0.087	0.705生 0.071
80 ppm	42	252±	33	0.028± 0.005	0.106± 0.167	0.362± 0.070	0.400± 0.091	0.717± 0.116
400 ppm	45	242±	29	0.029± 0.012	0.053± 0.011	0.366± 0.053	0.401± 0.077	0.785± 0.088**
2000 ррт	39	201±	21**	0.029± 0.005	0.097± 0.160**	0.435± 0.051**	0.471± 0.064**	1.257± 0.187**

(HCL042)

BAIS 4

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

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1 SEX : FEMALE UNIT: %

PAGE: 4

up Name	NO. of Animals	SPLEEN	LIVER	BRAIN	
Control	41	0.324± 0.350	2.641± 0.416	0.772± 0.089	
80 ppm	42	0.445± 0.925	2.972± 0.664	0.773± 0.111	
400 ppm	45	0.255± 0.079	3.571± 0.376**	0.804± 0.113	
2000 ppm	39	0.522± 0.159**	7.314± 0.845**	0.959± 0.095**	

(IICL042)

BAIS 4

APPENDIX L 1

HISTOPATHOLOGICAL FINDINGS:

NON-NEOPLASTIC LESIONS : MALE

ALL ANIMALS

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

Organ			Control 50 2 3 4 (%) (%) (%)	80 ppm 50 1 2 3 4 (%) (%) (%) (%)	400 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm ! 50 1 2 3 4 (%) (%) (%) (%)
Integumentar	y system/appandage}					
skin/app	inflaumation	0 (0) (<50> 0 0 0 0) (0) (0)	<pre></pre>	(50) 0 1 0 0 (0) (2) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)
	squamous cell hyperplasia	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 0 (2) (0) (0)	0 1 0 0 (0) (2) (0) (0)	0 0 0 0 0
	scab	(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 0 (2) (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 0 0 0 0 0 0	0 2 0 0 (0) (4) (0) (0)	0 3 0 0	0 5 0 0
subcutis	inflammation	0 (0) (<50> 0 0 0 0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 1 0 0 (0) (2) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
Respiratory	system)					
nasal cavit	eosinophilic change:olfactory epithelium		<50> 17 4 0 34) (8) (0)	<50> 18 15 2 0 (36) (30) (4) (0)	<50> 14 11 0 0 (28) (22) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
	1: Slight 2: Moderate 3: Mat a: Number of animals examined at the site b: Number of animals with lesion c: b/a * 100 difference; $*: P \le 0.05$ **: $P \le 0.05$ inficant test is not applied to this group.					

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

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

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

! : Significant test is not applied to this group.

REPORT TYPE : A1 SEX : MALE

PAGE: 2

Organ				80 ppm 50 1 2 3 4 (%) (%) (%) (%)	400 рµп 50 <u>1 2 3 4</u> (%) (%) (%) (%)	2000 ppm ! 50 1 2 3 4 (%) (%) (%) (%)
Respiratory	system}					
asal cavit	eosinophilic change:respiratory epithelio	un 7 0	<50> 0 0) (0) (0)	7 0 0 0 (14) (0) (0) (0)	7 0 0 0 0 (14) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)
	inflammation:foreign body	14 6 (28) (12	0 0	13 10 0 0 (26) (20) (0) (0)	13 5 0 0 (26) (10) (0) (0)	6 1 0 0 (12) (2) (0) (0)
	inflammation:respiratory epithelium	0 0	0 0	0 0 0 0 0 (0) (0)	1 2 0 0 (2) (4) (0) (0)	16 22 2 0 (32) (44) (4) (0)
	respiratory metaplasia:olfactory epithel		0 0	1 0 0 0 (2) (0) (0) (0)	2 0 0 0 0 (4) (0) (0) (0)	0 0 0 0 0 (0) (0)
	respiratory metaplasia:gland	30 7 (60) (14	0 0	35 1 0 0 (70) (2) (0) (0)	30 0 0 0 *	31 3 0 0 (62) (6) (0) (0)
ung	congestion	0 0	<50> 0 0) (0) (0)	<50> 0 1 0 0 (0) (2) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
rade a > b	1: Slight 2: Moderate 3: 1 a: Number of animals examined at the site b: Number of animals with lesion c: b/a*100	Marked 4: Severe				

(HPT150)

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : AI

SEX : MALE

		Group Name	Control		80 ppm			400 ppm						2000 ppm !							
rgan	Findings	No. of Animals on Study Grade(%)	2 (%)) 3 (%)	(%)	<u>1</u> (%)	(%		3 (%)	(%)	(5	<u>(</u> 6)	5 2 (%)	0 3 (%)	(%)		<u>1</u> (%)	(9	50 2 %)	3 (%)	(%)
{Respiratory s	ystem)																				
lung	edema	0 (0)	<50 0 (0)	0	0 (0)	0 (0)	0 (0		0 0) (0 0)		l 2) (0	0> 0 (0)	0 (0)	(0 0)		<50>))) (0 0 0)	0 (0)
	necrosis:focal	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	i (2		0 0) (0	())) (0 0)	0 (0)	0 (0)	(0		o O) (0 0)	(0)
	inflammatory infiltration	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0) (0 0) (0 0)	())) (0 0)	(0)	0 (0)	(0 0)		1 2) (0 0)	0 (0)
	accumulation of foamy cells	(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)
	bronchiolar-alveolar cell hyperplasia	3 (6)		0 (0)	0 (0)	0 (0)	1 (2		0 0) (0		1 2) (0 0)	0 (0)	0 (0)	(3 6)		0 0) (0 0)	0 0
	uremic pneumonitis	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0)))) (0 0) (0 0)	(o o) (0 0)	0 (0)	0 (0)	(13 26)		0 0) (0 0)	(0
{Hematopoietion	: system)																				
bone marrow	granulation	0 (0)	<5 2 (4)	0	0 (0)	0 (0)			0 0) (0 0)		0 0) (0	60> 0 (0	0 (0)	(0 0)		<50) 0 0) (> 0 0)	(0

: RAT F344/DuCr1Cr1j[F344/DuCrj]

ALL ANIMALS (0-105W)

ANIMAL : RAT REPORT TYPE : A1

SEX : MALE

PAGE: 4

Organ		p Name of Animals on Study e	50 2	ontrol 3 4 (%) (%)	1(%)	50 2	3 4 (%) (%)	<u>1</u> (%)	50 2 (%)	3 (%)	n 4 (%)	1(%)	2 (%)	50 3	4_
	· Indings														
Hematopoieti	ic system)														
one marrow	increased hematopoiesis	2 (4)		0 0	6 (12)		0 0	3 (6)	<50: 0 (0) () 0 0) (0	7 (14)	0	<50> 0	0 0)
	granulopoiesis:increased	(0)		0 0	1 (2)		0 0	0 (0)	0 (0) (0 (0 .	0 (0)		0) (0	0 0)
	xanthogranuloma	0 (0)	0 (0) (0 0	0 (0)	i (2) (0 0 0 0) (0)	0 (0)	0 (0) (0 0) (0	(0)) (0	0 0)
mph node	deposit of hemosiderin	0 (0)	<50> 0 (0) (0 0 0 0) (0)	0 (0)	<50> 0 (0) (0 0 0 0) (0)	0 (0)	<50 0 (0) (0	0 0)	1 (2)	0	<50>) 0	0 0)
	lymphadenitis	0 (0)	1 (2) (0 0	0 (0)		0 0 0 0) (0)	0 (0)	0 (0) (0 0) (0	1 (2)	0 (0) ()) (0	0 0)
pleen	congestion	0 (0)		0 0 0 0) (0)	0 (0)		0 0	0 (0)	<50 0 (0) (0	0 0)	0 (0)	0	<50> 0 0) (0	0 0)
	I: Slight 2: Moderate 3: Ma a: Number of animals examined at the site b: Number of animals with lesion c: b/a * 100 difference: *: P ≤ 0.05 **: P ≤ 0.0 nificant test is not applied to this group.		-												

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

SEX : MALE

PAGE: 5

)rgan		Group Name No. of Animals on Study Grade	2 (%)	Contr 0 3 (%)	ol 	1 (%)	2 (%)	80 g 3 (%)	9pm 4 (%)	<u>1</u> (%)	50 2 (%)	400 j 0 3 (%)	4 (%)	<u> </u>	6)	50 2 (%)		ppm ! 4 (%)
Hematopoie	tic system)																		
spleen	angiectasis	0 (0)	<50 0 (0)	0	0 (0)	0 (0)	0	50> 0 (0)	0 (0)	0 (0	0> (0)	0 (0)		⊋ 3) (<50 7 14) (0	0 (0)
	deposit of hemosiderin	23 (46)	1 (2)	0 (0)	0 (0)	27 (54)	2 (4)	0 (0)	0 (0)	32 (64		7 14)	0 (0)	(0)			28 56) (0 (0)	0 (0)
	fibrosis	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	1 (2)	0 (0)	0 (0)	(0) (3 6)	0 (0)	0 (0)	((o o) (4 8)	0	0 (0)
	mastcell hyperplasia	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	(())) (1 2)	0 (0)	(0)	((0 0) (0	0 (0)	0 (0)
	increased extramedullary hematopoiesi	s 0 (0)	1 (2)	1 (2)	0 (0)	2 (4)	6 (12)	0 (0)	0 (0)	(4	; i) (0	0 (0)	0 (0)		1 2) (1 2)	0 (0)	(0)
	engorgement of erythrocyte	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	11 (22		0 0)	0 (0)	0 ++ (0)	(-	2 4) (1 2)	0 (0)	(0)
	capsule hyperplasia	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	((0 0)	0 (0)	0 (0)	49		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 ; * : $P \le 0.05$ * : $P \le 0.01$ Test of Chi Square ! : Significant test is not applied to this group.

(HPT150)

BAIS4

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

SEX : MALE

PAGE: 6

Organ	Findings	Group Name No. of Animals on Study Grade 1 (%)	Control 50 2 3 4 (%) (%)	80 ppm 50 1 2 3 4 (%) (%) (%)	400 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 550 1 2 3 4 (%) (%) (%) (%)
Circulatory	system}					
eart	thrombus	(2)	<50> 0 0 0 (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)
	deposit of hemosiderin	0 (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)
	myocardial fibrosis	32 (64)	4 0 0 (8) (0) (0)	34 1 0 0 (68) (2) (0) (0)	32 5 0 0 (64) (10) (0) (0)	12 35 0 0 (24) (70) (0) (0)
	subendocardial fibrosis	0 (0)	0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)
	arteritis	0 (0)	0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
tery/aort	mineralization	0 (0)	<50> 0 0 0 (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)	<50> 32 0 0 0 (64) (0) (0) (0)
	1: Slight 2: Moderate a: Number of animals examined at the b: Number of animals with lesion c: b / a * 100 lifference; *: P ≤ 0.05 **: P ifficant test is not applied to this gr	≦ 0.01 Test of Chi Square				

STUDY NO. : 0461 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

SEX : MALE

PAGE: 7

		Group Name No. of Animals on Study	50	Contr	ol		1	80 50	ppm			50	400 p	pm				2000 50	mqq	1
Organ		Grade 1 (%)	2 (%)	3 (%)	(%)	<u>1</u> (%)	2 (%)	3 (%)		(%))	2 (%)	(%)	(%)		(%)	2 (%)	3 (%)	(<u>4</u> (%)
{Circulatory	system}																			
artery/aort	arteritis	(0)	<50 0 (0) (0	0 (0)	0 (0)	0	50> 0 (0)	0 (0)	0 (0)) (<50 0 0) (0 0)	0 (0)	(0	1	50> 0 (0)	(0 0)
{Digestive sy	rstem}																			
stomach	malformation	(0)	<50 0 (0) (0	0 (0)	1 (2)	0	50> 0 (0	0 (0)	0 (0)) (<50 0 0) (> 0 0)	0 (0)	(0	0	50> 0 (0)		0 0)
	hemorrhage	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)
	erosion:forestomach	1 (2)	0 (0) (0 (0)	0 (0)	(0)	0 (0)	0	0 (0)	0 (0)) (0 (0)	0 (0)	0 (0)	(0 0)	0 (0)	0 (0)		0 0)
	ulcer:forestomach	1 (2)	0 (0) (0 (0)	0 (0)	1 (2)	0 (0)	0 (0	0 (0)	2 (4) (2 4) (0 (0)	0 (0)	(0 0)	0 (0)	0 (0)		0 0)
	1: Slight 2: Moderate 3 a: Number of animals examined at the si b: Number of animals with lesion c: b / a * 100 lifference; *: P ≤ 0.05 **: P ≤ nificant test is not applied to this groun	0.01 Test of Chi Squar																		

(HPT150)

BAIS4

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1

SEX : MALE

PAGE: 8

Organ	Findings	Group Name	Control 50 2 3 4 (%) (%) (%)	80 ppm 50 1 2 3 4 (%) (%) (%)	400 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm ! 50 1 2 3 4 (%) (%) (%) (%)
(Digestive	system)					
stomach	hyperplasia:forestomach		<50> 0 0 0 0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 3 0 0 0 (6) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
	erosion:glandular stomach		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 (2) (0) (0) (0)	3 0 0 0 0 (6) (6) (7)	1 0 0 0 0 (2) (0) (0)
	hyperplasia:glandular stomach		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)	1 0 0 0 (2) (0) (0) (0)
	mineralization:glandular stomach		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)	3 0 0 0 0 (6) (6) (0) (0)	27 0 0 0 (54) (0) (0) (0)
iver	herniation	5 (10) (<50> 0 0 0 0) (0) (0)	\(\frac{50}{1} \) 1 0 0 0 (2) (0) (0) (0)	5 0 0 0 (10) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)
	necrosis:central		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) (2) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	1 0 0 0 0 (2) (0) (0)
Grade (a) b (c) Significant	1: Slight 2: Moderate a: Number of animals examined at the b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P guificant test is not applied to this gr	≤ 0.01 Test of Chi Square				

(HPT150)

BAIS4

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj] ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : MALE

Organ	Findings	Group Name No. of Animals on Study Grade 1 (%)	2	Contro 50 3 (%)	1 <u>4</u> (%)	1 (%)	50 2 (%)	80 ppm 3 4 (%) (%)	1 (%)	50 2 (%)	400 pp	9m 4 (%)	<u>1</u> (%)	2000 50 2 3 (%) (%	
{Digestive	system)					•			-						
iver	necrosis:focal	0 (0)	0	0 (0) (0 0)	0 (0) (<50 0 0) (0 (0) (<50 0 (0) (0	0 (0)	1 (2) (<50> 1 0 2) (0	
	necrosis:single cell	0 (0)		0 (0) (0 0)	0 (0) (0	0 0	0 (0) (0 (0 (0)	0 (0)	17 (34) (1 0 2) (0	0 (0)
	fatty change	0 (0)		0 (0) (0 0)	0 (0) (l 2) (0 0	0 (0) (0 (0) (0 (0)	0 (0)	16 (32) (0 0	
	fatty change:central	0 (0)		0 (0) (0 0)	0 (0) (0	0 0 0 0)	0 (0) (0 (0) (0 (0)	0	0 (0) (0 0	
	hydropic change:central	0 (0)		0 (0) (0 0)	0 (0) (0	0 0	0 (0) (0 (0) (0 (0)	0	45 (90) (3 0	0 (0)
	granulation	3 (6)		0 (0) (0 0)	3 (6) (1 2) (0 0	6 (12) (0 (0) (0 (0)	0 (0)	5 (10) (0 0	0 (0)
	inflammatory cell nest	1 (2)		0 (0) (0	0 (0) (2 4) (0 0	0 (0) (0 (0 (0)	0	5 (10) (1 0 2) (0	0

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

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

b b: Number of animals with lesion

⁽c) c:b/a*100

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

^{! :} Significant test is not applied to this group.

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 SEX : MALE

PAGE: 10

Organ	Findings	Group Name No. of Animals on Study Grade (%)	Control 50 2 3 4 (%) (%) (%)	80 ppm 50 1 2 3 4 (%) (%) (%) (%)	400 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm ! 50 1 2 3 4 (%) (%) (%) (%)
{Digestive	system)					
liver	clear cell focus	(8)	<50> 5 0 0) (10) (0) (0)	<50> 2 5 0 0 (4) (10) (0) (0)	(50) 2 4 0 0 (4) (8) (0) (0)	<50> 0 4 0 0 (0) (8) (0) (0)
	acidophilic cell focus	0 (0)	2 0 0	1 2 0 0 (2) (4) (0) (0)	4 18 2 0 *** (8) (36) (4) (0)	3 4 0 0 (6) (8) (0) (0)
	basophilic cell focus	5 (10)	1 0 0	3 4 0 0 (6)(8)(0)(0)	1 16 3 0 ** (2) (32) (6) (0)	1 0 0 0 0 (2) (0) (0) (0)
	spongiosis hepatis	3 (6)	1 0 0	7 1 0 0 (14) (2) (0) (0)	6 27 2 0 ** (12) (54) (4) (0)	0 0 0 0 0 (0) (0)
	bile duct hyperplasia	0 (0)	49 0 0) (98) (0) (0)	0 47 0 0 (0) (94) (0) (0)	19 24 0 0 ** (38) (48) (0) (0)	0 0 0 0 0 (0) (0)
	arthritis	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 0 (2) (0) (0) (0)
	focal fatty change	1 (2)	0 0 0 0	0 0 0 0 0 (0) (0)	3 1 0 0 (6) (2) (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 b

⁽c) c:b/a * 100

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

^{! :} Significant test is not applied to this group.

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : MALE

PAGE: 11

)rgan	Group Nam No, of An Grade Findings	Control imals on Study 50	80 ppm 50 1 2 3 4 (%) (%) (%) (%)	400 ррш 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm ! 50 1 2 3 4 (%) (%) (%) (%)
(Digestive	avetas)	,			
liver	deposit of brown pigment	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 0 0 0 0 0 0 0	<50> 50 0 0 0 (100) (0) (0) (0)
oancreas	atrophy	<50> 9 4 2 0 (18) (8) (4) (0)	<50> 9 6 2 0 (18) (12) (4) (0)	9 2 0 0 (18) (4) (0) (0)	<50> 0 1 0 0 (0) (2) (0) (0)
	arteritis	0 0 0 0 0 (0) (0) (0)	0 1 0 0 (0) (2) (0) (0)	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (0)
	islet cell hyperplasia	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) (0)
{Urinary sy	rstem)				
kidney	infarct	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 1 0 0 (0) (2) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)	(50) (0)(0)(0)(0)(0)
	1: Slight 2: Moderate 3: Marked a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100; difference; *: P ≤ 0.05 **: P ≤ 0.01 gnificant test is not applied to this group.	4 : Severe Test of Chi Square			

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

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

REPORT TYPE : A1

SEX : MALE

PAGE: 12

Organ	Findings	Group Name No. of Animals on Study Grade(%)	50 2	ontro 3 (%)	1 4 (%)	<u>1</u> (%)	2	50 3	ppm 4 (%)		1 (%)	<u>2</u> (%)	400 50 3		4 (%)	<u>:</u>	()	5 2 (%)	2000 0 <u>3</u> (%)	4 (%)
Urinary sy	stem}																			
idney	cyst	(2)	<50) 0 (0) (0	0 0)	0 (0)	1	(50> 0 (0)	0 (0)) (4 8)	4 (8)	50> (())) (0 * 0)			<5 19 38)	0> 0 (0)	0 0)
	deposit of hemosiderin	0 (0)	1 (2) (0 0) (o 0)	0 (0)	(0)	0 (0)	0 (0)) (0 0)	0 (0)	(())) (0))) (0	o (0)	0 0)
	chronic nephropathy	. 20 (40)	20 (40) (3 6) (0	6 (12)		4 (8)	1 (2)	**) (0 0)	6 (12)	28 (56		15 ** 30)	(())) (I 2)	0 (0)	49 98)
	tubular necrosis	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)
	mineralization:cortex	0 (0)	0 (0) (0 0) (0 0)	0 (0)	0 (0)	0 (0)	0 (0)) (0	2 (4)))) (0	(4	2 1) (42 84)	0 (0)	0 0)
	transitional cell hyperplasia	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)
	urothelial hyperplasia:pelvis	0 (0)	0 (0) (0 (0	0 0)	1 (2)	0 (0)	0 (0)	0 (0)		7 14)	25 (50)))) (0 ** 0)			43 86)	0 (0)	0 0)

<а>

b: Number of animals with lesion c:b/a * 100

(c)

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

! : Significant test is not applied to this group.

(HPT150)

BAIS4

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : MALE

PAGE: 13

		roup Name		Contr	ol			50	80 р	pm				400 p	pm				200 50	00 pi	m
Organ		o. of Animals on Study rade 1 (%)	50 2 (%)	3 (%)	<u>4</u> (%)	<u>1</u> (%)	(2 (%)	3 (%)	(%)	_ <u>1</u> (%	5)	2 (%)	3 (%)	(%)		<u>1</u> (%)	2 (%)		3 (%)	(%)
Urinary sys	tem)																				
kidney	atypical tubule hyperplasia	0 (0)	<50 0 (0) (0	0 (0)	1 (2)	(<50 0 0) () 0 0)	0 (0)	1 (2	i) (<50 0 0))> 0 (0)	0 (0)	(2 4)	4 (8)	<50>) (0	0 (0)
	basophilic change:atypia	(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)
	deposit of brown pigment:proximal tubul		0 (0) (0 0)	0 (0)	0 (0)	(0 0) (0 0)	0 (0)	41 (82	2) (1 2)	0 (0)	0 ** (0)	(0 0)	44 (88)) (5 10)	0 (0)
{Endocrine s	ystem)																				
oituitary	cyst	1 (2)	<50 0 (0) (0	0 (0)	0 (0)	÷ (<50 0 0) (> 0 0)	0 (0)	(2	i 2) (<5 0 0)	0 (0)	0 (0)	(1 2)	0 (0)	<50>	0 0)	0
	lyperplasia	4 (8)	3 (6) (0 0)	0 (0)	9 (18)) (1 2) (0	0 (0)	10))) (0 0)	0 (0)	0 (0)	(2 4)	(0)) (0 0)	0 (0)
	1: Slight 2: Moderate 3: a: Number of animals examined at the sit b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤ nificant test is not applied to this group.																				

(HPT150)

BATS4

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

ALL ANIMALS (0-105W)

REPORT TYPE : A1 SEX : MALE

Organ	Findings	Group Name No. of Animals on Study Grade (%)	Control 50 2 3 4 (%) (%) (%)	80 ppm 50 1 2 3 4 (%) (%) (%) (%)	400 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm ! 50 1 2 3 4 (%) (%) (%) (%)
{Endocrine sys	stem}				·	
pituitary	Rathke pouch	1 (2)	<50> 0 0 0 (0) (0) (0)	(50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 1 0 0 (0) (2) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
thyroid	follicular hyperplasia	(0)	<50> 0 0 0 (0) (0) (0)	(50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
	C-cell hyperplasia	2 (4)	1 0 0 (2) (0) (0)	7 5 0 0 * (14) (10) (0) (0)	5 1 0 0 (10) (2) (0) (0)	0 0 0 0 0
parathyroid	hyperplasia	(0)	<50> 0 0 0 (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)	<50> 3 0 0 0 (6) (0) (0) (0)	<50> 27 0 0 0 (54) (0) (0) (0)
adrenal	thrombus	0 (0)	<50> 0 0 0 (0) (0) (0)	<50> 0 1 0 0 (0) (2) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
	hyperplasia:medulla	0 (0)	1 0 0 (2) (0) (0)	3 0 0 0 0 (6) (6) (0) (0)	4 0 0 0 0 (8) (0) (0) (0)	0 0 0 0 0 (0) (0)

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

ь b : Number of animals with lesion

⁽c) c:b/a * 100

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

^{! :} Significant test is not applied to this group.

