

グリオキサルのラットを用いた経口投与による
がん原性試験（混水試験）報告書

試験番号：0267

APPENDIX

APPENDIXES

APPENDIX A 1 CLINICAL OBSERVATION: SUMMARY, RAT: MALE
(2-YEAR STUDY)

APPENDIX A 2 CLINICAL OBSERVATION: SUMMARY, RAT: FEMALE
(2-YEAR STUDY)

APPENDIX B 1 BODY WEIGHT CHANGES: SUMMARY, RAT: MALE
(2-YEAR STUDY)

APPENDIX B 2 BODY WEIGHT CHANGES: SUMMARY, RAT: FEMALE
(2-YEAR STUDY)

APPENDIX C 1 WATER CONSUMPTION CHANGES: SUMMARY, RAT: MALE
(2-YEAR STUDY)

APPENDIX C 2 WATER CONSUMPTION CHANGES: SUMMARY, RAT: FEMALE
(2-YEAR STUDY)

APPENDIX D 1 FOOD CONSUMPTION CHANGES: SUMMARY, RAT: MALE
(2-YEAR STUDY)

APPENDIX D 2 FOOD CONSUMPTION CHANGES: SUMMARY, RAT: FEMALE
(2-YEAR STUDY)

APPENDIX E 1 CHEMICAL INTAKE CHANGES: SUMMARY, RAT: MALE
(2-YEAR STUDY)

APPENDIX E 2 CHEMICAL INTAKE CHANGES: SUMMARY, RAT: FEMALE
(2-YEAR STUDY)

APPENDIX F 1 HEMATOLOGY: SUMMARY, RAT: MALE (2-YEAR STUDY)

APPENDIX F 2 HEMATOLOGY: SUMMARY, RAT: FEMALE (2-YEAR STUDY)

APPENDIX G 1 BIOCHEMISTRY: SUMMARY, RAT: MALE (2-YEAR STUDY)

APPENDIX G 2 BIOCHEMISTRY: SUMMARY, RAT: FEMALE (2-YEAR STUDY)

APPENDIX H 1 URINALYSIS: SUMMARY, RAT: MALE (2-YEAR STUDY)

APPENDIX H 2 URINALYSIS: SUMMARY, RAT: FEMALE (2-YEAR STUDY)

APPENDIXES (CONTINUED)

- APPENDIX I 1 GROSS FINDINGS: SUMMARY, RAT: MALE: ALL ANIMALS
(2-YEAR STUDY)
- APPENDIX I 2 GROSS FINDINGS: SUMMARY, RAT: MALE
: DEAD AND MORIBUND ANIMALS (2-YEAR STUDY)
- APPENDIX I 3 GROSS FINDINGS: SUMMARY, RAT: MALE
: SACRIFICED ANIMALS (2-YEAR STUDY)
- APPENDIX I 4 GROSS FINDINGS: SUMMARY, RAT: FEMALE
: ALL ANIMALS (2-YEAR STUDY)
- APPENDIX I 5 GROSS FINDINGS: SUMMARY, RAT: FEMALE
: DEAD AND MORIBUND ANIMALS (2-YEAR STUDY)
- APPENDIX I 6 GROSS FINDINGS: SUMMARY, RAT: FEMALE
: SACRIFICED ANIMALS (2-YEAR STUDY)
- APPENDIX J 1 ORGAN WEIGHT, ABSOLUTE: SUMMARY, RAT: MALE
(2-YEAR STUDY)
- APPENDIX J 2 ORGAN WEIGHT, ABSOLUTE: SUMMARY, RAT: FEMALE
(2-YEAR STUDY)
- APPENDIX K 1 ORGAN WEIGHT, RELATIVE: SUMMARY, RAT: MALE
(2-YEAR STUDY)
- APPENDIX K 2 ORGAN WEIGHT, RELATIVE: SUMMARY, RAT: FEMALE
(2-YEAR STUDY)
- APPENDIX L 1 HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS:
SUMMARY, RAT: MALE: ALL ANIMALS (2-YEAR STUDY)
- APPENDIX L 2 HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS:
SUMMARY, RAT: MALE: DEAD AND MORIBUND ANIMALS
(2-YEAR STUDY)
- APPENDIX L 3 HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS:
SUMMARY, RAT: MALE: SACRIFICED ANIMALS
(2-YEAR STUDY)
- APPENDIX L 4 HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS:
SUMMARY, RAT: FEMALE: ALL ANIMALS (2-YEAR STUDY)

APPENDIXES (CONTINUED)

- APPENDIX L 5 HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS:
SUMMARY, RAT: FEMALE: DEAD AND MORIBUND ANIMALS
(2-YEAR STUDY)
- APPENDIX L 6 HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS:
SUMMARY, RAT: FEMALE: SACRIFICED ANIMALS
(2-YEAR STUDY)
- APPENDIX M 1 NUMBER OF ANIMALS WITH TUMORS AND NUMBER OF
TUMORS-TIME RELATED, RAT: MALE (2-YEAR STUDY)
- APPENDIX M 2 NUMBER OF ANIMALS WITH TUMORS AND NUMBER OF
TUMORS-TIME RELATED, RAT: FEMALE (2-YEAR STUDY)
- APPENDIX N 1 HISTOLOGICAL FINDINGS: NEOPLASTIC LESIONS:
SUMMARY, RAT: MALE: ALL ANIMALS (2-YEAR STUDY)
- APPENDIX N 2 HISTOLOGICAL FINDINGS: NEOPLASTIC LESIONS:
SUMMARY, RAT: FEMALE : ALL ANIMALS (2-YEAR STUDY)
- APPENDIX O 1 NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL
ANALYSIS, RAT: MALE (2-YEAR STUDY)
- APPENDIX O 2 NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL
ANALYSIS, RAT: FEMALE (2-YEAR STUDY)
- APPENDIX P 1 HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR:
SUMMARY, RAT: MALE: ALL ANIMALS (2-YEAR STUDY)
- APPENDIX P 2 HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR:
SUMMARY, RAT: MALE: DEAD AND MORIBUND ANIMALS
(2-YEAR STUDY)
- APPENDIX P 3 HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR:
SUMMARY, RAT: MALE: SACRIFICED ANIMALS
(2-YEAR STUDY)
- APPENDIX P 4 HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR:
SUMMARY, RAT: FEMALE: ALL ANIMALS (2-YEAR STUDY)

APPENDIXES (CONTINUED)

- APPENDIX P 5 HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR:
SUMMARY, RAT: FEMALE: DEAD AND MORIBUND ANIMALS
(2-YEAR STUDY)
- APPENDIX P 6 HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR:
SUMMARY, RAT: FEMALE: SACRIFICED ANIMALS
(2-YEAR STUDY)
- APPENDIX Q 1 IDENTITY OF GLYOXAL IN THE 2-YEAR DRINKING WATER
STUDY
- APPENDIX Q 2 STABILITY OF GLYOXAL IN THE 2-YEAR DRINKING WATER
STUDY
- APPENDIX R 1 CONCENTRATION OF GLYOXAL IN FORMULATED WATER IN
THE 2-YEAR DRINKING WATER STUDY
- APPENDIX R 2 STABILITY OF GLYOXAL IN FORMULATED WATER IN THE 2-
YEAR DRINKING WATER STUDY
- APPENDIX S 1 METHODS FOR HEMATOLOGY, BIOCHEMISTRY AND
URINALYSIS IN THE 2-YEAR DRINKING WATER STUDY OF
GLYOXAL
- APPENDIX S 2 UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND
BIOCHEMISTRY IN THE 2-YEAR DRINKING WATER STUDY OF
GLYOXAL

APPENDIX A 1

CLINICAL OBSERVATION : SUMMARY, RAT : MALE
(2-YEAR STUDY)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 1

Clinical sign	Group Name	Administration Week-day				4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1-7	2-7	3-7												
DEATH	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXCITEMENT	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 2

Clinical sign	Group Name	Administration Week-day				18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7												
DEATH	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXCITEMENT	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 3

Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXCITEMENT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 4

Clinical sign	Group Name	Administration Week-day				46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7												
DEATH	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXCITEMENT	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 5

Clinical sign	Group Name	Administration Week-day				60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7												
DEATH	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	1	1	1	1	1	1	1
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	1	1
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXCITEMENT	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 6

Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
DEATH	Control	0	0	0	0	1	1	1	1	1	2	2	2	2	2
	750 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	2	2
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXCITEMENT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 7

Clinical sign	Group Name	Administration Week-day				88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7												
DEATH	Control	2	2	2		2	2	2	2	2	3	3	5	5	5	5
	750 ppm	1	2	2		2	2	2	3	3	3	3	3	3	4	5
	1500 ppm	1	1	1		1	1	1	1	2	3	3	3	3	3	3
	3000 ppm	2	2	2		2	2	2	3	3	3	3	3	3	3	3
MORIBUND SACRIFICE	Control	0	0	0		0	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	1	1	1		1	1	1	1	1	1	1	1	1	2	2
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	1	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXCITEMENT	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	1	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 8

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	5	5	5	6	8	8
	750 ppm	5	6	8	8	9	9
	1500 ppm	4	6	6	6	6	6
	3000 ppm	3	3	4	4	4	4
MORIBUND SACRIFICE	Control	1	2	2	2	2	3
	750 ppm	0	0	0	0	0	0
	1500 ppm	2	2	3	3	3	3
	3000 ppm	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0
	750 ppm	0	0	1	1	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
EXCITEMENT	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	1	0	0	0	0
	3000 ppm	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0
	750 ppm	0	0	1	1	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
SOILED	Control	0	0	0	1	0	0
	750 ppm	0	0	0	0	0	1
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 9

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
PILOERECTOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 10

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
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 11

Clinical sign	Group Name	Administration Week-day				32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7												
PILOERECTION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	1	1		0	1	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
CATARACT	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	1	1		0	1	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 12

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	1	2	2	2	2	2	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	1	1	2	2	2	2	2
	3000 ppm	1	1	1	1	1	1	1	1	1	2	2	2	2	2
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	1	1	2	2	2	2	2
	3000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	1	1	1	1	1	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 13

Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	750 ppm	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	1500 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	3000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CATARACT	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	750 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	3000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 14

Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	2	2	2	2	2	2	2	2	2	2	2	2	2
	750 ppm	2	2	2	2	2	2	2	3	3	3	3	3	3	3
	1500 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	3000 ppm	2	2	1	1	1	1	1	1	1	1	1	1	2	2
CATARACT	Control	1	2	2	2	2	2	2	2	2	2	2	2	2	2
	750 ppm	1	1	1	1	1	1	1	2	2	2	2	2	2	2
	1500 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	3000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	2	2
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	1	1	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuGrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 15

Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
PILORECTION	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	1	1	1	1	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	2	3	3	3	3	3	3	3	3	3	3	3	3	4
	750 ppm	3	3	3	3	3	3	4	4	4	4	4	4	3	3
	1500 ppm	3	3	3	3	3	3	4	3	3	3	3	3	3	3
	3000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CATARACT	Control	2	2	2	2	2	2	2	2	2	2	3	3	3	3
	750 ppm	2	2	2	2	2	2	3	3	4	4	4	4	3	3
	1500 ppm	3	3	3	3	3	3	4	3	3	3	3	3	3	3
	3000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CORNEAL OPACITY	Control	0	1	1	1	1	1	1	1	1	1	0	0	0	0
	750 ppm	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 16

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
PILOERECTOR	Control	0	0	0	0	1	0
	750 ppm	0	0	0	1	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	1	1	0	0	1	1
FROG BELLY	Control	0	0	0	0	0	1
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	1	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
EYE HEMORRHAGIC DISCH	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
EYE OPACITY	Control	4	5	4	4	3	3
	750 ppm	3	3	3	3	3	3
	1500 ppm	3	2	2	2	2	2
	3000 ppm	2	2	3	3	3	3
CATARACT	Control	3	4	4	4	3	3
	750 ppm	3	3	3	3	3	3
	1500 ppm	3	2	2	2	2	2
	3000 ppm	2	2	3	3	3	3
CORNEAL OPACITY	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 17

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuGrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 18

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
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 19

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
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 20

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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	1	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 21

Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	1	1	1	1	1	1	1	1	2	2	2	2	2	2
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	1	1	1	1	1	2	3	3	3	3	3	3	2	2
	3000 ppm	1	1	1	1	1	2	2	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 22

Clinical sign	Group Name	Administration Week-day				74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7												
ANTERIOS CHAMBER OPACITY	Control	0	1	1		1	1	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	3	3	3		3	2	3	3	4	4	3	3	3	3	4
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	1	1	3
	1500 ppm	3	3	3		3	2	2	2	3	3	3	3	3	2	2
	3000 ppm	1	1	1		1	1	1	1	1	1	2	2	3	2	2
INTERNAL MASS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	1	1	1		1	1	1	1	1	1	1	1	1	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 23

Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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	1	1	1	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	4	5	5	5	5	5	5	5	4	4	4	4	4	4
	750 ppm	4	4	4	5	6	6	6	6	7	8	8	9	9	9
	1500 ppm	3	3	4	4	4	4	4	3	2	2	2	2	2	2
	3000 ppm	2	2	2	2	2	2	2	2	2	3	3	4	4	5
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.PERI MOUTH	Control	0	0	0	1	1	1	1	1	0	0	1	1	1	1
	750 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	1	1	1	1	1	1	1	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 24

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
ANTERIOS CHAMBER OPACITY	Control	1	1	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
ABNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
EXTERNAL MASS	Control	4	5	6	6	7	7
	750 ppm	10	11	10	11	11	12
	1500 ppm	2	1	2	2	2	2
	3000 ppm	5	5	6	6	6	6
INTERNAL MASS	Control	0	2	1	0	0	0
	750 ppm	0	0	0	0	0	1
	1500 ppm	0	0	0	0	0	2
	3000 ppm	0	0	0	0	0	0
M.PERI MOUTH	Control	0	0	0	0	0	0
	750 ppm	1	1	1	1	1	1
	1500 ppm	0	0	1	0	0	0
	3000 ppm	0	0	0	0	0	0
M.ORAL CAVITY	Control	0	1	1	1	1	1
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
M.EAR	Control	0	0	0	0	0	0
	750 ppm	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
M.PERI EAR	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 25

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
M.NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 26

Clinical sign	Group Name	Administration Week-day				18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7												
M.NECK	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.FORLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.POSTERIOR DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 27

Clinical sign	Group Name	Administration Week-day				32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7												
M.NECK	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.FORLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.POSTERIOR DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 28

Clinical sign	Group Name	Administration Week-day				46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7												
M.NECK	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.FORLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.POSTERIOR DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	1	1	1	1
M.HINDLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 29

Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
M.NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	1	1	1	1	1	1	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	1	1	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 30

Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
M.NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.POSTERIOR DORSUM	Control	1	1	1	1	0	1	1	1	1	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	2
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 31

Clinical sign	Group Name	Administration Week-day				88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7												
M.NECK	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	1		1	1	1	1	1	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	1	1	1
M.FORLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	1	1	1
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	1	1	1		1	1	1	1	1	1	1	3	3	3	3
	750 ppm	0	0	0		0	1	1	1	1	1	2	2	2	2	2
	1500 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	3000 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
	750 ppm	1	1	1		1	1	1	1	1	1	1	1	2	2	2
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	1	1	1	1	1
M.POSTERIOR DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	1	1	1	1	1	1
	1500 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	3000 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
M.HINDLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	1	1	1	1	1
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	2	3	3		2	2	2	2	2	2	2	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 32

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
M.NECK	Control	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	1	1	1	1	1	1
M.FORLIMB	Control	0	0	0	0	0	0
	750 ppm	0	1	1	2	2	2
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
M.BREAST	Control	0	0	1	1	1	1
	750 ppm	1	1	1	1	1	1
	1500 ppm	1	1	1	2	2	2
	3000 ppm	0	0	0	0	0	0
M.ABDOMEN	Control	3	3	3	3	4	4
	750 ppm	3	3	4	4	4	4
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
M.ANTERIOR.DORSUM	Control	0	0	1	1	1	1
	750 ppm	2	2	1	1	1	2
	1500 ppm	0	0	0	0	0	0
	3000 ppm	1	1	1	1	2	2
M.POSTERIOR DORSUM	Control	0	0	0	0	0	0
	750 ppm	1	1	0	0	0	0
	1500 ppm	1	0	0	0	0	0
	3000 ppm	1	1	2	2	2	2
M.HINDLIMB	Control	0	0	0	0	0	0
	750 ppm	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	1	1	1	1	1	1

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 33

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 34

Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 35

Clinical sign	Group Name	Administration Week-day				32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7												
M.TAIL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
NOISY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 36

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
H.TAIL	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 37

Clinical sign	Group Name	Administration Week-day				60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7												
M.TAIL	Control	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
NOISY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 38

Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
M.TAIL	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	1500 ppm	1	1	1	1	0	0	0	1	1	1	1	1	1	1
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	1	1	1	0	0
ABNORMAL RESPIRATION	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	1	1	1	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 39

Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
M.TAIL	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	1	0	0	0	0	0	0	0	0	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuGrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 40

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
M.TAIL	Control	1	1	0	0	0	0
	750 ppm	2	2	1	1	1	1
	1500 ppm	0	0	0	0	0	0
	3000 ppm	1	1	1	1	1	1
ANEMIA	Control	1	1	0	0	0	1
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	1	1	0	0	0	0
	3000 ppm	0	0	0	0	1	1
IRREGULAR BREATHING	Control	1	1	0	0	0	0
	750 ppm	0	1	1	1	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
NOISY	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	1	1	0	0	0	0
	750 ppm	0	1	1	1	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 41

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
HEMATURIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 42

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
HEMATURIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 43

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
HEMATURIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 44

Clinical sign	Group Name	Administration Week-day														
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7	
HEMATURIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3000 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	
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3000 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	
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(HAN190)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 45

Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
HEMATURIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 46

Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
HEMATURIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	2	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0

(HAN190)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 47

Clinical sign	Group Name	Administration Week-day				88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7												
HEMATURIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	1	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	1		1	1	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	1	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	1	2	2		2	2	1	1	1	1	2	0	0	0	1
	750 ppm	1	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	1	0	0	0	0	0	1	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 48

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
HEMATURIA	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	1	1
YELLOW URINE	Control	1	1	0	0	1	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
SMALL STOOL	Control	1	2	0	1	1	0
	750 ppm	1	1	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	1	1	0	0
OLIGO-STOOL	Control	1	2	0	1	1	0
	750 ppm	1	1	0	0	0	0
	1500 ppm	0	1	0	0	0	0
	3000 ppm	0	0	1	1	0	0

(HAN190)

BAIS 3

APPENDIX A 2

CLINICAL OBSERVATION : SUMMARY, RAT : FEMALE
(2-YEAR STUDY)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 49

Clinical sign	Group Name	Administration Week-day				4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1-7	2-7	3-7												
DEATH	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
PILOERECTOR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 50

Clinical sign	Group Name	Administration Week-day				18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7												
DEATH	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
PILOERECTOR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 51

Clinical sign	Group Name	Administration Week-day				32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7												
DEATH	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
PILOERECTOR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 52

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	2	1	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 53

Clinical sign	Group Name	Administration Week-day				60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7												
DEATH	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		1	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 54

Clinical sign	Group Name	Administration Week-day				74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7												
DEATH	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	1	1	1	1	1
	3000 ppm	0	0	0		1	1	2	2	2	2	2	3	3	3	4
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	1	1	1	1	1
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	1	1	1	1	1	1	1	1	1	1
LOCOMOTOR MOVEMENT DECR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	1	1	1	1	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		1	1	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	1	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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	1	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	1	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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 55

Clinical sign	Group Name	Administration Week-day				88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7												
DEATH	Control	0	0	0		0	0	0	0	1	2	3	3	5	5	5
	750 ppm	0	0	0		0	0	1	1	2	2	2	3	3	3	4
	1500 ppm	1	1	2		2	2	2	3	3	3	3	3	3	4	5
	3000 ppm	5	5	5		5	5	5	5	6	6	6	6	6	6	6
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	1	1
	750 ppm	2	2	2		2	2	2	2	2	2	2	2	2	2	2
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	1	1
	3000 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
LOCOMOTOR MOVEMENT DECR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	1	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	1	1		1	1	1	1	1	1	1	1	1	1	1
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	1	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	1	1	1	1
SOILED	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
PILOERECTON	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

PAGE : 56

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	5	6	6	8	8	9
	750 ppm	4	5	5	5	5	5
	1500 ppm	5	6	6	6	6	6
	3000 ppm	7	7	8	8	8	8
MORIBUND SACRIFICE	Control	2	2	2	3	3	3
	750 ppm	2	2	3	3	4	4
	1500 ppm	1	2	2	2	2	2
	3000 ppm	1	1	1	2	2	3
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	1	1	1	1	1	1
	3000 ppm	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0
	750 ppm	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0
	3000 ppm	1	1	0	2	2	1
SOILED	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	2	1
	750 ppm	0	0	0	0	1	1
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 57

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 58

Clinical sign	Group Name	Administration Week-day				18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7												
LOSS OF HAIR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0		0	1	0	1	1	1	1	1	1	1	1
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0		0	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 59

Clinical sign	Group Name	Administration Week-day				32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7												
LOSS OF HAIR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	1	1		1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	1	1		1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 60

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	2	2	3	3	1
EXOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	2	2	2	2	2
	3000 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
	750 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	2	2	2	2	2
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 61

Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	1	1	1	1	1	1	2	2	2	2	2	1	1	1
EXOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	2	2	2	2	2	2	2	2	2	2	2
	750 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	2
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 62

Clinical sign	Group Name	Administration Week-day				74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7												
LOSS OF HAIR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	2	2
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	3	3
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	1	1
SOILED PERI GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	1	0	0		1	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	2	2	2		2	2	2	2	2	2	2	2	2	2	2
	750 ppm	1	1	1		1	2	2	2	2	2	2	2	2	3	3
	1500 ppm	2	2	2		2	2	2	2	2	2	2	2	2	3	3
	3000 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
	750 ppm	1	1	1		1	2	2	2	2	2	2	2	2	3	3
	1500 ppm	2	2	2		2	2	2	2	2	2	2	2	2	3	3
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	1	1		2	1	1	1	1	1	1	1	2	3	3
	750 ppm	1	1	1		2	2	2	2	2	2	3	3	3	4	4
	1500 ppm	2	1	1		1	1	1	1	1	1	2	3	2	4	4
	3000 ppm	1	1	1		0	0	0	0	1	1	1	2	2	2	2

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 63

Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	2	2	2	2	2	2	2	2	3	3	3	3	3	3
	1500 ppm	2	2	2	2	2	2	2	2	3	3	3	3	3	4
	3000 ppm	1	1	1	1	1	1	1	1	1	1	2	2	2	2
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	750 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	750 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	1500 ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	3
	3000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	1500 ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	3
	3000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
CORNEAL OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	3	3	3	3	4	4	4	4	5	5	5	5	6	7
	750 ppm	5	5	5	6	7	6	6	6	6	6	5	6	6	7
	1500 ppm	4	4	5	5	5	5	7	7	7	6	8	8	8	8
	3000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 64

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
LOSS OF HAIR	Control	0	0	0	0	0	0
	750 ppm	3	3	3	3	3	3
	1500 ppm	4	3	3	3	3	4
	3000 ppm	2	3	3	3	3	2
SOILED PERI GENITALIA	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
EXOPHTHALMOS	Control	1	1	1	1	1	1
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0
	750 ppm	1	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
EYE OPACITY	Control	3	3	3	3	3	2
	750 ppm	3	3	3	3	3	3
	1500 ppm	3	3	3	3	3	3
	3000 ppm	1	1	1	1	1	1
CATARACT	Control	1	1	1	1	1	1
	750 ppm	3	3	3	3	3	3
	1500 ppm	3	3	3	3	3	3
	3000 ppm	1	1	1	1	1	1
CORNEAL OPACITY	Control	2	2	2	2	2	1
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
EXTERNAL MASS	Control	7	9	10	9	7	7
	750 ppm	7	8	9	10	12	14
	1500 ppm	9	8	8	8	7	8
	3000 ppm	3	4	4	4	5	5

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 65

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 66

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
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 67

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
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 68

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.PERI MOUTH	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 69

Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 70

Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.PERI MOUTH	Control	0	1	1	1	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	1	1	1	1	1	1	1	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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	1	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	3000 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 71

Clinical sign	Group Name	Administration Week-day				88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7												
INTERNAL MASS	Control	0	0	0		0	0	0	1	1	1	1	2	4	4	3
	750 ppm	1	0	0		0	0	0	0	1	1	1	1	1	1	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	1	2	2		2	1	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	1	1	1	0	1	1	1	1
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	1	1	1		1	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	1	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.BREAST	Control	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0		0	0	1	1	1	1	1	1	1	1	1
	1500 ppm	1	1	2		2	2	2	2	2	2	2	2	2	2	2
	3000 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
M.ABDOMEN	Control	1	1	1		1	1	1	1	1	2	2	2	2	3	3
	750 ppm	1	1	1		2	2	2	2	2	2	2	2	2	2	1
	1500 ppm	1	1	1		1	1	1	1	1	1	1	2	2	2	2
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 72

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
INTERNAL MASS	Control	3	3	3	3	3	3
	750 ppm	0	0	0	0	0	1
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	1	1	1	0
M.PERI MOUTH	Control	0	0	1	1	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	1	1	1	1	1	1
	3000 ppm	0	0	0	0	0	0
M.ORAL CAVITY	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	1	1
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
M.EAR	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
M.PERI EAR	Control	0	1	1	1	1	1
	750 ppm	0	0	0	0	0	0
	1500 ppm	1	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
M.HEAD	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
M.BREAST	Control	1	1	1	1	0	0
	750 ppm	1	1	3	3	3	3
	1500 ppm	2	1	1	1	1	1
	3000 ppm	1	1	1	1	1	1
M.ABDOMEN	Control	3	3	3	2	2	2
	750 ppm	1	2	3	4	3	4
	1500 ppm	2	2	2	2	2	2
	3000 ppm	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 73

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 74

Clinical sign	Group Name	Administration Week-day				18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7												
M.ANTERIOR.DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 75

Clinical sign	Group Name	Administration Week-day				32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7												
M.ANTERIOR.DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 76

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	1	1	1	1	1	1	2	2	2
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 77

Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	2	2	4	4	4	4	4	4	4	4	4	5	5	5
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 78

Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	750 ppm	0	0	0	1	1	1	1	1	1	2	2	2	2	2
	1500 ppm	0	0	0	0	0	0	0	0	0	1	1	1	2	2
	3000 ppm	1	1	1	0	0	0	0	0	0	0	1	1	1	1
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	1	1	1	1	1	2	2	1	1	1	1	1	1
	1500 ppm	5	5	5	5	5	5	5	5	5	5	5	5	6	6
	3000 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
SWELLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	1	0	1	1	1	1	1	1	1	1
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 79

Clinical sign	Group Name	Administration Week-day				88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7												
M.ANTERIOR.DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	1500 ppm	0	0	0		0	0	0	1	1	1	1	1	1	1	1
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
M.HINDLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	1	1	1		1	2	2	2	2	2	2	2	2	2	3
	750 ppm	2	2	2		2	3	3	3	3	3	3	2	3	3	4
	1500 ppm	2	2	2		2	2	2	2	2	2	2	2	2	2	2
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
M.TAIL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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	2	0	1	0
	750 ppm	0	0	0		0	0	0	0	0	1	1	1	1	1	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	1	1	1		2	2	2	2	2	2	2	2	2	2	2
	1500 ppm	6	6	6		6	6	6	6	6	6	6	6	6	7	7
	3000 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
SWELLING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 80

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
M.ANTERIOR.DORSUM	Control	0	0	0	1	1	1
	750 ppm	1	1	1	1	3	3
	1500 ppm	1	1	1	1	1	1
	3000 ppm	1	1	1	1	2	2
M.HINDLIMB	Control	0	0	0	0	0	0
	750 ppm	0	1	1	1	1	1
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
M.GENITALIA	Control	3	4	4	3	3	3
	750 ppm	4	4	3	3	3	4
	1500 ppm	2	3	3	3	2	3
	3000 ppm	1	2	2	2	2	2
M.TAIL	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
ANEMIA	Control	0	0	1	1	0	0
	750 ppm	0	0	1	1	0	0
	1500 ppm	1	0	0	0	0	0
	3000 ppm	0	0	0	0	0	1
JAUNDISE	Control	0	0	0	0	1	1
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0
	750 ppm	2	2	2	2	2	2
	1500 ppm	7	7	7	7	7	7
	3000 ppm	1	1	1	0	0	0
SWELLING	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	1	1	1	1	1	1
	3000 ppm	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 81

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMATURIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 82

Clinical sign	Group Name	Administration Week-day				18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7												
HEMORRHAGE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HEMATURIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 83

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
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMATURIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 84

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMATURIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 85

Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	1	1	0	0	0	0	0	0	0	0	1
	3000 ppm	0	0	0	0	1	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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMATURIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 86

Clinical sign	Group Name	Administration Week-day				74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7												
HEMORRHAGE	Control	0	0	0		0	0	0	0	0	0	0	1	2	1	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	1	0	0		0	1	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	1	0	0	0	0	0	1	0
TORTICOLLIS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	1	1	1	1	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HEMATURIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	1500 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 87

Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	2	1	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
HEMATURIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 88

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
HEMORRHAGE	Control	0	1	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	1	1	1	0	1
	3000 ppm	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	1	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	1	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
HEMATURIA	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	3	2	5	0	0
RED URINE	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	5	9
YELLOW URINE	Control	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 89

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
LOOSE STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 90

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
LOOSE STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 91

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	
LOOSE STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3000 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	
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

(HAN190)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 92

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
LOOSE STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

PAGE : 93

Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
LOOSE STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 94

Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
LOOSE STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 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
	750 ppm	0	0	0	0	0	0	0	1	1	1	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	1
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	1	1	1	1	0	0	0	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	1	1	0	0	0	0	0	0	0	0	1

(HAN190)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 95

Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
LOOSE STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	750 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	1	1	0	0	0	1	0	0	1
	750 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	2
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	2	2
OLIGO-STOOL	Control	0	0	0	0	0	1	1	0	0	0	1	0	1	1
	750 ppm	1	0	0	0	0	0	0	0	0	0	1	2	2	1
	1500 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	3000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1

(HAN190)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 96

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
LOOSE STOOL	Control	0	0	0	0	1	0
	750 ppm	0	0	0	0	0	0
	1500 ppm	0	0	0	0	0	0
	3000 ppm	0	0	0	0	0	0
SMALL STOOL	Control	0	0	1	3	3	2
	750 ppm	2	1	2	2	1	2
	1500 ppm	1	1	0	0	0	0
	3000 ppm	1	1	0	0	0	0
OLIGO-STOOL	Control	2	1	1	3	2	1
	750 ppm	1	1	2	2	1	2
	1500 ppm	1	1	0	0	0	0
	3000 ppm	0	0	0	0	0	1

(HAN190)

BAIS3

APPENDIX B 1

BODY WEIGHT CHANGES :SUMMARY, RAT : MALE
(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration week		1		2		3		4		5		6	
	0													
Control	123±	4	152±	6	180±	9	203±	11	222±	13	238±	16	251±	18
750 ppm	123±	4	150±	6	176±	9*	196±	11**	212±	14**	226±	16**	240±	18**
1500 ppm	123±	4	145±	6**	170±	8**	190±	11**	207±	14**	223±	16**	236±	18**
3000 ppm	123±	4	136±	6**	158±	8**	176±	9**	190±	11**	204±	14**	216±	16**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration week		7		8		9		10		11		12		13	
Control	263±	21	272±	22	282±	23	292±	24	300±	25	307±	26	316±	26		
750 ppm	252±	19**	262±	20*	272±	21*	281±	21*	290±	22	296±	22	306±	22		
1500 ppm	248±	19**	259±	20**	269±	21**	278±	22**	287±	21*	292±	21*	302±	21		
3000 ppm	226±	17**	235±	17**	245±	18**	252±	18**	259±	18**	263±	17**	272±	17**		

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration week		18		22		26		30		34		38	
	14													
Control	320±	26	339±	24	361±	24	379±	24	394±	25	407±	25	419±	24
750 ppm	310±	22	330±	21	351±	20	369±	21	385±	21	398±	21	410±	21
1500 ppm	306±	21**	325±	20**	344±	21**	359±	22**	373±	21**	385±	20**	395±	21**
3000 ppm	276±	18**	293±	19**	309±	20**	323±	21**	333±	22**	343±	22**	352±	23**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration week											
	42		46		50		54		58		62	66
Control	430± 26		440± 26		449± 26		454± 25		462± 27		469± 28	475± 28
750 ppm	421± 23		432± 23		440± 22		447± 20		453± 22		461± 23	466± 23
1500 ppm	405± 23**		415± 23**		422± 23**		428± 22**		432± 23**		440± 23**	445± 24**
3000 ppm	361± 24**		367± 24**		372± 24**		378± 24**		381± 24**		384± 24**	387± 25**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration week		74		78		82		86		90		94	
	70													
Control	479±	28	481±	33	487±	29	489±	30	481±	40	481±	35	474±	45
750 ppm	469±	22	474±	24	478±	25	479±	26	479±	26	473±	29	472±	31
1500 ppm	444±	22**	445±	23**	446±	24**	444±	35**	446±	22**	446±	23**	443±	33**
3000 ppm	387±	24**	387±	27**	387±	30**	383±	33**	383±	25**	381±	26**	375±	28**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 6

Group Name	Administration week					
	98		102		104	
Control	470± 40		457± 37		452± 41	
750 ppm	465± 39		458± 46		454± 38	
1500 ppm	440± 44**		432± 22*		425± 22*	
3000 ppm	368± 29**		360± 31**		353± 31**	

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

Test of Dunnett

(HAN260)

BAIS3

APPENDIX B 2

BODY WEIGHT CHANGES : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration week											
	0		1		2		3		4		5	6
Control	100± 3		116± 4		130± 5		139± 6		147± 7		153± 8	157± 8
750 ppm	100± 3		115± 5		128± 6		136± 7		145± 7		151± 9	154± 9
1500 ppm	100± 3		113± 4**		125± 5**		133± 6**		141± 7**		146± 8**	150± 9**
3000 ppm	100± 3		106± 4**		119± 5**		126± 6**		133± 8**		139± 8**	143± 9**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group Name	Administration week		7		8		9		10		11		12		13	
Control	161±	8	163±	8	167±	9	172±	10	174±	10	176±	10	179±	10		
750 ppm	159±	10	161±	10	165±	10	169±	11	172±	10	173±	11	177±	10		
1500 ppm	155±	9**	156±	10**	160±	11**	164±	11**	166±	11**	168±	12**	171±	11**		
3000 ppm	147±	9**	149±	9**	152±	9**	156±	9**	159±	9**	160±	9**	163±	9**		

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

Test of Dunnett

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 9

Group Name	Administration week		14		18		22		26		30		34		38	
Control	181±	11	190±	11	200±	12	206±	12	213±	13	221±	14	228±	13		
750 ppm	178±	10	186±	10	198±	11	204±	11	212±	12	219±	12	226±	13		
1500 ppm	173±	11**	180±	10**	189±	11**	193±	12**	199±	13**	206±	14**	212±	14**		
3000 ppm	164±	10**	170±	9**	177±	10**	179±	10**	184±	11**	189±	12**	193±	13**		

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 10

Group Name	Administration week	42	46	50	54	58	62	66
Control		235± 14	243± 16	249± 16	258± 18	263± 19	273± 21	282± 22
750 ppm		233± 14	240± 15	245± 14	253± 15	258± 15	268± 18	274± 18
1500 ppm		217± 16**	223± 16**	225± 17**	233± 19**	236± 19**	242± 22**	248± 23**
3000 ppm		196± 14**	200± 15**	203± 15**	205± 16**	207± 17**	207± 18**	211± 20**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration week		74		78		82		86		90		94	
	70													
Control	292±	24	297±	24	305±	24	311±	25	315±	26	317±	32	321±	28
750 ppm	283±	20	284±	21*	288±	27**	297±	23*	300±	22*	302±	24*	300±	28**
1500 ppm	251±	25**	252±	27**	254±	29**	259±	30**	263±	31**	263±	33**	264±	32**
3000 ppm	214±	20**	214±	22**	217±	21**	220±	23**	219±	27**	219±	28**	219±	30**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 12

Group Name	Administration week					
	98		102		104	
Control	322±	30	321±	43	322±	36
750 ppm	300±	35**	299±	36*	295±	38**
1500 ppm	265±	35**	269±	38**	266±	42**
3000 ppm	217±	33**	219±	31**	219±	30**

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

Test of Dunnett

(HAN260)

BAIS 3

APPENDIX C 1

WATER CONSUMPTION CHANGES : SUMMARY, RAT : MALE
(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration week						
	1	2	3	4	5	6	7
Control	17.1± 1.1	18.8± 3.4	18.8± 2.2	19.2± 2.2	18.2± 1.9	19.4± 2.9	19.9± 4.1
750 ppm	15.6± 2.8**	16.4± 4.2**	15.7± 1.7**	15.7± 1.7**	14.7± 2.0**	15.4± 1.8**	15.6± 1.5**
1500 ppm	13.5± 3.0**	13.2± 1.2**	13.7± 1.1**	13.5± 1.3**	13.2± 1.5**	13.6± 1.7**	13.8± 1.7**
3000 ppm	11.9± 0.8**	11.7± 0.8**	11.4± 0.9**	11.7± 1.9**	10.9± 1.3**	11.9± 1.9**	11.5± 1.2**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration week						
	8	9	10	11	12	13	14
Control	19.2± 2.4	18.5± 2.4	18.3± 3.2	18.1± 2.2	16.4± 1.8	18.7± 2.0	18.4± 1.9
750 ppm	15.5± 1.7**	15.7± 1.8**	15.3± 2.1**	15.7± 1.9**	14.3± 1.6**	16.1± 1.7**	15.7± 1.8**
1500 ppm	13.5± 1.4**	13.6± 1.4**	13.6± 1.5**	13.9± 1.4**	12.8± 1.3**	14.4± 1.3**	14.0± 1.3**
3000 ppm	11.4± 1.3**	11.7± 1.3**	11.4± 1.2**	11.6± 1.1**	10.4± 0.9**	12.1± 1.1**	11.8± 1.1**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration week						
	18	22	26	30	34	38	42
Control	17.9± 1.6	18.0± 1.4	18.4± 1.5	18.5± 1.2	17.8± 1.3	18.3± 1.2	18.2± 1.8
750 ppm	15.9± 1.3**	16.2± 1.5**	16.1± 1.1**	16.2± 1.5**	16.0± 1.0**	16.5± 1.0**	16.2± 1.1**
1500 ppm	13.9± 1.1**	13.8± 1.2**	14.4± 0.9**	14.5± 1.0**	14.3± 1.5**	14.3± 1.0**	14.2± 1.1**
3000 ppm	11.8± 0.9**	11.7± 1.0**	11.8± 1.0**	12.0± 0.8**	11.8± 0.8**	12.1± 0.9**	11.7± 0.9**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration week						
	46	50	54	58	62	66	70
Control	18.1± 1.2	18.4± 1.4	17.6± 1.7	18.0± 1.5	18.6± 1.6	19.6± 1.7	19.7± 1.9
750 ppm	16.3± 1.1**	16.5± 1.0**	16.2± 1.2*	16.7± 1.1*	17.4± 1.2*	17.8± 1.3**	18.2± 1.5*
1500 ppm	14.4± 1.1**	14.7± 1.1**	14.4± 1.1**	14.5± 1.6**	15.3± 1.3**	15.5± 1.2**	16.2± 1.2**
3000 ppm	11.9± 0.9**	12.2± 1.3**	12.1± 0.9**	12.1± 0.8**	12.6± 0.8**	12.8± 1.1**	13.4± 1.3**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration week						
	74	78	82	86	90	94	98
Control	20.9± 3.5	21.0± 2.4	21.4± 2.8	20.7± 4.5	22.5± 3.2	23.5± 5.8	24.1± 7.3
750 ppm	18.7± 1.8*	19.1± 2.2	18.9± 2.4*	19.3± 2.9	19.5± 3.9*	20.6± 4.0	20.5± 4.1
1500 ppm	16.2± 1.4**	16.3± 1.5**	15.2± 2.9**	15.6± 2.4**	16.1± 2.1**	16.3± 2.2**	16.0± 2.7**
3000 ppm	13.4± 1.3**	13.1± 1.1**	12.6± 1.7**	12.6± 2.2**	13.3± 1.5**	13.3± 1.6**	13.7± 1.6**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 6

Group Name	Administration week	
	102	104
Control	23.5± 7.0	25.2± 7.4
750 ppm	20.8± 4.9	21.3± 6.0
1500 ppm	15.7± 2.1**	16.5± 2.7**
3000 ppm	13.3± 1.9**	14.1± 2.2**

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

Test of Dunnett

(HAN260)

BAIS3

APPENDIX C 2

WATER CONSUMPTION CHANGES : SUMMARY, RAT : FEMALE
(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration week						
	1	2	3	4	5	6	7
Control	14.5± 1.0	17.8± 3.5	17.1± 4.3	18.1± 4.3	19.0± 8.5	19.9± 8.0	19.4± 6.9
750 ppm	13.1± 2.2**	13.4± 2.1**	12.9± 2.1**	12.7± 1.8**	12.7± 2.4**	12.5± 2.3**	12.2± 1.6**
1500 ppm	10.7± 0.9**	10.7± 1.1**	10.5± 1.4**	10.3± 1.2**	10.2± 1.1**	9.9± 1.3**	10.3± 1.8**
3000 ppm	9.8± 2.5**	9.8± 1.7**	8.9± 0.8**	9.1± 1.1**	9.0± 1.1**	8.9± 1.3**	9.3± 2.4**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group Name	Administration week						
	8	9	10	11	12	13	14
Control	15.9± 3.7	15.3± 3.7	19.0± 9.3	17.8± 5.5	18.7± 8.9	19.8± 8.3	20.3± 8.3
750 ppm	11.5± 1.8**	11.9± 3.0**	12.8± 5.0**	12.8± 3.0**	12.4± 3.3**	14.4± 6.4**	14.0± 5.0**
1500 ppm	9.4± 1.6**	9.3± 1.3**	10.0± 1.6**	9.9± 1.2**	9.5± 1.2**	10.4± 3.1**	10.5± 4.4**
3000 ppm	8.4± 2.2**	7.7± 0.9**	8.6± 0.9**	8.6± 1.0**	8.1± 1.0**	8.6± 1.0**	8.6± 1.2**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 9