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 SEX : MALE

PAGE: 15

Organ	N	roup Name Control 5. of Animals on Study rade 1 2 3 4 (%) (%) (%) (%)	80 ppm 50 1 2 3 4 (%) (%) (%) (%)	400 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm ! 50 1 2 3 4 (%) (%) (%) (%)
{Endocrine sy	ystem)				
adrenal	focal fatty change:cortex	<50> 2 0 0 0 (4) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 - (0) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)
(Reproductive	e system)				
estis	mineralization	<50> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	<pre></pre>	2 0 0 0 (4) (0) (0) (0)
	hyperplasia	16 0 0 0 (32) (0) (0) (0)	21 0 0 0 (42) (0) (0) (0)	27 0 0 0 * (54) (0) (0) (0)	24 0 0 0 (48) (0) (0) (0)
	arteritis	2 2 0 0 (4) (4) (0) (0)	1 1 0 0 (2) (2) (0) (0)	3 2 0 0 (6) (4) (0) (0)	0 0 0 0 0 (0) (0)
pididymis	inflammatory infiltration	<50> 0 0 0 0 (0) (0) (0) (0)	(50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 0 0 0 0 0 0 0	(50) 1 0 0 0 (2) (0) (0) (0)
	1: Slight 2: Moderate 3: a: Number of animals examined at the sit b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤ nificant test is not applied to this group.				

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCr1Crlj[F344/DuCrj]
REPORT TYPE : A1

SEX : MALE

Organ	N	roup Name	80 ppm 50 1 2 3 4 (%) (%) (%) (%)	400 ppm 50 1 2 3 4 (%) (%) (%)	2000 ppm ! 50 1 2 3 4 (%) (%) (%) (%)
{Reproductive	system)				
epididymis	arteritis	<50> 0 0 0 0 0 0 0 0 0 0 0	<50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)
prostate	inflammation	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0	<50> 0 0 0 0 (0) (0) (0) (0)
	hyperplasia	3 4 0 0 (6) (8) (0) (0)	5 4 0 0 (10) (8) (0) (0)	2 2 0 0 (4) (4) (0) (0)	0 0 0 0 0 (0)
mammary gl	galactocele	0 1 0 0 (0) (2) (0) (0)	0 0 0 0 0 (o) (o) (o)	<50> 1 1 0 0 (2) (2) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
prep/cli gl	duct ectasia	<50> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 0 1 0 0 (0) (2) (0) (0)
{Nervous syst	em)				
brain	hemorrhage	(0) (0) (0) (0)	(50> 1 0 0 0 (2) (0) (0) (0)	(0) (0) (0) (0) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)
Grade <a>> b (c)	1: Slight 2: Moderate 3: a: Number of animals examined at the sit b: Number of animals with lesion c: b / a * 100 lifference; *: P ≤ 0.05 **: P ≤				

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1 SEX : MALE HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

PAGE: 17

		Group Name			400 ppm 50	2000 ppm ! 50
Organ	Findings		50 2 3 4 (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)
Nervous sy	/stem}					
orain	gliosis	(0) (<50> 0 0 0 0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
(Special se	ense organs/appendage}					
ye	cataract	5 (10) (<50> 0 0 0 0) (0) (0)	3 0 0 0 (6) (0) (0) (0)	3 0 0 0 (6) (0) (0) (0)	<pre></pre>
	retinal atrophy		16	14 26 3 0 (28) (52) (6) (0)	17 23 2 0 (34) (46) (4) (0)	8 8 1 0 (16) (16) (2) (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 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	12 16 5 0 (24) (32) (10) (0)
	squamous cell metaplasia:cornea	(0) (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)
Grade (a) b (c)	1: Slight 2: Moderate a: Number of animals examined at the b: Number of animals with lesion c: b / a * 100	3 : Marked 4 : Severe e site				

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

! : Significant test is not applied to this group.

(HPT150)

BAIS4

: RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS (0-105W)

ANIMAL : RAT REPORT TYPE : A1

SEX : MALE

PAGE: 18

Organ	No	oup Name . of Animals on Study 50 ade 1 2 (%) (%)	Control 0 3 4 (%) (%)	80 ppm 50 1 2 3 4 (%) (%) (%) (%)	400 pμm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm ! 50 1 2 3 4 (%) (%) (%) (%)
{Special sens	se organs/appendage}					
nasolacr d	inflammation	0 0 (0) (0)	0 0	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)	(50) 0 · 0 0 0 (0) (0) (0) (0)
{Musculoskele	etal system)					
muscle	hemorrhage	0 0 (0) (0)	0 0	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)
{Body cavitie	(se					
mediastinum	arteritis	0 0 (0) (0)	0> 0 0 (0) (0)	<50> 0 1 0 0 (0) (2) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>
peritoneum	arteritis	0 0 (0) (0)	0 0	<50> 0 1 0 0 (0) (2) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 1 0 0 (0) (2) (0) (0)
	1: Slight 2: Moderate 3: a: Number of animals examined at the sit b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤ 0.05					

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

APPENDIX L 2

HISTOPATHOLOGICAL FINDINGS:

NON-NEOPLASTIC LESIONS : MALE

DEAD AND MORIBUND ANIMALS

: RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1

ANIMAL

SEX : MALE

Group Name Control 80 ppm 400 ppm 2000 ppm 10 11 50 No. of Animals on Study 10 Grade Findings_ (%) (%) (%) (%) (%) (%) (%) {Integumentary system/appandage} skin/app <10> <10> <11> <50> epidermal cyst 0 0 0 0 0 0 0 5 0 0 (0)(0)(0)(0) (0)(0)(0)(0) (0)(0)(0)(0) (0)(10)(0)(0) {Respiratory system} nasal cavit <10> <10> <11> 2 eosinophilic change:olfactory epithelium 1 0 0 0 1 0 0 0 (30) (10) (0) (0) (40) (20) (0) (0) (9)(9)(0)(0) (0)(0)(0)(0) eosinophilic change:respiratory epithelium 0 0 0 0 0 0 0 (0)(0)(0)(0) (10) (0) (0) (0) (0)(0)(0)(0) (2)(0)(0)(0) inflammation: foreign body 3 0 3 2 6 1 0 0 (30) (0) (0) (0) (30) (20) (0) (0) (27) (0) (0) (0) (12) (2) (0) (0) inflammation:respiratory epithelium 0 0 0 0 0 2 16 2 22 (32) (44) (4) (0) (0)(0)(0)(0) (0)(0)(0)(0) (0)(18)(0)(0) respiratory metaplasia:olfactory epithelium 0 0 * (20) (0) (0) (0) (0)(0)(0)(0) (0)(0)(0)(0) (0)(0)(0)(0) respiratory metaplasia:gland 7 0 0 0 (70) (0) (0) (0) (60) (0) (0) (0) (55) (0) (0) (0) (62) (6) (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

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

SEX : MALE

Organ	Findings	Group Name	Control 10 2 3 4 (%) (%) (%)	80 ppm 10 1 2 3 4 (%) (%) (%) (%)	400 ppm 11 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
·						
{Respiratory s	system}					
lung	congestion	0 (0)	0 0 0 (0) (0) (0)	(10) 0 1 0 0 (0) (10) (0) (0)	0 0 0 0 (0) (0) (0) (0)	(50) (0)(0)(0)(0)(0)
	edema	(0)	0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 (9) (9) (0) (0)	0 0 0 0 0 (0) (0)
	necrosis:focal	0 (0)	0 0 0 (0) (0)	0 1 0 0 (0) (10) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	inflammatory infiltration	(0)	0 0 0 0 (0) (0)	2 0 0 0 0 (20) (0) (0)	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (2) (0) (0)
	accumulation of foamy cells	0 (0)	0 0 0 0 (0) (0)	1 0 0 0 0 (10) (0) (0)	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 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	3 0 0 0 0 (6) (6) (7)
	uremic pneumonitis	0 (0)	0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	13 0 0 0 (26) (0) (0) (0)
{Hematopoietic	c system)					
bone marrow	increased hematopoiesis	0 (0)	<10> 0 0 0 (0) (0) (0)	3 0 0 0 (30) (0) (0) (0)	1 0 0 0 (9) (0) (0) (0)	(50) 7 0 0 0 (14) (0) (0) (0)
Grade <a>> b (c) Significant d	a : Number of animals examined at the s b : Number of animals with lesion c : b / a * 100					

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1

SEX : MALE

DEAD AND MORIBUND ANIMALS (0-105W)

Organ		pp Name Control of Animals on Study 10 de 1 2 3 4 (%) (%) (%) (%)	80 ppm 10 1 2 3 4 (%) (%) (%) (%)	400 ppm 11 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Hematopoiet	ic system)				
bone marrow	granulopoiesis:increased	<10> 0 0 0 0 (0) (0) (0) (0)	(10) 1 0 0 0 (10) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
lymph node	deposit of hemosiderin	0 0 0 0 (0) (0) (0) (0)	(0) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)
	lymphadenitis	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0	1 0 0 0 0 (2) (0) (0) (0)
spleen	angiectasis	<10> 0 0 0 0 (0) (0) (0) (0)	(10> 0 0 0 0 (0) (0) (0) (0)	(11> 0 0 0 0 (0) (0) (0) (0)	(50) 9 7 0 0 (18) (14) (0) (0)
	deposit of hemosiderin	2 1 0 0 (20) (10) (0) (0)	2 1 0 0 (20) (10) (0) (0)	5 4 0 0 (45) (36) (0) (0)	15 28 0 0 ° (30) (56) (0) (0)
	fibrosis	0 0 0 0 0 0 (0)	0 0 0 0 0 (0) (0)	0 1 0 0	0 4 0 0 (0) (8) (0) (0)
	increased extramedullary hematopolesis	0 0 0 0 0 (0) (0)	1 4 0 0 * (10) (40) (0) (0)	2 0 0 0 0 (18) (0) (0) (0)	1 1 0 0 (2) (2) (0) (0)
Grade <a>> b (c)	<pre>1: Slight 2: Moderate 3: A a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤ 0.</pre>	Marked 4: Severe 01 Test of Chi Square			

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1

SEX : MALE

PAGE: 4

	Group No. of	Name Control Animals on Study 10	80 ppm 10	4 00 ppm 11	2000 ppm 50
Organ	Grade Findings	1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)
{Hematopoieti	c system)				
spleen	engorgement of erythrocyte	<10> 0 0 0 0 (0) (0) (0) (0)	(10) 1 0 0 0 (10) (0) (0) (0)	<11> 2 0 0 0 (18) (0) (0) (0)	<50> 2 1 0 0 (4) (2) (0) (0)
	capsule hyperplasia	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0)	0 0 0 0 0 (0) (0)	49 0 0 0 *** (98) (0) (0) (0)
{Circulatory	system)				
heart	thrombus	(10) 1 0 0 0 (10) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	(11) 0 0 0 0 (0) (0) (0) (0)	<pre></pre>
	myocardial fibrosis	5 1 0 0 (50) (10) (0) (0)	7 0 0 0 0 (70) (70) (0) (0)	6 3 0 0 (55) (27) (0) (0)	12 35 0 0 ** (24) (70) (0) (0)
artery/aort	mineralization	0 0 0 0 (0) (0) (0) (0)	<10> 0 0 0 0 (0) (0) (0) (0)	(11) 0 0 0 0 0 0 0 0 0 0 0 0	<50> 32 0 0 0 ** (64) (0) (0) (0)
	arteritis	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (2) (0) (0)
Grade <u> b c) Significant d</u>	1: Slight 2: Moderate 3: Mark a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 lifference; $*: P \le 0.05$ **: $P \le 0.01$				

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1 SEX : MALE

PAGE: 5

		oup Name Control	80 ppm 10	400 ppm 11	2000 ppm 50
Organ	Findings	rade <u>1 2 3 4</u> (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)
{Digestive :	system)				
stomach	hemorrhage	<10> 0 0 0 0 (0) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	\(\begin{array}{cccccccccccccccccccccccccccccccccccc	<50> 0 0 0 0 (0) (0) (0) (0)
	erosion:forestomach	1 0 0 0 (10) (0) (0) (0)	0 0 0 0	0 0 0 0 0 (0) (0) (0)	0 0 0 0 0 (0) (0)
	ulcer:forestomach	0 0 0 0 0 (0) (0)	1 0 0 0 (10) (0) (0) (0)	1 2 0 0 (9) (18) (0) (0)	0 0 0 0 0 (0) (0)
	hyperplasia:forestomach	1 0 0 0 (10) (0) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (9) (0) (0) (0)	0 0 0 0 0 (0) (0)
	erosion:glandular stomach	1 0 0 0 (10) (10) (10)	1 0 0 0 (10) (0) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)
	hyperplasia:glandular stomach	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 0 (2) (0) (0) (0)
	mineralization:glandular stomach	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	3 0 0 0 (27) (0) (0) (0)	27 0 0 0 *** (54) (0) (0) (0)
liver	herniation	<10> 2 0 0 0 (20) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	1 0 0 0 (9) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)
Grade <a>> b (c) Significant	1: Slight 2: Moderate 3: a: Number of animals examined at the sit b: Number of animals with lesion c: b/a*100 difference; *: P \leq 0.05 **: P \leq				

(HPT150)

BAIS4

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1

SEX : MALE PAGE: 6

Organ	Findings	Group Name Control No. of Animals on Study 10 Grade 1 2 3 4 (%) (%) (%) (%)	80 ppm 10 1 2 3 4 (%) (%) (%)	400 ppm 11 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Digestive	system}				
liver	necrosis:central	(10) 0 0 0 0 (0) (0) (0) (0)	(10) 0 1 0 0 (0) (10) (0) (0)	1 0 0 0 (9) (0) (0) (0)	<pre></pre>
	necrosis:focal	0 0 0 0 0	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 1 0 0 (2) (2) (0) (0)
	necrosis:single cell	0 0 0 0 0	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	17 1 0 0 (34) (2) (0) (0)
	fatty change	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (10) (0) (0)	0 0 0 0 0 (0) (0)	16 0 0 0 (32) (0) (0) (0)
	fatty change:central	0 1 0 0 (0) (10) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	hydropic change:central	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	45 3 0 0 += (90) (6) (0) (0)
	granulation	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (10) (0)	1 0 0 0 (9) (0) (0)	5 0 0 0 (10) (0) (0) (0)
	inflammatory cell nest	0 0 0 0 0 (0) (0)	0 2 0 0 (0) (20) (0) (0)	0 0 0 0 0 (0) (0) (0)	5 1 0 0 (10) (2) (0) (0)

a : Number of animals examined at the siteb : Number of animals with lesion

b (c)

c:b/a * 100

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

${\tt HISTOPATHOLOGICAL\ FINDINGS\ :} NON-NEOPLASTIC\ LESIONS\ (SUMMARY)$

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1 SEX : MALE

		Group Name Control No. of Animals on Study 10	80 ppm 10	400 ppm 11	2000 բբա 50
)rgan	Findings	Grade <u>1 2 3</u>	4 1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%)
(Digestive	system)				
liver	clear cell focus	<10> 0 0 0 (0) (0) (0) (0 0 0 0 0 0) (0) (0) (0) (0)	<11> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>
	acidophilic cell focus	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) (0) (0)	3 4 0 0 (6)(8)(0)(0)
	basophilic cell focus	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) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)
	spongiosis hepatis	0 0 0 (0) (0) (0 1 1 0 0 0 0 0 100 (10) (10) (0) (0)	2 5 1 0 *** (18) (45) (9) (0)	0 0 0 0 0 (0) (0)
	bile duct hyperplasia	0 10 0 (0) (100) (0) (0 0 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 7 0 0 (18) (64) (0) (0)	0 0 0 0 0 4
	arthritis	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)	1 0 0 0 0 (2) (0) (0) (0)
	deposit of brown pigment	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)	50 0 0 0 ** (100) (0) (0) (0)
ancreas	atrophy	<10> 0 1 1 (0) (10) (10) (<pre></pre>	<11> 2 0 0 0 (18) (0) (0) (0)	<50> 0 1 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 ; * : $P \le 0.05$ ** : $P \le 0.01$ Test of Chi Square

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

: RAT F344/DuCrlCrlj[F344/DuCrj] DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1 SEX : MALE

ANIMAL

Organ	Findings	Group Name No. of Animals on Study Grade	Control 10 2 3 4 (%) (%) (%)	80 ppm 10 1 2 3 4 (%) (%) (%) (%)	400 ppm 11 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Digestive s	evs.tem)					
pancreas	arteritis	0 (0)	<10> 0 0 0 (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	<11> 0 0 0 0 0 0 0 0 0 0 0 0	<50> 0 1 0 0 (0) (2) (0) (0)
{Urinary sys	tem)					
kidney	infarct	0 (0)	<10> 0 0 0 (0) (0) (0)	<10> 0 1 0 0 (0) (10) (0) (0)	0 0 0 0 (0) (0) (0) (0)	(50) 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)	1 19 0 0 * (2) (38) (0) (0)
	chronic nephropathy	6 (60)	0 0 0 0 (0) (0)	1 5 1 1 * (10) (50) (10) (10)	0 3 3 4 ** (0) (27) (27) (36)	0 1 0 49 *** (0) (2) (0) (98)
	mineralization:cortex	0 (0)	0 0 0	0 0 0 0 0	0 2 0 0 (0) (18) (0) (0)	2 42 0 0 ** (4) (84) (0) (0)
	urothelial hyperplasia:pelvis	0 (0)	0 0 0	0 0 0 0 0 (0) (0)	1 4 0 0 (9) (36) (0) (0)	5 43 0 0 *** (10) (86) (0) (0)
	atypical tubule hyperplasia	0 (0)	0 0 0	0 0 0 0 0 (0) (0) (0)	0 0 0 0 0 (0) (0)	2 4 0 0 (4) (8) (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 ь

⁽c) c:b/a * 100

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

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1

SEX : MALE

Organ	No	oup Name Control of Animals on Study 10 ade 1 2 3 (%) (%) (%)	4 1 (%)	80 ppm 10 2 3 4 (%) (%) (%)	400 ppm 11 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Urinary syste	om)					
kidney	deposit of brown pigment:proximal tubule	0 0 0 0 0 0 0 0) 0 0		<10> 0 0 0 (0) (0) (0)	<11> 7 0 0 0 *** (64) (0) (0) (0)	<pre></pre>
{Endocrine sys	stem)					
pituitary	cyst	<10> 0 0 0 (0) (0) (0)		<10> 0 0 0 (0) (0) (0)	<11> 0 0 0 0 0 0 0 0 0 0 0 0	(50) 1 0 0 0 (2) (0) (0) (0)
	hyperplasia	0 0 0 0 (0) (0)		0 0 0 0 (0) (0)	1 0 0 0 0 (9) (0) (0)	2 0 0 0 0 (4) (0) (0) (0)
thyroid	C-cell hyperplasia	(0) (0) (0		<10> 1 0 0 (10) (0) (0)	1 0 0 0 (9) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)
parathyroid	hyperplasia	(10) 0 0 0 0 (0) (0) (0		<10> 0 0 0 (0) (0) (0)	2 0 0 0 (18) (0) (0) (0)	<50> 27 0 0 0 *** (54) (0) (0) (0)
adrena1	hyperplasia:medulla	(10) 0 0 0 (0) (0) (0		<10> 0 0 0 (0) (0) (0)	1 0 0 0 (9) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
Grade <a>> b (c) Significant d	a : Number of animals examined at the site b : Number of animals with lesion c : b / a * 100					

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1

SEX : MALE

PAGE: 10

Organ	N	roup Name	80 ppm 10 1 2 3 4 (%) (%) (%) (%)	400 ppm 11 12 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Endocrine sy	ystem)				
adrenal	focal fatty change:cortex	(10) 0 0 0 0 (0) (0) (0) (0)	(10) 0 0 0 0 (0) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	<pre></pre>
{Reproductive	e system)				
testis	mineralization	<10> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(10) 0 1 0 0 (0) (10) (0) (0)	(11> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>
	hyperplasia	3 0 0 0 (30) (30) (0) (0)	2 0 0 0 0 (20) (0) (0)	5 0 0 0 (45) (0) (0) (0)	24 0 0 0 (48) (0) (0) (0)
	arteritis	0 1 0 0 (0) (10) (0) (0)	1 0 0 0 0 (10) (10) (10)	2 0 0 0 0 (18) (0) (0) (0)	0 0 0 0 0 (0) (0)
epididymis	inflammatory infiltration	(0) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	(11) 0 0 0 0 (0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)
prostate	inflammation	<10> 0 0 0 0 (0) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	C11> 0 1 0 0 (0) (9) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
Grade <a>> b (c) Significant	1: Slight 2: Moderate 3: a: Number of animals examined at the sit b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤				

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1
SEX : MALE

PAGE: 11

Organ	Group Man No. of A Grade Findings	ne Control nimals on Study 10 1 2 3 4 (%) (%) (%) (%)	80 ppm 10 1 2 3 4 (%) (%) (%) (%)	400 ppm 11 12 3 4 (%) (%) (%) (%)	2000 ypm 50 1 2 3 4 (%) (%) (%) (%)
{Reproductive	system)				
nammary gl	galactocele	<10> 0 1 0 0 (0) (10) (0) (0)	(10) 0 0 0 0 (0) (0) (0) (0)	(11> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
prep/cli gl	duct ectasia	(0) (0) (0) (0)	(10) 0 0 0 0 (0) (0) (0) (0)	(0) (0) (0) (0)	(50) 0 1 0 0 (0) (2) (0) (0)
{Nervous syst	cem)				
orain	hemorrhage	(0) (0) (0) (0)	(10) 1 0 0 0 (10) (0) (0) (0)	<11> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<50> 0 0 0 0 (0) (0) (0) (0)
{Special sens	se organs/appendage}				
eye	cataract	<10> 0 0 0 0 (0) (0) (0) (0)	(10) 1 0 0 0 (10) (0) (0) (0)	(11) 1 0 0 0 (9) (0) (0) (0)	(50) 4 0 0 0 (8) (0) (0) (0)
	retinal atrophy	0 0 0 0 0 (0) (0)	3 0 1 0 (30) (0) (10) (0)	2 1 0 0 (18) (9) (0) (0)	8 8 1 0 (16) (16) (2) (0)
Grade (u > b (c)	1: Slight 2: Moderate 3: Marked a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 difference; $*: P \leq 0.05$ **: $P \leq 0.01$				

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1

SEX : MALE

		Group Name No. of Animals on Study	Control ly 10		80 ppm 10	400 ppm 11	2000 ppm 50		
rgan	Findings	Grade <u>1</u> (%)	2 3 (%) (%)	(%)	1 2 3 4 (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%)		
Special sen	se organs/appendage)								
eye	keratitis	0 (0)	<10> 0 0 (0) (0)	0 (0)	0 0 0 0 (0) (0) (0) (0)	1 0 0 0 (9) (0) (0) (0)	<50> 12 16 5 0 *** (24) (32) (10) (0)		
	squamous cell metaplasia:cornea	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 0 (2) (0) (0) (0)		
Musculoskel	etal system}								
nuscle	hemorrhage	0 (0)	<10> 0 0 (0) (0)	0 (0)	<10> 0 0 0 0 (0) (0) (0) (0)	<11> 0 0 0 0 0 0 0 0 0 0 0 0	(50) 1 0 0 0 (2) (0) (0) (0)		
Body caviti	ies)								
oeritoneum	arteritis	0 (0)	<10> 0 0 (0) (0)	0 (0)	0 0 0 0 (0) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	(50) 0 1 0 0 (0) (2) (0) (0)		
Grade (a) b (c)	1: Slight 2: Moderate a: Number of animals examined at th b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **:								

(HPT150)

BAIS4

APPENDIX L 3

HISTOPATHOLOGICAL FINDINGS:

NON-NEOPLASTIC LESIONS : MALE

SACRIFICED ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1
SEX : MALE

PAGE: 1

Organ	No	oup Name ouf Animals on Study ade 1 (%)	Control 40 2 3 4 (%) (%) (%)	80 ppm 40 1 2 3 4 (%) (%) (%)	400 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 0 1 2 3 4 (%) (%) (%) (%)
{Integumentar	y system/appandage)					
skin/app	inflammation	0 (0)	<40> 0 0 0 (0) (0) (0)	<pre></pre>	<pre></pre>	<pre></pre>
	squamous cell hyperplasia	(0)	0 0 0 0 (0)	1 0 0 0 0 (3) (0) (0)	0 1 0 0 (0) (0)	(-) (-) (-) (-)
	scab	(0)	0 0 0 0 (0) (0)	1 0 0 0 0 (3) (0) (0)	0 0 0 0 0 (0) (0)	(-) (-) (-) (-)
	epidermal cyst	(0)	0 0 0 0 (0) (0)	0 2 0 0 (0) (5) (0) (0)	0 3 0 0 (0) (8) (0) (0)	(-) (-) (-)
subcutis	inflammation	0 (0)	<40> 0 0 0 (0) (0) (0)	(40) 0 0 0 0 (0) (0) (0) (0)	39> 0 1 0 0 (0) (3) (0) (0)	< 0> (-) (-) (-) (-)
{Respiratory	system)					
nasal cavit	eosinophilic change:olfactory epithelium		<40> 16 4 0 (40) (10) (0)	<pre></pre>	(39) 13 10 0 0 (33) (26) (0) (0)	() () () ()
Grade <a>> b (c) Significant d	1: Slight 2: Moderate 3: a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 ifference; $*: P \le 0.05$ **: $P \le 0.05$					

0461

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

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1

SEX : MALE

Organ		O Name Control of Animals on Study 40	80 ppm 40 1 2 3 4 (%) (%) (%) (%)	400 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 0 1 2 3 4 (%) (%) (%)
{Respiratory s	system)				
nasal cavit	eosinophilic change:respiratory epithelium	7 0 0 0 (18) (0) (0) (0)	<40> 6 0 0 0 (15) (0) (0) (0)	<39> 7 0 0 0 (18) (0) (0) (0)	< 0> (-) (-) (-) (-)
	inflammation:foreign body	11 6 0 0 (28) (15) (0) (0)	10 8 0 0 (25) (20) (0) (0)	10 5 0 0 (26) (13) (0) (0)	(-) (-) (-) (-)
	inflammation:respiratory epithelium	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 (3) (0) (0) (0)	(-) (-) (-)
	respiratory metaplasia:olfactory epitheliu	1 0 0 0 (3) (0) (0) (0)	1 0 0 0 0 (3) (0) (0)	2 0 0 0 0 (5) (0) (0) (0)	
	respiratory metaplasia:gland	23 7 0 0 (58) (18) (0) (0)	29 1 0 0 (73) (3) (0) (0)	24 0 0 0 * (62) (0) (0) (0)	(-) (-) (-)
lung	bronchiolar-alveolar cell hyperplasia	3 1 0 0 (8) (3) (0) (0)	<40> 0 1 0 0 (0) (3) (0) (0)	39> 1 0 0 0 (3) (0) (0) (0)	< 0> (-) (-) (-) (-)
{ Ilematopoietic	c system)				
bone marrow	granulation	<40> 0 2 0 0 0 0 (5) (0) (0)	(40> 0 0 0 0 (0) (0) (0) (0)	(39) 0 0 0 0 (0) (0) (0) (0)	(-) (-) (-) (-)
	I: Slight 2: Moderate 3: Ma a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 ifference: *: P ≤ 0.05 **: P ≤ 0.0				

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj] SACRIF

REPORT TYPE : A1

SACRIFICED ANIMALS (105W)

SEX : MALE

Organ	Findings	Group Name Control No. of Animals on Study 40 Grade 1 2 3 4 (%) (%) (%) (%)	80 ppm 40 1 2 3 4 (%) (%) (%) (%)	400 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 0 1 2 3 4 (%) (%) (%) (%)
{Hematopoiet	ic system)				
bone marrow	increased hematopoiesis	<40> 2 0 0 0 (5) (0) (0) (0		<pre></pre>	(-) (-) (-) (-)
	xanthogranuloma	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)	(-) (-) (-) (-)
lymph node	lymphadenitis	(40) 0 1 0 0 (0) (3) (0) (0		39> 0 0 0 0 (0) (0) (0) (0)	(-) (-) (-) (-)
spleen	congestion	<40> 0 1 0 0 (0) (3) (0) (0		39> 0 0 0 0 (0) (0) (0) (0)	< 0> (-) (-) (-) (-)
	deposit of hemosiderin	21 0 0 0 (53)(0)(0)(0		27 3 0 0 * (69) (8) (0) (0)	(-) (-) (-) (-)
	fibrosis	0 0 0 0 0		0 2 0 0 (0) (5) (0) (0)	(-) (-) (-) (-)
	mastcell hyperplasia	0 0 0 0 (0 1 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

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

SACRIFICED ANIMALS (105W)

REPORT TYPE : A1 SEX : MALE

PAGE: 4

		Group Name No. of Animals on Study Grade 1	40 2	Contro 3	oI 4	1	2	80 40 3	ppm 4	1		39	400 p			1		2000 0 3		
rgan	Findings	(%)	(%)	(%)	(%)	(%)	(%)		4 (%)	(%)	(%)	(%)	(%)	(9	%)	(%)	(%)	,	4 (%)
Hematopoietio	: system)																			
pleen	increased extramedullary hematopoiesi	s (0)	<40. 1 (3) (1	0 (0)	(3)	2	(40> 0 (0)	0 (0)	0 () ((3: 0 0)	0	0 (0)	(- -) (_	0> - (-) (_ -)
	engorgement of erythrocyte	0 (0)	0 (0) (0	0 (0)	2 (5)	0 (0)		0 (0)	9 (23		0)	0 (0)	0 ***	(- -) (- -)	(-) (- -)
Circulatory :	system)																			
eart	deposit of hemosiderin	0 (0)	<40 0 (0) (0	0 (0)	0 (0)	0	<40> 0) (0	0 (0)	(〈3 1 3〉	0	0 (0)	(- -) (_	0> - (-) (- -
	myocardial fibrosis	27 (68)	3 (8) (0 (0)	0 (0)	27 (68)	1 (3)		0 (0)	26 (67		2 5)	0 (0)	0 (0)	(- -) (- -)	(-) (- -
	subendocardial fibrosis	0 (0)	0 (0) (0 (0)	0 (0)	1 (3)	(0)		0 (0)	(;		0 0)	0 (0)	0 (0)	(- -) (- -)	(-) (
	arteritis	0 (0)	0 (0) (0 (0)	0 (0)	1 (3)	(0)	0 (0	0 (0)	(())) (0 0)	0 (0)	0 (0)	(- -) (- -)	(-) (-
ertery/aort	mineralization	0 (0)	<40 0 (0) (0	0 (0)	0 (0)	0		0 (0)		l 3) (<3 0 0)	0	0 (0)	(-) (_	0> -	-) (-

1 : Slight

2 : Moderate

b : Number of animals with lesion

(c)

^{3 :} Marked

^{4 :} Severe

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

b

c:b/a * 100

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

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

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

REPORT TYPE : A1

SEX : MALE PAGE: 5

Organ	Findings	Group Name Control No. of Animals on Study 40 Grade 1 2 3 4 (%) (%) (%) (%)	80 ppm 40 1 2 3 4 (%) (%) (%) (%)	400 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 0 1 2 3 4 (%) (%) (%)
{Digestive	system)				
stomach	malformation	<40> 0 0 0 0 0 0 0 0 0 0 0	<40> 1 0 0 0 (3) (0) (0) (0)	<pre></pre>	< 0> (-) (-) (-) (-)
	ulcer:forestomach	1 0 0 0 0 (3) (3) (0) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (3) (0) (0)	(-) (-) (-)
	hyperplasia:forestomach	0 0 0 0 0 (0)	0 0 0 0 0 (0) (0)	2 0 0 0 0 (5) (0) (0)	(-) (-) (-) (-)
	erosion:glandular stomach	0 0 0 0 0 (0) (0)	0 0 0 0 0 0 (0) (0)	3 0 0 0 0 (8) (0) (0) (0)	(-) (-) (-) (-)
	hyperplasia:glandular stomach	0 0 0 0 0 (0)	0 0 0 0 0 0 (0) (0)	1 0 0 0 0 (3) (0) (0)	(-) (-) (-)
liver	herniation	3 0 0 0 (8) (0) (0) (0)	(40> 1 0 0 0 (3) (0) (0) (0)	<pre></pre>	< 0> (-) (-) (-) (-)
	granulation	3 2 0 0 (8) (5) (0) (0)	3 0 0 0 0 (8) (0) (0) (0)	5 0 0 0 (13) (0) (0) (0)	() () () ()
	inflammatory cell nest	i 1 0 0 (3) (3) (0) (0)	0 0 0 0 0 (0) (0) (0)	0 0 0 0 0 (0) (0)	(-) (-) (-) (-)

Grade < a > 1 : Slight

2 : Moderate

3 : Marked

4 : Severe

ь

a : Number of animals examined at the site

(c)

b: Number of animals with lesion

c:b/a * 100

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

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

SACRIFICED ANIMALS (105W)

REPORT TYPE : A1 SEX : MALE

PAGE: 6

Organ	Findings	Group Name Control No. of Animals on Study 40 Grade 1 2 3 4 (%) (%) (%) (%)	80 ppm 40 1 2 3 4 (%) (%) (%) (%)	400 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 0 1 2 3 4 (%) (%) (%)
{Digestive :	system)				
liver	clear cell focus	<pre></pre>	<40> 2 5 0 0 (5) (13) (0) (0)	<pre></pre>	(-) (-) (-) (-)
	acidophilic cell focus	0 2 0 0 (0) (5) (0) (0)	1 2 0 0 (3) (5) (0) (0)	4 17 2 0 *** (10) (44) (5) (0)	(-) (-) (-)
	basophilic cell focus	5 1 0 0 (13) (3) (0) (0)	3 4 0 0 (8) (10) (0) (0)	1 15 3 0 *** (3) (38) (8) (0)	(-) (-) (-) (-)
	spongiosis hepatis	3 1 0 0 (8) (3) (0) (0)	6 0 0 0 (15) (0) (0) (0)	4 22 1 0 *** (10) (56) (3) (0)	(-) (-) (-) (-)
	bile duct hyperplasia	0 39 0 0 (0) (98) (0) (0)	0 39 0 0 (0) (0)	17 17 0 0 *** (44) (44) (0) (0)	(-) (-) (-)
	focal fatty change	1 0 0 0 0 (3) (0) (0) (0)	0 0 0 0 0 (0) (0)	3 1 0 0 (8)(3)(0)(0)	(-) (-) (-)
pancreas	atrophy	<40> 9 3 1 0 (23) (8) (3) (0)	<pre></pre>	7 2 0 0 (18) (5) (0) (0)	() () () ()
	arteritis	0 0 0 0 0 (0) (0)	0 1 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:b/a * 100

(c)

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

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] REPORT TYPE : A1

SEX : MALE PAGE: 7

Organ	Findings	Group Name No. of Animals on Study Grade (%)	Control 40 2 3 4 (%) (%) (%)	80 ppm 40 1 2 3 4 (%) (%) (%) (%)	400 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 0 1 2 3 4 (%) (%) (%) (%)
{Digestive s	ystem)					
pancreas	islet cell hyperplasia	0 (0)	<40> 0 0 0 0 0 0	0 1 0 0 (0) (3) (0) (0)	<pre></pre>	< 0> (-) (-) (-) (-)
{Urinary sys	tem)					
kidney	cyst	1 (3)	<40> 0 0 0 0 (0) (0) (0)	0 1 0 0 (0) (3) (0) (0)	<39> 4 4 0 0 * (10) (10) (0) (0)	< 0> (-) (-) (-) (-)
	deposit of hemosiderin	0 (0)	1 0 0	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	(-) (-) (-) (-)
	chronic nephropathy	14 (35)	20 3 0	5 32 3 0 * (13) (80) (8) (0)	0 3 25 11 *** (0) (8) (64) (28)	(-) (-) (-) (-)
	tubular necrosis	0 (0)	0 0 0 0	0 1 0 0 (0) (0)	0 0 0 0 0 (0) (0)	(-) (-) (-) (-)
	transitional cell hyperplasia	0 (0)	0 0 0 0	0 1 0 0 (0) (0)	0 0 0 0 0 (0)	(-) (-) (-) (-)
	urothelial hyperplasia:pelvis	0 (0)	0 0 0 0	1 0 0 0 0 (3) (0) (0)	6 21 0 0 *** (15) (54) (0) (0)	(-) (-) (-) (-)

Grade l : 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 ; * : $P \le 0.05$ ** : $P \le 0.01$ Test of Chi Square

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

SEX : MALE

Organ	Findings	Group Name Control No. of Animals on Study 40 Grade 1 2 3 4 (%) (%) (%) (%) (%)	80 ppm 40 1 2 3 4 (%) (%) (%) (%)	400 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 0 1 2 3 4 (%) (%) (%)
{Urinary sys	tem}				
kidney	atypical tubule hyperplasia	<40> 0 0 0 0 (0) (0) (0) (0)	(40) 1 0 0 0 (3) (0) (0) (0)	39> 1 0 0 0 (3) (0) (0) (0)	< 0> (-) (-) (-) (-)
	basophilic change:atypia	0 0 0 0 0	0 1 0 0 (0) (0)	0 0 0 0 0 (0) (0)	(-) (-)
	deposit of brown pigment:proximal tub	0 0 0 0 0 (0) (0) (0)	0 0 0 0 0 (0) (0)	34 1 0 0 *** (87) (3) (0) (0)	(-) (-) (-) (-)
{Endocrine s	ystem)				
pituitary	cyst	(3) (0) (0) (0)	<pre></pre>	39> 1 0 0 0 (3) (0) (0) (0)	(-) (-) (-) (-)
	hyperplasia	4 3 0 0 (10) (8) (0) (0)	9 1 0 0 (23) (3) (0) (0)	9 0 0 0 0 (23) (0) (0) (0)	(-) (-) (-)
	Rathke pouch	1 0 0 0 0 (3) (0) (0) (0)	1 0 0 0 0 (3) (0) (0) (0)	0 1 0 0 (0) (0) (0)	(-) (-)
thyroid	follicular hyperplasia	<pre></pre>	<pre></pre>	<pre></pre>	(-) (-) (-) (-)
Grade <a>a> b <a>c <a>	I: Slight 2: Moderate 3 a: Number of animals examined at the s b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤				

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

REPORT TYPE : A1 SEX : MALE

Organ		Group Name Control No. of Animals on Study 40 Grade 1 2 3 4 (%) (%) (%) (%)		400 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 0 1 2 3 4 (%) (%) (%) (%)
{Endocrine sy	ystem)				
thyroid	C-cell hyperplasia	2 1 0 0 (5) (3) (0) (0	7 4 0 0 (18) (10) (0) (0)	<39> 4 1 0 0 (10) (3) (0) (0)	< 0> (-) (-) (-) (-)
parathyroid	hyperplasia	(40) 0 0 0 0 (0) (0) (0) (0	(40) 0 0 0 0 0 0 0 0 0 0 0 0	39> 1 0 0 0 (3) (0) (0) (0)	(-) (-) (-) (-)
adrenal	thrombus	(0) (0) (0) (0		<39> 0 0 0 0 0 0 0 0 0 0 0	< 0> (-) (-) (-) (-)
	hyperplasia:medulla	0 1 0 0		3 0 0 0 0 (8) (9) (9)	(-) (-) (-) (-)
	focal fatty change:cortex	2 0 0 0 0 (5) (0) (0) (0		0 0 0 0 0 (0) (0)	(-) (-) (-)
{Reproductive	e system)				
testis	mineralization	(40) 0 0 0 0 (0)(0)(0)(0		39> 0 1 0 0 (0) (3) (0) (0)	(-) (-) (-) (-)
Grade <a>> b (c) Significant d	a: Number of animals examined at the sib: Number of animals with lesionc: b / a * 100				

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

: RAT F344/DuCrlCrlj[F344/DuCrj] REPORT TYPE : A1

ANIMAL

SEX : MALE

		up Name Control	80 ppm	400 ppm	2000 թթա					
Organ	No. Grad	of Animals on Study 40 de	1 2 3 4 (%) (%) (%) (%)	39 1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)					
{Reproductive	e system)									
testis	hyperplasia	<pre></pre>	<pre></pre>	<pre></pre>	< 0> (-) (-) (-) (-)					
	arteritis	2 1 0 0 (5) (3) (0) (0)	0 1 0 0 (0) (3) (0) (0)	1 2 0 0 (3) (5) (0) (0)	(-) (-) (-) (-)					
epididymis	arteritis	<40> 0 0 0 0 (0) (0) (0) (0)	(40) 1 0 0 0 (3) (0) (0) (0)	<39> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>					
prostate	hyperplasia	3 4 0 0 (8) (10) (0) (0)	<pre></pre>	<pre></pre>	< 0> (-) (-) (-) (-)					
mammary gl	galactocele	<40> 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 (0) (0) (0) (0)	39> 1 1 0 0 (3) (3) (0) (0)	(-) (-) (-) (-)					
{Nervous sys	tem)									
brain	gliosis	<pre></pre>	(40> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	< 0> (-) (-) (-) (-)					
Grade <a>> b (c) Significant	1: Slight 2: Moderate 3: Materials a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 difference; *: $P \le 0.05$ **: $P \le 0$.									

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

SACRIFICED ANIMALS (105W)

REPORT TYPE : A1

SEX : MALE

0 1 2 3 4 (%) (%) (%) (%)
< 0> (-) (-) (-) (-)
(-) (-) (-) (-)
< 0> (-) (-) (-) (-)
< 0> (-) (-) (-) (-)
< 0> (-) (-) (-) (-)

(HPT150)

APPENDIX L 4

HISTOPATHOLOGICAL FINDINGS:

NON-NEOPLASTIC LESIONS : FEMALE

ALL ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

PAGE: 19

		oup Name . of Animals on Study	50	Contr	ol			50	80 p	pm			5	400 :	ppm				20 50	000 p	pm
Organ		ade 1 (%)	2 (%)	3 (%)	(%)	<u>1</u> (%)	2 (%)	(%)	(%)	(<u>1</u> (%)	2 (%)	(%)	(%)		(%)		2 %)	(%)	(%)
{Integumentar	y system/appandage}																				
skin/app	angiectasis	0 (0)	(50 0 (0)	0	0 (0)	(() (<50 0 0) (0 (0)	(0 0) (<5 0 0	50> 0 (0)	0 (0)	(1 2)		<50> 0 0) (0	0 (0)
	inflammation	0 (0)	1 (2)	0 (0)	0 (0)	1 (2	e) (0 (0)	0 (0)	0 (0)	(0 0) (0 (0)	0 (0)	0 (0)	(0 (0)	(o 0) (0 0)	0 (0)
	squamous cell hyperplasia	(0)	0 (0)	0 (0)	0 (0)	(4	; i) (0	0 (0)	0 (0)	(0 0) (0 (0)	0 (0)	0 (0)	(2 (4)	(0 0) (0 0)	0 (0)
	scab	1 (2)	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)
{Respiratory	system}																				
nasal cavit	eosinophilic change:olfactory epithelium		31 (62)	18	0 (0)				21 (42)	0 (0)			33	50> 10 (20)	0 (0)	4	6 (12)		<500 0 0) (0	0 *
	1: Slight 2: Moderate 3: a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 lifference; *: P ≤ 0.05 **: P ≤ 0 lifferente test is not applied to this group.				***************************************																

(HPT150)

ANIMAL

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

: RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1

ALL ANIMALS (0-105W)

SEX : FEMALE

PAGE: 20

		oup Name . of Animals on Study	50	Contro	1			8 50	0 pp	m			c	400 0	ppm				200 50	0 pp	m
Organ		ade 1 (%)	2 (%)	3 (%)	(%)	(%)	(%)		3 %)	(%)	(9	<u>1</u> %)	2 (%)	3 (%)		<u>1</u> 6)	 <u>1</u> (%)	(%)		3 %)	(%)
(Respiratory	system)																				
nasal cavit	eosinophilic change:respiratory epitheli		<503 0 (0) (0	0 (0)	32 (64)	0		0 0) (0 0)	2° (5		0	60> 0 (0)		0 0)	3 6) (0		0 0) (0 *** (0)
	inflammation:foreign body	1 (2)	0 (0) (0) (0 (0)	2 (4)	0 (0) (0 0) (0 (0)		1 2) (0 0)	(0)		0 0)	0 0) (0 (0)		o 0) (0
	respiratory metaplasia:olfactory epithel		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)		o 0) (0 (0)
	respiratory metaplasia:gland	37 (74)	(0) (0	0 (0)	34 (68)	1 (2		0 0) (0 (0)	3 (6		0 0)	0 (0)		0 0)	33 66) (2 (4)		0 0) (0 (0)
lung	congestion	0 (0)	<50 0 (0) (0	0	1 (2)	0		0 0) (0 (0)		0 0) (0	50> 0 (0)		0 0)	3 6)	0 (0)		0 0) (0 (0)
	edema	0 (0)	0 (0) (0	0 (0)	0 (0)	(0		0 0) (0 (0)		0 0) (0	0 (0)		0 0)	2 4)	0		0 0) (0
	1: Slight 2: Moderate 3: a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤ 0 difference test is not applied to this group.																				