Group Name	Administration week						
	18	22	26	30	34	38	42
Control	16.7± 4.0	21.1± 8.1	21.1± 8.5	20.2± 8.4	19.6± 8.1	19.1± 6.4	17.1± 4.0
750 ppm	12.3± 2.5**	15.1± 6.6**	15.8± 5.4**	15.5± 5.4*	15.5± 6.5**	16.0± 5.7*	14.4± 5.6**
1500 ppm	9.7± 1.8**	10.4± 1.2**	11.3± 1.6**	10.9± 1.9**	11.4± 2.1**	11.4± 2.7**	10.6± 0.9**
3000 ppm	8.1± 1.0**	9.0± 1.5**	9.6± 1.4**	9.7± 2.2**	9.8± 1.5**	10.0± 2.1**	9.8± 2.1**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 10

Group Name	Administration week						
	46	50	54	58	62	66	70
Control	17.5± 5.7	16.7± 3.4	17.0± 4.6	15.9± 3.3	17.2± 4.3	17.8± 5.0	17.9± 3.3
750 ppm	15.0± 6.7**	13.9± 2.5**	15.4± 5.3*	13.9± 3.4**	15.0± 3.3**	14.9± 4.3**	14.5± 2.2**
1500 ppm	10.9± 1.7**	10.7± 1.6**	11.8± 3.0**	11.7± 2.5**	12.6± 2.8**	12.7± 3.1**	13.7± 3.3**
3000 ppm	10.2± 2.6**	10.7± 2.5**	11.5± 3.7**	11.3± 2.9**	12.5± 3.1**	12.6± 3.0**	13.4± 3.0**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration week						
	74	78	82	86	90	94	98
Control	18.1± 3.8	19.2± 3.9	18.8± 4.6	18.5± 4.4	20.2± 5.1	20.4± 5.0	20.6± 4.6
750 ppm	14.9± 3.6**	14.9± 3.3**	14.8± 3.0**	15.3± 3.3**	16.4± 3.1**	15.5± 3.9**	15.8± 3.3**
1500 ppm	13.9± 4.0**	14.8± 3.7**	14.7± 4.0**	15.8± 4.2**	16.6± 4.7**	17.7± 4.9**	17.5± 4.7**
3000 ppm	13.4± 2.6**	13.8± 2.5**	14.3± 2.6**	14.1± 2.9**	16.2± 5.1**	16.0± 3.4**	15.6± 3.7**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 12

Group Name	Administration week	
	102	104
Control	20.5± 4.8	21.0± 4.0
750 ppm	15.5± 4.0**	16.2± 4.8**
1500 ppm	18.1± 5.2	18.0± 5.9**
3000 ppm	15.4± 5.2**	15.7± 2.7**

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

Test of Dunnett

(HAN260)

BAIS 3

APPENDIX D 1

FOOD CONSUMPTION CHANGES : SUMMARY, RAT : MALE
(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration week-day(effective)						
	1-7(7)	2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	13.2± 0.8	14.4± 1.0	14.8± 1.1	15.3± 1.3	15.0± 1.5	15.0± 1.6	15.2± 1.7
750 ppm	12.9± 0.9	14.4± 1.1	14.5± 1.0	14.9± 1.5	14.1± 1.4**	14.2± 1.6*	14.4± 1.4*
1500 ppm	12.2± 0.6**	13.7± 0.9**	14.2± 1.0**	14.1± 1.3**	14.1± 1.4**	14.2± 1.8*	14.5± 1.6
3000 ppm	10.5± 0.7**	13.1± 0.8**	13.2± 0.9**	13.0± 1.1**	12.9± 1.3**	13.2± 1.4**	13.2± 1.5**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration week-day(effective)						
	8-7(7)	9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)	14-7(7)
Control	14.9± 1.7	14.7± 1.7	14.7± 1.7	15.0± 1.7	14.3± 1.6	15.3± 1.7	14.5± 1.6
750 ppm	14.1± 1.5*	14.3± 1.3	14.1± 1.3	14.5± 1.5	13.8± 1.2	14.8± 1.2	14.1± 1.2
1500 ppm	14.3± 1.5	14.4± 1.4	14.2± 1.4	14.6± 1.3	14.0± 1.2	14.9± 1.3	14.3± 1.3
3000 ppm	12.9± 1.4**	13.3± 1.3**	12.8± 1.1**	13.2± 1.1**	12.7± 1.0**	13.6± 1.1**	13.1± 1.1**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration 18-7(7)	week-day(effective) 22-7(7)	26-7(7)	30-7(7)	34-7(7)	38-7(7)	42-7(7)
Control	14.9± 1.2	15.1± 1.2	15.6± 1.1	15.6± 1.0	15.7± 1.0	15.7± 1.0	15.9± 1.2
750 ppm	14.5± 1.0	15.0± 0.9	15.3± 1.0	15.4± 1.0	15.4± 0.9	15.7± 0.9	15.8± 0.9
1500 ppm	14.5± 1.1	14.8± 1.2	15.2± 1.0	15.3± 0.9	14.9± 0.8**	15.2± 1.0*	15.4± 1.1
3000 ppm	13.4± 1.1**	13.5± 1.1**	13.6± 1.0**	13.9± 1.0**	13.6± 0.9**	14.0± 1.0**	14.0± 1.1**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration 46-7(7)	week-day(effective) 50-7(7)	54-7(7)	58-7(7)	62-7(7)	66-7(7)	70-7(7)
Control	16.2± 1.0	15.9± 1.1	15.8± 1.0	15.8± 0.9	16.6± 1.1	17.0± 1.2	17.1± 1.4
750 ppm	16.0± 0.9	15.7± 0.8	16.0± 0.8	15.8± 0.9	16.7± 1.0	16.8± 0.9	16.8± 1.0
1500 ppm	15.5± 0.9**	15.2± 0.9*	15.7± 0.8	15.5± 1.0	16.3± 0.9	16.4± 1.0	16.4± 1.0**
3000 ppm	14.3± 1.0**	13.9± 1.0**	14.7± 1.0**	14.3± 0.8**	14.7± 1.0**	14.9± 1.2**	15.0± 0.9**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration 74-7(7)	week-day(effective) 78-7(7)	82-7(7)	86-7(7)	90-7(7)	94-7(7)	98-7(7)
Control	16.5± 1.6	16.9± 1.4	16.6± 1.3	15.7± 2.8	16.4± 1.4	16.1± 1.6	15.8± 2.6
750 ppm	16.7± 1.2	16.8± 1.1	16.5± 1.1	16.5± 1.1	15.9± 1.5	16.5± 1.2	16.2± 1.5
1500 ppm	16.3± 1.3	16.2± 1.3*	15.1± 6.7	15.8± 1.1	15.5± 1.4**	15.9± 1.1	15.5± 1.9
3000 ppm	14.5± 1.2**	14.3± 1.3**	13.6± 2.6**	14.0± 1.3**	14.1± 1.1**	14.1± 1.2**	13.7± 1.3**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuGrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 6

Group Name	Administration week-day(effective)	
	102-7(7)	104-7(7)
Control	15.3± 2.5	15.7± 2.0
750 ppm	16.1± 1.5	15.8± 1.8
1500 ppm	15.5± 1.3	15.2± 1.8
3000 ppm	13.9± 1.3**	13.7± 1.4**

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

Test of Dunnett

(HAN260)

BAIS3

APPENDIX D 2

FOOD CONSUMPTION CHANGES : SUMMARY, RAT : FEMALE
(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration 1-7(7)	week-day(effective) 2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	10.5± 0.5	10.9± 0.6	10.9± 0.7	10.6± 0.7	10.5± 0.8	10.0± 0.9	10.0± 0.8
750 ppm	10.3± 0.7	10.6± 0.9	10.5± 0.9	10.2± 0.9	10.1± 1.1*	9.5± 1.1*	9.6± 1.0
1500 ppm	9.6± 0.5**	10.2± 0.8**	10.2± 0.8**	9.9± 0.8**	9.6± 1.0**	9.3± 1.1**	9.4± 1.0**
3000 ppm	8.3± 0.6**	9.8± 0.7**	9.6± 0.7**	9.3± 1.0**	9.3± 0.8**	8.8± 0.9**	9.1± 0.9**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group Name	Administration 8-7(7)	week-day(effective) 9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)	14-7(7)
Control	9.7± 0.8	9.8± 0.8	9.6± 0.9	9.6± 1.1	9.5± 1.0	9.7± 0.9	9.6± 1.0
750 ppm	9.4± 1.0	9.4± 0.9	9.3± 1.0	9.4± 0.9	9.2± 1.0	9.3± 0.8	9.2± 0.8
1500 ppm	9.0± 1.1**	9.1± 1.0**	8.9± 1.0**	9.0± 1.0**	8.6± 0.9**	9.2± 0.9**	9.0± 0.9**
3000 ppm	8.7± 0.9**	8.5± 0.9**	8.5± 0.8**	8.6± 0.9**	6.9± 0.8**	8.6± 0.8**	8.5± 0.8**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 9

Group Name	Administration 18-7(7)	week-day(effective) 22-7(7)	26-7(7)	30-7(7)	34-7(7)	38-7(7)	42-7(7)
Control	9.8± 0.8	10.3± 0.8	10.5± 0.8	10.8± 0.8	11.0± 0.9	11.2± 0.7	11.2± 0.9
750 ppm	9.5± 0.7	10.1± 0.8	10.4± 0.7	10.8± 0.7	10.8± 0.7	11.2± 0.8	11.1± 0.8
1500 ppm	9.1± 0.7**	9.6± 0.8**	9.8± 0.9**	10.0± 0.9**	10.2± 0.8**	10.4± 0.8**	10.2± 0.9**
3000 ppm	8.6± 0.7**	8.9± 0.7**	9.1± 0.7**	9.4± 0.7**	9.4± 0.8**	9.5± 0.9**	9.5± 0.8**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 10

Group Name	Administration week-day(effective)						
	46-7(7)	50-7(7)	54-7(7)	58-7(7)	62-7(7)	66-7(7)	70-7(7)
Control	11.5± 1.0	11.3± 0.8	11.7± 0.8	11.2± 0.9	12.0± 1.1	12.5± 1.0	12.7± 1.0
750 ppm	11.2± 0.8	11.4± 0.8	11.6± 0.8	11.0± 0.7	12.0± 0.9	12.4± 0.8	12.4± 0.9
1500 ppm	10.6± 0.8**	10.4± 0.9**	11.0± 0.9**	10.6± 0.8**	11.2± 1.0**	11.7± 1.0**	11.7± 1.2**
3000 ppm	9.7± 0.8**	9.6± 0.8**	9.9± 0.9**	9.8± 1.0**	10.0± 1.3**	10.7± 1.2**	10.6± 1.5**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration 74-7(7)	week-day(effective) 78-7(7)	82-7(7)	86-7(7)	90-7(7)	94-7(7)	98-7(7)
Control	12.6± 1.0	12.6± 1.0	12.4± 1.4	12.7± 1.3	12.6± 1.8	12.9± 2.1	12.6± 1.9
750 ppm	12.3± 1.1	12.3± 1.2	12.4± 1.2	12.7± 1.5	12.3± 2.6	13.2± 2.5	12.9± 1.9
1500 ppm	11.9± 1.2*	11.9± 1.2*	11.9± 1.3	12.3± 1.7	12.0± 1.8*	12.5± 1.6	12.5± 1.9
3000 ppm	10.6± 1.6**	10.6± 1.2**	10.8± 1.2**	10.5± 1.4**	10.8± 1.3**	11.1± 1.5**	10.8± 1.8**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 12

Group Name	Administration week-day(effective)	
	102-7(7)	104-7(7)
Control	12.5± 2.8	12.4± 2.0
750 ppm	12.9± 2.6	12.0± 2.7
1500 ppm	12.7± 1.7	12.1± 1.9
3000 ppm	10.7± 1.4**	10.3± 1.8**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett		

(HAN260)

BAIS3

APPENDIX E 1

CHEMICAL INTAKE CHANGES : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group 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
750 ppm	0.078± 0.014	0.070± 0.018	0.060± 0.006	0.056± 0.004	0.049± 0.005	0.048± 0.003	0.046± 0.003
1500 ppm	0.139± 0.030	0.117± 0.008	0.108± 0.006	0.098± 0.005	0.089± 0.006	0.086± 0.006	0.083± 0.006
3000 ppm	0.263± 0.016	0.222± 0.011	0.195± 0.010	0.185± 0.026	0.160± 0.013	0.165± 0.021	0.153± 0.009

(HAN300)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group 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
750 ppm	0.044± 0.003	0.043± 0.003	0.041± 0.004	0.041± 0.004	0.036± 0.004	0.040± 0.003	0.038± 0.004
1500 ppm	0.079± 0.005	0.076± 0.004	0.073± 0.004	0.073± 0.004	0.065± 0.005	0.072± 0.005	0.069± 0.004
3000 ppm	0.146± 0.010	0.143± 0.010	0.135± 0.010	0.134± 0.008	0.119± 0.008	0.134± 0.008	0.128± 0.008

(HAN300)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group 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	0.000± 0.000		
750 ppm	0.036± 0.003	0.035± 0.003	0.033± 0.002	0.032± 0.003	0.030± 0.002	0.030± 0.002	0.029± 0.001			
1500 ppm	0.064± 0.003	0.060± 0.003	0.060± 0.003	0.058± 0.003	0.056± 0.006	0.055± 0.003	0.053± 0.003			
3000 ppm	0.121± 0.005	0.113± 0.006	0.110± 0.006	0.108± 0.006	0.103± 0.005	0.103± 0.005	0.098± 0.006			

(HAN300)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration (weeks)		54	58	62	66	70
	46	50					
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
750 ppm	0.028± 0.002	0.028± 0.001	0.027± 0.002	0.028± 0.002	0.028± 0.002	0.029± 0.002	0.029± 0.002
1500 ppm	0.052± 0.002	0.052± 0.003	0.051± 0.003	0.050± 0.005	0.052± 0.003	0.052± 0.003	0.055± 0.004
3000 ppm	0.097± 0.006	0.099± 0.012	0.096± 0.006	0.096± 0.006	0.098± 0.005	0.099± 0.007	0.104± 0.009

(HAN300)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration (weeks)		78	82	86	90	94	98
	74							
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
750 ppm	0.030± 0.002		0.030± 0.003	0.030± 0.003	0.030± 0.004	0.031± 0.006	0.033± 0.007	0.033± 0.008
1500 ppm	0.055± 0.004		0.055± 0.003	0.051± 0.009	0.053± 0.008	0.054± 0.007	0.055± 0.008	0.055± 0.010
3000 ppm	0.104± 0.007		0.102± 0.007	0.099± 0.012	0.099± 0.018	0.105± 0.015	0.107± 0.018	0.113± 0.017

(HAN300)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
UNIT : g/kg/day
REPORT TYPE : A1 104
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 6

Group Name	Administration (weeks)	
	102	104
Control	0.000± 0.000	0.000± 0.000
750 ppm	0.035± 0.012	0.035± 0.010
1500 ppm	0.054± 0.007	0.058± 0.009
3000 ppm	0.112± 0.023	0.121± 0.024

(HAN300)

BAIS3

APPENDIX E 2

CHEMICAL INTAKE CHANGES : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group 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	
750 ppm	0.085± 0.013	0.078± 0.010	0.071± 0.009	0.066± 0.007	0.063± 0.010	0.061± 0.010	0.058± 0.005	
1500 ppm	0.142± 0.010	0.128± 0.010	0.118± 0.014	0.110± 0.010	0.104± 0.008	0.099± 0.009	0.099± 0.013	
3000 ppm	0.278± 0.070	0.247± 0.038	0.211± 0.015	0.204± 0.019	0.193± 0.018	0.187± 0.020	0.189± 0.041	

(HAN300)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group 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	0.000± 0.000		
750 ppm	0.053± 0.007	0.054± 0.014	0.057± 0.021	0.056± 0.013	0.054± 0.013	0.061± 0.027	0.059± 0.021			
1500 ppm	0.090± 0.012	0.087± 0.008	0.091± 0.012	0.089± 0.007	0.085± 0.007	0.091± 0.025	0.091± 0.035			
3000 ppm	0.169± 0.038	0.151± 0.012	0.165± 0.012	0.162± 0.013	0.152± 0.013	0.159± 0.014	0.157± 0.016			

(HAN300)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 9

Group 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	0.000± 0.000		
750 ppm	0.049± 0.010	0.057± 0.024	0.058± 0.019	0.055± 0.019	0.053± 0.021	0.053± 0.019	0.046± 0.017			
1500 ppm	0.081± 0.014	0.083± 0.009	0.088± 0.012	0.082± 0.012	0.083± 0.014	0.081± 0.018	0.073± 0.006			
3000 ppm	0.143± 0.014	0.152± 0.021	0.161± 0.022	0.158± 0.031	0.156± 0.022	0.156± 0.031	0.150± 0.032			

(HAN300)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
UNIT : g/kg/day
REPORT TYPE : A1 104
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 10

Group 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
750 ppm	0.047±	0.020	0.043±	0.008	0.046±	0.015	0.040±	0.011	0.042±	0.010	0.041±	0.012	0.039±	0.006
1500 ppm	0.073±	0.012	0.072±	0.013	0.077±	0.023	0.075±	0.022	0.079±	0.024	0.079±	0.026	0.083±	0.026
3000 ppm	0.154±	0.040	0.158±	0.038	0.169±	0.055	0.166±	0.048	0.183±	0.051	0.182±	0.051	0.190±	0.051

(HAN300)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group 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	0.000± 0.000		
750 ppm	0.039± 0.010	0.039± 0.010	0.038± 0.010	0.039± 0.010	0.041± 0.010	0.039± 0.012	0.040± 0.011			
1500 ppm	0.085± 0.031	0.089± 0.029	0.088± 0.032	0.092± 0.031	0.098± 0.037	0.104± 0.037	0.101± 0.032			
3000 ppm	0.191± 0.046	0.193± 0.042	0.198± 0.046	0.197± 0.051	0.228± 0.087	0.225± 0.064	0.224± 0.077			

(HAN300)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
UNIT : g/kg/day
REPORT TYPE : A1 104
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 12

Group Name	Administration (weeks)	
	102	104
Control	0.000± 0.000	0.000± 0.000
750 ppm	0.040± 0.013	0.042± 0.014
1500 ppm	0.103± 0.033	0.103± 0.035
3000 ppm	0.217± 0.087	0.221± 0.062

(HAN300)

BAIS 3

APPENDIX F 1

HEMATOLOGY : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ³ /μl	
Control	37	8.29±	1.65	14.4±	2.9	44.1±	7.7	53.7±	3.9	17.4±	1.1	32.4±	2.1	883±	215
750 ppm	40	8.86±	1.34	15.5±	2.0	46.9±	5.4	53.8±	8.0	17.7±	1.6	33.1±	1.2	824±	158
1500 ppm	41	9.28±	1.81*	16.3±	2.6**	49.0±	7.3**	53.9±	6.9	17.8±	1.5	33.2±	1.5	736±	166**
3000 ppm	46	10.69±	1.74**	18.3±	2.6**	54.9±	7.8**	51.7±	2.7**	17.2±	0.9*	33.3±	1.1	668±	128**

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

Test of Dunnett

(HCL070)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	WBC 10 ³ /μl		Differential N-BAND		WBC (%) N-SEG		EOSINO		BASO		MONO		LYMPHO		OTHERS	
Control	37	9.82±	24.41	1±	1	52±	12	2±	1	0±	0	5±	2	36±	10	4±	16
750 ppm	40	7.87±	6.53	1±	1	52±	12	2±	1	0±	0	5±	2	36±	10	5±	17
1500 ppm	41	7.56±	8.59	1±	2	47±	12	2±	1	0±	0	5±	2	39±	10	6±	20*
3000 ppm	46	7.36±	5.27	1±	1	49±	11	2±	1	0±	0	5±	2	40±	9	3±	13**

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS3

APPENDIX F 2

HEMATOLOGY : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE, TIME : 1
 SEX : FEMALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

PAGE : 3

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ⁹ /μl	
Control	35	7.98±	1.47	14.5±	2.7	43.4±	7.2	55.7±	9.3	18.3±	2.1	33.1±	1.7	666±	176
750 ppm	41	7.93±	1.40	14.5±	2.5	43.4±	6.2	56.2±	10.0	18.5±	2.5	33.2±	2.0	683±	139
1500 ppm	40	7.88±	1.24	14.6±	1.8	43.5±	4.7	56.0±	6.2	18.7±	1.6	33.5±	1.7	686±	134
3000 ppm	38	7.83±	1.26	14.4±	2.1	43.3±	6.2	55.6±	4.2	18.5±	1.3	33.3±	1.1	670±	155

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : FEMALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	WBC 10 ³ /μl		Differential N-BAND		WBC (%) N-SEG		EOSINO		BASO		MONO		LYMPHO		OTHERS	
Control	35	5.47±	10.55	1±	1	48±	15	1±	1	0±	0	4±	2	41±	13	5±	15
750 ppm	41	5.84±	12.77	1±	1	52±	13	1±	1	0±	0	4±	2	36±	12	4±	14
1500 ppm	40	4.20±	5.83	1±	2	52±	11	2±	2	0±	0	5±	2	36±	11	4±	12
3000 ppm	38	4.75±	9.80	1±	1	52±	13	1±	1	0±	0	5±	2	37±	11	4±	15

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

Test of Dunnett

(HCL070)