(HPT150)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

SEX : FEMALE

PAGE: 21

		roup Name O. of Animals on Study	50	Contr	ol			50 50	30 pp	m			5	400 I	mqo				200 50)O ppi	n
rgan		rade <u>1</u> (%)	2 (%)	3 (%)	<u>4</u> (%)	<u>1</u> (%)	(9		3 (%)	(%)	(1 %)	2 (%)	(%)	(%)		(%)	2 (%)		3 (%)	(%)
Respiratory s	system)																				
lung	inflammation	0 (0)	<50 0 (0) (0	0 (0)	0 (0)	((<50> i i) (0	0 (0)	(1 2) (<5 0 0)	0> 0 (0)	0 (0)	(1 2)	0 (0)		0 0) (0 0)
	inflammatory infiltration	(0)	0 (0) (0	0 (0)	0 (0)	(())) (0 0)	0 (0)	(o 0) (0	0 (0)	0 (0)	(2 4)	0 (0)) (0 0) (0 0)
	accumulation of foamy cells	0 (0)	0 (0) (0 0)	0 (0)	2 (4)	((0 0)	0 (0)	(1 2) (0 0)	0 (0)	0 (0)	(0 0)	(2)) (0 0) (0 0)
	bronchiolar-alveolar cell hyperplasia	1 (2)	(0) (0 (0)	0 (0)	0 (0)	(())) (0	0 (0)	(1 2) (0 0)	0 (0)	(0)	(2 4)	(0) (0 0) (0
{Hematopoietic	; system)																				
cone marrow	granulation	5 (10)	<50 2 (4) (0	0 (0)	3 (6)		<50> l ?) (0 0)	0		0 0) (1	0> 0 (0)	0 (0)	(1 2)	1 (2	<50>	0 0) (0
<a>> b (c)	1: Slight 2: Moderate 3 a: Number of animals examined at the sib: Number of animals with lesion c: b / a * 100 ifference; *: P ≤ 0.05 **: P ≤																_				

(HPT150)

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

: RAT F344/DuCr1Cr1j[F344/DuCrj] ANIMAL REPORT TYPE : A1

: FEMALE SEX

PAGE: 22

Organ	Findings	Group Name Control No. of Animals on Study 50 Grade 1 2 3 (%) (%)	80 ppm 50 4 1 2 3 4 (%) (%) (%) (%)	400 ppm 50 - 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Hematopoietic	c system)				
bone marrow	increased hematopoiesis	(50) 3 0 0 (6) (0) (0) (0 2 0 0 0 0) (4) (0) (0) (0)	3 0 0 0 (6) (0) (0) (0)	3 0 0 0 0 (6) (0) (0) (0)
spleen	angiectasis	(50) 0 0 0 (0) (0) (0) (0 0 0 0 0 0) (0) (0) (0) (0)		<50> 5 0 0 0 (10) (0) (0) (0)
	deposit of hemosiderin	24 9 0 (48) (18) (0) (0 27 14 0 0 0) (54) (28) (0) (0)		33 12 0 0 * (66) (24) (0) (0)
	fibrosis	0 1 0 (0) (2) (0) (0 0 0 0 0 0	0 0 0 0 0 (0) (0) (0)	2 1 0 0 (4) (2) (0) (0)
	increased extramedullary hematopoiesi	s 10 5 0 (20) (10) (0) (0 6 3 0 0 0 0 12) (6) (0) (0)	14 2 0 0 (28) (4) (0) (0)	22 6 0 0 * (44) (12) (0) (0)
	engorgement of erythrocyte	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	5 0 0 0 0 (10) (0) (0)	26 1 0 0 ** (52) (2) (0) (0)

Grade

1 : Slight 2 : Moderate 3 : Marked

4 : Severe

(a)

a : Number of animals examined at the site

ь

(c)

b : Number of animals with lesion

c:b/a * 100

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

! : Significant test is not applied to this group.

(HPT150)

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

SEX : FEMALE

PAGE: 23

	Group Nam		80 ppm	400 ppm	2000 ppm 50					
Organ	No. of Am Grade Findings	imals on Study 50 1 2 3 4 (%) (%) (%) (%)	50 1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)					
{Hematopoie	tic system)									
spleen	capsule hyperplasia	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>					
{Circulator	y system)									
heart	inflammatory cell nest	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)					
	myocardial fibrosis	15 0 0 0 (30) (0) (0) (0)	13 1 0 0 (26) (2) (0) (0)	14 1 0 0 (28) (2) (0) (0)	13 0 0 0 (26) (0) (0) (0)					
	subendocardial fibrosis	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	2 0 0 0 0 (4) (0) (0) (0)					
{Digestive	system)									
tongue	arteritis	<50> 0 0 0 0 (0) (0) (0) (0)	(0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	2 0 0 0 (4) (0) (0) (0)					
	1: Slight 2: Moderate 3: Marked a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 difference; *: $P \le 0.05$ **: $P \le 0.01$ gnificant test is not applied to this group.	4 : Severe Test of Chi Square								
(ПОТ1 ГО)	Puttingue ages 19 wer abbited to puts stout.		 		D4*					

(HPT150)

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj] ALL ANIMALS (0-105W)

REPORT TYPE : A1 SEX

: FEMALE

PAGE: 24

Organ	Findings	Group Name No. of Animals on Study Grade(%)	Control 50 2 3 4 (%) (%) (%)	80 ppm 50 1 2 3 4 (%) (%) (%) (%)	400 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Digestive	system)					
stomach	ulcer:forestomach	0 (0)	<50> 0 0 0 (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)	\(\frac{50}{1} \) \(1 \) \(0 \) \(2 \) \(0 \) \(0 \) \(0 \) \(0 \)	<50> 0 0 0 0 (0) (0) (0) (0)
	hyperplasia:forestomach	1 (2)	0 0 0 0 (0) (0)	2 0 0 0 0 (4) (0) (0) (0)	2 1 0 0 (4) (2) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)
	erosion:glandular stomach	0 (0)	0 0 0 0 (0)	1 0 0 0 0 (2) (0) (0)	0 0 0 0 0 (0) (0)	3 0 0 0 0
	hyperplasia:glandular stomach	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 0 (2) (0) (0) (0)
iver	herniation		<50> · 0 0 0 (0) (0) (0)	(50) 4 0 0 0 (8) (0) (0) (0)	<50> 7 0 0 0 (14) (0) (0) (0)	\$50> 9 0 0 0 (18) (0) (0) (0)
	angiectasis	0 (0)	1 0 0 (2) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	1: Slight 2: Moderate a: Number of animals examined at the b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P gnificant test is not applied to this gra	≤ 0.01 Test of Chi Squar				

(HPT150)

: RAT F344/DuCrlCrlj[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

4 : Severe

REPORT TYPE : A1

ANIMAL

SEX : FEMALE

		Group Name No. of Animals on Study		Соп 50	trol						80 0) pp	m				-	40 0	0 pr	om					20 50	00 p	maç	
Organ	Findings	Grade 1 (%)	2	3		<u>4</u> (%)		(%)	-	2 (%)	-	6)	(%)		<u>1</u> (%)		2 (%)		3 %)	<u>4</u> (%)		(%)	ı 	2 (%)		3 (%)		<u>4</u> (%)
(Digestive	system)																											
liver	necrosis:central	0 (0)		(50> 0 (0		0 0)	(0 (0)	(0	(())) (0 0)	(0 0)	(0	(0 0)	0	(0		1	(50>	0		0 0)
	necrosis:focal	0 (0)	3) (6)	0)) (0 0)	(2 4)	(1 2)	(1))) (0 (0)	(2 4)	(0 0)	(0 0)	0	(3 (6)) (2 4)	(0 0)	(0
	necrosis:single cell	0 (0)	0 (0)			0 0)	(0 (0)) (0	())) (0 (0)	(1 2)	(0 0)	(0 0)	0 (0)	(5 (10)) (1 2)	(0 0)		0 * 0)
	hydropic change	0 (0)	0 (0)			0 0)	(0 (0)) (0 0)	())) (0 (0)	(0 0)	(0 0)	(0 0)	0 (0)	(1 (2)) (0 0)	(0 0)	(0 0)
	hydropic change:central	0 (0)	0 (0)			0 0)	(0 (0)) (0 0)	() ()	0 (0)	(0 0)	(0 0)		0 0)	0 (0)	1	38 (76)		3 6)		0 0)		0 * 1 0)
	inflammatory infiltration	0 (0)	0 (0)			0 0)	(0 (0)) (1 2)	())) (0 (0)	(0 0)	(0 0)	(0 0)	0 (0)	(0 (0)		0 0)		0		0 0)
	granulation	12 (24)	5 (10)			0 0)	(16 (32)		4 8)		2 4) (0	(7 14)		3 6)		0 0)	0 (0)	ı	4 (8)		1 2)) (0 0)		0 **

Grade 1: Slight 2: Moderate 3: Marked

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

b b: Number of animals with lesion

⁽c) c:b/a * 100

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

^{! :} Significant test is not applied to this group.

ANIMAL

SEX

: RAT F344/DuCrlCrlj[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

REPORT TYPE : A1 : FEMALE ALL ANIMALS (0-105W)

Organ	Findings	Group Name No. of Animals on Study Grade 1 (%)	Control 50 2 3 4 (%) (%)	80 ppm 50 1 2 3 4 (%) (%) (%) (%)	400 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Digestive	system)					
liver	inflammatory cell nest	0 (0) (<50> 0 0 0 (0) (0) (0)	<pre></pre>	<pre></pre>	<50> 0 2 0 0 (0) (4) (0) (0)
	fibrosis	(0) (1 0 0 (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)
	clear cell focus		1 0 0 (2) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	2 0 0 0 0 (4) (0) (0) (0)	1 7 3 0 * (2) (14) (6) (0)
	acidophilic cell focus	(0) (0 0 0 0	0 0 0 0 0 (0) (0)	4 4 0 0 * (8) (8) (0) (0)	1 29 6 0 ** (2) (58) (12) (0)
	basophilic cell focus	24 (48) (5 0 0 (10) (10)	22 0 0 0 * (44) (0) (0) (0)	9 0 0 0 ***	5 0 0 0 ** (10) (0) (0) (0)
	spongiosis hepatis	(0) (0 0 0 0 (0)	0 0 0 0 0 0 (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)
	bile duct hyperplasia	18 (36) (9 0 0 (18) (0) (0)	19 8 0 0 (38) (16) (0) (0)	36 4 0 0 *** (72) (8) (0) (0)	1 0 0 0 *** (2) (0) (0) (0)

Grade < a >

^{1 :} Slight

^{2 :} Moderate a : Number of animals examined at the site

^{3 :} Marked

^{4 :} Severe

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

^{! :} Significant test is not applied to this group.

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

: RAT F344/DuCrlCrlj[F344/DuCrj] ALL ANIMALS (0-105W)

REPORT TYPE : A1

ANIMAL

Organ_

liver

SEX

: FEMALE

400 ppm 2000 ppm Group Name Control 80 ppm No. of Animals on Study 50 50 50 Grade (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) Findings_ (Digestive system) ⟨50⟩

0 0 0 0

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

0

0 0 0

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

pancreas				<5	۷٥						<	50>						<50	>						<50	1>		
	atrophy		2	3	()	0		0		1		0	0		4	į	5	0		0		2		0	0		0
		(4) (6)	(() (0)	(0)) (2)	(0)	(0)	(8)	(10	0) (0)	(0)	(4)	(0) ((0)) (0)
	inflammatory infiltration	(0 0) (1 2)	(() (0 0)	(0		0 0)		0 0)	0 (0)		0 0)	(() ()	0 0)	(0 0)	(0 0)		0 0) (0 (0)		0 0)

0 0 0

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

(Urinary system)				
kidney	<50>	<50≻	<50>	<50≻
cyst	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) (2) (0) (0)
inflammatory cell nest	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 (0) (0)

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

deposit of brown pigment

(HPT150)

BAIS4

PAGE: 27

43 1 0 0 **

(86) (2) (0) (0)

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

ь b: Number of animals with lesion

⁽c) c:b/a * 100

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

^{! :} Significant test is not applied to this group.

: RAT F344/DuCr1Cr1j[F344/DuCrj]

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

ANIMAL : RAT REPORT TYPE : A1

SEX : FEMALE

Organ	Findings	Group Name No. of Animals on Study Grade(%)	50	1 4 (%)	1 (%)	50	0 ppm 3 4 %) (%)	(%)	50 2 (%)	3 (%)	4 (%)	(1 %)	2 50 2 (%)	(%) 3 (%)	4 (%)
{Urinary sy	vstem)															
kidney	chronic nephropathy	15 (30)	<50> 5 (10) (0 0	22 (44) (0 0 * 0) (0)	27 (54)	<50 16 (32) (2	0 *=* (0)			<50 14 28) (31	2 ** (4)
	hydronephrosis	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)
	tubular necrosis	(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)
	mineralization:pelvis	1 (2)	0 (0) (0 0 0) (0)	1 (2) (0	0 0 0) (0)	1 (2)	0	0 (0)	0	(0 0) (0	0 (0)	0 (0)
	transitional cell hyperplasia	0 (0)	0 (0) (0 0 0) (0)	0 (0) (0 0) (0 0 0) (0)	0 (0)	1 (2)	0	0 (0)	(0 0) (0	0 (0)	0 (0)
	urothelial hyperplasia:pelvis	(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 6) (4 8)	0 (0)	0 *
	atypical tubule hyperplasia	0 (0)	0 (0) (0 0 0) (0)	0 (0) (0 0	0 (0)	0 (0)	0	0 (0)		4 8) (1 2)	0 (0)	0 (0)

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

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

b b: Number of animals with lesion

⁽c) c:b/a*100

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

^{! :} Significant test is not applied to this group.

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

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

REPORT TYPE : A1

SEX

: FEMALE

. 101 13 (1011) 1001 13

		oup Name of Animals on Study	50	Contr	01			50	80 p	pm			5	400 I	mqo				2000 50	ppm	
Organ		1 (%)	<u>2</u> (%)	3 (%)	(%)	<u>1</u> (%	5)	2 (%)	3 (%)	(%)	(1 %)	2 (%)	(%)	(%)	(<u>1</u> %)	2 (%)	3		<u>4</u> (%)
{Urinary syst	tem)																				
kidney	deposit of brown pigment:proximal tubule	0 (0)	<50 0 (0) (0	0 (0)	0) (<50 0 0) (0	0 (0)	4	.8 (6) (<5 0 0)	0	0 * * (0)		3 6) (46	50> 0 (0)		0 ** 0)
ırin bladd	nodular hyperplasia:transitional epithel		<50 0 (0) (0	0 (0)	0 (0		<50 0 0) (0	0 (0)		0 0) (<5 1 2)	0	0 (0)		0 0) (0	50> 0 (0)		0 0)
	papillary hyperplasia:transitional epith		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)
{Endocrine sy	ystem)																				
pituitary	angiectasis	3 (6)	<50 0 (0) (0	0 (0)	2 (4	2 1) (<50 0 0) (0	0 (0)	(2 4) (0 (0)	0 (0)		0 0) (0	50> 0 (0)		0
	cyst	7 (14)	0 (0) (0 (0)	0 (0)	1	l 2) (0 0) (0 (0)	0 (0)	(4 8) (0 (0)	0 (0)	0 (0)	(1	5 10) (0 (0)	0 (0)		0
Grade <a>> b (c) Significant !: Sign	1: Slight 2: Moderate 3: a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤ 0																				

(HPT150)

BAIS4

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

: RAT F344/DuCr1Cr1j[F344/DuCrj] ALL ANIMALS (0-105W)

REPORT TYPE : A1 SEX : FEMALE

ANIMAL

PAGE: 30

Organ	Findings	Group Name No. of Animals on Study Grade (%)	Cor 50 2 3 (%) (%	tro1 4 (%)	80 ppm 50 1 2 3 4 (%) (%) (%) (%)		400 ppm) 3 4 (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Endocrine s	ystem}							
pituitary	lıyperplasia	5 (10)	<50> 1 (2) (<pre></pre>	6 0 (12) (0)		<pre></pre>
	Rathke pouch	0 (0)	0 () 0)) (0)	0 0 0 0 0 0 (0) (0) (0	1 0 (2) (0)	0 0	1 0 0 0 0 (2) (0) (0) (0)
thyroid	follicular hyperplasia	1 (2)	<50> 0 ((0) (() 0)) (0)	<50> 0 0 0 0 (0) (0) (0) (0	0 0 0 (0) (0)	0> 0 0 (0) (0)	<pre></pre>
	C-cell hyperplasia	6 (12)	2 (4) (4)	0 0)) (0)	4 1 0 0 (8) (2) (0) (0	7 1 (14) (2)	0 0	1 0 0 0 * (2) (0) (0) (0)
adrenal	peliosis-like lesion	1 (2)	<50> 0 ((0) ()) 0)) (0)	<50> 0 0 0 0 (0) (0) (0) (0	(5 1 0 (2)(0)		\(\frac{50}{1} \) (2) (0) (0) (0)
	hyperplasia:medulla	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 (2) (0)	0 0	0 0 0 0 0 (0) (0)

Grade

1 : Slight

2 : Moderate

3 : Marked

4 : Severe

< a >

a : Number of animals examined at the site

ь

(c)

b: Number of animals with lesion c:b/a * 100

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

! : Significant test is not applied to this group.

(HPT150)

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

Organ	Findings	Group Name Control No. of Animals on Study 50 Grade 1 2 3 4 (%) (%)	80 ppm 50 1 2 3 4 (%) (%) (%)	400 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%)
{Endocrine	system)				
adrenal	focal fatty change:cortex	(50) 6 0 0 0 (12) (0) (0) (0)	3 1 0 0 (6) (2) (0) (0)	6 0 0 0 (12) (0) (0) (0)	<50> 0 0 0 0 0 * (0) (0) (0) (0)
{Reproducti	ve system)				
ovary	cyst	3 0 0 0 (6) (0) (0) (0)	(50) 7 0 0 0 (14) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)	<pre></pre>
uterus	dilatation	(50) 0 0 0 0 (0) (0) (0) (0)	(50) 0 1 0 0 (0) (2) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
	decidual change	0 0 0 0 0 (0) (0)	0 i 0 0 (0) (2) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0
	cystic endometrial hyperplasia	1 2 0 0 (2) (4) (0) (0)	1 1 0 0 0 (2) (2) (0) (0)	2 2 0 0 (4) (4) (0) (0)	4 0 0 0 0 (8) (0) (0) (0)
	1: Slight 2: Moderate 3 a: Number of animals examined at the s b: Number of animals with lesion c: b / a * 100 t difference; *: P ≤ 0.05 **: P ≤ ignificant test is not applied to this grou	≦ 0.01 Test of Chi Square			

(HPT150)

BAIS4

STUDY NO. : 0461 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj] HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

PAGE: 32

Organ			80 ppm 50 4 1 2 3 4 %) (%) (%) (%)	400 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Reproductiv	e system)				
mammary gl	hyperplasia	<50> 0 0 0 (0) (0) (0) ((50) 0 0 1 0 0 0) (0) (2) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
	galactocele	(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 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
(Nervous sys	tem}				
orain	dilatation:cerebral ventricle	(50) 0 0 0 (0) (0) (0) (<pre></pre>	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
{Special sen	ise organs/appendage}				
еуе	hemorrhage	(0) (0) (0) (0 0 0 0 0 0) (0) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
	1: Slight 2: Moderate 3: Ma a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤ 0.0 gnificant test is not applied to this group.				

(HPT150)

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

		Group Name No. of Animals on Study Grade $ extstyle 1$	Control 50 2 3 4	80 pym 50 1 2 3 4	400 ppm 50 1 2 3 4	2000 ppm 50 1 2 3 4
rgan	Findings	Grade <u>1</u> (%)	(%) (%) (%)	(%) (%) (%)	(%) (%) (%)	(%) (%) (%) (%)
				(
pecial sens	e organs/appendage)					
łe	cataract	2 (4)	<50> 0 0 0 (0) (0) (0)	(50) 4 0 0 0 (8) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)	<50> 4 0 0 0 (8) (0) (0) (0
	retinal atrophy	2 (4)	40 1 0 (80) (2) (0)	1 42 3 0 (2) (84) (6) (0)	3 44 1 0 (6) (88) (2) (0)	5 36 2 0 (10) (72) (4) (0
	keratitis	0 (0)	0 0 0 0 (0) (0)	0 0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0
solacr d	inflammation	i (2)	<50> 4 0 0 (8) (0) (0)	(50) 0 3 0 0 (0) (6) (0) (0)	(50) 1 1 0 0 (2) (2) (0) (0)	<50> 1 0 0 ((2) (0) (0) ((
lusculoskele	etal system)					
one	osteosclerosis	5 (10)	<50> 6 0 0 (12) (0) (0)	<50> 1 2 0 0 (2) (4) (0) (0) .	2 1 0 0 (4) (2) (0) (0)	3 2 0 (6) (4) (0) (
rade a > b c)	1: Slight 2: Moderate a: Number of animals examined b: Number of animals with les c: b / a * 100	d at the site sion				
	difference; $*:P \leq 0.05$ ifficant test is not applied to		re			
PT150)						······································

(HPT150)

APPENDIX L 5

HISTOPATHOLOGICAL FINDINGS:

NON-NEOPLASTIC LESIONS : FEMALE

DEAD AND MORIBUND ANIMALS

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

: RAT F344/DuCr1Cr1j[F344/DuCrj] DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT REPORT TYPE : A1

SEX : FEMALE

Organ	No	oup Name out of Animals on Study rade 1 (%)	9 2 (%)	Contro 3 (%)	4 (%)		<u>1</u> (%)	2 (%)	80 8 3 (%)	ppm 4 (%)	1 (%)	(1	5 2 %)	3 (%)	pm 4 (%)	<u>1</u> (%)	<u>2</u> (%	11	0 ppm 3 %)	n 4 (%)
{Integumentar	ry system/appandage)														·					
skin/app	angiectasis	0 (0)	< 9: 0 (0) (0	0 (0)	. (0 0)	0	8> 0 (0)	0 (0)	0 (0)		< 52 0 0) (0	0 (0)	1 (9)	0		0 0) (0
{Respiratory	system)																			
masal cavit	eosinophilic change:olfactory epithelium		< 9 8 (89) (0	0 (0)	(2 25)	4		0 (0)	2 (40)		< 52 2 .0) (1	0 (0)	2 (18)	0		0 0) (0 ** 0)
	eosinophilic change:respiratory epithel	.um 2 (22)	0 (0) (0	0 (0)	(3 38)	0	0 (0)	0 (0)	2 (40)	(0 0) (0 0)	0 (0)	0 (0)	(0		0 0) (0 0)
	respiratory metaplasia:gland	4 (44)	0 (0) (0	0 (0)	(5 63)	0 (0)	0 (0)	0 (0)	3 (60)		0 0) (0 0)	0 (0)	2 (18)	(9) (0 0) (0
lung	congestion	0 (0)	< 9 0 (0) (0	0 (0)	(1 13)	0	8> 0 (0)	0 (0)	0 (0)		< 5: 0 0) (0	0 (0)	3 (27)	0		0 0) (0 0)
	edema	0 (0)	0 (0) (0	0	(0	0	0 (0)	0 (0)	0 (0)		0 0) (0 0)	0 (0)	2 (18)	(0		0 0) (0
Grade (a > b (c) Significant o	I: Slight 2: Moderate 3: a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 difference: *: P ≤ 0.05 **: P ≤ 0																			

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

Organ	Findings	Group Name No. of Animals on Study Grade(%)	Control 9 2 3 4 (%) (%) (%)	400 ppm 5 1 2 3 4 (%) (%) (%) (%)	2000 ppm 11 1 2 3 4 (%) (%) (%) (%)
(Respiratory	system)				
ung	inflammatory infiltration	(0)	< 9> 0 0 0 (0) (0) (0)	<pre></pre>	2 0 0 0 (18) (0) (0) (0)
	accumulation of foamy cells	0 (0)	0 0 0 0 (0) (0)	1 0 0 0 0 (20) (0) (0) (0)	0 0 0 0 0
	bronchiolar—alveolar cell hyperplasia	0 (0)	0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0
Hematopoiet	ic system)				
one marrow	increased hematopoiesis	1 (11)	< 9> 0 0 0 (0) (0) (0)	<pre></pre>	3 0 0 0 (27) (0) (0) (0)
pleen	angiectasis	0 (0)	<pre></pre>	< 5> 0 0 0 0 (0) (0) (0) (0)	2 0 0 0 (18) (0) (0) (0)
	deposit of hemosiderin		1 0 0	2 1 0 0 (40) (20) (0) (0)	5 3 0 0 (45)(27)(0)(0)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