BAIS3

APPENDIX G 1

BIOCHEMISTRY : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		TRIGLYCERIDE mg/dl	
Control	37	6.6±	0.3	3.4±	0.2	1.0±	0.1	0.20±	0.05	152±	23	203±	53	178±	120
750 ppm	40	6.4±	0.3	3.4±	0.2	1.1±	0.2	0.22±	0.12	148±	22	172±	52	136±	82
1500 ppm	41	6.3±	0.3**	3.5±	0.2	1.2±	0.1**	0.26±	0.27	153±	18	131±	33**	94±	48**
3000 ppm	46	6.0±	0.3**	3.5±	0.2	1.4±	0.2**	0.20±	0.05	147±	19	80±	23**	48±	22**

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

Test of Dunnett

(HCL074)

BAIS 3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		GOT IU/l		GPT IU/l		LDH IU/l		ALP IU/l		G-GTP IU/l		CPK IU/l	
Control	37	277±	75	70±	49	33±	10	224±	290	159±	60	7±	3	91±	27
750 ppm	40	236±	73	80±	49	32±	12	207±	129	144±	46	8±	5	83±	19
1500 ppm	41	187±	44**	83±	44*	31±	12	209±	124	148±	52	8±	4	85±	21
3000 ppm	46	125±	27**	93±	27**	30±	8	204±	87	142±	46	6±	5*	98±	32

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

Test of Dunnett

(HCL074)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 3

Group Name	No. of Animals	UREA NITROGEN mg/dl		CREATININE mg/dl		SODIUM mEq/l		POTASSIUM mEq/l		CHLORIDE mEq/l		CALCIUM mg/dl		INORGANIC PHOSPHORUS mg/dl	
Control	37	22.4±	6.9	0.7±	0.2	141±	1	3.6±	0.4	105±	2	10.7±	0.4	4.0±	0.7
750 ppm	40	21.6±	5.7	0.7±	0.2	141±	1	3.6±	0.3	105±	1	10.6±	0.3	4.1±	0.7
1500 ppm	41	20.0±	2.5	0.6±	0.1**	141±	1	3.7±	0.3	105±	1	10.4±	0.3**	4.0±	0.6
3000 ppm	46	21.8±	2.8	0.6±	0.1**	141±	1	3.7±	0.3	105±	1	10.0±	0.3**	3.9±	0.7

Significant difference : * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS3

APPENDIX G 2

BIOCHEMISTRY : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : MALE

URINALYSIS

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	pH							CHI	Protein					CHI	Glucose					CHI	Ketone body					CHI	Bilirubin					CHI		
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		-	±	+	2+	3+		4+	-	±	+	2+		3+	4+	-	±	+		2+	3+	4+	-	+		2+	3+
Control	38	0	1	4	8	16	8	1		0	0	0	0	7	31		38	0	0	0	0	0		37	1	0	0	0	0		38	0	0	0	
750 ppm	41	0	1	2	5	18	14	1		0	0	0	0	14	27		41	0	0	0	0	0		39	2	0	0	0	0		40	1	0	0	
1500 ppm	41	0	0	2	11	12	14	2		0	0	0	0	14	27		41	0	0	0	0	0		39	2	0	0	0	0		40	1	0	0	
3000 ppm	46	0	0	4	9	13	19	1		0	0	0	0	32	14	**	46	0	0	0	0	0		39	7	0	0	0	0		46	0	0	0	

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

Test of CHI SQUARE

(HCL101)

BAIS3

STUDY NO. : 0267

ANIMAL : RAT F344/DuCrj

MEASURE. TIME : 1

SEX : MALE

URINALYSIS

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	Occult blood					Urobilinogen						
		-	±	+	2+	3+	CHI	±	+	2+	3+	4+	CHI
Control	38	37	1	0	0	0		38	0	0	0	0	
750 ppm	41	39	2	0	0	0		40	1	0	0	0	
1500 ppm	41	36	3	2	0	0		41	0	0	0	0	
3000 ppm	46	29	4	2	0	11	**	46	0	0	0	0	

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

Test of CHI SQUARE

(HCL101)

BAIS3

APPENDIX H 1

URINALYSIS : SUMMARY, RAT : MALE
(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		TRIGLYCERIDE mg/dl	
Control	35	6.8±	0.6	3.8±	0.4	1.3±	0.2	0.53±	2.08	150±	18	158±	51	140±	107
750 ppm	41	6.6±	0.4	3.8±	0.4	1.4±	0.2	0.19±	0.08	145±	20	133±	49	104±	143
1500 ppm	40	6.4±	0.5*	3.9±	0.4	1.6±	0.2**	0.20±	0.13	143±	16	113±	32**	56±	49**
3000 ppm	38	6.1±	0.5**	3.9±	0.3	1.8±	0.2**	0.17±	0.02	141±	15	84±	18**	48±	43**

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

Test of Dunnett

(HCL074)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 5

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		GOT IU/l		GPT IU/l		LDH IU/l		ALP IU/l		G-GTP IU/l		CPK IU/l	
Control	35	265±	80	152±	218	59±	44	251±	120	130±	137	4±	2	91±	34
750 ppm	41	225±	71	131±	76	54±	35	324±	499	122±	109*	5±	3	92±	41
1500 ppm	40	199±	52**	161±	267	39±	41	269±	213	106±	98**	4±	2	88±	30
3000 ppm	38	156±	36**	134±	237	28±	33**	290±	313	82±	42**	3±	1*	120±	60**

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

Test of Dunnett

(HCL074)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 6

Group Name	NO. of Animals	UREA NITROGEN mg/dl		CREATININE mg/dl		SODIUM mEq/l		POTASSIUM mEq/l		CHLORIDE mEq/l		CALCIUM mg/dl		INORGANIC PHOSPHORUS mg/dl	
Control	35	16.3±	4.7	0.5±	0.1	140±	2	3.6±	0.3	104±	4	10.6±	0.5	3.7±	1.1
750 ppm	41	16.9±	5.7	0.5±	0.1	140±	1	3.6±	0.4	105±	2	10.4±	0.3	3.6±	0.9
1500 ppm	40	17.9±	4.8	0.5±	0.1	140±	2	3.7±	0.3	105±	2	10.4±	0.4	3.7±	1.0
3000 ppm	38	22.9±	7.2**	0.6±	0.1	140±	3	3.7±	0.5	104±	3	10.1±	0.5**	3.7±	0.8

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

Test of Dunnett

(HCL074)

BAIS3

APPENDIX H 2

URINALYSIS : SUMMARY, RAT : FEMALE
(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : FEMALE

URINALYSIS

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	pH							CHI	Protein						CHI	Glucose						CHI	Ketone body						CHI	Bilirubin				CHI
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		-	±	+	2+	3+	4+		-	±	+	2+	3+	4+		-	±	+	2+	3+	4+		-	+	2+	3+	
Control	38	0	2	5	9	13	8	1		0	0	2	8	15	13		38	0	0	0	0	0		35	3	0	0	0	0		37	0	0	1	
750 ppm	41	0	3	2	6	13	16	1		0	0	0	4	16	21		41	0	0	0	0	0		39	1	1	0	0	0		41	0	0	0	
1500 ppm	42	0	5	4	9	8	16	0		0	0	0	3	20	19		42	0	0	0	0	0		40	2	0	0	0	0		41	0	1	0	
3000 ppm	39	0	2	6	11	14	6	0		0	0	2	2	12	23		39	0	0	0	0	0		36	3	0	0	0	0		39	0	0	0	

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

Test of CHI SQUARE

(HCL101)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
MEASURE. TIME : 1
SEX : FEMALE

URINALYSIS

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	Occult blood					CHI	Urobilinogen					CHI
		-	±	+	2+	3+		±	+	2+	3+	4+	
Control	38	36	2	0	0	0		37	0	1	0	0	
750 ppm	41	30	5	6	0	0	*	41	0	0	0	0	
1500 ppm	42	9	1	2	4	26	**	42	0	0	0	0	
3000 ppm	39	1	0	1	2	35	**	39	0	0	0	0	

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

Test of CHI SQUARE

(HCL101)

BAIS 3

APPENDIX I 1

GROSS FINDINGS : SUMMARY, RAT : MALE : ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control	750 ppm	1500 ppm	3000 ppm
			50 (%)	50 (%)	50 (%)	50 (%)
skin/app	nodule		0 (0)	3 (6)	2 (4)	1 (2)
subcutis	jaundice		0 (0)	0 (0)	1 (2)	0 (0)
	mass		6 (12)	10 (20)	7 (14)	5 (10)
lung	red zone		1 (2)	0 (0)	1 (2)	1 (2)
	brown zone		0 (0)	0 (0)	1 (2)	0 (0)
	black zone		1 (2)	0 (0)	0 (0)	0 (0)
	nodule		2 (4)	2 (4)	0 (0)	0 (0)
lymph node	enlarged		1 (2)	0 (0)	0 (0)	0 (0)
spleen	enlarged		5 (10)	1 (2)	4 (8)	2 (4)
tongue	nodule		0 (0)	0 (0)	1 (2)	0 (0)
forestomach	rupture		1 (2)	0 (0)	0 (0)	0 (0)
	ulcer		0 (0)	1 (2)	0 (0)	0 (0)
stomach	nodule		0 (0)	0 (0)	0 (0)	1 (2)
	rupture		0 (0)	1 (2)	0 (0)	0 (0)
cecum	nodule		0 (0)	0 (0)	1 (2)	0 (0)
	cyst		0 (0)	0 (0)	0 (0)	1 (2)
	deformed		0 (0)	0 (0)	1 (2)	0 (0)
large intes	hemorrhage		0 (0)	0 (0)	0 (0)	1 (2)
	nodule		0 (0)	0 (0)	0 (0)	1 (2)
liver	nodule		1 (2)	0 (0)	0 (0)	1 (2)
	rough		1 (2)	2 (4)	1 (2)	1 (2)
	granular		0 (0)	0 (0)	1 (2)	0 (0)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control (%)				750 ppm (%)				1500 ppm (%)				3000 ppm (%)			
			50				50				50				50			
liver	herniation		2	(	4)		1	(	2)		2	(	4)		0	(	0)	
kidney	granular		31	(	62)		21	(	42)		6	(	12)		3	(	6)	
urin bladd	nodule		1	(	2)		0	(	0)		0	(	0)		0	(	0)	
pituitary	enlarged		5	(	10)		7	(	14)		4	(	8)		1	(	2)	
	red zone		1	(	2)		1	(	2)		0	(	0)		3	(	6)	
	nodule		5	(	10)		8	(	16)		5	(	10)		2	(	4)	
thyroid	enlarged		1	(	2)		1	(	2)		1	(	2)		2	(	4)	
	red zone		1	(	2)		0	(	0)		0	(	0)		0	(	0)	
adrenal	enlarged		2	(	4)		2	(	4)		0	(	0)		2	(	4)	
	cyst		0	(	0)		0	(	0)		0	(	0)		1	(	2)	
testis	atrophic		4	(	8)		2	(	4)		2	(	4)		2	(	4)	
	nodule		39	(	78)		36	(	72)		47	(	94)		45	(	90)	
prep/cli gl	nodule		3	(	6)		0	(	0)		0	(	0)		1	(	2)	
spinal cord	red zone		1	(	2)		0	(	0)		0	(	0)		0	(	0)	
eye	white		3	(	6)		4	(	8)		4	(	8)		3	(	6)	
Zymbal gl	nodule		0	(	0)		1	(	2)		2	(	4)		0	(	0)	
pleura	nodule		0	(	0)		0	(	0)		0	(	0)		1	(	2)	
peritoneum	nodule		1	(	2)		1	(	2)		2	(	4)		1	(	2)	
abdominal c	ascites		2	(	4)		0	(	0)		1	(	2)		2	(	4)	
thoracic ca	hemorrhage		1	(	2)		0	(	0)		0	(	0)		0	(	0)	
other	tail:nodule		1	(	2)		2	(	4)		0	(	0)		0	(	0)	
	ear:nodule		0	(	0)		1	(	2)		0	(	0)		0	(	0)	

APPENDIX I 2

GROSS FINDINGS : SUMMARY, RAT : MALE

DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control	750 ppm	1500 ppm	3000 ppm
			11 (%)	9 (%)	9 (%)	4 (%)
skin/app	nodule		0 (0)	1 (11)	1 (11)	0 (0)
subcutis	jaundice		0 (0)	0 (0)	1 (11)	0 (0)
	mass		2 (18)	2 (22)	3 (33)	0 (0)
lung	red zone		1 (9)	0 (0)	0 (0)	0 (0)
	nodule		2 (18)	0 (0)	0 (0)	0 (0)
lymph node	enlarged		1 (9)	0 (0)	0 (0)	0 (0)
spleen	enlarged		3 (27)	0 (0)	1 (11)	0 (0)
forestomach	rupture		1 (9)	0 (0)	0 (0)	0 (0)
	ulcer		0 (0)	1 (11)	0 (0)	0 (0)
stomach	rupture		0 (0)	1 (11)	0 (0)	0 (0)
large intes	hemorrhage		0 (0)	0 (0)	0 (0)	1 (25)
liver	nodule		1 (9)	0 (0)	0 (0)	0 (0)
	rough		1 (9)	0 (0)	1 (11)	0 (0)
kidney	granular		3 (27)	3 (33)	0 (0)	0 (0)
urin bladd	nodule		1 (9)	0 (0)	0 (0)	0 (0)
pituitary	enlarged		2 (18)	7 (78)	2 (22)	1 (25)
	nodule		2 (18)	0 (0)	0 (0)	0 (0)
thyroid	red zone		1 (9)	0 (0)	0 (0)	0 (0)
adrenal	enlarged		1 (9)	1 (11)	0 (0)	1 (25)
testis	atrophic		0 (0)	0 (0)	0 (0)	1 (25)
	nodule		4 (36)	3 (33)	7 (78)	1 (25)
prep/cli gl	nodule		1 (9)	0 (0)	0 (0)	0 (0)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name	Control	750 ppm	1500 ppm	3000 ppm
		NO. of Animals	11 (%)	9 (%)	9 (%)	4 (%)
spinal cord	red zone		1 (9)	0 (0)	0 (0)	0 (0)
eye	white		0 (0)	1 (11)	2 (22)	0 (0)
Zymbal gl	nodule		0 (0)	0 (0)	2 (22)	0 (0)
pleura	nodule		0 (0)	0 (0)	0 (0)	1 (25)
peritoneum	nodule		0 (0)	1 (11)	1 (11)	0 (0)
abdominal c	ascites		1 (9)	0 (0)	0 (0)	0 (0)
thoracic ca	hemorrhage		1 (9)	0 (0)	0 (0)	0 (0)
other	tail:nodule		1 (9)	1 (11)	0 (0)	0 (0)

(HPT080)

BAIS3

APPENDIX I 3

GROSS FINDINGS : SUMMARY, RAT : MALE : SACRIFICED ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

GROSS FINDINGS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control		750 ppm		1500 ppm		3000 ppm	
			39	(%)	41	(%)	41	(%)	46	(%)
skin/app	nodule		0	(0)	2	(5)	1	(2)	1	(2)
subcutis	mass		4	(10)	8	(20)	4	(10)	5	(11)
lung	red zone		0	(0)	0	(0)	1	(2)	1	(2)
	brown zone		0	(0)	0	(0)	1	(2)	0	(0)
	black zone		1	(3)	0	(0)	0	(0)	0	(0)
	nodule		0	(0)	2	(5)	0	(0)	0	(0)
spleen	enlarged		2	(5)	1	(2)	3	(7)	2	(4)
tongue	nodule		0	(0)	0	(0)	1	(2)	0	(0)
stomach	nodule		0	(0)	0	(0)	0	(0)	1	(2)
cecum	nodule		0	(0)	0	(0)	1	(2)	0	(0)
	cyst		0	(0)	0	(0)	0	(0)	1	(2)
	deformed		0	(0)	0	(0)	1	(2)	0	(0)
large intes	nodule		0	(0)	0	(0)	0	(0)	1	(2)
liver	nodule		0	(0)	0	(0)	0	(0)	1	(2)
	rough		0	(0)	2	(5)	0	(0)	1	(2)
	granular		0	(0)	0	(0)	1	(2)	0	(0)
	herniation		2	(5)	1	(2)	2	(5)	0	(0)
kidney	granular		28	(72)	18	(44)	6	(15)	3	(7)
pituitary	enlarged		3	(8)	0	(0)	2	(5)	0	(0)
	red zone		1	(3)	1	(2)	0	(0)	3	(7)
	nodule		3	(8)	8	(20)	5	(12)	2	(4)
thyroid	enlarged		1	(3)	1	(2)	1	(2)	2	(4)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrJ
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control	750 ppm	1500 ppm	3000 ppm
			39 (%)	41 (%)	41 (%)	46 (%)
adrenal	enlarged		1 (3)	1 (2)	0 (0)	1 (2)
	cyst		0 (0)	0 (0)	0 (0)	1 (2)
testis	atrophic		4 (10)	2 (5)	2 (5)	1 (2)
	nodule		35 (90)	33 (80)	40 (98)	44 (96)
prep/cli gl	nodule		2 (5)	0 (0)	0 (0)	1 (2)
eye	white		3 (8)	3 (7)	2 (5)	3 (7)
Zymbal gl	nodule		0 (0)	1 (2)	0 (0)	0 (0)
peritoneum	nodule		1 (3)	0 (0)	1 (2)	1 (2)
abdominal c	ascites		1 (3)	0 (0)	1 (2)	2 (4)
other	tail:nodule		0 (0)	1 (2)	0 (0)	0 (0)
	ear:nodule		0 (0)	1 (2)	0 (0)	0 (0)

(HPT080)

BAIS3

APPENDIX I 4

GROSS FINDINGS : SUMMARY, RAT : FEMALE : ALL ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control	750 ppm	1500 ppm	3000 ppm
			50 (%)	50 (%)	50 (%)	50 (%)
skin/app	nodule		0 (0)	1 (2)	1 (2)	0 (0)
	scab		0 (0)	2 (4)	7 (14)	1 (2)
subcutis	jaundice		1 (2)	0 (0)	0 (0)	0 (0)
	mass		13 (26)	12 (24)	4 (8)	7 (14)
lung	red		0 (0)	1 (2)	0 (0)	0 (0)
	white zone		0 (0)	1 (2)	2 (4)	4 (8)
lymph node	enlarged		0 (0)	0 (0)	1 (2)	1 (2)
thymus	enlarged		0 (0)	0 (0)	0 (0)	1 (2)
spleen	enlarged		5 (10)	4 (8)	4 (8)	2 (4)
	atrophic		0 (0)	0 (0)	0 (0)	1 (2)
	black zone		0 (0)	0 (0)	1 (2)	0 (0)
	nodule		1 (2)	1 (2)	0 (0)	0 (0)
heart	white zone		0 (0)	0 (0)	0 (0)	2 (4)
	red zone		0 (0)	1 (2)	0 (0)	0 (0)
forestomach	ulcer		0 (0)	1 (2)	0 (0)	0 (0)
gl stomach	ulcer		1 (2)	1 (2)	0 (0)	0 (0)
stomach	ulcer		0 (0)	2 (4)	0 (0)	0 (0)
small intes	nodule		0 (0)	1 (2)	0 (0)	1 (2)
liver	pale		0 (0)	1 (2)	0 (0)	0 (0)
	white zone		0 (0)	0 (0)	1 (2)	0 (0)
	nodule		1 (2)	1 (2)	1 (2)	1 (2)
	rough		2 (4)	1 (2)	1 (2)	0 (0)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control	750 ppm	1500 ppm	3000 ppm
			50 (%)	50 (%)	50 (%)	50 (%)
liver	herniation		5 (10)	2 (4)	2 (4)	1 (2)
kidney	granular		4 (8)	0 (0)	2 (4)	0 (0)
	nodular		0 (0)	0 (0)	1 (2)	0 (0)
urin bladd	congestion		0 (0)	0 (0)	0 (0)	1 (2)
	nodule		0 (0)	1 (2)	0 (0)	0 (0)
pituitary	enlarged		6 (12)	7 (14)	7 (14)	4 (8)
	red zone		2 (4)	6 (12)	1 (2)	5 (10)
	nodule		3 (6)	5 (10)	7 (14)	1 (2)
thyroid	enlarged		1 (2)	3 (6)	1 (2)	0 (0)
adrenal	enlarged		1 (2)	0 (0)	0 (0)	0 (0)
	granular		0 (0)	1 (2)	0 (0)	0 (0)
ovary	enlarged		0 (0)	0 (0)	1 (2)	0 (0)
	cyst		0 (0)	3 (6)	2 (4)	1 (2)
uterus	nodule		3 (6)	8 (16)	6 (12)	7 (14)
	cyst		0 (0)	1 (2)	1 (2)	2 (4)
vagina	nodule		0 (0)	2 (4)	0 (0)	1 (2)
prep/cli gl	nodule		3 (6)	5 (10)	3 (6)	3 (6)
spinal cord	red zone		1 (2)	0 (0)	0 (0)	0 (0)
eye	white		2 (4)	3 (6)	4 (8)	1 (2)
Zymbal gl	nodule		1 (2)	1 (2)	1 (2)	0 (0)
retroperit	nodule		0 (0)	1 (2)	0 (0)	0 (0)
abdominal c	ascites		1 (2)	1 (2)	0 (0)	0 (0)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control		750 ppm		1500 ppm		3000 ppm	
			50	(%)	50	(%)	50	(%)	50	(%)
thoracic ca	pleural fluid		0	(0)	1	(2)	0	(0)	0	(0)
other	forelimb:nodule		0	(0)	0	(0)	1	(2)	0	(0)

(HPT080)

BAIS3

APPENDIX I 5

GROSS FINDINGS : SUMMARY, RAT : FEMALE

DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control 12 (%)	750 ppm 9 (%)	1500 ppm 8 (%)	3000 ppm 11 (%)
skin/app	scab		0 (0)	0 (0)	0 (0)	1 (9)
subcutis	mass		5 (42)	2 (22)	1 (13)	2 (18)
lung	red		0 (0)	1 (11)	0 (0)	0 (0)
	white zone		0 (0)	1 (11)	0 (0)	3 (27)
lymph node	enlarged		0 (0)	0 (0)	1 (13)	1 (9)
thymus	enlarged		0 (0)	0 (0)	0 (0)	1 (9)
spleen	enlarged		3 (25)	2 (22)	2 (25)	1 (9)
	atrophic		0 (0)	0 (0)	0 (0)	1 (9)
	black zone		0 (0)	0 (0)	1 (13)	0 (0)
	nodule		1 (8)	1 (11)	0 (0)	0 (0)
heart	white zone		0 (0)	0 (0)	0 (0)	2 (18)
	red zone		0 (0)	1 (11)	0 (0)	0 (0)
forestomach	ulcer		0 (0)	1 (11)	0 (0)	0 (0)
gl stomach	ulcer		1 (8)	1 (11)	0 (0)	0 (0)
stomach	ulcer		0 (0)	1 (11)	0 (0)	0 (0)
liver	pale		0 (0)	1 (11)	0 (0)	0 (0)
	white zone		0 (0)	0 (0)	1 (13)	0 (0)
	nodule		0 (0)	0 (0)	0 (0)	1 (9)
	rough		2 (17)	1 (11)	0 (0)	0 (0)
	herniation		1 (8)	1 (11)	1 (13)	0 (0)
kidney	granular		1 (8)	0 (0)	0 (0)	0 (0)
	nodular		0 (0)	0 (0)	1 (13)	0 (0)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control 12 (%)	750 ppm 9 (%)	1500 ppm 8 (%)	3000 ppm 11 (%)
urin bladd	congestion		0 (0)	0 (0)	0 (0)	1 (9)
	nodule		0 (0)	1 (11)	0 (0)	0 (0)
pituitary	enlarged		3 (25)	4 (44)	4 (50)	2 (18)
	red zone		0 (0)	0 (0)	0 (0)	1 (9)
	nodule		0 (0)	0 (0)	1 (13)	0 (0)
adrenal	granular		0 (0)	1 (11)	0 (0)	0 (0)
ovary	enlarged		0 (0)	0 (0)	1 (13)	0 (0)
	cyst		0 (0)	1 (11)	0 (0)	0 (0)
uterus	nodule		2 (17)	2 (22)	2 (25)	0 (0)
vagina	nodule		0 (0)	2 (22)	0 (0)	0 (0)
prep/cli gl	nodule		0 (0)	1 (11)	0 (0)	2 (18)
spinal cord	red zone		1 (8)	0 (0)	0 (0)	0 (0)
eye	white		1 (8)	0 (0)	1 (13)	0 (0)
Zymbal gl	nodule		0 (0)	1 (11)	1 (13)	0 (0)
abdominal c	ascites		0 (0)	1 (11)	0 (0)	0 (0)
thoracic ca	pleural fluid		0 (0)	1 (11)	0 (0)	0 (0)

(HPT080)

BAIS3

APPENDIX I 6

GROSS FINDINGS : SUMMARY, RAT : FEMALE : SACRIFICED ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE
 UNIT: g

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

PAGE : 1

Group Name	NO. of Animals	Body Weight	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS
Control	39	425± 42	0.182± 0.638	4.120± 1.494	1.235± 0.122	1.464± 0.216	2.826± 0.298
750 ppm	41	431± 38	0.079± 0.029	4.305± 1.460	1.203± 0.123	1.560± 0.714	2.803± 0.257
1500 ppm	41	403± 22	0.070± 0.009**	4.481± 1.100	1.112± 0.095**	1.461± 0.313	2.629± 0.201**
3000 ppm	46	336± 31**	0.085± 0.088**	4.685± 0.882	0.993± 0.080**	1.286± 0.149**	2.444± 0.221**

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

Test of Dunnett

(HCL040)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE
UNIT: g

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

PAGE : 2

Group Name	NO. of Animals	SPLEEN		LIVER		BRAIN	
Control	39	1.303±	0.976	12.310±	1.658	2.057±	0.040
750 ppm	41	1.662±	2.467	12.182±	1.894	2.052±	0.036
1500 ppm	41	1.893±	3.189	11.181±	2.362**	2.040±	0.047
3000 ppm	46	1.020±	1.037**	8.808±	1.202**	2.003±	0.053**

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

Test of Dunnett

(HCL040)

BAIS3

APPENDIX J 1

ORGAN WEIGHT, ABSOLUTE : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control	750 ppm	1500 ppm	3000 ppm
			38 (%)	41 (%)	42 (%)	39 (%)
skin/app	nodule		0 (0)	1 (2)	1 (2)	0 (0)
	scab		0 (0)	2 (5)	7 (17)	0 (0)
subcutis	jaundice		1 (3)	0 (0)	0 (0)	0 (0)
	mass		8 (21)	10 (24)	3 (7)	5 (13)
lung	white zone		0 (0)	0 (0)	2 (5)	1 (3)
spleen	enlarged		2 (5)	2 (5)	2 (5)	1 (3)
stomach	ulcer		0 (0)	1 (2)	0 (0)	0 (0)
small intes	nodule		0 (0)	1 (2)	0 (0)	1 (3)
liver	nodule		1 (3)	1 (2)	1 (2)	0 (0)
	rough		0 (0)	0 (0)	1 (2)	0 (0)
	herniation		4 (11)	1 (2)	1 (2)	1 (3)
kidney	granular		3 (8)	0 (0)	2 (5)	0 (0)
pituitary	enlarged		3 (8)	3 (7)	3 (7)	2 (5)
	red zone		2 (5)	6 (15)	1 (2)	4 (10)
	nodule		3 (8)	5 (12)	6 (14)	1 (3)
thyroid	enlarged		1 (3)	3 (7)	1 (2)	0 (0)
adrenal	enlarged		1 (3)	0 (0)	0 (0)	0 (0)
ovary	cyst		0 (0)	2 (5)	2 (5)	1 (3)
uterus	nodule		1 (3)	6 (15)	4 (10)	7 (18)
	cyst		0 (0)	1 (2)	1 (2)	2 (5)
vagina	nodule		0 (0)	0 (0)	0 (0)	1 (3)
prep/cli gl	nodule		3 (8)	4 (10)	3 (7)	1 (3)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control	750 ppm	1500 ppm	3000 ppm
			38 (%)	41 (%)	42 (%)	39 (%)
eye	white		1 (3)	3 (7)	3 (7)	1 (3)
Zymal gl	nodule		1 (3)	0 (0)	0 (0)	0 (0)
retroperit	nodule		0 (0)	1 (2)	0 (0)	0 (0)
abdominal c	ascites		1 (3)	0 (0)	0 (0)	0 (0)
other	forelimb:nodule		0 (0)	0 (0)	1 (2)	0 (0)

(HPT080)

BAIS3

APPENDIX J 2

ORGAN WEIGHT, ABSOLUTE : SUMMARY, RAT : FEMALE
(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: g

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

PAGE : 3

Group Name	NO. of Animals	Body Weight	ADRENALS	OVARIES	HEART	LUNGS	KIDNEYS
Control	38	303± 36	0.077± 0.022	0.128± 0.035	0.931± 0.069	1.106± 0.308	1.921± 0.212
750 ppm	41	277± 38**	0.074± 0.019	0.174± 0.330	0.901± 0.082	1.044± 0.127	1.883± 0.132
1500 ppm	42	250± 41**	0.067± 0.011**	0.138± 0.069	0.834± 0.087**	1.020± 0.187*	1.820± 0.204*
3000 ppm	39	203± 31**	0.066± 0.008**	0.121± 0.033	0.739± 0.072**	0.935± 0.092**	1.701± 0.119**

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

Test of Dunnett

(HCL040)

BAIS 3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

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

PAGE : 4

Group Name	NO. of Animals	SPLEEN		LIVER		BRAIN	
Control	38	1.712±	5.644	7.939±	2.702	1.869±	0.049
750 ppm	41	0.769±	0.785	7.141±	0.940	1.857±	0.065
1500 ppm	42	0.723±	0.832	6.539±	1.503**	1.845±	0.049
3000 ppm	39	0.579±	0.986**	5.537±	0.724**	1.808±	0.055**

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

Test of Dunnett

(HCL040)

BAIS3

APPENDIX K 1

ORGAN WEIGHT, RELATIVE : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE
 UNIT: %

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

PAGE : 1

Group Name	NO. of Animals	Body Weight (g)	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS
Control	39	425± 42	0.043± 0.148	0.967± 0.336	0.293± 0.037	0.349± 0.077	0.672± 0.101
750 ppm	41	431± 38	0.018± 0.007	1.006± 0.351	0.281± 0.042	0.368± 0.200	0.654± 0.079
1500 ppm	41	403± 22	0.017± 0.002	1.113± 0.270	0.277± 0.025	0.362± 0.074	0.654± 0.056
3000 ppm	46	336± 31**	0.025± 0.022	1.406± 0.289**	0.297± 0.022	0.384± 0.044**	0.731± 0.069**

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

Test of Dunnett

(HCL042)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE
UNIT: %

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

PAGE : 2

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	39	0.317± 0.287	2.917± 0.459	0.489± 0.051
750 ppm	41	0.401± 0.661	2.838± 0.462	0.479± 0.039
1500 ppm	41	0.467± 0.769	2.776± 0.569**	0.507± 0.025
3000 ppm	46	0.302± 0.303	2.622± 0.270**	0.601± 0.053**

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

Test of Dunnett

(HCL042)

BAIS3

APPENDIX K 2

ORGAN WEIGHT, RELATIVE : SUMMARY, RAT : FEMALE
(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE
 UNIT: %

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

PAGE : 3

Group Name	NO. of Animals	Body Weight (g)	ADRENALS	OVARIES	HEART	LUNGS	KIDNEYS
Control	38	303± 36	0.025± 0.007	0.042± 0.010	0.314± 0.063	0.379± 0.173	0.649± 0.151
750 ppm	41	277± 38**	0.028± 0.009	0.066± 0.135	0.331± 0.054	0.386± 0.094	0.693± 0.121
1500 ppm	42	250± 41**	0.028± 0.005	0.056± 0.025**	0.340± 0.052	0.420± 0.118**	0.742± 0.112**
3000 ppm	39	203± 31**	0.033± 0.007**	0.060± 0.015**	0.368± 0.045**	0.469± 0.076**	0.853± 0.128**

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

Test of Dunnett

(HCL042)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

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

PAGE : 4

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	38	0.728± 2.599	2.700± 1.349	0.628± 0.095
750 ppm	41	0.295± 0.360	2.605± 0.393	0.684± 0.116
1500 ppm	42	0.307± 0.390	2.646± 0.569	0.756± 0.110**
3000 ppm	39	0.283± 0.465	2.751± 0.343**	0.908± 0.134**

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

Test of Dunnett

(HCL042)

BAIS3

APPENDIX L 1

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : MALE : ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

		Group Name	Control				750 ppm				1500 ppm				3000 ppm			
		No. of Animals on Study	50				50				50				50			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																		
subcutis			<50>				<50>				<50>				<50>			
	abscess		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	epidermal cyst		0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
			(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Respiratory system]																		
nasal cavit			<50>				<50>				<50>				<50>			
	mineralization		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation		6	1	0	0	4	1	0	0	2	0	0	0	0	0	0	0 *
			(12)	(2)	(0)	(0)	(8)	(2)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammatory polyp		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	goblet cell hyperplasia		3	0	0	0	4	0	0	0	4	0	0	0	1	0	0	0
			(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		44	1	0	0	40	2	0	0	41	1	0	0	43	1	0	0
			(88)	(2)	(0)	(0)	(80)	(4)	(0)	(0)	(82)	(2)	(0)	(0)	(86)	(2)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Organ	Findings	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
nasal cavity		<50>				<50>				<50>				<50>			
	eosinophilic change:respiratory epithelium	11 (22)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 ** (0)	1 (2)	0 (0)	0 (0)	0 ** (0)	8 (16)	0 (0)	0 (0)	0 (0)
	inflammation:foreign body	9 (18)	1 (2)	0 (0)	0 (0)	20 (40)	3 (6)	0 (0)	0 * (0)	13 (26)	0 (0)	0 (0)	0 (0)	10 (20)	1 (2)	0 (0)	0 (0)
	respiratory metaplasia:olfactory epithelium	4 (8)	0 (0)	0 (0)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
	respiratory metaplasia:gland	23 (46)	0 (0)	0 (0)	0 (0)	13 (26)	0 (0)	0 (0)	0 (0)	10 (20)	0 (0)	0 (0)	0 * (0)	25 (50)	0 (0)	0 (0)	0 (0)
	squamous cell metaplasia:respiratory epithelium	4 (8)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	4 (8)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	hyperplasia:respiratory epithelium	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
nasopharynx		<50>				<50>				<50>				<50>			
	mineralization	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
	inflammation	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																					
Lung		<50>				<50>				<50>				<50>				<50>			
	congestion	1 (2)	0 (0)	0 (0)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	hemorrhage	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	edema	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	inflammation	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	osseous metaplasia	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	accumulation of foamy cells	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	bronchiolar-alveolar cell hyperplasia	3 (6)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
[Hematopoietic system]																					
bone marrow		<50>				<50>				<50>				<50>				<50>			
	congestion	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
bone marrow		<50>				<50>				<50>				<50>			
	hemorrhage	6 (12)	0 (0)	0 (0)	0 (0)	6 (12)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	granulation	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	decreased hematopoiesis	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	erythropoiesis:increased	10 (20)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
Lymph node		<50>				<50>				<50>				<50>			
	Lymphadenitis	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)
spleen		<50>				<49>				<50>				<50>			
	atrophy	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	congestion	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 5

		Group Name	Control				750 ppm				1500 ppm				3000 ppm				
		No. of Animals on Study	50				50				50				50				
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
<hr/>																			
[Hematopoietic system]																			
spleen																			
	hemorrhage		<50>				<49>				<50>				<50>				
			0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	
	deposit of hemosiderin		31	2	0	0	45	0	0	0	0 **	40	1	0	0	30	0	0	0
			(62)	(4)	(0)	(0)	(92)	(0)	(0)	(0)	(0)	(80)	(2)	(0)	(0)	(60)	(0)	(0)	(0)
	granulation		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	fibrosis		1	0	0	0	2	0	0	0	0	4	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	extramedullary hematopoiesis		16	3	0	0	9	2	0	0	0	7	1	0	0 *	11	0	0	0
			(32)	(6)	(0)	(0)	(18)	(4)	(0)	(0)	(0)	(14)	(2)	(0)	(0)	(22)	(0)	(0)	(0)
	fatty metamorphosis		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

[Circulatory system]

heart			<50>				<50>				<50>				<50>							
	thrombus		1	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0				
			(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)				

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Circulatory system]																					
heart	mineralization	<50>				<50>				<50>				<50>				<50>			
		0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	myocardial fibrosis	30	2	0	0	32	2	0	0	27	0	0	0	28	1	0	0	28	1	0	0
		(60)	(4)	(0)	(0)	(64)	(4)	(0)	(0)	(54)	(0)	(0)	(0)	(56)	(2)	(0)	(0)	(56)	(2)	(0)	(0)
artery/aort	arteritis	<50>				<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Digestive system]																					
tooth	inflammation	<50>				<50>				<50>				<50>				<50>			
		4	0	0	0	5	0	0	0	6	0	0	0	9	0	0	0	9	0	0	0
		(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(18)	(0)	(0)	(0)
stomach	mineralization	<50>				<50>				<50>				<50>				<50>			
		0	0	1	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(2)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	ulcer:forestomach	0	0	0	1	1	0	0	2	0	1	0	0	0	1	0	0	0	1	0	0
		(0)	(0)	(0)	(2)	(2)	(0)	(0)	(4)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 7

		Group Name	Control				750 ppm				1500 ppm				3000 ppm				
		No. of Animals on Study	50				50				50				50				
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
[Digestive system]																			
stomach			<50>				<50>				<50>				<50>				
	hyperplasia:forestomach		0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	erosion:glandular stomach		2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)
	ulcer:glandular stomach		0 (0)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	hemorrhage: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)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)
large intes			<50>				<50>				<50>				<50>				
	mineralization		3 (6)	1 (2)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	arteritis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
	Lymphangiectasia		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)
Liver			<50>				<50>				<50>				<50>				
	herniation		2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 8

Organ	Findings	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
Liver																	
	hemorrhage	<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	peliosis-like lesion	1	0	0	0	6	0	0	0	6	0	0	0	3	0	0	0
		(2)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	necrosis:central	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	fatty change	4	0	0	0	2	0	2	0	4	0	0	0	1	0	0	0
		(8)	(0)	(0)	(0)	(4)	(0)	(4)	(0)	(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	fatty change:peripheral	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammatory infiltration	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)
	granulation	14	1	0	0	14	2	0	0	9	1	0	0	3	1	0	0 *
		(28)	(2)	(0)	(0)	(28)	(4)	(0)	(0)	(18)	(2)	(0)	(0)	(6)	(2)	(0)	(0)

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

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

b : Number of animals with lesion

(c) c : b / a * 100

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 9

Organ	Findings	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
Liver		<50>				<50>				<50>				<50>			
	clear cell focus	12 (24)	0 (0)	0 (0)	0 (0)	9 (18)	0 (0)	0 (0)	0 (0)	8 (16)	1 (2)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 * (0)
	acidophilic cell focus	9 (18)	0 (0)	0 (0)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 * (0)	3 (6)	0 (0)	0 (0)	0 (0)
	basophilic cell focus	11 (22)	1 (2)	0 (0)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)
	vacuolated cell focus	0 (0)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)
	mixed cell focus	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	spongiosis hepatitis	11 (22)	0 (0)	0 (0)	0 (0)	11 (22)	0 (0)	0 (0)	0 (0)	9 (18)	1 (2)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 * (0)
pancreas	bile duct hyperplasia	43 (86)	6 (12)	0 (0)	0 (0)	39 (78)	10 (20)	0 (0)	0 (0)	44 (88)	5 (10)	0 (0)	0 (0)	45 (90)	2 (4)	0 (0)	0 (0)
	atrophy	<50>				<50>				<50>				<50>			
		5 (10)	0 (0)	0 (0)	0 (0)	11 (22)	2 (4)	0 (0)	0 (0)	13 (26)	0 (0)	0 (0)	0 (0)	10 (20)	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 ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 10

Organ	Findings	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
kidney		<50>				<50>				<50>				<50>			
	basophilic change	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(2)	(0)	(0)
	deposit of hemosiderin	2	1	0	0	5	0	0	0	5	0	0	0	1	0	0	0
		(4)	(2)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	eosinophilic body	11	1	0	0	10	0	0	0	8	0	0	0	8	1	0	0
		(22)	(2)	(0)	(0)	(20)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(16)	(2)	(0)	(0)
	chronic nephropathy	0	14	31	3	1	19	22	8	0	33	17	0 **	5	38	5	0 **
		(0)	(28)	(62)	(6)	(2)	(38)	(44)	(16)	(0)	(66)	(34)	(0)	(10)	(76)	(10)	(0)
	papillary necrosis	0	0	0	0	1	0	0	0	9	0	0	0 **	23	1	0	0 **
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(46)	(2)	(0)	(0)
	mineralization:pelvis	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization:cortex	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
urin bladd		<50>				<50>				<50>				<50>			
	ulcer	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 11

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
urin bladd	mineralization	<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Endocrine system]																	
pituitary	angiectasis	<50>				<50>				<50>				<50>			
		1	0	0	0	0	1	0	0	1	0	1	0	1	1	0	0
		(2)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(2)	(0)	(2)	(0)	(2)	(2)	(0)	(0)
	hemorrhage	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(2)	(0)
	necrosis:focal	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	cyst	1	0	0	0	4	0	0	0	3	0	0	0	3	0	0	0
		(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	deposit of hemosiderin	2	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0
		(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	hyperplasia	6	8	0	0	12	3	0	0	6	5	1	0	8	3	1	0
		(12)	(16)	(0)	(0)	(24)	(6)	(0)	(0)	(12)	(10)	(2)	(0)	(16)	(6)	(2)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 12

Organ	Findings	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																	
pituitary		<50>				<50>				<50>				<50>			
	Rathke pouch	0	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
thyroid		<50>				<50>				<50>				<50>			
	hemorrhage	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	cyst	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	C-cell hyperplasia	4	0	0	0	4	0	0	0	9	1	0	0	3	1	0	0
		(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(18)	(2)	(0)	(0)	(6)	(2)	(0)	(0)
	focal follicular cell hyperplasia	1	0	0	0	3	1	0	0	3	0	0	0	1	1	0	0
		(2)	(0)	(0)	(0)	(6)	(2)	(0)	(0)	(6)	(0)	(0)	(0)	(2)	(2)	(0)	(0)
panc islet		<50>				<50>				<50>				<50>			
	islet cell hyperplasia	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
		(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
adrenal		<50>				<50>				<50>				<50>			
	peliosis-like lesion	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 13