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

REPORT TYPE : A1

SEX : FEMALE

Organ	1	Group Name to. of Animals on Study trade(%)	9 2 (%)	Contro 3 (%)	1 <u>4</u> (%)	1 (%)	2 (%)	80 p; 8 3 (%)	9m 4 (%)	<u>1</u> (%)	(5 2 (%)	100 pr 3 (%)	9m <u>4</u> (%)	<u>1</u> (%	5) (11 2	3 (%)	m 4 (%)
{Hematopoie	tic system)																		
spleen	fibrosis	0 (0)	< 9 1 (11) (0	0 (0)	0 (0)	0	8> 0 (0)	0 (0)	0 (0)		< 50 0 0) (0	0 (0)	. 0))) (<11> 1 9) () 0 0) (0
	increased extramedullary hematopoiesis	0 (0)	4 (44) (0 (0)	0 (0)	0 (0)	2 (25)	0 (0)	0 (0)	1 (20)	(2	1 20) (0	0 (0)	(9)) (2	4 36) (0 (0
	engorgement of erythrocyte	o (0)	0 (0) (0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	(0 0) (0 0)	0 (0)	(() }) (1 (9	0 0) (0 (0)
	capsule hyperplasia	0 (0)	0 (0) (0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	; (0 0) (0 0)	0	{ 73	} 3) (0 0) (0 0) (0 ** 0)
{Circulator	ry system)																		
heart	inflammatory cell nest	0 (0)	0 (0) (0	0 (0)	1 (13)	0	8> 0 (0)	0 (0)	0 (0)		< 5 0 0) (0	0			<11> 0 0) () 0 0) (0 (0)
	myocardial fibrosis	3 (33)	0 (0) (0 (0)	0 (0)	2 (25)	0 (0)	0 (0)	0 (0)	1 (20)		0 0) (0 0)	0 (0)	(9		0 (0 0) (0 (0)
	subendocardial fibrosis	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 <a>> b (c)	1: Slight 2: Moderate 3 a: Number of animals examined at the si b: Number of animals with lesion c: b/a * 100	: Marked 4 : Sever te	e																

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj] DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

		Group Name No. of Animals on Study		Contro	1		;	80 p	pm			5	400 p	pm			1	2000 I 1	maç
rgan	Findings	Grade <u>1</u> (%)	<u>2</u> (%)	3 (%)	(%)	(%)	2 (%)	(%)	(%)	_ <u></u>	6)	2 (%)	3 (%)	(%)	(<u>1</u> (%)	2 (%)	(%)	(%
Digestive s	system)																		
stomach	ulcer:forestomach	0 (0)	(0)	0	0 (0)	0 (0)	0 (0)	0	0 (0)		l)) (0 0 0) (5> 0 (0)	0 (0)		0 0) (<1 0 0)	1> 0 (0)	0
	hyperplasia:forestomach	(0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	(20	i)) (1 20) (0 (0)	0 (0)	(1 9) (0	0 (0)	(0
	erosion:glandular stomach	0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	((o) (0	0 (0)	0 -		1 9) (0 0)	0 (0)	(0
iver	herniation	3 (33)	(0)	0	0 (0)	0 (0)	0 (0)	0	0 (0)) ()	< 5 0 0)	5> 0 (0)	0 (0)		3 27) (<1 0 0)	1> 0 (0)	(0
	necrosis:central	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)) (0)	0	0 (0)	0 (0)		0 0) (1 9)	0 (0)	(0
	necrosis:focal	0 (0)	2 (22)	0 (0)	0 (0)	1 (13)	1 (13)	0 (0)	0 (0)	(0 0) (0	0 (0)	0 (0)	(1 9) (1 9)	0 (0)	((
	necrosis:single cell	0 (0)	0 (0)	0 (0)	0	0 (0)	0 (0)	0 (0)	0 (0)		0 0) (0	0 (0)	0 (0)		2 18) (1 9)	0 (0)	((
	hydropic change	0 (0)	0 (0)	0 (0)	0	0 (0)	0 (0)	0 (0)	0 (0)		0 0) (0	0 (0)	0 (0)		1 9) (0 (0)	0 (0)	((

Grade < a >

ь

a : Number of animals examined at the site

(c)

b: Number of animals with lesion

c:b/a * 100

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

(HPT150)

BAIS4

STUDY NO. : 0461 ANIMAL : RAT F344/DuCrICrIj[F344/DuCrj]

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

REPORT TYPE : A1

SEX : FEMALE

Organ	Findings	Group Name	80 ppm 8 1 2 3 4 (%) (%) (%) (%)	400 ppm 5 1 2 3 4 (%) (%) (%)	2000 ppm 11 1 2 3 4 (%) (%) (%)
{Digestive	system}				
liver	hydropic change:central	<pre></pre>	<pre></pre>	<pre></pre>	4 0 0 0 (36) (0) (0) (0)
	inflammatory infiltration	0 0 0 0 0 (0)	0 1 0 0 (0) (13) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	granulation	0 0 0 0 0 (0) (0)	1 0 0 0 (13) (0) (0) (0)	0 0 0 0 0	2 0 0 0 0 (18) (0) (0) (0)
	inflammatory cell nest	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 2 0 0 (0) (18) (0) (0)
	fibrosis	0 1 0 0 (0) (11) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0
	clear cell focus	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
	acidophilic cell focus	0 0 0 0 0 (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 2 0 0 (0) (18) (0) (0)
	basophilic cell focus	1 0 0 0 (11) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (9) (0) (0)
Grade <a>> b (c) Significant	1: Slight 2: Moderate a: Number of animals examined at the b: Number of animals with lesion c: b / a * 100 t difference; *: P ≤ 0.05 **: P	3 : Marked 4 : Severe site ≤ 0.01 Test of Chi Square			

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

REPORT TYPE : A1

SEX

: FEMALE

DEAD AND MORIBUND ANIMALS (0-105W)

Organ	No	oup Name Control of Animals on Study 9 ade 1 2 3 4 (%) (%) (%) (%)	80 ppm 8 1 2 3 4 (%) (%) (%) (%)	400 ppm 5 1 2 3 4 (%) (%) (%) (%)	2000 ррш 11 1 2 3 4 (%) (%) (%) (%)
{Digestive	system)				
liver	spongiosis hepatis	<pre></pre>	< 8> 0 0 0 0 (0) (0) (0) (0)	< 5> 0 0 0 0 (0) (0) (0) (0)	<11> 1 0 0 0 (9) (0) (0) (0)
•	bile duct hyperplasia	4 1 0 0 (44) (11) (0) (0)	5 0 0 0 (63) (0) (0) (0)	2 0 0 0 0 (40) (0) (0)	0 0 0 0 *
	deposit of brown pigment	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	6 0 0 0 * (55) (0) (0) (0)
pancreas	atrophy	<pre></pre>	< 8> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	<pre></pre>
	inflammatory infiltration	0 1 0 0 (0) (11) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0	0 0 0 0 0 (0) (0)
{Urinary sy	rstem}				
kidney	inflammatory cell nest	0 0 0 0 0 (o) (o) (o)	<pre></pre>	<pre></pre>	<pre></pre>
Grade < a > b (c) Significant	1: Slight 2: Moderate 3: a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤ 0				

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

		Froup Name		Control 9			80 ppm 8			400 ppm 5			2000 ppm 11					
Organ		o. of Animals on Study Frade 1 (%)	2	3 (%)	<u>4</u> (%)	<u>1</u> (%)	2 (%)	_	4 %)	<u>1</u> (%)	2 (%)	5 (%)	(%)	(5	1 %)	2 (%)	3 (%)	(%)
(Urinary syst	tem}																	
kidney	chronic nephropathy	1 (11) (< 92 0 0 (0	0 0)	1 (13)	2	8> 0 ((0) (0	0	3 60)	1	5> 0 (0)	0 * (0)		2 8) (5 45)	3	0 ** (0)
	hydronephrosis	(0) (0 (0	0 0)	1 (13)	0 (0)	0 (0 0) (0 0)	0 (0)	0 (0)	0 (0)		0 0) (0	0 (0)	0 (0)
	deposit of brown pigment:proximal tubul	0 (0) (0 (0 (0	0 ()	0 (0)	0 (0)	0 (0 0) (t	4 80)	0 (0)	0 (0)	0 *		3 7) (7 64)	0 (0)	0 ** (0)
{Endocrine s	ystem)																	
pituitary	cyst	1 (11)	< 93 0 (0) (0	0 (0)	0 (0)	0	8> 0 (i 20)	0	5> 0 (0)	0 (0)		1 9) (<1 0 0)	0	0 (0)
adrenal	focal fatty change:cortex	1 (11)	< 9; 0 (0) (0	0 (0)	1 (13)	0	8>	0 0) (0	0		0 (0)		0 0) (<1 0 0)	0	0 (0)
{Reproductive	e system)																	
ovary	cyst	(0)	< 9; 0 (0) (0	0 (0)	0 (0)	0	8> 0 (0) (0	0 0)	0		0 (0)		1 9) (0 0 0)	0	0 (0)
Grade (a) b (c) Significant	 a: Number of animals examined at the si b: Number of animals with lesion c: b / a * 100 		· · · ·															

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

PAGE: 20

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1 SEX

: FEMALE

Organ	No	roup Name Control o. of Animals on Study 9 rade 1 2 3 4 (%) (%) (%) (%)	80 ppm 8 1 2 3 4 (%) (%) (%)	400 ppm 5 1 2 3 4 (%) (%) (%)	2000 ppm 11 1 2 3 4 (%) (%) (%) (%)
{Reproductive	system)				
ıterus	dilatation	<pre></pre>	<pre></pre>	<pre></pre>	<11> 0 0 0 0 0 0 0 0 0 0 0 0
nammary gl	galactocele	(0) (0) (0) (0)	<pre></pre>	< 5> 0 0 0 0 (0) (0) (0) (0)	(0) (0) (0) (0) (0) (0)
{Nervous syste	em}				
orain	dilatation:cerebral ventricle	<pre></pre>	<pre></pre>	< 5> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<11> 0 0 0 0 (0) (0) (0) (0)
(Special sense	e organs/appendage)				
ye	hemorrhage	<pre></pre>	<pre></pre>	<pre></pre>	0 0 0 0 (0) (0) (0) (0)
	cataract	1 0 0 0 (11) (0) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (20) (0) (0)	1 0 0 0 0 (9) (0) (0)
(а) (с)	a : Number of animals examined at the site b : Number of animals with lesion c : b / a * 100	Marked 4: Severe e 0.01 Test of Chi Square			

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

PAGE: 21

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1
SEX : FEMALE

Organ		up Name Control of Animals on Study 9 de 1 2 3 4 (%) (%) (%) (%)	80 ppm 8 1 2 3 4 (%) (%) (%) (%)	400 ppm 5 1 2 3 4 (%) (%) (%) (%)	2000 ppm 11 1 2 3 4 (%) (%) (%) (%)
(Special sense	e organs/appendage)				
еуе	retinal atrophy	<pre></pre>	<pre></pre>	<pre></pre>	<11> 1 3 0 0 (9) (27) (0) (0)
nasolacr d	inflammation	(95) 1 1 0 0 (11) (11) (0) (0)	<pre></pre>	<pre></pre>	(0) (0) (0) (0)
{Musculoskele	tal system}				
bone	osteosclerosis	<pre></pre>	< 8> 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)
<a>> b (c)	1: Slight 2: Moderate 3: War a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 ifference; *: P ≤ 0.05 **: P ≤ 0.05	Marked 4: Severe			

APPENDIX L 6

HISTOPATHOLOGICAL FINDINGS:

NON-NEOPLASTIC LESIONS : FEMALE

SACRIFICED ANIMALS

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

SACRIFICED ANIMALS (105W)

REPORT TYPE : A1 SEX : FEMALE

		Group Name No. of Animals on Study Grade 1	41			,	4	80 p		,		48				,		2000 39		
Organ	Findings	Grade <u>1</u> (%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)		(%)	(%)	(%)		(%)
{Integumentar	y system/appandage}																			
skin/app	inflammation	0 (0)	(41) 1 (2) (0	0 0)	1 (2)	0	2> 0 (0)	0 (0)	0 (0) (<4! 0 0)	5> 0 (0)	0 (0)	(0	0	39> (0)		0
	squamous cell hyperplasia	0 (0)	0 (0) (0 0) (0 0)	2 (5)	0 (0)	0 (0)	0 (0)	0))) (0 0)	0 (0)	0 (0)	(2 5)	0	(0		0 0)
	seab	1 (2)	0 (0) (0 0) (0 0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4	: i) (0 0)	0 (0)	0 (0)	(0	0 (0)	(0		0)
{Respiratory	system)																			
nasal cavit	eosinophilic change:olfactory epith		<412 23 (56) (18	0 0)	1 (2)	21	2> 20 (48)	0 (0)		ł)) (5> 9 (20)	0 *	(4 10)	0	39> 0 (0		0 ** 0)
	eosinophilic change:respiratory epi		0 (0) (0	0 0)	29 (69)	0 (0)	0 (0)	0 (0)	25 (56		0 0)	0 (0)	0 (0)	(3 8)	0 (0)	0		0 ** 0)
	inflammation:foreign body	1 (2)	0 (0) (0	0 0)	2 (5)	0 (0)	0 (0)	0 (0)	1 (2		0 0)	0 (0)	0 (0)	(0	0 (0)	0))) (0
	respiratory metaplasia:olfactory ep		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)
Grade <a>> b (c) Significant d	1: Slight 2: Moderate a: Number of animals examined at the b: Number of animals with lesion c: b / a * 100 lifference; *: P ≤ 0.05 **: P																			

SEX

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1 : FEMALE

		Group Name No. of Animals on Study	С от 41	ıtr o l		42	80 ppm		2000 ppm 39							
rgatı		Grade 1 (%)	2 3	3 <u>4</u> 6) (%)	(%)	2 (%)	3 <u>4</u> (%) (%)	<u>1</u> (%)	2 (%)	3 (%)	(%)	<u>1</u> (%) (2	3 (%)	(%)
Respiratory s	system}															
asal cavit	respiratory metaplasia:gland	33 (80)	<41> 0 (0 (0 0	29 (69)	(42)	0 0	30 (67)	<4: 0 (0)	0	0	31 (79		<39> 1 3) (0 0) (0
ung	inflammation	0 (0)	<41> 0 (0) (0 0	0 (0)			1 (2)		0	0 (0)		_	<39> 0 0) (> 0 0) (0
	accumulation of foamy cells	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)
	bronchiolar-alveolar cell hyperplasia	1 (2)	0 (0) (0 0 0) (0)	0 (0)	0 (0)	0 0	1 (2)	0 (0)	0 (0)	0 (0)			0 (0	0 (0)
Hematopoieti	c system)															
one marrow	granulation	5 (12)	<41> 2 (5) (0 0 0) (0)			2> 0 0 (0) (0)	0 (0)	1		0 * (0)			<39) 1 3) (> 0 0) (0 (0)
	increased hematopoiesis	2 (5)	0 (0) (0 0	0 (0)	0 (0)	0 0	1 (2)		0 (0)	0 (0)		0 0) (0 (0	0 (0)
Grade (u > b (c) Significant d	1: Slight 2: Moderate 3 a: Number of animals examined at the si b: Number of animals with lesion c: b / a * 100 lifference; *: P ≤ 0.05 **: P ≤								,-							

STUDY NO. : 0461 ANIMAL

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

: RAT F344/DuCr1Crlj[F344/DuCrj]

PAGE: 14

REPORT TYPE : A1 : FEMALE SEX

		Group Name	Control 41			80 42	ppm		400 ppm 45			2000 ppm 39			
Organ	Findings	No. of Animals on Study Grade 1 (%)	2	3 4 (%) (%	1 2	3	4 (%)	<u>1</u> (%)	(%)	(%)	(%)	<u>1</u> (%)	2	3	(%)
{Hematopoie	otic system)														
spleen	angiectasis	0 (0)	<41> 0 (0) (0 0	0 0		0 (0)	0 (0)	0	45> 0 (0)	0 (0)	3 (8)	0	(39> 0 (0)	0 (0)
	deposit of hemosiderin	23 (56)	8 (20) (0 (4 11 7) (26		0 (0)	21 (47)	22 (49)	0 (0)	0 ** (0)	28 (72)	9 (23)	0 (0)	0 (0)
	fibrosis	0 (0)	0 (0) (0 (D (C	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)
	increased extramedullary hematopoies		1 (2) (0 (6 1 4) (2		0 (0)	13 (29)	1 (2)	0 (0)	0 (0)	21 (54)	2) (5)	0 (0)	0 *) (0)
	engorgement of erythrocyte	(0)	0 (0) (0 (1 (2) ((0 (0)	5 (11)	0 (0)	0 (0)	0 (0)	26 (67)	0 (0)	0 (0)	0 *) (0)
	capsule hyperplasia	0 (0)	0 (0) (0 (0 (0) ((0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	38 (97)	0 (0)	0 (0)	0 *) (0)
(Circulator	ry system)														
heart	myocardial fibrosis	12 (29)	<41> 0 (0) (0 (1 1		0 (0)	13 (29)	1	45> 0 (0)	0 (0)	12 (31)	0		0 (0)
Grade (a) b (c) Significant	1: Slight 2: Moderate a: Number of animals examined at the s b: Number of animals with lesion c: b / a * 100 t difference; *: P ≤ 0.05 **: P				 		<u></u>	-		•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				

STUDY NO. : 0461 ANIMAL

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

: RAT F344/DuCrlCrlj[F344/DuCrj] SACRIFICED ANIMALS (105W)

REPORT TYPE : A1 SEX : FEMALE

		Group Name Control No. of Animals on Study 41 Grade 1 2 3 4	90 ppm 42 1 2 3 4	400 ppm 45 1 2 3 4	2000 ppm 39 1 2 3 4
Organ	Findings	(%) (%) (%)	(%) (%) (%) (%)	(%) (%) (%)	(%) (%) (%) (%)
{Circulatory	system)				
heart	subendocardial fibrosis	(41) 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	<45> 1 0 0 0 (2) (0) (0) (0)	39> 1 0 0 0 (3) (0) (0) (0)
{Digestive s	ystem)				
tongue	arteritis	<11> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<pre></pre>	<45> 0 0 0 0 0 0 0 0 0 0 0 0	39> 2 0 0 0 (5) (0) (0) (0)
stomach	hyperplasia:forestomach	(41) 1 0 0 0 (2) (0) (0) (0)	<42> 1 0 0 0 (2) (0) (0) (0)	<45> 1 0 0 0 (2) (0) (0) (0)	<pre></pre>
	erosion:glandular stomach	0 0 0 0 0 (0) (0)	0 0 0 0 0	0 0 0 0 0 (0) (0)	2 0 0 0 0 (5) (0) (0) (0)
	hyperplasia:glandular stomach	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 0 (3) (0) (0) (0)
liver	herniation	<41> 8 0 0 0 (20) (0) (0) (0)	4 0 0 0 (10) (0) (0) (0)	7 0 0 0 (16) (0) (0) (0)	<pre></pre>
Grade <a>> b (c) Significant	1: Slight 2: Moderate 3 a: Number of animals examined at the s b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P:				

STUDY NO. : 0461 ANIMAL : RAT F

: RAT F344/DuCrlCrlj[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

REPORT TYPE : A1

SEX : FEMALE

Organ	Findings	Group Name No. of Animals on Study 4: Grade 1 2 (%) (%)	Control 3 4 (%) (%)	80 ppm 42 1 2 3 4 (%) (%) (%) (%)	400 ppm 45 1 2 3 4 (%) (%) (%) (%)	2000 ppm 39 1 2 3 4 (%) (%) (%) (%)
{Digestive	system)					
liver	angiectasis	(4) 0 1 (0) (2)	0 0	<pre></pre>	<45> 0 0 0 0 0 0 0 0 0 0 0 0	39> 0 0 0 0 (0) (0) (0) (0)
	necrosis:focal	0 1	0 0	1 0 0 0 0 (2) (0) (0) (0)	2 0 0 0 0 (4) (0) (0) (0)	2 1 0 0 (5) (3) (0) (0)
	necrosis:single cell	0 0 (0) (0)	0 0	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	3 0 0 0 0 (8) (0) (0) (0)
	hydropic change:central	0 0 (0) (0)	0 0	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	34 3 0 0 ** (87) (8) (0) (0)
	granulation	12 5 (29) (12)	4 0 (10) (0)	15 4 2 0 (36) (10) (5) (0)	7 3 0 0 * (16) (7) (0) (0)	2 1 0 0 *** (5) (3) (0) (0)
	inflammatory cell nest	0 0 (0) (0)	0 0	1 0 0 0 0 (2) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	clear cell focus	1 1 (2) (2)	0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	2 0 0 0 0 (4) (0) (0)	1 6 3 0 * (3) (15) (8) (0)
	acidophilic cell focus	0 0 (0) (0)	0 0	0 0 0 0 0 (0)	4 4 0 0 * (9) (9) (0) (0)	1 27 6 0 *** (3) (69) (15) (0)
Grade <a>> b (c) Significan	1: Slight 2: Moderate a: Number of animals examined at the b: Number of animals with lesion c: b / a * 100 t difference; *: P ≤ 0.05 **: P	3: Marked 4: Severe site ≤ 0.01 Test of Chi Square				

HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1

SEX : FEMALE

SACRIFICED ANIMALS (105W)

legat.	Group No. of Grade Findings	Name Control Animals on Study 41 1 2 3 4 (%) (%) (%) (%)	80 ppm 42 1 2 3 4 (%) (%) (%) (%)	400 ppm 45 1 2 3 4 (%) (%) (%) (%)	2000 ppm 39 1 2 3 4 (%) (%) (%) (%)
rgan	rindings	(4) (4) (4)		(0) (0) (0)	
Digestive s	ystem)				
iver	basophilic cell focus	<pre></pre>	<pre></pre>	<45> 9 0 0 0 *** (20) (0) (0) (0)	<pre></pre>
	bile duct hyperplasia	14 8 0 0 (34) (20) (0) (0)	14 8 0 0 (33) (19) (0) (0)	34 4 0 0 ++ (76) (9) (0) (0)	1 0 0 0 *
	deposit of brown pigment	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	37 I 0 0 *** (95) (3) (0) (0)
ancreas	atrophy	2 2 0 0 (5) (5) (0) (0)	<pre></pre>	<45> 4 4 0 0 (9) (9) (0) (0)	39> 1 0 0 0 (3) (0) (0) (0)
Urinary sys	tem}				
idney	cyst	(41) 0 0 0 0 (0) (0) (0) (0)	(42> 0 0 0 0 (0) (0) (0) (0)	<45> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>
	chronic nephropathy	14 5 0 0 (34) (12) (0) (0)	21 9 0 0 (50) (21) (0) (0)	24 15 2 0 *** (53) (33) (4) (0)	0 9 28 2 #= (0) (23) (72) (5)
rade (a > b	I: Slight 2: Moderate 3: Mar a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100	xed 4: Severe			

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj] SACRIFICED ANIMALS (105W)

REPORT TYPE : A1

SEX : FEMALE

•

		p Name Control of Animals on Study 41 e 1 2 3 4	80 ppm 42	400 ppm 45 1 2 3 4	2000 ppm 39 1 2 3 4
rgan	Findings	(%) (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)	(%) (%) (%) (%)	(%) (%) (%) (%)
Urinary syst	em}				
xidney	tubular necrosis	(41) 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	<45> 0 1 0 0 (0) (2) (0) (0)	39> 0 0 0 0 0 0 0 0 0 0 0 0
	mineralization:pelvis	1 0 0 0 0 (2) (0) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0
	transitional cell hyperplasia	0 0 0 0 0 (0) (0)	0 0 0 0 0 0 (0) (0)	0 1 0 0 (0) (0)	0 0 0 0 0
	urothelial hyperplasia:pelvis	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	3 4 0 0 * (8) (10) (0) (0)
	atypical tubule hyperplasia	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0) (0)	4 1 0 0 (10) (3) (0) (0)
	deposit of brown pigment:proximal tubule	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	44 0 0 0 *** (98) (0) (0) (0)	0 39 0 0 *
urin bladd	nodular hyperplasia:transitional epitheliu	TI	<42> 0 0 0 0 0 0 0 0 0 0 0	<45> 0 1 0 0 (0) (2) (0) (0)	<39> 0 0 0 0 0 0 0 0 0 0 0
	papillary hyperplasia:transitional epithel	ium 0 0 0 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)

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

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

: RAT F344/DuCr1Cr1j[F344/DuCrj]

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

REPORT TYPE : A1 SEX : FEMALE

ANIMAL

SACRIFICED ANIMALS (105W)

400 ppm 2000 ppm Group Name Control 80 ppm 39 No. of Animals on Study 41 Grade Organ_ Findings_ (%) (%) (%) (%) (%) (%) (%) (%) (%) (Endocrine system) pituitary <41> <42> <45> <39> 0 0 0 0 0 0 augiectasis 0 0 (7)(0)(0)(0) (5)(0)(0)(0) (4)(0)(0)(0) (0)(0)(0)(0) cyst 6 0 0 0 0 0 3 0 0 0 4 0 0 (15) (0) (0) (0) (2)(0)(0)(0) (7)(0)(0)(0) (10) (0) (0) (0) hyperplasia 5 1 6 0 0 (12) (2) (0) (0) (19) (2) (0) (0) (13) (0) (0) (0) (15) (0) (0) (0) Rathke pouch 0 0 0 0 0 0 1 0 0 0 1 0 0 (0)(0)(0)(0) (0)(0)(0)(0) (2)(0)(0)(0) (3)(0)(0)(0) thyroid <41> <42> **<45>** follicular hyperplasia 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 (2) (0) (0) (0) (0)(0)(0)(0) (0)(0)(0)(0) (0)(0)(0)(0) C-cell hyperplasia 6 2 0 0 7 1 0 0 1 0 0 0 4 1 0 0 (15) (5) (0) (0) (10) (2) (0) (0) (16) (2) (0) (0) (3)(0)(0)(0) adrenal **<41>** <42> <45> <39> peliosis like lesion 0 0 0 0 0 0 0 1 0 0 (2)(0)(0)(0) (0)(0)(0)(0) (2) (0) (0) (0) (3)(0)(0)(0) 2 : Moderate 1 : Slight 3 : Marked Grade 4 : Severe a: Number of animals examined at the site (a) b b: Number of animals with lesion (c) c : b / a * 100

HISTOPATHOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

: RAT F344/DuCr1Cr1j[F344/DuCrj] SACRIFICED ANIMALS (105W)

ANIMAL : RAT REPORT TYPE : A1

SEX

: FEMALE

Organ	Group No. o Grade Findings	f Animals on Study 41	80 ppm 42 1 2 3 4 (%) (%) (%) (%)	400 ppm 45 1 2 3 4 (%) (%) (%) (%)	2000 ppm 39 1 2 3 4 (%) (%) (%) (%)
{Endocrine sy	vstem)				
adrenal	hyperplasia:medulla	<pre></pre>	<pre></pre>	<45> 1 0 0 0 (2) (0) (0) (0)	<pre></pre>
	focal fatty change:cortex	5 0 0 0 (12) (0) (0) (0)	2 1 0 0 (5) (2) (0) (0)	6 0 0 0 0 (13) (0) (0)	0 0 0 0 0
{Reproductive	e system)				
ovary	cyst	3 0 0 0 (7) (0) (0) (0)	7 0 0 0 (17) (0) (0) (0)	<45> 0 0 0 0 (0) (0) (0) (0)	\$39> 5 0 0 0 (13) (0) (0) (0)
uterus	decidual change	(41) 0 0 0 0 (0) (0) (0) (0)	(42> 0 i 0 0 (0) (2) (0) (0)	<45> 0 0 0 0 (0) (0) (0) (0)	(0) (0) (0) (0) (0) (0) (39)
	cystic endometrial hyperplasia	1 2 0 0 (2) (5) (0) (0)	1 1 0 0 (2) (2) (0) (0)	2 2 0 0 (4) (4) (0) (0)	4 0 0 0 0 (10) (0) (0)
mammary gl	hyperplasia	<41> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 (0) (2) (0) (0)	<45> 0 0 0 0 (0) (0) (0) (0)	(0) (0) (0) (0)
Grade (a) b (c)	l: Slight 2: Moderate 3: Man a: Number of animals examined at the site b: Number of animals with lesion c: b/a * 100	rked 4: Severe			

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1 SEX : FEMALE

			80 ppm 42 1 2 3 4	400 ppm 45 1 2 3 4	2000 ppm 39 1 2 3 4
rgan	Findings	(%) (%) (%)	(%) (%) (%) (%)	(%) (%) (%)	(%) (%) (%)
Nervous syste	em}				
rain	dilatation:cerebral ventricle	(41) 0 0 0 0 (0) (0) (0) (0)	\(\langle 42 \rangle \) 1	<45> 0 0 0 0 0 0 0 0 0 0 0	(39) 0 0 0 0 (0)(0)(0)(0)
{Special sens	e organs/appendage}				
eye	cataract	(41) 1 0 0 0 (2) (0) (0) (0)	42> 4 0 0 0 (10) (0) (0) (0)	<45> 0 0 0 0 (0) (0) (0) (0)	3 0 0 0 0 (8) (0) (0) (0)
	retinal atrophy	1 39 1 0 (2) (95) (2) (0)	0 39 3 0 (0) (93) (7) (0)	2 43 0 0 (4) (96) (0) (0)	4 33 2 0 (10) (85) (5) (0
	keratitis	0 0 0 0 0 (0) (0)	0 0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)
nasolacr d	inflammation	(41) 0 3 0 0 (0) (7) (0) (0)	<pre></pre>	<45> 1 1 0 0 (2) (2) (0) (0)	<pre></pre>
{Musculoskele	etal system)				
bone	osteosclerosis	3 5 0 0 (7) (12) (0) (0)	<pre></pre>	<45> 2 1 0 0 (4) (2) (0) (0)	<39> 3 2 0 0 (8) (5) (0) (0
Grade <a>> b (c) Significant d	1: Slight 2: Moderate 3: M a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 lifference; *: P ≤ 0.05 **: P ≤ 0.				

APPENDIX M 1

STUDY NO. : 0461 NUMBER OF ANIMALS WITH TUMORS AND NUMBER OF TUMORS - TIME RELATED

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1

SEX : MALE

ime-related Weeks	Items	Group Name	Control	80 ppm	400 ppm	2000 ppm	
0 - 52	NO. OF EXAMINED ANIMALS		0	0	1	0	
	NO. OF ANIMALS WITH TUMORS		0	0	1	0	
	NO. OF ANIMALS WITH SINGLE TUMORS		0	0	ī	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	· 1	1	13	
	NO. OF ANIMALS WITH TUMORS		1	1	0	7	•
	NO. OF ANIMALS WITH SINGLE TUMORS		1	1	0	7	
	NO. OF ANIMALS WITH MULTIPLE TUMORS	•	0	0	0	0	
	NO. OF BENIGN TUMORS		1	0	0	6	
	NO. OF MALIGNANT TUMORS		0	1	0	1	
	NO. OF TOTAL TUMORS		1	1	0	7	
79 - 104	NO. OF EXAMINED ANIMALS		9	9	9	37	
	NO. OF ANIMALS WITH TUMORS		9	9	9	31	
	NO. OF ANIMALS WITH SINGLE TUMORS		3	2	5	22	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		6	7	4	9	
	NO. OF BENIGN TUMORS		8	18	13	37	
	NO. OF MALIGNANT TUMORS NO. OF TOTAL TUMORS		8 16	4 22	2 15	7 44	
	No. of Total Tomoro		10			**	
105 - 105	NO. OF EXAMINED ANIMALS		40	40	39	0	
	NO. OF ANIMALS WITH TUMORS		40	40	39	0	
	NO. OF ANIMALS WITH SINGLE TUMORS		10	15	12	0	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		30	25	27	0	
	NO. OF BENIGN TUMORS		71	72	69	0	
	NO. OF MALIGNANT TUMORS		9	4	8	0	
	NO. OF TOTAL TUMORS		80	76	77	0	

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

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

SEX : MALE

Time-related Weeks	Items	Group Name	Control	80 ppm	400 ppm	2000 ppm	
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50	
	NO. OF ANIMALS WITH TUMORS		50	50	49	38	
	NO. OF ANIMALS WITH SINGLE TUMORS		14	18	18	29	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		36	32	31	9	
	NO. OF BENIGN TUMORS	·	80	90	82	43	
	NO. OF MALIGNANT TUMORS		17	9	11	8	
	NO. OF TOTAL TUMORS		97	99	93	51	
(HPT070)							BAIS

APPENDIX M 2

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

STUDY NO. : 0461

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

REPORT TYPE : A1

SEX : FEMALE

ime-related Weeks	Items	Group Name	Control	80 ppm	400 ppm	2000 ppm	
0 - 52	NO. OF EXAMINED ANIMALS		0	0	0	0	
	NO. OF ANIMALS WITH TUMORS		0	0	0	0	
	NO. OF ANIMALS WITH SINGLE TUMORS		Ō	0	0	0	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0	
	NO. OF BENIGN TUMORS		0	0	0	0	
	NO. OF MALIGNANT TUMORS		0	0	0	0	
	NO. OF TOTAL TUMORS		0	0	0	0	
53 - 78	NO. OF EXAMINED ANIMALS		2	0	1	2	
	NO. OF ANIMALS WITH TUMORS		2	0	1	2	
	NO. OF ANIMALS WITH SINGLE TUMORS		2	0	1	2	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0	
	NO. OF BENIGN TUMORS		1	0	0	1	
	NO. OF MALIGNANT TUMORS		1	0	1	1	
	NO. OF TOTAL TUMORS		2	0	1	2	
79 - 104	NO. OF EXAMINED ANIMALS		7	8	4	9	
	NO. OF ANIMALS WITH TUMORS		7	8	4	9	
	NO. OF ANIMALS WITH SINGLE TUMORS		5	5	3	7	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		2	3	1	2	
	NO. OF BENIGN TUMORS		4	8	2	5	
	NO. OF MALIGNANT TUMORS		5	5	3	9	
	NO. OF TOTAL TUMORS		9	13	5	14	
105 - 105	NO. OF EXAMINED ANIMALS		41	42	45	39	
	NO. OF ANIMALS WITH TUMORS		24	25	26	29	
	NO. OF ANIMALS WITH SINGLE TUMORS		13	19	17	11	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		11	6	9	18	
	NO. OF BENIGN TUMORS		33	28	35	46	
	NO. OF MALIGNANT TUMORS		6	5	3	6	
	NO. OF TOTAL TUMORS		39	33	38	52	

(HPT070)

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

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1

SEX : FEMALE

PAGE: 4

Items	Group Name	Control	80 ppm	400 ppm	2000 ppm	
NO. OF EXAMINED ANIMALS		50	50	50	50	
NO. OF ANIMALS WITH TUMORS		33	33	31	40	
NO. OF ANIMALS WITH SINGLE TUMORS		20	24	21	20	
NO. OF ANIMALS WITH MULTIPLE TUMORS		13	9	10	20	
NO. OF BENIGN TUMORS		38	36	37	52	
NO. OF MALIGNANT TUMORS		12	10	7	16	
NO. OF TOTAL TUMORS		50	46	44	68	
	NO. OF ANIMALS WITH TUMORS NO. OF ANIMALS WITH SINGLE TUMORS NO. OF ANIMALS WITH MULTIPLE TUMORS NO. OF BENIGN TUMORS NO. OF MALIGNANT TUMORS	NO. OF ANIMALS WITH TUMORS NO. OF ANIMALS WITH SINGLE TUMORS NO. OF ANIMALS WITH MULTIPLE TUMORS NO. OF BENIGN TUMORS NO. OF MALIGNANT TUMORS	NO. OF ANIMALS WITH TUMORS NO. OF ANIMALS WITH SINGLE TUMORS NO. OF ANIMALS WITH MULTIPLE TUMORS 13 NO. OF BENIGN TUMORS 38 NO. OF MALIGNANT TUMORS 12	NO. OF ANIMALS WITH TUMORS 33 33 NO. OF ANIMALS WITH SINGLE TUMORS 20 24 NO. OF ANIMALS WITH MULTIPLE TUMORS 13 9 NO. OF BENIGN TUMORS 38 36 NO. OF MALIGNANT TUMORS 12 10	NO. OF ANIMALS WITH TUMORS 33 33 31 NO. OF ANIMALS WITH SINGLE TUMORS 20 24 21 NO. OF ANIMALS WITH MULTIPLE TUMORS 13 9 10 NO. OF BENIGN TUMORS 38 36 37 NO. OF MALIGNANT TUMORS 12 10 7	NO. OF ANIMALS WITH TUMORS 33 33 31 40 NO. OF ANIMALS WITH SINGLE TUMORS 20 24 21 20 NO. OF ANIMALS WITH MULTIPLE TUMORS 13 9 10 20 NO. OF BENIGN TUMORS 38 36 37 52 NO. OF MALIGNANT TUMORS 12 10 7 16

(HPTO70)

APPENDIX N 1

HISTOPATHOLOGICAL FINDINGS:

NEOPLASTIC LESIONS : MALE

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : MALE

Organ	Findings No. c	Name Control f animals on Study 50	80 ppm 50	400 ppm 50	2000 ppm 50
{Integumentary	system/appandage)				
skin/app	squamous cell papilloma	<50> 2 (4%)	<50> 3 (6%)	<50> 1 (2%)	<50> 0 (0%)
	trichoepithelioma	0 (0%)	0 (0%)	1 (2%)	0 (0%)
	keratoacanthoma	0 (0%)	2 (4%)	1 (2%)	1 (2%)
	sebaceous adenoma	0 (0%)	1 (2%)	0 (0%)	0 (0%)
	squamous cell carcinoma	0 (0%)	0 (0%)	1 (2%)	0 (0%)
subcutis	fibroma	<50> 2 (4%)	<50> 5 (10%)	<50> 3 (6%)	<50> 0 (0%)
	lipoma	0 (0%)	1 (2%)	2 (4%)	0 (0%)
	fibrosarcoma	1 (2%)	0 (0%)	1 (2%)	0 (0%)
{Respiratory s	system]				
lung	bronchiolar-alveolar adenoma	<50> 0 (0%)	<50> 2 (4%)	<50> 1 (2%)	<50> 0 (0%)
{ lematopoietic	c system)				
bone marrow	histiocytic sarcoma	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
lymph node	malignant lymphoma	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
(a) b (c)	a: Number of animals examined at the site b: Number of animals with neoplasm c: b/a * 100				

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : MALE

Organ	Findings	Group Name No. of animals on Study	Control 50	80 ppm 50	400 ppm 50	2000 ppm 50
Hematopoietic	c system)					
hymus	thymoma:malignant	0	<50> (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
pleen	osteosarcoma	1	<50> (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
	histiocytic sarcoma	1	(2%)	0 (0%)	0 (0%)	0 (0%)
	mononuclear cell leukemia	10	(20%)	4 (8%)	2 (4%)	0 (0%)
Digestive sys	stem)					
oral cavity	squamous cell papilloma	0	<50> (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
ongue	squamous cell papilloma	O	<50> (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
tomach	squamous cell papilloma	C	<50> (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
mall intes	fibroma	1	<50> (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
iver	hepatocellular adenoma	2	<50> (4%)	<50> 3 (6%)	<50> 7 (14%)	<50> 1 (2%)
	hepatocellular carcinoma	C	(0%)	0 (0%)	3 (6%)	1 (2%)
oancreas	islet cell adenoma	3	<50> 3 (6%)	<50> 2 (4%)	<50> 0 (0%)	<50> 1 (2%)
	ductal adenocarcinoma	C) (0%)	0 (0%)	1 (2%)	0 (0%)

STUDY NO. : 0461
ANIMAL : RAT F344/DuCr1Crlj[F344/DuCrj]
REPORT TYPE : A1

HISTOPATHOLOGICAL FINDINGS: NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

SEX : MALE

Organ	Findings	Group Name No. of animals on Study	Control 50	80 ppm 50	400 ppm 50	2000 ppm 50
(Urinary syste	em)	• •				
kidney	transitional cell papilloma		<50>) (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
	renal cell adenoma	() (0%)	1 (2%)	0 (0%)	1 (2%)
	renal cell carcinoma	() (0%)	0 (0%)	0 (0%)	4 (8%)
	nephroblastoma	1	(2%)	0 (0%)	0 (0%)	0 (0%)
ırin bladd	transitional cell papilloma	(<50> (0%)	<50> 1 (2%)	<50> 1 (2%)	<50> 0 (0%)
(Endocrine sys	etem)					
pituitary	adenoma	18	<50> 3 (36%)	<50> 9 (18%)	<50> 11 (22%)	<50> 1 (2%)
	adenocarcinoma	() (0%)	1 (2%)	0 (0%)	0 (0%)
thyroid	C-cell adenoma	;	<50> 7 (14%)	<50> 4 (8%)	<50> I (2%)	<50> 1 (2%)
	follicular adenoma	:	2 (4%)	0 (0%)	1 (2%)	1 (2%)
	follicular adenocarcinoma	;	1 (2%)	1 (2%)	0 (0%)	0 (0%)
adrenal	pheochromocytoma	;	<50> 2 (4%)	<50> 5 (10%)	<50> 0 (0%)	<50> 1 (2%)
{Reproductive	system)					
testis	interstitial cell tumor	38	<50> 3 (76%)	<50> 42 (84%)	<50> 45 (90%)	<50> 33 (66%)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1 SEX : MALE

Organ	Findings	Group Name No. of animals on Study		Control 50		80 ppm 50		400 ppm 50		2000 ppm 50
{Reproductive	system)									
prostate	adenoma			<50> (2%)	2	<50> (4%)	2	<50> (4%)	0	<50> (0%)
mammary gl	fibroadenoma			<50> (2%)	1	<50> (2%)	0	<50> (0%)	0	<50> (0%)
prep/cli gl	adenoma			<50> (2%)	4	<50> (8%)	1	<50> (2%)	1	<50> (2%)
{Nervous syste	em}									
brain	glioma			<50> (0%)	0	<50> (0%)	0	<50> (0%)	1	<50> (2%)
periph nerv	schwannoma:malignant			<50> (0%)	1	<50> (2%)	0	<50> (0%)	0	<50> (0%)
{Special sense	e organs/appendage)									
Zymbal gl	Zmbal gland tumor:benign			<50> (0%)	0	<50> (0%)	2	<50> (4%)	i	<50> (2%)
{Musculoskele	tal system)									
bone	osteosarcoma		0	<50> (0%)	0	<50> (0%)	0	<50> (0%)	1	<50> (2%)
{Body cavities	s) ·									
peritoneum	fibrosarcoma		0	<50> (0%)	0	<50> (0%)	0	<50> (0%)	1	<50> (2%)
	mesothelioma		1	(2%)	1	(2%)	2	(4%)	0	(0%)
<a>> b (c)	a: Number of animals examined at the site b: Number of animals with neoplasm c:b/a*	100								

(HPT085)

APPENDIX N 2

HISTOPATHOLOGICAL FINDINGS:

NEOPLASTIC LESIONS : FEMALE

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

Organ	Findings	Group Name No. of animals on Study	Control 50	80 ppm 50	400 ppm 50	2000 ppm 50
(Integumenta	ry system/appandage}					
skin/app	trichoepithelioma		<50> 0 (0%)	<50> 2 (4%)	<50> 0 (0%)	<50> 0 (0%)
	basal cell carcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
subcutis	histiocytic sarcoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
	mastcytoma:malignant		1 (2%)	0 (0%)	0 (0%)	0 (0%)
(Respiratory	system)					
lung	bronchiolar-alveolar adenoma		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 1 (2%)
Hematopoiet	ic system)					
spleen	mononuclear cell leukemia		<50> 5 (10%)	<50> 5 (10%)	<50> 2 (4%)	<50> 2 (4%)
Digestive s	system}					
oral cavity	squamous cell papilloma		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
	squamous cell carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
liver	hepatocellular adenoma		<50> 0 (0%)	<50> 0 (0%)	<50> 2 (4%)	<50> 20 (40%)
	hepatocellular carcinoma		0 (0%)	0 (0%)	0 (0%)	4 (8%)
<a>><a> b (c)	a: Number of animals examined at the site b: Number of animals with neoplasm c	: b / a * 100				

STUDY NO. : 0461 ANIMAL : RAT I HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

: RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS (0-105W)

REPORT TYPE : A1 SEX : FEMALE

Group Name Control 80 ppm 400 ppm 2000 ppm 50 50 50 50 Findings_ No. of animals on Study Organ_ (Digestive system) <50> <50> ⟨50⟩ <50> pancreas islet cell adenoma 0 (0%) 0 (0%) 1 (2%) 0 (0%) (Urinary system) <50> kidney <50> <50> <50> 0 (0%) 0 (0%) 0 (0%) 2 (4%) renal cell adenoma 0 (0%) 1 (2%) 0 (0%) 0 (0%) mesenchymoma:malignant <50> <50> <50> <50> urin bladd 1 (2%) 0 (0%) 0 (0%) transitional cell carcinoma 0 (0%) (Endocrine system) (50> <50> <50> <50> pituitary 17 (34%) 13 (26%) 10 (20%) 14 (28%) adenoma 0 (0%) 0 (0%) 0 (0%) adenocarcinoma 1 (2%) <50> thyroid <50> <50> ⟨50⟩ 6 (12%) 2 (4%) C-cell adenoma 3 (6%) 1 (2%) follicular adenoma 0 (0%) 0 (0%) 1 (2%) 0 (0%) 0 (0%) 0 (0%) 1 (2%) C-cell carcinoma 1 (2%) adrenal ⟨50⟩ <50> <50> <50> pheochromocytoma 0 (0%) 0 (0%) 0 (0%) 1 (2%) 0 (0%) 0 (0%) 1 (2%) 1 (2%) pheochromocytoma:malignant <a>> a: Number of animals examined at the site c:b/a * 100 b (c) b: Number of animals with neoplasm

(HPT085)

BAIS4

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

SEX : FEMALE

)rgan	Findings	Group Name No. of animals on Study		Control 50			80 ppm 50			400 ppm 50	 	2000 ppm 50
Reproductive	system)											
ovary	granulosa-theca cell tumor			<50> (0%)	,		<50> (2%)			<50> (0%)		<50> (0%)
	yolk sack tumor:malignant			(0%)			(0%)			(0%)		(2%)
uterus	endometrial stromal polyp	1		<50> (22%)	10		(50> (20%)	1		<50> (24%)		<50> (8%)
	adenocarcinoma		1	(2%)	:	i	(2%)		0	(0%)	0	(0%)
	endometrial stromal sarcoma		3	(6%)	:	L	(2%)		2	(4%)	2	(4%)
vagina	squamous cell papilloma			<50> (0%)	:		<50> (2%)			<50> (0%)	0	<50> (0%)
	squamous cell carcinoma		0	(0%)	;	l	(2%)		0	(0%)	0	(0%)
mammary gl	adenoma			<50> (0%)	:		<50> (2%)			<50> (0%)	0	<50> (0%)
	fibroadenoma		5	(10%)		1	(8%)		4	(8%)	5	(10%)
	adenocarcinoma		1	(2%)	()	(0%)		0	(0%)	0	(%)
prep/cli gl	adenoma			<50> (4%)	:		<50> (2%)			<50> (2%)	3	<50> (6%)
{Nervous syst	em)											
brain	glioma			<50> (0%)	(<50> (0%)			<50> (0%)	1	<50> (2%)
<a>>	a: Number of animals examined at the site b: Number of animals with neoplasm c:	b/a*100									 	