		Group Name No. of Animals on Study Grade	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50				
Organ_____	Findings_____		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	
[Endocrine system]																			
adrenal			<50>				<50>				<50>				<50>				
	necrosis:focal		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	cyst		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
	hyperplasia:cortical cell		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)
	hyperplasia:medulla		7 (14)	2 (4)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)
	focal fatty change:cortex		3 (8)	0 (0)	0 (0)	0 (0)	6 (12)	1 (2)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)
	cortical vacuolation:diffuse		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

[Reproductive system]

testis	atrophy		<50>				<50>				<50>				<50>			
			9 (18)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 * (0)	5 (10)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 14

Organ	Findings	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																	
testis		<50>				<50>				<50>				<50>			
	mineralization	6	0	0	0	1	0	0	0	3	0	0	0	8	0	0	0
		(12)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(16)	(0)	(0)	(0)
	interstitial cell hyperplasia	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
prostate		<50>				<50>				<50>				<50>			
	granulation	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	hyperplasia	8	5	0	0	4	0	0	0 *	8	2	0	0	4	1	0	0
		(16)	(10)	(0)	(0)	(8)	(0)	(0)	(0)	(16)	(4)	(0)	(0)	(8)	(2)	(0)	(0)
mammary gl		<50>				<50>				<50>				<50>			
	galactoceles	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
prep/cli gl		<50>				<50>				<50>				<50>			
	inflammation	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Special sense organs/appandage]																	
eye		<50>				<50>				<50>				<50>			
	cataract	3	0	0	0	4	0	0	0	3	0	0	0	2	1	0	0
		(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(2)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 15

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Special sense organs/appandage]																					
eye	retinal atrophy	<50>				1	3	0	0	2	3	1	0	2	1	1	0	1	2	0	0
		(2)	(6)	(0)	(0)	(4)	(6)	(2)	(0)	(4)	(2)	(2)	(0)	(2)	(4)	(0)	(0)	(2)	(4)	(0)	(0)
	keratitis	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(4)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	degeneration:cornea	7	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	4	0	0	0
		(14)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	vascularization:cornea	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Harder gl	granulation	<50>				0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
nasolacr d	inflammation	<50>				1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Musculoskeletal system]																					
bone	osteosclerosis	<50>				0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

APPENDIX L 2

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : MALE : DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study Grade				Control 11				750 ppm 9				1500 ppm 9				3000 ppm 4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																					
subcutis		<11>				< 9>				< 9>				< 4>							
	abscess	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	epidermal cyst	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Respiratory system]																					
nasal cavit		<11>				< 9>				< 9>				< 4>							
	mineralization	0	0	0	0	1	0	0	0	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)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	goblet cell hyperplasia	0	0	0	0	1	0	0	0	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)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	8	0	0	0	5	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0
		(73)	(0)	(0)	(0)	(56)	(0)	(0)	(0)	(44)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic change:respiratory epithelium	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(18)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0287
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 9				1500 ppm 9				3000 ppm 4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
nasal cavit		<11>				< 9>				< 9>				< 4>			
	inflammation:foreign body	1 (9)	1 (9)	0 (0)	0 (0)	5 (56)	1 (11)	0 (0)	0 (0)	4 (44)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	respiratory metaplasia:olfactory epithelium	1 (9)	0 (0)	0 (0)	0 (0)	2 (22)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	respiratory metaplasia:gland	2 (18)	0 (0)	0 (0)	0 (0)	3 (33)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	squamous cell metaplasia:respiratory epithelium	2 (18)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
lung		<11>				< 9>				< 9>				< 4>			
	congestion	1 (9)	0 (0)	0 (0)	0 (0)	7 (78)	0 (0)	0 (0)	0 (0) **	1 (11)	0 (0)	0 (0)	0 (0)	2 (50)	0 (0)	0 (0)	0 (0)
	edema	1 (9)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
[Hematopoietic system]																	
bone marrow		<11>				< 9>				< 9>				< 4>			
	congestion	0 (0)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (25)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study Grade				Control 11				750 ppm 9				1500 ppm 9				3000 ppm 4			
		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)				
[Hematopoietic system]																					
bone marrow		<11>				< 9>				< 9>				< 4>							
	hemorrhage	3 (27)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	2 (22)	0 (0)	0 (0)	0 (0)	1 (25)	0 (0)	0 (0)	0 (0)				
	granulation	1 (9)	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)				
	decreased hematopoiesis	0 (0)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)				
	erythropoiesis:increased	4 (36)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)				
spleen		<11>				< 8>				< 9>				< 4>							
	atrophy	2 (18)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (22)	0 (0)	0 (0)	0 (0)	1 (25)	0 (0)	0 (0)	0 (0)				
	deposit of hemosiderin	2 (18)	2 (18)	0 (0)	0 (0)	8 (100)	0 (0)	0 (0)	0 (0) **	4 (44)	1 (11)	0 (0)	0 (0)	4 (100)	0 (0)	0 (0)	0 (0) *				
	fibrosis	1 (9)	0 (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)	0 (0)				
	extramedullary hematopoiesis	4 (36)	1 (9)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)				
Grade		1 : Slight				2 : Moderate				3 : Marked				4 : Severe							
< a >		a : Number of animals examined at the site																			
b		b : Number of animals with lesion																			
(c)		c : b / a * 100																			
Significant difference :		* : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square																			

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 4

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 9				1500 ppm 9				3000 ppm 4			
		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)

[Circulatory system]

heart	thrombus	<11>				< 9>				< 9>				< 4>			
		1	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(33)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(9)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	myocardial fibrosis	3	2	0	0	6	0	0	0	5	0	0	0	2	1	0	0
		(27)	(18)	(0)	(0)	(67)	(0)	(0)	(0)	(56)	(0)	(0)	(0)	(50)	(25)	(0)	(0)

[Digestive system]

tooth	inflammation	<11>				< 9>				< 9>				< 4>			
		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
stomach	mineralization	<11>				< 9>				< 9>				< 4>			
		0	0	1	0	1	0	0	0	2	0	0	0	0	0	0	0
		(0)	(0)	(9)	(0)	(11)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	ulcer:forestomach	0	0	0	1	0	0	0	2	0	1	0	0	0	1	0	0
		(0)	(0)	(0)	(9)	(0)	(0)	(0)	(22)	(0)	(11)	(0)	(0)	(0)	(25)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 5

Organ	Findings	Control 11				750 ppm 9				1500 ppm 9				3000 ppm 4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
stomach		<11>				< 9>				< 9>				< 4>			
	hyperplasia:forestomach	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
		(0)	(9)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(11)	(0)	(0)	(0)	(0)	(0)	(0)
	erosion:glandular stomach	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	ulcer:glandular stomach	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0
		(0)	(9)	(0)	(0)	(11)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
large intes		<11>				< 9>				< 9>				< 4>			
	arteritis	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)	(25)	(0)
liver		<11>				< 9>				< 9>				< 4>			
	necrosis:centeral	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(9)	(18)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	fatty change	2	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0
		(18)	(0)	(0)	(0)	(0)	(0)	(22)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulation	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 6

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 9				1500 ppm 9				3000 ppm 4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
Liver	basophilic cell focus	<11>				< 9>				< 9>				< 4>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	spongiosis hepatitis	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
		(9)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	bile duct hyperplasia	9	1	0	0	7	1	0	0	7	1	0	0	3	0	0	0
		(82)	(9)	(0)	(0)	(78)	(11)	(0)	(0)	(78)	(11)	(0)	(0)	(75)	(0)	(0)	(0)
		(82)	(9)	(0)	(0)	(78)	(11)	(0)	(0)	(78)	(11)	(0)	(0)	(75)	(0)	(0)	(0)
pancreas																	
atrophy		<11>				< 9>				< 9>				< 4>			
		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Urinary system]																	
kidney	deposit of hemosiderin	<11>				< 9>				< 9>				< 4>			
		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic body	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		(18)	(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(25)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 7

Organ	Findings	Group Name No. of Animals on Study Grade	Control 11				750 ppm 9				1500 ppm 9				3000 ppm 4			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																		
kidney			<11>				< 9>				< 9>				< 4>			
	chronic nephropathy		0	3	5	1	0	3	5	1	0	8	1	0 *	0	2	0	0
			(0)	(27)	(45)	(9)	(0)	(33)	(56)	(11)	(0)	(89)	(11)	(0)	(0)	(50)	(0)	(0)
	papillary necrosis		0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0 *
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(75)	(0)	(0)	(0)
	mineralization:pelvis		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization:cortex		0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
urin bladd			<11>				< 9>				< 9>				< 4>			
	ulcer		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Endocrine system]																		
pituitary			<11>				< 9>				< 9>				< 4>			
	hemorrhage		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)	(25)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 8

Organ	Findings	Group Name No. of Animals on Study Grade				Control 11				750 ppm 9				1500 ppm 9				3000 ppm 4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																					
pituitary		<11>				< 9>				< 9>				< 4>							
	necrosis:focal	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	cyst	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	25	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(11)	(11)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
thyroid		<11>				< 9>				< 9>				< 4>							
	C-cell hyperplasia	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	focal follicular cell hyperplasia	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
adrenal		<11>				< 9>				< 9>				< 4>							
	necrosis:focal	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:medulla	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 9

Organ	Findings	Group Name No. of Animals on Study Grade	Control 11				750 ppm 9				1500 ppm 9				3000 ppm 4			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																		
adrenal			<11>				< 9>				< 9>				< 4>			
	focal fatty change:cortex		0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
			< 11>				< 9>				< 9>				< 4>			
	cortical vacuolation:diffuse		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Reproductive system]																		
testis			<11>				< 9>				< 9>				< 4>			
	atrophy		4	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
			(36)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(25)	(0)	(0)	(0)
			< 11>				< 9>				< 9>				< 4>			
	mineralization		2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(18)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(25)	(0)	(0)	(0)
prostate			<11>				< 9>				< 9>				< 4>			
	hyperplasia		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
mammary gl			<11>				< 9>				< 9>				< 4>			
	galactocoele		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(18)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 10

Organ	Findings	Control 11				750 ppm 9				1500 ppm 9				3000 ppm 4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Special sense organs/appandage]

eye		<11>				< 9>				< 9>				< 4>			
	cataract	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	retinal atrophy	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	keratitis	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(9)	(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)
	degeneration:cornea	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		(18)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(25)	(0)	(0)	(0)

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

(HPT150)

BAIS3

APPENDIX L 3

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : MALE: SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study Grade				Control 39				750 ppm 41				1500 ppm 41				3000 ppm 46			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																					
subcutis		<39>				<41>				<41>				<46>							
	epidermal cyst	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Respiratory system]																					
nasal cavit		<39>				<41>				<41>				<46>							
	mineralization	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation	6	0	0	0	4	1	0	0	2	0	0	0	0	0	0	0	0	0	0 *	0
		(15)	(0)	(0)	(0)	(10)	(2)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammatory polyp	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	goblet cell hyperplasia	3	0	0	0	3	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	36	1	0	0	35	2	0	0	37	1	0	0	42	1	0	0	0	0	0	0
		(92)	(3)	(0)	(0)	(85)	(5)	(0)	(0)	(90)	(2)	(0)	(0)	(91)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic change:respiratory epithelium	9	0	0	0	1	0	0	0 *	1	0	0	0 *	8	0	0	0	0	0	0	0
		(23)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study Grade				Control 39				750 ppm 41				1500 ppm 41				3000 ppm 46			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																					
nasal cavity		<39>				<41>				<41>				<46>							
	inflammation:foreign body	8	0	0	0	15	2	0	0	9	0	0	0	10	1	0	0				
		(21)	(0)	(0)	(0)	(37)	(5)	(0)	(0)	(22)	(0)	(0)	(0)	(22)	(2)	(0)	(0)				
	respiratory metaplasia:olfactory epithelium	3	0	0	0	5	0	0	0	4	0	0	0	2	0	0	0				
		(8)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(4)	(0)	(0)	(0)				
	respiratory metaplasia:gland	21	0	0	0	10	0	0	0 *	9	0	0	0 **	25	0	0	0				
		(54)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(54)	(0)	(0)	(0)				
	squamous cell metaplasia:respiratory epithelium	2	0	0	0	2	0	0	0	3	1	0	0	1	0	0	0				
		(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(7)	(2)	(0)	(0)	(2)	(0)	(0)	(0)				
	hyperplasia:respiratory epithelium	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0				
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)				
nasopharynx		<39>				<41>				<41>				<46>							
	mineralization	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0				
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)				
	inflammation	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0				
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)				
lung		<39>				<41>				<41>				<46>							
	hemorrhage	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0				
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)				

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 3

Organ_____	Findings_____	Group Name	Control				750 ppm				1500 ppm				3000 ppm			
		No. of Animals on Study	39				41				41				46			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																		
lung			<39>				<41>				<41>				<46>			
	inflammation		1	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0
			(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	osseous metaplasia		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	accumulation of foamy cells		0	0	0	0	1	0	0	0	4	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	bronchiolar-alveolar cell hyperplasia		3	1	0	0	1	0	0	0	4	0	0	0	1	1	0	0
			(8)	(3)	(0)	(0)	(2)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(2)	(2)	(0)	(0)
[Hematopoietic system]																		
bone marrow			<39>				<41>				<41>				<46>			
	congestion		2	0	0	0	1	0	0	0	3	0	0	0	1	0	0	0
			(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	hemorrhage		3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulation		1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name	Control				750 ppm				1500 ppm				3000 ppm			
		No. of Animals on Study	39				41				41				46			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																		
bone marrow			<39>				<41>				<41>				<46>			
	decreased hematopoiesis		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	erythropoiesis:increased		6	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0
			(15)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
Lymph node			<39>				<41>				<41>				<46>			
	Lymphadenitis		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
spleen			<39>				<41>				<41>				<46>			
	congestion		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	hemorrhage		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	deposit of hemosiderin		29	0	0	0	37	0	0	0	36	0	0	0	26	0	0	0
		(74)	(0)	(0)	(0)	(90)	(0)	(0)	(0)	(88)	(0)	(0)	(0)	(57)	(0)	(0)	(0)	
	granulation		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 5

Organ	Findings	Group Name No. of Animals on Study Control 39				750 ppm 41				1500 ppm 41				3000 ppm 46			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
spleen		<39>				<41>				<41>				<46>			
	fibrosis	0	0	0	0	1	0	0	0	4	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	extramedullary hematopoiesis	12	2	0	0	9	1	0	0	7	0	0	0	11	0	0	0
		(31)	(5)	(0)	(0)	(22)	(2)	(0)	(0)	(17)	(0)	(0)	(0)	(24)	(0)	(0)	(0)
	fatty metamorphosis	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Circulatory system]																	
heart		<39>				<41>				<41>				<46>			
	myocardial fibrosis	27	0	0	0	26	2	0	0	22	0	0	0	26	0	0	0
		(69)	(0)	(0)	(0)	(63)	(5)	(0)	(0)	(54)	(0)	(0)	(0)	(57)	(0)	(0)	(0)
artery/aort		<39>				<41>				<41>				<46>			
	arteritis	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Digestive system]																	
tooth		<39>				<41>				<41>				<46>			
	inflammation	3	0	0	0	5	0	0	0	5	0	0	0	9	0	0	0
		(8)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(20)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study Control 39				750 ppm 41				1500 ppm 41				3000 ppm 46			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
stomach		<39>				<41>				<41>				<46>			
	ulcer:forestomach	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	erosion:glandular stomach	1	0	0	0	1	1	0	0	0	0	0	0	2	0	0	0
		(3)	(0)	(0)	(0)	(2)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	hemorrhage:glandular stomach	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
large intes		<39>				<41>				<41>				<46>			
	mineralization	3	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(8)	(3)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	lymphangiectasia	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
liver		<39>				<41>				<41>				<46>			
	herniation	2	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
		(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hemorrhage	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 7

Organ	Findings	Group Name No. of Animals on Study Grade				Control 39				750 ppm 41				1500 ppm 41				3000 ppm 46			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																					
liver		<39>				<41>				<41>				<46>							
	peliosis-like lesion	1 (3)	0 (0)	0 (0)	0 (0)	6 (15)	0 (0)	0 (0)	0 (0)	6 (15)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)				
	necrosis:focal	1 (3)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)				
	fatty change	2 (5)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)				
	fatty change:peripheral	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)				
	inflammatory infiltration	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)				
	granulation	14 (36)	1 (3)	0 (0)	0 (0)	14 (34)	1 (2)	0 (0)	0 (0)	8 (20)	1 (2)	0 (0)	0 (0)	3 (7)	1 (2)	0 (0)	0 (0)	0 **			
	clear cell focus	12 (31)	0 (0)	0 (0)	0 (0)	8 (22)	0 (0)	0 (0)	0 (0)	8 (20)	1 (2)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	0 **			
	acidophilic cell focus	9 (23)	0 (0)	0 (0)	0 (0)	7 (17)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)				

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 8

Organ	Findings	Group Name No. of Animals on Study Grade				Control 39				750 ppm 41				1500 ppm 41				3000 ppm 46			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																					
Liver																					
	basophilic cell focus	10 (26)	1 (3)	0 (0)	0 (0)	7 (17)	0 (0)	0 (0)	0 (0)	5 (12)	0 (0)	0 (0)	0 (0)	7 (15)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	vacuolated cell focus	0 (0)	0 (0)	0 (0)	0 (0)	4 (10)	0 (0)	0 (0)	0 (0)	4 (10)	0 (0)	0 (0)	0 (0)	4 (9)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	mixed cell focus	1 (3)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	spongiosis hepatitis	10 (26)	0 (0)	0 (0)	0 (0)	10 (24)	0 (0)	0 (0)	0 (0)	8 (20)	1 (2)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 * (0)
	bile duct hyperplasia	34 (87)	5 (13)	0 (0)	0 (0)	32 (78)	9 (22)	0 (0)	0 (0)	37 (90)	4 (10)	0 (0)	0 (0)	42 (91)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
pancreas																					
	atrophy	4 (10)	0 (0)	0 (0)	0 (0)	10 (24)	2 (5)	0 (0)	0 (0)	13 (32)	0 (0)	0 (0)	0 * (0)	10 (22)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
[Urinary system]																					
kidney																					
	basophilic change	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

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

b : Number of animals with lesion

(c) c : b / a * 100

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 9

		Group Name	Control				750 ppm				1500 ppm				3000 ppm			
		No. of Animals on Study	39				41				41				46			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																		
kidney																		
	deposit of hemosiderin		<39>				<41>				<41>				<46>			
			1	1	0	0	5	0	0	0	4	0	0	0	1	0	0	0
			(3)	(3)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	eosinophilic body		9	0	0	0	10	0	0	0	8	0	0	0	8	0	0	0
			(23)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(17)	(0)	(0)	(0)
	chronic nephropathy		0	11	26	2	1	16	17	7	0	25	16	0 **	5	36	5	0 **
			(0)	(28)	(67)	(5)	(2)	(39)	(41)	(17)	(0)	(61)	(39)	(0)	(11)	(78)	(11)	(0)
	papillary necrosis		0	0	0	0	1	0	0	0	8	0	0	0 *	20	1	0	0 **
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(43)	(2)	(0)	(0)
	mineralization:pelvis		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Endocrine system]																		
pituitary																		
	angiectasis		<39>				<41>				<41>				<46>			
			1	0	0	0	0	1	0	0	1	0	1	0	1	1	0	0
			(3)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(2)	(0)	(2)	(0)	(2)	(2)	(0)	(0)
	hemorrhage		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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

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

b : Number of animals with lesion

(c) c : b / a * 100

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

(HPT150)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 10

Organ	Findings	Group Name No. of Animals on Study Grade				Control 39				750 ppm 41				1500 ppm 41				3000 ppm 46			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																					
pituitary																					
	necrosis:focal	<39>				<41>				<41>				<46>							
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	cyst	1	0	0	0	4	0	0	0	3	0	0	0	2	0	0	0	2	0	0	0
		(3)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	deposit of hemosiderin	2	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0
		(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	hyperplasia	6	8	0	0	11	2	0	0	5	5	1	0	8	3	1	0	8	3	1	0
		(15)	(21)	(0)	(0)	(27)	(5)	(0)	(0)	(12)	(12)	(2)	(0)	(17)	(7)	(2)	(0)	(17)	(7)	(2)	(0)
	Rathke pouch	0	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
thyroid																					
	hemorrhage	<39>				<41>				<41>				<46>							
		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	cyst	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	C-cell hyperplasia	3	0	0	0	3	0	0	0	8	1	0	0	3	1	0	0	3	1	0	0
		(8)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(20)	(2)	(0)	(0)	(7)	(2)	(0)	(0)	(7)	(2)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 11

Organ	Findings	Group Name No. of Animals on Study Control Grade				750 ppm 41				1500 ppm 41				3000 ppm 46			
		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Endocrine system]																	
thyroid		<39>				<41>				<41>				<46>			
	focal follicular cell hyperplasia	1 (3)	0 (0)	0 (0)	0 (0)	3 (7)	1 (2)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)
panc islet		<39>				<41>				<41>				<46>			
	islet cell hyperplasia	2 (5)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
adrenal		<39>				<41>				<41>				<46>			
	peliosis-like lesion	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	cyst	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
	hyperplasia:cortical cell	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
	hyperplasia:medulla	6 (15)	2 (5)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
	focal fatty change:cortex	3 (8)	0 (0)	0 (0)	0 (0)	6 (15)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)

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

(HPT150)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 12

Organ	Findings	Group Name	Control				750 ppm				1500 ppm				3000 ppm			
		No. of Animals on Study	39				41				41				46			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																		
testis	atrophy		<39>				<41>				<41>				<46>			
		5	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	0
		(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	mineralization		4	0	0	0	1	0	0	0	2	0	0	0	7	0	0	0
		(10)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	
	interstitial cell hyperplasia		0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
prostate	granulation		<39>				<41>				<41>				<46>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	
	hyperplasia		8	5	0	0	3	0	0	0 **	8	2	0	0	4	1	0	0 *
		(21)	(13)	(0)	(0)	(7)	(0)	(0)	(0)	(20)	(5)	(0)	(0)	(9)	(2)	(0)	(0)	
mammary gl	galactocoele		<39>				<41>				<41>				<46>			
		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	
prep/cli gl	inflammation		<39>				<41>				<41>				<46>			
		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	

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

(HPT150)

BAIS3

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 13

		Group Name No. of Animals on Study Grade				Control 39				750 ppm 41				1500 ppm 41				3000 ppm 46			
Organ	Findings	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Special sense organs/appandage]																					
eye																					
	cataract	<39> 3 (8) 0 (0) 0 (0) 0 (0)				<41> 3 (7) 0 (0) 0 (0) 0 (0)				<41> 2 (5) 0 (0) 0 (0) 0 (0)				<46> 2 (4) 1 (2) 0 (0) 0 (0)							
	retinal atrophy	1 (3) 3 (8) 0 (0) 0 (0)				2 (5) 3 (7) 0 (0) 0 (0)				1 (2) 1 (2) 1 (2) 0 (0)				1 (2) 2 (4) 0 (0) 0 (0)							
	keratitis	1 (3) 0 (0) 0 (0) 0 (0)				0 (0) 0 (0) 0 (0) 0 (0)				0 (0) 0 (0) 0 (0) 0 (0)				0 (0) 0 (0) 0 (0) 0 (0)							
	degeneration:cornea	5 (13) 0 (0) 0 (0) 0 (0)				0 (0) 0 (0) 0 (0) 0 (0)				1 (2) 0 (0) 0 (0) 0 (0)				3 (7) 0 (0) 0 (0) 0 (0)							
	vascularization:cornea	1 (3) 0 (0) 0 (0) 0 (0)				1 (2) 0 (0) 0 (0) 0 (0)				0 (0) 0 (0) 0 (0) 0 (0)				0 (0) 0 (0) 0 (0) 0 (0)							
Harder gl																					
	granulation	<39> 0 (0) 0 (0) 0 (0) 0 (0)				<41> 0 (0) 0 (0) 0 (0) 0 (0)				<41> 1 (2) 0 (0) 0 (0) 0 (0)				<46> 0 (0) 0 (0) 0 (0) 0 (0)							
nasolacr d																					
	inflammation	<39> 1 (3) 0 (0) 0 (0) 0 (0)				<41> 0 (0) 0 (0) 0 (0) 0 (0)				<41> 0 (0) 0 (0) 0 (0) 0 (0)				<46> 0 (0) 0 (0) 0 (0) 0 (0)							

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

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

b : Number of animals with lesion

(c) c : b / a * 100

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

(HPT150)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 14

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 41				1500 ppm 41				3000 ppm 46			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Musculoskeletal system]

bone		<39>				<41>				<41>				<46>			
	osteosclerosis	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

(HPT150)

BAIS3

APPENDIX L 4

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE : ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 16

Organ	Findings	Group Name No. of Animals on Study				Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		Grade				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Integumentary system/appandage]

skin/app	ulcer	<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	5	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	squamous cell hyperplasia	<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

[Respiratory system]

nasal cavit	ulcer	<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hemorrhage	<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization	<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	inflammation	<50>				<50>				<50>				<50>			
		2	2	0	0	1	0	0	0	3	0	0	0	2	0	0	0
		(4)	(4)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	hyperplasia:gland	<50>				<50>				<50>				<50>			
		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 17

Organ_____	Findings_____	Group Name	Control				750 ppm				1500 ppm				3000 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																		
nasal cavit			<50>				<50>				<50>				<50>			
	goblet cell hyperplasia		8	0	0	0	7	0	0	0	3	1	0	0	4	1	0	0
			(16)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(6)	(2)	(0)	(0)	(8)	(2)	(0)	(0)
	eosinophilic change:olfactory epithelium		44	2	0	0	45	1	0	0	45	4	0	0	29	17	0	0 **
			(88)	(4)	(0)	(0)	(90)	(2)	(0)	(0)	(90)	(8)	(0)	(0)	(58)	(34)	(0)	(0)
	eosinophilic change:respiratory epithelium		3	0	0	0	14	0	0	0 **	13	0	0	0 *	8	0	0	0
			(6)	(0)	(0)	(0)	(28)	(0)	(0)	(0)	(26)	(0)	(0)	(0)	(16)	(0)	(0)	(0)
	inflammation:foreign body		3	0	0	0	3	0	0	0	4	0	0	0	4	0	0	0
			(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	respiratory metaplasia:gland		12	0	0	0	11	0	0	0	16	0	0	0	15	0	0	0
			(24)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(32)	(0)	(0)	(0)	(30)	(0)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium		3	0	0	0	2	0	0	0	3	0	0	0	2	0	0	0
			(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
larynx			<50>				<50>				<50>				<50>			
	ulcer		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
lung			<50>				<50>				<50>				<50>			
	congestion		4	0	0	0	2	0	0	0	3	0	0	0	3	0	0	0
			(8)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 18

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																					
lung		<50>				<50>				<50>				<50>				<50>			
	hemorrhage	4 (8)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	deposit of hemosiderin	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	granulation	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
	accumulation of foamy cells	2 (4)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	14 (28)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	bronchiolar-alveolar cell hyperplasia	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
[Hematopoietic system]																					
bone marrow		<50>				<50>				<50>				<50>				<50>			
	congestion	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)
	hemorrhage	3 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 19

Organ_____	Findings_____	Group Name	Control				750 ppm				1500 ppm				3000 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																		
bone marrow			<50>				<50>				<50>				<50>			
	granulation		2	0	0	0	3	0	0	0	0	0	0	0	4	0	0	0
			(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	decreased hematopoiesis		0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	
	erythropoiesis:increased		3	0	0	0	1	0	0	0	2	0	0	0	0	0	0	
			(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	
Lymph node			<50>				<50>				<50>				<50>			
	ectopic tissue		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	
spleen			<50>				<50>				<50>				<50>			
	congestion		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	
	hemorrhage		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
	deposit of hemosiderin		34	1	0	0	33	3	0	0	27	0	0	0	18	4	0	0 **
			(68)	(2)	(0)	(0)	(66)	(6)	(0)	(0)	(54)	(0)	(0)	(0)	(36)	(8)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 20

Organ_____	Findings_____	Group Name	Control				750 ppm				1500 ppm				3000 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																		
spleen			<50>				<50>				<50>				<50>			
	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)	1 (2)	1 (2)	0 (0)	0 (0)
	extramedullary hematopoiesis		13 (26)	3 (6)	0 (0)	0 (0)	14 (28)	3 (6)	0 (0)	0 (0)	14 (28)	1 (2)	0 (0)	0 (0)	13 (26)	1 (2)	0 (0)	0 (0)
[Circulatory system]																		
heart			<50>				<50>				<50>				<50>			
	thrombus		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	necrosis:focal		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 (6)	0 (0)	
	mineralization		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)	
	myocardial fibrosis		17 (34)	1 (2)	0 (0)	0 (0)	15 (30)	2 (4)	0 (0)	0 (0)	15 (30)	0 (0)	0 (0)	0 (0)	13 (26)	1 (2)	0 (0)	0 (0)
	endocarditis		0 (0)	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)	0 (0)	

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 21

Organ_____	Findings_____	Group Name	Control				750 ppm				1500 ppm				3000 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																		
oral cavity	ulcer		<50>				<50>				<50>				<50>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
tooth	inflammation		<50>				<50>				<50>				<50>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
stomach	mineralization		<50>				<50>				<50>				<50>			
		0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	ulcer:forestomach		0 (0)	0 (0)	2 (4)	0 (0)	1 (2)	1 (2)	1 (2)	1 (2)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
		1 (2)	2 (4)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)
	hyperplasia:forestomach		1 (2)	2 (4)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)
		1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	
	erosion:glandular stomach		1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
		1 (2)	1 (2)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 22

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																					
Large intes	mineralization	<50>				<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Liver	herniation	<50>				<50>				<50>				<50>				<50>			
		5	0	0	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0
		(10)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	hemorrhage	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	peliosis-like lesion	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:central	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal	1	0	0	0	1	0	0	0	6	1	0	0	3	0	0	0	3	0	0	0
		(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(12)	(2)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	fatty change	5	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0
		(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	fatty change:central	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 23

Organ	Findings	Group Name	Control				750 ppm				1500 ppm				3000 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																		
Liver																		
	fatty change:peripheral		<50>				<50>				<50>				<50>			
			1	0	0	0	1	2	0	0	0	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(2)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	inflammatory infiltration		5	0	0	0	1	1	0	0	4	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(2)	(2)	(0)	(0)	(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	granulation		17	0	0	0	22	2	0	0	23	2	0	0	12	1	0	0
			(34)	(0)	(0)	(0)	(44)	(4)	(0)	(0)	(46)	(4)	(0)	(0)	(24)	(2)	(0)	(0)
	extramedullary hematopoiesis		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	clear cell focus		2	0	1	0	2	0	0	0	2	0	0	0	0	0	0	0
			(4)	(0)	(2)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	acidophilic cell focus		0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	basophilic cell focus		24	0	0	0	27	0	0	0	32	1	0	0	28	1	0	0
			(48)	(0)	(0)	(0)	(54)	(0)	(0)	(0)	(64)	(2)	(0)	(0)	(56)	(2)	(0)	(0)
	vacuolated cell focus		3	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0
			(6)	(2)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(2)	(0)	(0)	(0)

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

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

b : Number of animals with lesion

(c) c : b / a * 100

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 24

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																		
liver			<50>				<50>				<50>				<50>			
	mixed cell focus		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	bile duct hyperplasia		28 (56)	1 (2)	0 (0)	0 (0)	37 (74)	0 (0)	0 (0)	0 (0)	38 (76)	0 (0)	0 (0)	0 (0)	16 (32)	0 (0)	0 (0)	0 * (0)
	biliary cyst		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
pancreas			<50>				<50>				<50>				<50>			
	atrophy		5 (10)	2 (4)	0 (0)	0 (0)	4 (8)	1 (2)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	3 (6)	1 (2)	0 (0)	0 (0)
	inflammation		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
[Urinary system]																		
kidney			<50>				<50>				<50>				<50>			
	infarct		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 25

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																					
kidney																					
	basophilic change	<50>				<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0	3	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	deposit of hemosiderin	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of crystal	0	0	0	0	0	0	0	0	1	0	0	0	14	3	0	0	14	3	0	0 **
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(28)	(6)	(0)	(0)	(28)	(6)	(0)	(0)
	inflammatory infiltration	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	chronic nephropathy	15	22	4	3	13	28	3	2	14	25	2	0	20	10	0	0	20	10	0	0 **
		(30)	(44)	(8)	(6)	(26)	(56)	(6)	(4)	(28)	(50)	(4)	(0)	(40)	(20)	(0)	(0)	(40)	(20)	(0)	(0)
	tubular necrosis	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	papillary necrosis	0	0	0	0	4	0	0	0	13	18	0	0 **	10	35	2	0	10	35	2	0 **
		(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(26)	(36)	(0)	(0)	(20)	(70)	(4)	(0)	(20)	(70)	(4)	(0)
	mineralization:cortico-medullary junction	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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

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

b : Number of animals with lesion

(c) c : b / a * 100

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 26

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																		
kidney																		
	mineralization:papilla		<50>				<50>				<50>				<50>			
			0	0	0	0	0	0	0	0	6	0	0	0 *	19	0	0	0 **
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(38)	(0)	(0)	(0)
	mineralization:pelvis		7	0	0	0	0	0	0 *	0	0	0	0 *	1	0	0	0	
			(14)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	
	mineralization:cortex		0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0
			(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	urothelial hyperplasia:pelvis		1	0	0	0	0	0	0	2	0	0	0	24	9	1	0 **	
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(48)	(18)	(2)	(0)	
	eosinophilic droplet:proximal tubule		11	2	0	0	14	4	0	24	2	0	0 *	23	0	0	0 *	
			(22)	(4)	(0)	(0)	(28)	(8)	(0)	(48)	(4)	(0)	(0)	(46)	(0)	(0)	(0)	
urin bladd																		
	hemorrhage		<50>				<50>				<50>				<50>			
			0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	
	transitional cell hyperplasia		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	
[Endocrine system]																		
pituitary																		
	tubular structure		<50>				<50>				<49>				<50>			
			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 27

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Endocrine system]																		
pituitary																		
	angiectasis		<50>				<50>				<49>				<50>			
			12 (24)	0 (0)	0 (0)	0 (0)	6 (12)	1 (2)	0 (0)	0 (0)	11 (22)	0 (0)	0 (0)	0 (0)	16 (32)	0 (0)	0 (0)	0 (0)
	cyst		15 (30)	0 (0)	0 (0)	0 (0)	12 (24)	0 (0)	0 (0)	0 (0)	14 (29)	2 (4)	0 (0)	0 (0)	10 (20)	0 (0)	0 (0)	0 (0)
	deposit of hemosiderin		4 (8)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)
	hyperplasia		8 (16)	3 (6)	0 (0)	0 (0)	4 (8)	3 (6)	0 (0)	0 (0)	7 (14)	2 (4)	0 (0)	0 (0)	6 (12)	2 (4)	0 (0)	0 (0)
	Rathke pouch		7 (14)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	8 (16)	0 (0)	0 (0)	0 (0)	9 (18)	0 (0)	0 (0)	0 (0)
thyroid																		
	C-cell hyperplasia		<49>				<50>				<49>				<50>			
			7 (14)	2 (4)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	6 (12)	0 (0)	0 (0)	0 (0)
parathyroid																		
	cyst		<37>				<38>				<39>				<39>			
			1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

(HPT150)

BAISS

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 28

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																		
adrenal																		
	hemorrhage		<50>				<50>				<50>				<50>			
			2	0	0	0	4	0	0	0	3	0	0	0	8	1	0	0
			(4)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(16)	(2)	(0)	(0)
	peliosis-like lesion		11	16	1	0	22	12	0	0	22	8	1	0	15	21	0	0
			(22)	(32)	(2)	(0)	(44)	(24)	(0)	(0)	(44)	(16)	(2)	(0)	(30)	(42)	(0)	(0)
	cyst		0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	extramedullary hematopoiesis		0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0
			(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:cortical cell		2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
			(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:medulla		2	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
			(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	focal fatty change:cortex		5	0	0	0	4	0	0	0	7	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

[Reproductive system]

ovary																		
	cyst		<49>				<50>				<50>				<50>			
			0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

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

b : Number of animals with lesion

(c) c : b / a * 100

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 29

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Reproductive system]																		
uterus																		
	dilatation		<50>				<50>				<50>				<50>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
	cell debris		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)	1 (2)	0 (0)	0 (0)
	cystic endometrial hyperplasia		3 (6)	4 (8)	0 (0)	0 (0)	3 (6)	3 (6)	1 (2)	0 (0)	6 (12)	0 (0)	0 (0)	0 (0)	0 (0)	7 (14)	2 (4)	1 (2)
mammary gl																		
	duct ectasia		<50>				<50>				<50>				<50>			
			1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	abscess		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	galactoceles		4 (8)	2 (4)	0 (0)	0 (0)	9 (18)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)
[Special sense organs/appandage]																		
eye																		
	gliosis		<50>				<50>				<50>				<50>			
			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)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 30

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Special sense organs/appandage]																					
eye																					
	cataract	<50>				<50>				<50>				<50>				<50>			
		1	0	0	0	3	0	0	0	3	0	0	0	2	0	0	0	2	0	0	0
		(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	retinal atrophy	5	0	1	0	0	1	2	0	4	3	0	0	5	0	0	0	10	0	0	0
		(10)	(0)	(2)	(0)	(0)	(2)	(4)	(0)	(8)	(6)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	keratitis	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0
		(2)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	degeneration:cornea	1	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0
		(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	vascularization:cornea	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0
		(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
Harder gl																					
	granulation	<50>				<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
nasolacr d																					
	inflammation	<50>				<50>				<50>				<50>				<50>			
		6	0	0	0	8	0	0	0	4	0	0	0	11	0	0	0	12	0	0	0
		(12)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(12)	(0)	(0)	(0)

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

(HPT150)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 31

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				750 ppm 50				1500 ppm 50				3000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Musculoskeletal system]																		
muscle	necrosis:focal		<50>				<50>				<50>				<50>			
		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
bone	fracture		<50>				<50>				<50>				<50>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	osteosclerosis		4 (8)	4 (8)	1 (2)	0 (0)	10 (20)	3 (6)	1 (2)	0 (0)	8 (16)	5 (10)	2 (4)	0 (0)	5 (10)	7 (14)	6 (12)	0 (0)
artculus	ossification		<50>				<50>				<50>				<50>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
[Body cavities]																		
peritoneum	peritonitis		<50>				<50>				<50>				<50>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
adipose	granulation		<50>				<50>				<50>				<50>			
		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
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																		

(HPT150)

BAISS

APPENDIX L 5

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE : DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 11

Organ	Findings	Group Name No. of Animals on Study Control Grade				750 ppm 9				1500 ppm 8				3000 ppm 11			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																	
skin/app	ulcer	<12>				< 9>				< 8>				<11>			
		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)	(9)	(0)	(0)	(0)
[Respiratory system]																	
nasal cavit	ulcer	<12>				< 9>				< 8>				<11>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	inflammation	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	hyperplasia:gland	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	goblet cell hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	9	0	0	0	6	0	0	0	7	0	0	0	7	0	0	0
		(75)	(0)	(0)	(0)	(67)	(0)	(0)	(0)	(88)	(0)	(0)	(0)	(64)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 12

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 9				1500 ppm 8				3000 ppm 11			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
nasal cavity	eosinophilic change:respiratory epithelium	<12>				< 9>				< 8>				<11>			
		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation:foreign body	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	respiratory metaplasia:gland	3	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0
		(25)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(27)	(0)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		(8)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
larynx	ulcer	<12>				< 9>				< 8>				<11>			
		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)	(9)	(0)	(0)	(0)
lung	congestion	<12>				< 9>				< 8>				<11>			
		4	0	0	0	2	0	0	0	3	0	0	0	3	0	0	0
		(33)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(27)	(0)	(0)	(0)
	deposit of hemosiderin	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 13

		Group Name No. of Animals on Study Grade				Control 12				750 ppm 9				1500 ppm 8				3000 ppm 11			
Organ	Findings	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)				
[Respiratory system]																					
lung		<12>				< 9>				< 8>				<11>							
	granulation	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)	(9)	(0)	(0)	(0)				
	accumulation of foamy cells	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)	(9)	(0)	(0)	(0)				
[Hematopoietic system]																					
bone marrow		<12>				< 9>				< 8>				<11>							
	congestion	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0				
		(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(18)	(0)	(0)	(0)				
	hemorrhage	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0				
		(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(27)	(0)	(0)	(0)				
	decreased hematopoiesis	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0				
		(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)				
	erythropoiesis:increased	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0				
	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)					
spleen		<12>				< 9>				< 8>				<11>							
	deposit of hemosiderin	5	1	0	0	1	3	0	0	3	0	0	0	3	4	0	0				
		(42)	(8)	(0)	(0)	(11)	(33)	(0)	(0)	(38)	(0)	(0)	(0)	(27)	(36)	(0)	(0)				

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 14

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 9				1500 ppm 8				3000 ppm 11			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
spleen		<12>				< 9>				< 8>				<11>			
	fibrosis	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(9)	(0)	(0)
	extramedullary hematopoiesis	1	1	0	0	0	1	0	0	3	0	0	0	1	0	0	0
		(8)	(8)	(0)	(0)	(0)	(11)	(0)	(0)	(38)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
[Circulatory system]																	
heart		<12>				< 9>				< 8>				<11>			
	thrombus	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(27)	(0)
	mineralization	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	myocardial fibrosis	6	1	0	0	1	1	0	0	1	0	0	0	4	1	0	0
		(50)	(8)	(0)	(0)	(11)	(11)	(0)	(0)	(13)	(0)	(0)	(0)	(36)	(9)	(0)	(0)
	endocarditis	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 15

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 9				1500 ppm 8				3000 ppm 11			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
oral cavity		<12>				< 9>				< 8>				<11>			
	ulcer	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
stomach		<12>				< 9>				< 8>				<11>			
	mineralization	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	ulcer:forestomach	0	0	2	0	1	1	1	1	1	0	0	0	1	0	0	0
		(0)	(0)	(17)	(0)	(11)	(11)	(11)	(11)	(13)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	hyperplasia:forestomach	1	2	0	0	1	0	0	0	1	0	0	0	0	2	0	0
		(8)	(17)	(0)	(0)	(11)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(18)	(0)	(0)
	erosion:glandular stomach	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	ulcer:glandular stomach	1	1	0	0	1	0	0	0	1	1	0	0	1	0	0	0
		(8)	(8)	(0)	(0)	(11)	(0)	(0)	(0)	(13)	(13)	(0)	(0)	(9)	(0)	(0)	(0)
liver		<12>				< 9>				< 8>				<11>			
	herniation	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 16