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1
SEX : FEMALE

Organ	Findings	Group Name No. of animals on Study	Control 50	80 ppm 50	400 ppm 50	2000 ppm 50
Special sens	e organs/appendage)					
ymbal gl	Zymbal gland tumor:malignant		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
Body cavitie	rs)					
oeritoneum	mesothelioma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
<a>> (c)	a: Number of animals examined at the site b: Number of animals with neoplasm c: b/a	ı * 100				
(IIPT085)						

APPENDIX O 1

NEOPLASTIC LESIONS-INCIDENCE

AND STATISTICAL ANALYSIS: MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
SEX : MALE

SEX : MALE

Group Name	Control	80 ppm	400 ppm	
	SITE : skin/appendage			
_	TUMOR : squamous cell papilloma			
Tumor rate	0/50(4.0)	0 (50 (1/50/ 0.0	
Overall rates(a) Adjusted rates(b)	2/50(4.0)	3/50(6.0) 6.98	1/50(2.0) 2.56	
Terminal rates(c)	5. 00 2/40(5. 0)	2/40(5.0)	1/39(2.6)	
Statistical analysis	2/40(5.0)	2/40(5.0)	1/39(2.0)	
Peto test				
Standard method(d)	P =			
Prevalence method(d)	P = 0.7798			
Combined analysis (d)	P =			
Cochran-Armitage test(e)	P = 0.4404			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	
Tumor rate Overall rates(a) Adjusted rates(b)	SITE : skin/appendage TUMOR : squamous cell papilloma, squ 2/50(4.0) 5.00	amous cell carcinoma 3/50(6.0) 6.98	2/50(4.0) 5.13	
Terminal rates(c)	2/40(5.0)	2/40(5.0)	2/39(5.1)	
Statistical analysis	-, -, · · · · ·	-, -, , ,,,	7, 77 (7,	
Peto test				
Standard method(d)	P =			
Prevalence method(d)	P = 0.5730			
Combined analysis(d)	P =			
Cochran-Armitage test(e)	P = 0.8578			
Fisher Exact test(e)		P = 0.5000	P = 0.6913	
	SITE : subcutis TUMOR : fibroma			
Tumor rate	0/50/ 4.0	F/F0/ 10 0)	0/50/ 0.0	
Overall rates(a) Adjusted rates(b)	2/50 (4. 0) 5. 00	5/50(10.0) 12.50	3/50(6.0) 7.69	
Terminal rates(c)	2/40(5.0)	5/40 (12. 5)	3/39(7.7)	
Statistical analysis	□/ □ / □ ∪ ∪ ∪ ,	0/ 10 (12, 0/	0/00/ 1.1/	
Peto test				
Standard method(d)	P =			
Prevalence method(d)	P = 0.4727			
Combined analysis(d)	P =			
Cochran-Armitage test(e)	P = 1.0000			
Fisher Exact test(e)				

(HPT360A)

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

STUDY No. : 0461
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
SEX : MALE

PAGE: 2

Group Name	Control	80 ppm	400 ppm	
	SITE : subcutis			
Tumor rate	TUMOR : fibroma, fibrosarcoma			
Overall rates(a)	3/50(6.0)	5/50 (10. 0)	4/50(8.0)	
Adjusted rates(b)	5. 00	12. 50	10. 26	
Terminal rates(c)	2/40(5.0)	5/40 (12. 5)	4/39(10.3)	
Statistical analysis		,, =, (, ==, ,,	-, (2,	
Peto test				
Standard method(d)	P = 1.0000 ?			
Prevalence method(d)	P = 0.3111			
Combined analysis(d)	P = 0.4197			
Cochran-Armitage test(e) Fisher Exact test(e)	P = 0.8892	D A OFFI	D 0 5000	
risher bxact test(e)		P = 0.3575	P = 0.5000	
	SITE : spleen			
	TUMOR : mononuclear cell leukemia			
Tumor rate	TOMOR - MORORGOTOGE OUT TECHNOMIA			
Overall rates(a)	10/50(20.0)	4/50(8.0)	2/50(4.0)	
Adjusted rates(b)	12. 50	7. 50	2. 56	
Terminal rates(c)	5/40(12.5)	3/40(7.5)	1/39(2.6)	
Statistical analysis				
Peto test				· ·
Standard method(d)	P = 0.9263			
Prevalence method(d) Combined analysis(d)	P = 0.9476 P = 0.9872			
Cochran-Armitage test(e)	P = 0.0275*			
Fisher Exact test(e)	1 0.03107	P = 0.0739	P = 0.0139*	
	SITE : liver			
	TUMOR : hepatocellular adenoma			
Tumor rate			•	
Overall rates(a)	2/50(4.0)	3/50(6.0)	7/50(14.0)	
Adjusted rates(b)	5.00	7. 50	17. 95	
Terminal rates(c) Statistical analysis	2/40(5.0)	3/40(7.5)	7/39(17.9)	
Peto test				
Standard method(d)	P =			
Prevalence method(d)	P = 0.0255*			
Combined analysis(d)	P =			
Cochran-Armitage test(e)	P = 0.0511			
Fisher Exact test(e)		P = 0.5000	P = 0.0798	

(HPT360A)

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

SEX : MALE

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

Group Name	Control	mqq 08	400 ppm	
	SITE : liver TUMOR : hepatocellular carcinoma			
Tumor rate	TOMOK . Nepatocettular carcinoma			
Overall rates(a)	0/50(0.0)	0/50(0.0)	3/50(6.0)	
Adjusted rates(b)	0.0	0.0	7. 69	
Terminal rates(c) Statistical analysis	0/40(0.0)	0/40(0.0)	3/39 (7.7)	
Peto test				
Standard method(d)	P =			
Prevalence method(d)	P = 0.0081**?			
Combined analysis(d)	P =			
Cochran-Armitage test(e) Fisher Exact test(e)	P = 0.0151*	P = N.C.	n – a 1010	
Promer Exact test(e)		r = 14. C.	P = 0.1212	
	SITE : liver			
	TUMOR : hepatocellular adenoma, hepa	itocellular carcinoma		
Tumor rate				
Overall rates(a)	2/50(4.0)	3/50(6.0)	10/50(20.0)	
Adjusted rates(b)	5. 00	7. 50	25. 64	
Terminal rates(c) Statistical analysis	2/40(5.0)	3/40(7.5)	10/39(25.6)	
Peto test				
Standard method(d)	P =			
Prevalence method(d)	P = 0.0018**			
Combined analysis(d)	P =			
Cochran-Armitage test(e)	P = 0.0038**	B		
Fisher Exact test(e)		P = 0.5000	P = 0.0139*	
	SITE : pancreas			
	SITE : pancreas TUMOR : islet cell adenoma			
Tumor rate	Total Total Coll Guotiona			
Overall rates(a)	3/50(6.0)	2/50(4.0)	0/50(0.0)	
Adjusted rates(b)	6. 98	5. 00	0.0	
Terminal rates(c) Statistical analysis	2/40 (5.0)	2/40 (5.0)	0/39(0.0)	
Peto test				
Standard method(d)	P =			
Prevalence method(d)	P = 0.9669			
Combined analysis(d)	P =			
Cochran-Armitage test(e)	P = 0.0921	D 0 W000		
Fisher Exact test(e)		P = 0.5000	P = 0.1212	

(HPT360A)

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

STUDY No. : 0461
ANIMAL : RAT F344/DuCr1Cr1;[F344/DuCrj]
SEX : MALE

Tumor rate	: pituitary gland R : adenoma			
Tumor rate	R : adenoma			
Overall rates(a) 18	8/50 (36. 0)	9/50 (18.0)	11/50(22.0)	
Adjusted rates(b)	39. 02	15. 00	20. 51	
	5/40(37.5)	6/40(15.0)	8/39 (20. 5)	
Statistical analysis	.,	., ., .,		
Peto test				
The state of the s	= 0.2977			
	= 0.9207			
	= 0.8364 = 0.2970			
Fisher Exact test(e)	- 0.2910	P = 0.0352*	P = 0.0928	
STT	: pituitary gland			
SITE	R : adenoma, adenocarcinoma			
Tumor rate	adenoma, adenocal cinoma			
	8/50(36.0)	10/50(20.0)	11/50(22.0)	
Adjusted rates(b)	39. 02	15. 22	20. 51	
Terminal rates(c)	5/40(37.5)	6/40(15.0)	8/39(20.5)	
Statistical analysis				
Peto test	0.0050			
	= 0.3652 = 0.9209			
	= 0.9209 = 0.8533			
	= 0.2626			
Fisher Exact test(e)		P = 0.0591	P = 0.0928	
SITE	: thyroid	•		
	R : C-cell adenoma			
Tumor rate				
	7/50(14.0)	4/50(8.0)	1/50(2.0)	
Adjusted rates(b)	17. 50	9. 30	2.56	
	7/40(17.5)	2/40 (5.0)	1/39(2.6)	
Statistical analysis Peto test				
				
	= 0.9890			
	=			
	= 0.0366*			
Fisher Exact test(e)		P = 0.2623	P = 0.0297*	

(HPT360A)

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
SEX : MALE

Group Name	Control	80 ppm	400 pym	
	SITE : thyroid			
	TUMOR : follicular adenoma, follic	cular adenocarcinoma		
Tumor rate				
Overall rates(a)	3/50(6.0)	1/50(2.0)	1/50(2.0)	
Adjusted rates(b)	7. 50	2. 50	2. 56	
Terminal rates(c)	3/40(7.5)	1/40 (2.5)	1/39(2.6)	
Statistical analysis Peto test				
reto test Standard method(d)	P =			
Prevalence method(d)	P = 0.7787			
Combined analysis(d)	P =			
Cochran-Armitage test(e)	P = 0.3997			
Fisher Exact test(e)		P = 0.3087	P = 0.3087	
	SITE : adrenal gland TUMOR : pheochromocytoma			
Tumor rate				
Overall rates(a)	2/50(4.0)	5/50 (10.0)	0/50(0.0)	
Adjusted rates(b)	5. 00	11. 36	0.0	
Terminal rates(c)	2/40(5.0)	3/40 (7.5)	0/39(0.0)	
Statistical analysis				
Peto test Standard method(d)	P =			
Prevalence method(d)	P = 0.9582			
Combined analysis(d)	P =			
Cochran-Armitage test(e)	P = 0.1068			
Fisher Exact test(e)		P = 0.2180	P = 0.2475	
	SITE : testis TUMOR : interstitial cell tumor			
Tumor rate				
Overall rates(a)	38/50(76.0)	42/50(84.0)	45/50(90.0)	
Adjusted rates(b)	85.00	92. 50	97.78	
Terminal rates(c)	34/40(85.0)	37/40(92.5)	38/39(97.4)	
Statistical analysis				
Peto test	_			
Standard method(d)	P =			
Prevalence method(d)	P = 0.0098**			
Combined analysis(d) Cochran-Armitage test(e)	P = P = 0.0847			
Fisher Exact test(e)	r - 0.0041	P = 0.2270	P = 0.0542	
Tonot brace results		1 - 0.2210	1 - 0.0072	

(HPT360A)

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

SEX : MALE

(HPT360A)

Group Name	Control	80 ppm	400 ррш	
	SITE : preputial/clitoral g	rland		
'umor rate	TOMOR · adenoma			
Overall rates(a)	1/50(2,0)	4/50(8.0)	1/50(2.0)	
Adjusted rates(b)	2, 50	2. 50	2. 56	
Terminal rates(c)	1/40(2.5)	1/40(2.5)	1/39(2.6)	
Statistical analysis				
Peto test				
Standard method(d)	P = 0.7622			
Prevalence method(d)	P = 0.4624			
Combined analysis(d)	P = 0.6929			
Cochran-Armitage test(e)	P = 0.5628			
Fisher Exact test(e)		P = 0.1811	P = 0.7525	

- (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 out comes can not estimated or this P-value is beyond the estimated P-value.
- --- : There is no data which should be statistical analysis.
- Significant difference; $*: P \le 0.05$ **: $P \le 0.01$
- N.C.: Statistical value cannot be calculated and was not significant.

PAGE:

BAIS4

APPENDIX O 2

NEOPLASTIC LESIONS-INCIDENCE

AND STATISTICAL ANALYSIS: FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

SEX : FEMALE PAGE : 7

Group Name	Control	myq 08	400 ppm	2000 ppm	
	SITE : spleen				
	TUMOR : mononuclear cell leukemia				
Tumor rate		- (()	- (()	- (())	
Overall rates(a)	5/50(10.0)	5/50 (10.0)	2/50(4.0)	2/50(4.0)	
Adjusted rates(b)	7. 32	9. 52	2. 22	2. 56	
Terminal rates(c)	3/41(7.3)	4/42(9.5)	1/45(2.2)	1/39(2.6)	
Statistical analysis					
Peto test	D - 0 FAFA				
Standard method(d)	P = 0.5757				
Prevalence method(d)	P = 0.8746				
Combined analysis(d)	P = 0.8616				
Cochran-Armitage test(e)	P = 0.2342	B = 0 6907	P = 0.2180	P = 0.2180	
Fisher Exact test(e)		P = 0.6297	r = 0.2100	F - 0.2180	
	SITE : liver TUMOR : hepatocellular adenoma				
Tumor rate	Tomok : Nepatocellular adenoma				
Overall rates(a)	0/50(0.0)	0/50(0.0)	2/50(4.0)	20/50(40.0)	
Adjusted rates(b)	0.0	0.0	4.44	51. 28	
Terminal rates(c)	0/41(0.0)	0/42(0.0)	2/45(4.4)	20/39(51.3)	
Statistical analysis	0,41(0.0)	0, 48 (0.0)	4) 10 (11 1)	80,000 (01.0)	
Peto test					
Standard method(d)	P =				
Prevalence method(d)	P < 0.0001**?				
Combined analysis(d)	P =				
Cochran-Armitage test(e)	P < 0.0001**				
Fisher Exact test(e)		P = N. C.	P = 0.2475	P < 0.0001**	
	SITE : liver				
	TUMOR : hepatocellular carcinoma				
Tumor rate					
Overall rates(a)	0/50(0.0)	0/50(0.0)	0/50(0.0)	4/50(8.0)	
Adjusted rates(b)	0.0	0.0	0.0	10. 26	
Terminal rates(c)	0/41(0.0)	0/42(0.0)	0/45(0.0)	4/39(10.3)	
Statistical analysis	-,,,	., 10 (0.0)	0, 20 (0, 0,	2, 00 (200 0)	
Peto test					
Standard method(d)	P =				
Prevalence method(d)	P = 0.0002**?				
Combined analysis(d)	P =				
	-				
Cochran-Armitage test(e)	P = 0.0006**				

(HPT360A)

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

SEX : FEMALE

Group Name	Control	80 ppm	400 ppm	2000 ppm
	SITE : liver			
umor rate	TUMOR : hepatocellular adenoma, he	epatocellular carcinoma		
omor rate Overall rates(a)	0/50(0.0)	0/50(0.0)	0/50/ 4.0\	00/50/ 40 0)
Adjusted rates(b)	0.0	0.0	2/50 (4.0)	23/50(46.0)
Terminal rates(c)	0/41(0.0)	0/42(0.0)	4. 44 2/45 (4. 4)	58. 97
tatistical analysis	0/41(0.0)	0/42(0.0)	2/45(4.4)	23/39(59.0)
Peto test				
Standard method(d)	P =			
Prevalence method(d)	P < 0.0001**?			
Combined analysis(d)	P =			
Cochran-Armitage test(e)	P < 0.0001***			
Fisher Exact test(e)		P = N.C.	P = 0.2475	P < 0.0001**
	SITE : pituitary gland			
	TUMOR : adenoma			
umor rate Overall rates(a)	17/50(34.0)	10 (50 (00 0)	40 (EQ (QQ A)	
Adjusted rates(b)	34. 15	13/50 (26. 0) 28. 57	10/50(20.0)	14/50(28.0)
Terminal rates(c)	14/41 (34. 1)	12/42(28.6)	20.00	35. 00
tatistical analysis	14/41(34.1)	12/42(28. 0)	9/45(20.0)	13/39(33.3)
Peto test				
Standard method(d)	P = 0.9029			
Prevalence method(d)	P = 0.3123			
Combined analysis (d)	P = 0. 4685			
Cochran-Armitage test(e)	P = 0.9311			
Fisher Exact test(e)		P = 0.2565	P = 0.0880	P = 0.3329
			1 0.000	1 - 0.0025
	SITE : pituitary gland			
	TUMOR : adenoma, adenocarcinoma			
umor rate	45 (504.04.0)			
Overall rates(a)	17/50 (34. 0)	14/50 (28. 0)	10/50(20.0)	14/50(28.0)
Adjusted rates(b)	34. 15	28. 57	20.00	35. 00
Terminal rates(c)	14/41 (34. 1)	12/42 (28.6)	9/45(20.0)	13/39(33.3)
tatistical analysis Peto test				
reto test Standard method(d)	P = 0.9377			
Prevalence method(d)	P = 0.9377 P = 0.3146			
Combined analysis(d) Cochran-Armitage test(e)	P = 0.5130 P = 0.8482			
Fisher Exact test(e)	1 - 0.0402	P = 0.3329	P = 0.0880	P = 0.3329

(HPT360A)

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
SEX : FEMALE

Group Name	Control	80 ppm	400 ppm	2000 ppm	
	SITE : thyroid				
Tumor rate	TUMOR : C-cell adenoma				
Overall rates(a)	3/50(6.0)	1/50(2.0)	6/50(12.0)	2/50(4.0)	
Adjusted rates(b)	7. 32	2. 17	12. 24	5.00	
Terminal rates(c)	3/41(7.3)	0/42(0.0)	5/45(11.1)	1/39(2.6)	
Statistical analysis					
Peto test					
Standard method(d)	P =				
Prevalence method(d)	P = 0.6219				
Combined analysis(d)	P =				
Cochran-Armitage test(e)	P = 0.7244	D 0 000			
Fisher Exact test(e)		P = 0.3087	P = 0.2435	P = 0.5000	
	SITE : thyroid				
	TUMOR : C-cell adenoma, C-cell	carcinoma			
Tumor rate					
Overall rates(a)	4/50(8.0)	1/50(2.0)	6/50(12.0)	3/50(6.0)	
Adjusted rates(b)	9. 76	2. 17	12. 24	7. 50	
Terminal rates(c)	4/41(9.8)	0/42(0.0)	5/45(11.1)	2/39(5.1)	
Statistical analysis					
Peto test Standard method(d)	P =				
Prevalence method(d)	P = 0.5126				
Combined analysis(d)	P =				
Cochran-Armitage test(e)	P = 0.9455				
Fisher Exact test(e)	1 - 0. 5400	P = 0.1811	P = 0.3703	P = 0 E000	
222 2		1 - 0.1011	1 - 0. 3103	P = 0.5000	
	SITE : uterus				
	TUMOR : endometrial stromal po	lyp			
Tumor rate	-				
Overall rates(a)	11/50(22.0)	10/50(20,0)	12/50(24.0)	4/50(8.0)	
Adjusted rates(b)	24. 44	20.00	26. 67	8. 51	
Terminal rates(c)	10/41(24.4)	8/42(19.0)	12/45(26.7)	3/39(7.7)	
Statistical analysis					
Peto test Standard method(d)	P =				
Prevalence method(d)	P = 0.9856				
Combined analysis(d)	P = 0.9856 P =				
Cochran-Armitage test(e)	P = 0.0359*				

(HPT360A)

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

STUDY No. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

SEX : FEMALE PAGE: 10

Group Name	Control	80 ppm	. 400 ppm	2000 ppm			
fumor rate	TUMOR : endometrial stromal s	earcoma					
Overall rates(a)	3/50(6.0)	1/50/ 9.0)	9/50/ 4.0)	8/50/ 4.0)			
		1/50(2.0)	2/50(4.0)	2/50(4.0)			
Adjusted rates(b)	2.44	0.0	0.0	0.0			
Terminal rates(c)	1/41 (2.4)	0/42(0.0)	0/45(0.0)	0/39(0.0)			
Statistical analysis							
Peto test							
Standard method(d)	P = 0.3737						
Prevalence method(d)	P = 1.0000 ?						
Combined analysis(d)	P = 0.4776						
Cochran-Armitage test(e)	P = 0.9716						
Fisher Exact test(e)		P = 0.3087	P = 0.5000	P = 0.5000			
	SITE : maumary gland						
	SITE : mammary gland TUMOR : fibroadenoma						
	TUMOR : fibroadenoma						
Overall rates(a)	TUMOR : fibroadenoma 5/50(10.0)	4/50(8.0)	4/50(8.0)	5/50(10.0)			
Overall rates(a) Adjusted rates(b)	TUMOR : fibroadenoma 5/50(10.0) 12.20	4/50 (8, 0) 4. 76	4/50(8.0) 8.89	5/50(10.0) 12.82			
Overall rates(a) Adjusted rates(b) Terminal rates(c)	TUMOR : fibroadenoma 5/50(10.0)						
Tumor rate Overall rates(a) Adjusted rates(b) Terminal rates(c) Statistical analysis	TUMOR : fibroadenoma 5/50(10.0) 12.20	4. 76	8.89	12.82			
Overall rates(a) Adjusted rates(b) Terminal rates(c) Statistical analysis	TUMOR : fibroadenoma 5/50(10.0) 12.20	4. 76	8.89	12.82			
Overall rates(a) Adjusted rates(b) Terminal rates(c) Statistical analysis	TUMOR : fibroadenoma 5/50(10.0) 12.20	4. 76	8.89	12.82			
Overall rates(a) Adjusted rates(b) Terminal rates(c) Statistical analysis Peto test	TUMOR : fibroadenoma 5/50 (10.0) 12.20 5/41 (12.2)	4. 76	8.89	12.82			
Overall rates(a) Adjusted rates(b) Terminal rates(c) Statistical analysis Peto test Standard method(d)	TUMOR: fibroadenoma 5/50(10.0) 12.20 5/41(12.2) P = 0.8058	4. 76	8.89	12.82			
Overall rates(a) Adjusted rates(b) Terminal rates(c) Statistical analysis Peto test Standard method(d) Prevalence method(d)	TUMOR: fibroadenoma 5/50(10.0)	4. 76	8.89	12.82			

(HPT360A)

BAIS4

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]

SEX : FEMALE

400 ppm 2000 ppm Group Name Control 80 ppm SITE : preputial/clitoral gland TUMOR : adenoma Tumor rate Overall rates(a) 2/50(4.0) 1/50(2.0) 1/50(2.0) 3/50(6.0) Adjusted rates(b) 4.65 2.38 2, 22 2.56 Terminal rates(c) 1/41(2.4) 1/42(2.4) 1/45(2.2) 1/39(2.6) Statistical analysis Peto test Standard method(d) P = 0.0153*? Prevalence method(d) P = 0.5846Combined analysis(d) P = 0.1562Cochran-Armitage test(e) P = 0.3098Fisher Exact test(e) P = 0.5000P = 0.5000P = 0.5000(HPT360A) BAIS4

PAGE: 11

(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 out comes can not estimated or this P-value is beyond the estimated P-value.

----: There is no data which should be statistical analysis.

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

N.C.: Statistical value cannot be calculated and was not significant.

APPENDIX P 1

HISTOPATHOLOGICAL FINDINGS: METASTASIS OF TUMOR:

MALE: ALL ANIMALS

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

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1

SEX : MALE

		Group Name No. of Animals on Study	Control 50	80 ppm 50	400 ppm 50	2000 ppm 50
gan	Findings			••	¥-	•
Respiratory s	ystem)					
asal cavit	leukemic cell infiltration		<50> 2	<50> 0	<50> 0	<50> 0
rachea	leukemic cell infiltration		<50> 0	<50> 0	<50> I	<50> 0
lung	leukemic cell infiltration		<50> 9	<50> 3	<50> 2	<50> 0
	metastasis:pancreas tumor		0	0	1	0
	metastasis:subcutis tumor		1	0	0	0
	metastasis:thymus tumor		0	0	1	0
Hematopoietic	: system)					
bone marrow	leukemic cell infiltration		<50> 6	<50> 1	<50> 0	<50> 0
	metastasis:spleen tumor		1	0	0	0
lymph node	leukemic cell infiltration		<50> 1	<50> 0	<50> 0	<50> 0
	metastasis:peritoneum tumor		0	0	0	1
	metastasis:subcutis tumor		I	0	0	0
	metastasis:spleen tumor		1	0	0	0
	metastasis:bone marrow tumor		0	1	0	0
hymus	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

Crj] ALL ANIMALS (0-105W)

REPORT TYPE : A1 SEX : MALE

rgan	Findings	Group Name No. of Animals on Study	Control 50	80 ppm 50	400 ppm 50	2000 ppm 50
					·	
Hematopoiet	ic system)					
spleen			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	0	0	0
	metastasis:peritoneum tumor		0	0	0	1
	metastasis:bone marrow tumor		0	1	0	0
Circulatory	system}					
eart			<50>	<50>	<50≻	<50>
	metastasis:thymus tumor		0	0	1	0
Digestive s	ystem)					
tomach	metastasis:peritoneum tumor		<50>	<50> 0	<50> 0	<50> 1
	moves best of post from the famor		•		-	
iver	leukemic cell infiltration		<50> 10	<50> 4	<50> 2	<50> 0
	metastasis:pancreas tumor		0	0	1	0
	metastasis:spleen tumor		1	0	0	0
	metastasis:bone marrow tumor		0	1	0	0
oancreas			<50>	<50>	<50>	<50>
	leukemic cell infiltration		3	0	0	0
	metastasis:peritoneum tumor		0	0	0	1
(Urinary sys	tem)					
kidney	Induction and inclination		<50>	<50>	<50>	<50> 0
idney:	leukemic cell infiltration		<50> 7	<50> 0		0> 0

STUDY NO. : 0461 ANIMAL : RAT F344 HISTOPATHOLOGICAL FINDINGS: METASTASIS OF TUMOR (SUMMARY)

: RAT F344/DuCrlCrlj[F344/DuCrj]

ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : MALE

2000 ppm 400 ppm Group Name 80 ppm Control No. of Animals on Study 50 50 Findings_ Organ_ {Urinary system} <50> <50> ⟨50⟩ <50> kidney metastasis:pancreas tumor 0 0 0 metastasis:thymus tumor {Endocrine system} <50> pituitary <50> <50> <50> 0 metastasis:peripheral nerve tumor metastasis:bone marrow tumor 0 0 <50> ⟨50⟩ ⟨50⟩ **<50>** thyroid leukemic cell infiltration 0 adrenal <50> <50> <50> <50> leukemic cell infiltration 0 {Reproductive system} <50> ⟨50⟩ <50> <50> testis metastasis:peritoneum tumor 0 {Nervous system} brain ⟨50⟩ <50> ⟨50⟩ <50> leukemic cell infiltration 0 <50> ⟨50⟩ <50> spinal cord <50> leukemic cell infiltration 0 <50> ⟨50⟩ <50> periph nerv <50> 0 metastasis:bone marrow tumor 0 1 0 (a) a : Number of animals examined at the site b b: Number of animals with lesion

⁽JPT150)

ANTMAL : RAT F344/DuCrlCrlj[F344/DuCrj] REPORT TYPE : A1
SEX : MALE

HISTOPATHOLOGICAL FINDINGS: METASTASIS OF TUMOR (SUMMARY)

ALL ANIMALS (0-105W)

Organ		roup Name To. of Animals on Study	Control 50	80 ppm 50	400 ppm 50	2000 ppm 50
{Musculoskele	etal system}					
muscle			<50>	<50>	<50>	<50>
	metastasis:subcutis tumor		1	0	0	0
	metastasis:bone marrow tumor		0	1	0	0
bone			<50>	<50>	<50>	<50>
	metastasis:subcutis tumor		1	0	0	0
(Body cavitie	es)					
pleura			<50>	<50>	<50>	<50>
	metastasis:bone marrow tumor		0	1	0	0
	metastasis:thymus tumor		0	0	1	0
peritoneum			<50>	<50>	<50>	<50>
	metastasis:pancreas tumor		0	0	1	0
(a) b	a: Number of animals examined at the sib: Number of animals with lesion	e				
(IPT150)				· · · · · · · · · · · · · · · · · · ·		

HISTOPATHOLOGICAL FINDINGS: METASTASIS OF TUMOR:

MALE: DEAD AND MORIBUND ANIMALS

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

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

SEX : MALE

Organ		Group Name Control No. of Animals on Study 10	80 ppm 10	400 ppm 11	2000 ppm 50
Respiratory s	system)				
asal cavit	leukemic cell infiltration	<10> 2	<10> 0	<11> 0	<50> 0
rachea	leukemic cell infiltration	<10> 0	<10> 0	<11> 1	<50> 0
ung	leukemic cell infiltration	<10> 5	<10>	<11> 1	<50> 0
	metastasis:pancreas tumor	0	0	1	0
	metastasis:subcutis tumor	1	0	0	0
	metastasis:thymus tumor	0	0	1	0
Hematopoietic	c system)				
one marrow	leukemic cell infiltration	<10> 4	<10> 0	<11> 0	<50> 0
ymph node	metastasis:peritoneum tumor	<10> 0	<10> 0	<11> 0	<50> 1
	metastasis:subcutis tumor	1	0	0	0
	metastasis:bone marrow tumor	0	1	0	0
hymus	leukemic cell infiltration	<10> 0	<10> 0	<11> 1	<50> 0
pleen	leukemic cell infiltration	<10> 1	<10> 0	<11> 0	<50> 0
	metastasis:peritoneum tumor	0	0	0	1
(a) b	a: Number of animals examined at the sib: Number of animals with lesion	te .			

(JPT150)

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1

SEX : MALE

DEAD AND MOLIBORD MATRICES (0 100%)

		Group Name No. of Animals on Study	Control 10	80 ppm 10	400 ppm 11	2000 ppm 50
rgan	Findings					
lematopoiet	ic system)					
pleen	,·,		<10>	<10>	<11>	<50>
preen	metastasis:bone marrow tumor		0	1	0	0
Circulatory	system)					
heart			<10>	<10>	<11>	<50>
	metastasis:thymus tumor		0	0	1	0
Digestive s	system)					
tomach	metastasis:peritoneum tumor		<10> 0	<10> 0	<11> 0	<50>
iver	metastasts.peritomeam tamor		<10>	<10>	<11>	~ <50>
Ivei	leukemic cell infiltration		5	1	1	0
	metastasis:pancreas tumor		0	0	1	0
	metastasis:bone marrow tumor		0	1	0	0
ancreas			<10>	<10>	<11>	<50>
	leukemic cell infiltration		2	0	0	0
	metastasis:peritoneum tumor		0	0	0	1
Urinary sy:	stem)					
idney	leukemic cell infiltration		<10>	<10> 0	<11>	<50> 0
					•	-
	metastasis:pancreas tumor		0	0	1	0
	metastasis:thymus tumor		0	0	1	0

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

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1

SEX : MALE

		Group Name	Control	80 ppm	400 ppm	2000 ppm
Organ	Findings	No. of Animals on Study	10	10	11	50
					-	
{Endocrine sys	stem)					
oituitary	metastasis:peripheral nerve tumor		<10> 0	<10> 1	<11> 0	<50> 0
	metastasis:bone marrow tumor		0	ī	0	0
chyroid	leukemic cell infiltration		<10> 1	<10> 0	<11> 0	<50> 0
drenal	leukemic cell infiltration		<10> 0	<10> 0	<11> 1	<50> 0
Reproductive	system)					
estis	metastasis:peritoneum tumor		<10> 0	<10> 1	<11> 0	<50> 0
Nervous syste	em)					
raiu	leukemic cell infiltration		<10> 3	<10> 0	<11> 1	<50> 0
pinal cord	leukemic cell infiltration		<10> 1	<10> 0	<11> 0	<50> 0
eriph nerv	metastasis:bone marrow tumor		<10> 0	<10> 1	<11> 0	<50> 0
Musculoskele	tal system)					
uscle	metastasis:subcutis tumor		<10> 1	<10> 0	<11> 0	<50> 0
	metastasis:bone marrow tumor		0	1	0	0
< a > b	a : Number of animals examined at the s b : Number of animals with lesion	ite				

STUDY NO. : 0461 ANIMAL

: RAT F344/DuCrlCrlj[F344/DuCrj]

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1

SEX : MALE

PAGE: 4 Group Name Control 80 ppm 400 ppm 2000 ppm No. of Animals on Study 10 10 50 11 Findings_ (Musculoskeletal system) bone <10> <10> <11> <50> metastasis:subcutis tumor 1 0 {Body cavities} pleura <10> <10> <11> <50> metastasis:bone marrow tumor metastasis: thymus tumor 0 peritoneum <10> <10> <11> <50> metastasis:pancreas tumor 0 0 1 0 < a > a : Number of animals examined at the site b b: Number of animals with lesion (JPT150) BAIS4

HISTOPATHOLOGICAL FINDINGS: METASTASIS OF TUMOR:

MALE: SACRIFICED ANIMALS

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1

HISTOPATHOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

SACRIFICED ANIMALS (105W)

SEX : MALE

Organ		Group Name No. of Animals on Study	Control 40	80 ppm 40	400 ppm 39	2000 ppm 0
gan	r Indings					
Respiratory	system)					
ung	leukemic cell infiltration		<40> 4	<40> 2	<39> 1	< 0>
{Hematopoieti	c system)					
one marrow	leukemic cell infiltration		<40> 2	<40> 1	<39> 0	< 0>
	metastasis:spleen tumor		1	0	0	-
ympli node	leukemic cell infiltration		<40> 1	<40> 0	<39> 0	< 0>
	metastasis:spleen tumor		1	0	0	-
Digestive sy	stem)					
iver	leukemic cell infiltration		<40> 5	<40> 3	<39>	< 0>
	metastasis:spleen tumor		1	0	0	_
oancreas	leukemic cell infiltration		<40> 1	<40> 0	<39> 0	< 0>
{Urinary syst	em)					
kidney	leukemic cell infiltration		<40> 2	<40> 0	<39> 0	< 0>
(a)	a: Number of animals examined at the some b: Number of animals with lesion	ite				

HISTOPATHOLOGICAL FINDINGS: METASTASIS OF TUMOR:

FEMALE: ALL ANIMALS

STUDY NO. : 0461
ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]
REPORT TYPE : A1

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

SEX : FEMALE

rgan	Findings	Group Name No. of Animals on Study	Control 50	80 ppm 50	400 ppm 50	2000 ppm 50
lespiratory	system)					
asal cavit			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	1	0	0
	metastasis:subcutis tumor		0	0	1	0
ng			<50>	<50>	<50>	<50>
	leukemic cell infiltration		3	4	2	1
	metastasis:liver tumor		0	0	0	1
	metastasis:uterus tumor		2	1	0	0
	metastasis:thyroid tumor		1	0	0	0
	metastasis:subcutis tumor		1	0	0	0
lematopoiet:	ic system)					
one marrow			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	2
ymph node	leukemic cell infiltration		<50> 0	<50> 2	<50> 0	<50> 0
	metastasis:uterus tumor		1	0	0	0
	metastasis:subcutis tumor		1	0	1	0
hymus			<50>	<50>	<50>	<50>
	metastasis:subcutis tumor		1	0	0	0
pleen	metastasis:uterus tumor		<50> I	<50> 0	<50> 0	<50> 0
Circulatory	system)					
eart	leukemic cell infiltration		<50> 0	<50> 0	<50>	<50> 0
	lenkemic cell inflitration		V	U	i	U

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1

HISTOPATHOLOGICAL FINDINGS: METASTASIS OF TUMOR (SUMMARY)

ALL ANIMALS (0-105W)

SEX : FEMALE

Organ	Findings	Group Name No. of Animals on Study	Control 50	80 ppm 50	400 ppm 50	2000 ppm 50
Digestive s	system)					
stomach	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
iver	leukemic cell infiltration		<50> 4	<50> 3	<50> I	<50> 2
	metastasis:uterus tumor		1	0	0	0
	metastasis:ovary tumor		0	0	0	1
pancreas	leukemic cell infiltration		<50> 0	<50> 1	<50> 1	<50> 0
	metastasis:uterus tumor		1	1	0	0
	metastasis:ovary tumor		0	0	0	1
Urinary sys	stem)					
idney	leukemic cell infiltration		<50> 2	<50> 0	<50> 0	<50> 1
Endocrine s	system)					
ituitary	leukemic cell infiltration		<50> 1	<50> 0	<50> 0	<50> 0
hyroid	metastasis:subcutis tumor		<50> 1	<50> 0	<50> 0	<50> 0
drenal	leukemic cell infiltration		<50> 1	<50> 0	<50> 0	<50> 0
Reproductiv	we system)					
vary	leukemic cell infiltration		<50> 0	<50> 1	<50> 0	<50> 0
(a >	a: Number of animals examined at a b: Number of animals with lesion	the site				

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

ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]
REPORT TYPE : A1

SEX : FEMALE

-		Group Name No. of Animals on Study	Control 50	80 ppm 50	400 ppm 50	2000 ppm 50
rgan	Findings					
Reproductive	system)					
ovary	metastasis:peritoneum tumor	•	(50> 0	<50> 0	<50> 0	<50> 1
terus	leukemic cell infiltration		(50> 0	<50>	<50> I	<50> 0
agina	metastasis:uterus tumor		(50) I	<50> 0	<50> 0	<50> 0
(Nervous syste	em}					
rain	leukemic cell infiltration		<50> 1	<50> 1	<50> 0	<50> 0
	metastasis:pituitary tumor		0	1	0	0
pinal cord	leukemic cell infiltration		<50> 2	<50> 0	<50> 0	<50> 0
Body cavities	5)					
nediastinum	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
eritoneum	leukemic cell infiltration		<50> 0	<50> 1	<50> 0	<50> 0
	metastasis:uterus tumor		1	1	0	0
	metastasis:ovary tumor		0	0	0	I
a > b	a: Number of animals examined at the si b: Number of animals with lesion	te				

HISTOPATHOLOGICAL FINDINGS: METASTASIS OF TUMOR:

FEMALE: DEAD AND MORIBUND ANIMALS

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

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1

(JPT150)

SEX : FEMALE

PAGE: 5

BAIS4

		Group Name	Control 9	80 ppm 8	400 ppm 5	2000 ppm 11
.gan	Findings	No. of Animals on Study	y	· · · · · · · · · · · · · · · · · · ·	5	
espiratory	system)					
asal cavit	leukemic cell infiltration		9> 0	< 8>	< 5> 0	<11> 0
	metastasis:subcutis tumor		0	0	1	0
ung	leukemic cell infiltration		9> 2	< 8>	< 5>	0
	metastasis:uterus tumor		2	1	0	0
	metastasis:subcutis tumor		1	0	0	0
Hematopoieti	c system)					
one marrow	leukemic cell infiltration	<	9> 0	< 8> 0	< 5> 0	<11> 1
ymph node	leukemic cell infiltration	<	9> 0	< 8>	< 5> 0	<11> 0
	metastasis:uterus tumor		1	0	0	0
	metastasis:subcutis tumor		1	0	1	0
hymus	metastasis:subcutis tumor	<	9> 1	< 8>	< 5> 0	<11> 0
pleen	metastasis:uterus tumor	<	9> 1	0	< 5> 0	<11> 0
Circulatory	system)				•	
eart	leukemic cell infiltration	<	0	< 8>	< 5>	<11> 0
a > b	a : Number of animals examined at the b : Number of animals with lesion	site				

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

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1

SEX : FEMALE

)rgan	Findings	Group Name No. of Animals on Study	Control 9	80 ppm 8	400 ppm 5	2000 ppm 11
<u> </u>			<u></u>			
Digestive s	ystem)					
tomach	leukemic cell infiltration		< 9> 0	< 8> 0	< 5> 1	<11> 0
ver	leukemic cell infiltration		< 9> 2	0 8>	< 5> 1	<11>
pancreas	metastasis:uterus tumor		1	0	0	0
	metastasis:ovary tumor		0	0	0	1
	leukemic cell infiltration		< 9> 0	< 8>	< 5> 1	<11> 0
	metastasis:uterus tumor		1	1	0	0
	metastasis:ovary tumor		0 .	0	0	1
Jrinary sys	tem)					
dney	leukemic cell infiltration		< 9> 2	< 8> 0	< 5> 0	<11> 0
Endocrine s	ystem}					
ituitary	leukemic cell infiltration		< 9>	< 8>	< 5> 0	<11> 0
ıyroid	metastasis:subcutis tumor		< 9>	< 8>	< 5> 0	<11> 0
irenal	leukemic cell infiltration		< 9> 1	< 8> 0	< 5> 0	0 0
Reproductiv	e system)					
vary	leukemic cell infiltration		< 9>	. < 8>	< 5> 0	0
a > b	a : Number of animals examined at b : Number of animals with lesion					

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

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

REPORT TYPE : A1
SEX : FEMALE

Organ		Group Name Control No. of Animals on Study 9	80 ppm 8	400 ppm 5	2000 ppm 11
					
{Reproductive	system)				
ovary	metastasis:peritoneum tumor	< 9> 0	< 8> 0	< 5> 0	<11> 1
uterus	leukemic cell infiltration	< 9> 0	< 8> 0	< 5> 1	<11> 0
vagina	metastasis:uterus tumor	< 9> 1	< 8>	< 5> 0	<11> 0
{Nervous syst	em)				
brain	leukemic cell infiltration	< 9> 1	< 8>	< 5> 0	<11> 0
	metastasis:pituitary tumor	0	1	0	0
spinal cord	leukemic cell infiltration	< 9> 2	< 8> 0	< 5> 0	<11> 0
{Body cavitie	s}				
mediastinum	leukemic cell infiltration	< 9> 0	< 8> 0	< 5> 1	<11> 0
peritoneum	leukemic cell infiltration	< 9>	< 8>	< 5> 0	<11> 0
	metastasis:uterus tumor	1	1	0	0
	metastasis:ovary tumor	0	0	0	1
< a > b	a: Number of animals examined at the s b: Number of animals with lesion	ite			
(JPT150)					

HISTOPATHOLOGICAL FINDINGS: METASTASIS OF TUMOR:

FEMALE: SACRIFICED ANIMALS

ANIMAL : RAT F344/DuCrlCrlj[F344/DuCrj]

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

REPORT TYPE : A1

SEX : FEMALE PAGE: 2

Organ		Group Name No. of Animals on Study	Control 41	80 ppm 42	400 ppm 45	2000 ppm 39
(Respiratory	system)					
Lung	leukemic cell infiltration		<41> 1	<42> 3	<45>	<39>
	metastasis:liver tumor		0	0	0	1
	metastasis:thyroid tumor		1	0	0	0
{Hematopoieti	c system)					
bone marrow	leukemic cell infiltration		<41> 0	<42> 0	<45> 0	<39> 1
lymph node	leukemic cell infiltration		<41> 0	<42> 1	<45> 0	<39> 0
Digestive s	ystem)					
liver	leukemic cell infiltration		<41> 2	<42> 3	<45> 0	<39> 1
pancreas	leukemic cell infiltration		<41> 0	<42> 1	<45> 0	0 (39>
{Urinary sys	tem)					
kidney	leukemic cell infiltration		<41> 0	<42> 0	<45> 0	<39> 1
{Reproductive	e system)					
uterus	leukemic cell infiltration		<41> 0	<42>	<45> 0	<39>
	a: Number of animals examined at the s b: Number of animals with lesion	ite				,, <u></u> ,

APPENDIX Q

METHODS, UNITS AND DECIMAL PLACE FOR
HEMATOLOGY AND BIOCHEMISTRY IN THE 2-YEAR
FEED STUDY OF 1-CHLORO-2-NITROBENZENE

METHODS, UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Item	Method	Unit	Decimal place
Hematology			
Red blood cell (RBC)	Light scattering method ¹⁾	×106/μL	2
Hemoglobin(Hgb)	Cyanmethemoglobin method 1)	g/dL	1
Methemoglobin	Multiple-wavelength Spectrophotometric method 4)	%	1
Hematocrit(Hct)	Calculated as RBC×MCV/10 1)	%	1
Mean corpuscular volume(MCV)	Light scattering method 1)	fL	1
Mean corpuscular hemoglobin(MCH)	Calculated as Hgb/RBC×10 1)	pg	1
Mean corpuscular hemoglobin concentration (MCHC)	Calculated as Hgb/Hct×100 ¹⁾	g/dL	1
Platelet	Light scattering method 1)	×10³/μL	0
Reticulocyte	Light scattering method 1)	%	1
White blood cell(WBC)	Light scattering method 1)	$ imes 10^3/\mu$ L	2
Differential WBC	Pattern recognition method 2)	%	0
	(Wright staining)		
Biochemistry			
Total protein(TP)	Biuret method 3)	g/dL	1
Albumin (Alb)	BCG method 3)	g/dL	1
A/G ratio	Calculated as Alb/(TP-Alb) 3)		1
T-bilirubin	Alkaline azobilirubin method 3)	mg/dL	2
Glucose	GlcK·G-6-PDH method 3)	$_{ m mg/dL}$	0
T-cholesterol	CE · COD · POD method 3)	mg/dL	0
Triglyceride	LPL·GK·GPO·POD method 3)	mg/dL	0
Phospholipid	PLD·ChOD·POD method 3)	mg/dL	0
Aspartate aminotransferase (AST)	JSCC method 3)	IU/L	0
Alanine aminotransferase (ALT)	JSCC method 3)	IU/L	0
Lactate dehydrogenase (LDH)	SFBC method 3)	IU/L	0
Alkaline phosphatase (ALP)	GSCC method 3)	IU/L	0
γ -Glutamyl transpeptidase (γ -GTP)	JSCC method 3)	IU/L	0
Creatine kinase (CK)	JSCC method 3)	IU/L	0
Urea nitrogen	Urease·GLDH method ³⁾	mg/dL	1
Creatinine	Jaffe 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 7080 : Hitachi, Ltd.)
- 4) CO-oximeter (CIBA · CORNING 270 : Bayer Corporation)