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 9				1500 ppm 8				3000 ppm 11			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
liver		<12>				< 9>				< 8>				<11>			
	necrosis:central	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal	0	0	0	0	0	0	0	0	2	1	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(25)	(13)	(0)	(0)	(9)	(0)	(0)	(0)
	fatty change	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	fatty change:central	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	fatty change:peripheral	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulation	1	0	0	0	2	0	0	0	3	0	0	0	1	0	0	0
		(8)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	acidophilic cell focus	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	basophilic cell focus	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(17)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 17

Organ	Findings	Group Name No. of Animals on Study Grade	Control 12				750 ppm 9				1500 ppm 8				3000 ppm 11			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																		
liver			<12>				< 9>				< 8>				<11>			
	vacuolated cell focus		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	bile duct hyperplasia		3	0	0	0	7	0	0	0	4	0	0	0	2	0	0	0
			(25)	(0)	(0)	(0)	(78)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(18)	(0)	(0)	(0)
	biliary cyst		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
pancreas			<12>				< 9>				< 8>				<11>			
	atrophy		2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	inflammation		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Urinary system]																		
kidney			<12>				< 9>				< 8>				<11>			
	deposit of crystal		0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(18)	(9)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 18

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 9				1500 ppm 8				3000 ppm 11			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
Kidney		<12>				< 9>				< 8>				<11>			
	chronic nephropathy	3 (25)	2 (17)	1 (8)	2 (17)	2 (22)	2 (22)	1 (11)	1 (11)	1 (13)	5 (63)	0 (0)	0 (0)	2 (18)	1 (9)	0 (0)	0 (0)
	tubular necrosis	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 (27)	0 (0)	0 (0)	0 (0)
	papillary necrosis	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (38)	2 (25)	0 (0)	0 (0) **	3 (27)	7 (64)	1 (9)	0 (0) **
	mineralization:papilla	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	6 (55)	0 (0)	0 (0)	0 (0) *
	mineralization:pelvis	3 (25)	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)
	mineralization:cortex	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (27)	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)	4 (36)	1 (9)	1 (9)	0 (0) *
	eosinophilic droplet:proximal tubule	2 (17)	0 (0)	0 (0)	0 (0)	2 (22)	2 (22)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	2 (18)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 19

Organ	Findings	Group Name No. of Animals on Study Control Grade				750 ppm 9				1500 ppm 8				3000 ppm 11			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
urin bladd	hemorrhage	<12>				< 9>				< 8>				<11>			
		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)	(9)	(0)	(0)	(0)
[Endocrine system]																	
pituitary	angiectasis	<12>				< 9>				< 8>				<11>			
		1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(27)	(0)	(0)	(0)
	cyst	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
		(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(9)	(0)	(0)	(0)
	deposit of hemosiderin	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	Rathke pouch	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
thyroid	C-cell hyperplasia	<11>				< 9>				< 8>				<11>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 20

Organ	Findings	Group Name No. of Animals on Study Grade	Control 12				750 ppm 9				1500 ppm 8				3000 ppm 11			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Endocrine system]

adrenal	hemorrhage	<12>	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)	(18)	(0)	(0)	(0)
	peliosis-like lesion	< 9>	0	3	0	0	1	2	0	0	1	2	0	0	2	1	0	0
			(0)	(25)	(0)	(0)	(11)	(22)	(0)	(0)	(13)	(25)	(0)	(0)	(18)	(9)	(0)	(0)
	extramedullary hematopoiesis	< 8>	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	focal fatty change:cortex	< 9>	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

[Reproductive system]

ovary	cyst	<12>	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
uterus	cystic endometrial hyperplasia	< 9>	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0
			(8)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(9)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 21

Organ	Findings	Group Name No. of Animals on Study Grade	Control 12				750 ppm 9				1500 ppm 8				3000 ppm 11			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Reproductive system]

mammary gl			<12>				< 9>				< 8>				<11>			
	duct ectasia		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	abscess		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia		0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	galactocoele		1	1	0	0	4	0	0	0	1	0	0	0	1	0	0	0
			(8)	(8)	(0)	(0)	(44)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(9)	(0)	(0)	(0)

[Special sense organs/appandage]

eye			<12>				< 9>				< 8>				<11>			
	gliosis		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	cataract		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	retinal atrophy		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(9)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 22

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 9				1500 ppm 8				3000 ppm 11			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Special sense organs/appandage]

eye	keratitis	<12>				< 9>				< 8>				<11>			
		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
nasolacr d	inflammation	<12>				< 9>				< 8>				<11>			
		1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(8)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(9)	(0)	(0)	(0)

[Musculoskeletal system]

muscle	necrosis:focal	<12>				< 9>				< 8>				<11>			
		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
bone	osteosclerosis	<12>				< 9>				< 8>				<11>			
		2	0	0	0	3	0	0	0	0	1	1	0	1	0	2	0
		(17)	(0)	(0)	(0)	(33)	(0)	(0)	(0)	(0)	(13)	(13)	(0)	(9)	(0)	(18)	(0)

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

(HPT150)

BAIS3

APPENDIX L 6

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE : SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 15

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																	
skin/app		<38>				<41>				<42>				<39>			
	ulcer	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	squamous cell hyperplasia	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Respiratory system]																	
nasal cavit		<38>				<41>				<42>				<39>			
	hemorrhage	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation	2	1	0	0	1	0	0	0	3	0	0	0	1	0	0	0
		(5)	(3)	(0)	(0)	(2)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	hyperplasia:gland	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	goblet cell hyperplasia	8	0	0	0	7	0	0	0	3	1	0	0	3	1	0	0
		(21)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(7)	(2)	(0)	(0)	(8)	(3)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 16

Organ	Findings	Group Name No. of Animals on Study Grade				Control 38				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)				
[Respiratory system]																					
nasal cavit		<38>				<41>				<42>				<39>							
	eosinophilic change:olfactory epithelium	35 (92)	2 (5)	0 (0)	0 (0)	39 (95)	1 (2)	0 (0)	0 (0)	38 (90)	4 (10)	0 (0)	0 (0)	22 (56)	17 (44)	0 (0)	0 ** (0)				
	eosinophilic change:respiratory epithelium	2 (5)	0 (0)	0 (0)	0 (0)	13 (32)	0 (0)	0 (0)	0 ** (0)	13 (31)	0 (0)	0 (0)	0 ** (0)	8 (21)	0 (0)	0 (0)	0 (0)				
	inflammation:foreign body	2 (5)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	4 (10)	0 (0)	0 (0)	0 (0)				
	respiratory metaplasia:gland	9 (24)	0 (0)	0 (0)	0 (0)	11 (27)	0 (0)	0 (0)	0 (0)	14 (33)	0 (0)	0 (0)	0 (0)	12 (31)	0 (0)	0 (0)	0 (0)				
	squamous cell metaplasia:respiratory epithelium	2 (5)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)				
lung		<38>				<41>				<42>				<39>							
	hemorrhage	4 (11)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)				
	granulation	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)				
	accumulation of foamy cells	2 (5)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	5 (12)	0 (0)	0 (0)	0 (0)	13 (33)	1 (3)	0 (0)	0 ** (0)				

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 17

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
lung	bronchiolar-alveolar cell hyperplasia	<38>				<41>				<42>				<39>			
		1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0
		(3)	(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Hematopoietic system]																	
bone marrow	congestion	<38>				<41>				<42>				<39>			
		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	hemorrhage	<38>				<41>				<42>				<39>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulation	<38>				<41>				<42>				<39>			
		2	0	0	0	3	0	0	0	0	0	0	0	4	0	0	0
		(5)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	decreased hematopoiesis	<38>				<41>				<42>				<39>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	erythropoiesis:increased	<38>				<41>				<42>				<39>			
		2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lymph node	ectopic tissue	<38>				<41>				<42>				<39>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 SACRIFICED ANIMALS (105#)

PAGE : 18

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
spleen		<38>				<41>				<42>				<39>			
	congestion	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	hemorrhage	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of hemosiderin	29	0	0	0	32	0	0	0	24	0	0	0	15	0	0	0 **
		(76)	(0)	(0)	(0)	(78)	(0)	(0)	(0)	(57)	(0)	(0)	(0)	(38)	(0)	(0)	(0)
	extramedullary hematopoiesis	12	2	0	0	14	2	0	0	11	1	0	0	12	1	0	0
		(32)	(5)	(0)	(0)	(34)	(5)	(0)	(0)	(26)	(2)	(0)	(0)	(31)	(3)	(0)	(0)
[Circulatory system]																	
heart		<38>				<41>				<42>				<39>			
	myocardial fibrosis	11	0	0	0	14	1	0	0	14	0	0	0	9	0	0	0
		(29)	(0)	(0)	(0)	(34)	(2)	(0)	(0)	(33)	(0)	(0)	(0)	(23)	(0)	(0)	(0)
[Digestive system]																	
tooth		<38>				<41>				<42>				<39>			
	inflammation	0	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 19

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
stomach		<38>				<41>				<42>				<39>			
	ulcer:forestomach	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:forestomach	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	erosion:glandular stomach	1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	ulcer:glandular stomach	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
large intes		<38>				<41>				<42>				<39>			
	mineralization	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
liver		<38>				<41>				<42>				<39>			
	herniation	4	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(11)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	hemorrhage	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 20

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
Liver		<38>				<41>				<42>				<39>			
	peliosis-like lesion	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal	1	0	0	0	1	0	0	0	4	0	0	0	2	0	0	0
		(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(5)	(0)	(0)	(0)
	fatty change	3	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	fatty change:peripheral	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	inflammatory infiltration	5	0	0	0	1	1	0	0	4	0	0	0	1	0	0	0
		(13)	(0)	(0)	(0)	(2)	(2)	(0)	(0)	(10)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	granulation	16	0	0	0	20	2	0	0	20	2	0	0	11	1	0	0
		(42)	(0)	(0)	(0)	(49)	(5)	(0)	(0)	(48)	(5)	(0)	(0)	(28)	(3)	(0)	(0)
	extramedullary hematopoiesis	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	clear cell focus	2	0	1	0	2	0	0	0	2	0	0	0	0	0	0	0
		(5)	(0)	(3)	(0)	(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 21

Organ	Findings	Group Name No. of Animals on Study Grade				Control 38				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																					
liver		<38>				<41>				<42>				<39>							
	acidophilic cell focus	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	basophilic cell focus	22	0	0	0	26	0	0	0	31	1	0	0	28	1	0	0				
		(58)	(0)	(0)	(0)	(63)	(0)	(0)	(0)	(74)	(2)	(0)	(0)	(72)	(3)	(0)	(0)				
	vacuolated cell focus	3	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0				
		(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(3)	(0)	(0)	(0)				
	mixed cell focus	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0				
		(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)				
	bile duct hyperplasia	25	1	0	0	30	0	0	0	34	0	0	0	14	0	0	0 *				
		(66)	(3)	(0)	(0)	(73)	(0)	(0)	(0)	(81)	(0)	(0)	(0)	(36)	(0)	(0)	(0)				
pancreas		<38>				<41>				<42>				<39>							
	atrophy	3	2	0	0	4	1	0	0	3	0	0	0	2	1	0	0				
		(8)	(5)	(0)	(0)	(10)	(2)	(0)	(0)	(7)	(0)	(0)	(0)	(5)	(3)	(0)	(0)				
[Urinary system]																					
kidney		<38>				<41>				<42>				<39>							
	infarct	1	0	0	0	0	0	0	0	3	0	0	0	5	0	0	0				
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(13)	(0)	(0)	(0)				

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 22

Organ	Findings	Control 38				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
Kidney		<38>				<41>				<42>				<39>			
	basophilic change	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	deposit of hemosiderin	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of crystal	0	0	0	0	0	0	0	0	1	0	0	0	12	2	0	0 **
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(31)	(5)	(0)	(0)
	inflammatory infiltration	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	chronic nephropathy	12	20	3	1	11	26	2	1	13	20	2	0	18	9	0	0 **
		(32)	(53)	(8)	(3)	(27)	(63)	(5)	(2)	(31)	(48)	(5)	(0)	(46)	(23)	(0)	(0)
	papillary necrosis	0	0	0	0	4	0	0	0	10	16	0	0 **	7	28	1	0 **
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(24)	(38)	(0)	(0)	(18)	(72)	(3)	(0)
	mineralization:cortico-medullary junction	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	mineralization:papilla	0	0	0	0	0	0	0	0	5	0	0	0	13	0	0	0 **
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(33)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 23

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
kidney	mineralization:pelvis	<38>				<41>				<42>				<39>			
		4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	urothelial hyperplasia:pelvis	1	0	0	0	0	0	0	0	2	0	0	0	20	8	0	0 **
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(51)	(21)	(0)	(0)
	eosinophilic droplet:proximal tubule	9	2	0	0	12	2	0	0	23	2	0	0 *	21	0	0	0 *
		(24)	(5)	(0)	(0)	(29)	(5)	(0)	(0)	(55)	(5)	(0)	(0)	(54)	(0)	(0)	(0)
urin bladd	transitional cell hyperplasia	<38>				<41>				<42>				<39>			
		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)
[Endocrine system]																	
pituitary	tubular structure	<38>				<41>				<41>				<39>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	angiectasis	11	0	0	0	6	1	0	0	11	0	0	0	13	0	0	0
		(29)	(0)	(0)	(0)	(15)	(2)	(0)	(0)	(27)	(0)	(0)	(0)	(33)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 24

Organ	Findings	Control 38				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																	
pituitary		<38>				<41>				<41>				<39>			
	cyst	13 (34)	0 (0)	0 (0)	0 (0)	12 (29)	0 (0)	0 (0)	0 (0)	14 (34)	1 (2)	0 (0)	0 (0)	9 (23)	0 (0)	0 (0)	0 (0)
	deposit of hemosiderin	3 (8)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	5 (12)	0 (0)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	0 (0)
	hyperplasia	8 (21)	3 (8)	0 (0)	0 (0)	4 (10)	3 (7)	0 (0)	0 (0)	7 (17)	2 (5)	0 (0)	0 (0)	6 (15)	2 (5)	0 (0)	0 (0)
	Rathke pouch	6 (16)	0 (0)	0 (0)	0 (0)	5 (12)	0 (0)	0 (0)	0 (0)	8 (20)	0 (0)	0 (0)	0 (0)	9 (23)	0 (0)	0 (0)	0 (0)
thyroid		<38>				<41>				<41>				<39>			
	C-cell hyperplasia	6 (16)	2 (5)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	6 (15)	0 (0)	0 (0)	0 (0)
parathyroid		<29>				<30>				<32>				<30>			
	cyst	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
adrenal		<38>				<41>				<42>				<39>			
	hemorrhage	2 (5)	0 (0)	0 (0)	0 (0)	4 (10)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	6 (15)	1 (3)	0 (0)	0 (0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 25

Organ	Findings	Group Name No. of Animals on Study Grade	Control 38				750 ppm 41				1500 ppm 42				3000 ppm 39			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Endocrine system]

adrenal			<38>				<41>				<42>				<39>			
	peliosis-like lesion		11 (29)	13 (34)	1 (3)	0 (0)	21 (51)	10 (24)	0 (0)	0 (0)	21 (50)	6 (14)	1 (2)	0 (0)	13 (33)	20 (51)	0 (0)	0 (0)
	cyst		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	extramedullary hematopoiesis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	hyperplasia:cortical cell		2 (5)	0 (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 (0)	0 (0)
	hyperplasia:medulla		2 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)
	focal fatty change:cortex		5 (13)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	7 (17)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

[Reproductive system]

ovary			<37>				<41>				<42>				<39>			
	cyst		0 (0)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	4 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 26

Organ	Findings	Group Name No. of Animals on Study Control Grade				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																	
uterus		<38>				<41>				<42>				<39>			
	dilatation	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(3)	(0)	(0)
	cell debris	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(3)	(0)	(0)
	cystic endometrial hyperplasia	2	3	0	0	3	3	1	0	6	0	0	0	6	1	1	0
		(5)	(8)	(0)	(0)	(7)	(7)	(2)	(0)	(14)	(0)	(0)	(0)	(15)	(3)	(3)	(0)
mammary gl		<38>				<41>				<42>				<39>			
	duct ectasia	1	0	0	0	0	1	0	0	3	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	galactoceles	3	1	0	0	5	0	0	0	2	0	0	0	2	0	0	0
		(8)	(3)	(0)	(0)	(12)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)
[Special sense organs/appandage]																	
eye		<38>				<41>				<42>				<39>			
	cataract	1	0	0	0	3	0	0	0	2	0	0	0	2	0	0	0
		(3)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 27

Organ	Findings	Control No. of Animals on Study Grade				750 ppm 41				1500 ppm 42				3000 ppm 39			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Special sense organs/appandage]																	
eye	retinal atrophy	<38>				<41>				<42>				<39>			
		5	0	1	0	0	1	2	0	3	3	0	0	4	0	0	0
		(13)	(0)	(3)	(0)	(0)	(2)	(5)	(0)	(7)	(7)	(0)	(0)	(10)	(0)	(0)	(0)
	keratitis	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	degeneration:cornea	1	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	vascularization:cornea	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Harder gl	granulation	<38>				<41>				<42>				<39>			
		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
nasolacr d	inflammation	<38>				<41>				<42>				<39>			
		5	0	0	0	7	0	0	0	3	0	0	0	10	0	0	0
		(13)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(26)	(0)	(0)	(0)
[Musculoskeletal system]																	
bone	fracture	<38>				<41>				<42>				<39>			
		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 28

Organ_____	Findings_____	Group Name	Control				750 ppm				1500 ppm				3000 ppm			
		No. of Animals on Study	38				41				42				39			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Musculoskeletal system]																		
bone	osteosclerosis		<38>				<41>				<42>				<39>			
		2	4	1	0	7	3	1	0	8	4	1	0	4	7	4	0	
		(5)	(11)	(3)	(0)	(17)	(7)	(2)	(0)	(19)	(10)	(2)	(0)	(10)	(18)	(10)	(0)	
articulus	ossification		<38>				<41>				<42>				<39>			
		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Body cavities]																		
peritoneum	peritonitis		<38>				<41>				<42>				<39>			
		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)	(3)	(0)	(0)	
adipose	granulation		<38>				<41>				<42>				<39>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

(HPT150)

BAIS3

APPENDIX M1

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

RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

Time-related Weeks	Items	Group Name	Control	750 ppm	1500 ppm	3000 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		0	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		1	1	1	0
	NO. OF ANIMALS WITH TUMORS		1	1	1	0
	NO. OF ANIMALS WITH SINGLE TUMORS		0	1	1	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		1	0	0	0
	NO. OF BENIGN TUMORS		1	1	1	0
	NO. OF MALIGNANT TUMORS		1	0	0	0
	NO. OF TOTAL TUMORS		2	1	1	0
79 - 104	NO. OF EXAMINED ANIMALS		10	8	8	4
	NO. OF ANIMALS WITH TUMORS		10	8	8	4
	NO. OF ANIMALS WITH SINGLE TUMORS		1	3	1	1
	NO. OF ANIMALS WITH MULTIPLE TUMORS		9	5	7	3
	NO. OF BENIGN TUMORS		16	10	14	5
	NO. OF MALIGNANT TUMORS		7	4	6	2
	NO. OF TOTAL TUMORS		23	14	20	7
105 - 105	NO. OF EXAMINED ANIMALS		39	41	41	46
	NO. OF ANIMALS WITH TUMORS		38	41	41	46
	NO. OF ANIMALS WITH SINGLE TUMORS		17	17	22	19
	NO. OF ANIMALS WITH MULTIPLE TUMORS		21	24	19	27
	NO. OF BENIGN TUMORS		65	76	62	70
	NO. OF MALIGNANT TUMORS		6	6	8	9
	NO. OF TOTAL TUMORS		71	82	70	79

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Time-related Weeks	Items	Group Name	Control	750 ppm	1500 ppm	3000 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		49	50	50	50
	NO. OF ANIMALS WITH SINGLE TUMORS		18	21	24	20
	NO. OF ANIMALS WITH MULTIPLE TUMORS		31	29	26	30
	NO. OF BENIGN TUMORS		82	87	77	75
	NO. OF MALIGNANT TUMORS		14	10	14	11
	NO. OF TOTAL TUMORS		96	97	91	86

(HPT070)

BAIS3

APPENDIX M2

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

RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 3

Time-related Weeks	Items	Group Name	Control	750 ppm	1500 ppm	3000 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		0	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		0	0	0	3
	NO. OF ANIMALS WITH TUMORS		0	0	0	2
	NO. OF ANIMALS WITH SINGLE TUMORS		0	0	0	2
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	1
	NO. OF MALIGNANT TUMORS		0	0	0	1
	NO. OF TOTAL TUMORS		0	0	0	2
79 - 104	NO. OF EXAMINED ANIMALS		12	9	8	8
	NO. OF ANIMALS WITH TUMORS		12	9	8	7
	NO. OF ANIMALS WITH SINGLE TUMORS		5	3	4	3
	NO. OF ANIMALS WITH MULTIPLE TUMORS		7	6	4	4
	NO. OF BENIGN TUMORS		10	11	11	9
	NO. OF MALIGNANT TUMORS		9	5	3	4
	NO. OF TOTAL TUMORS		19	16	14	13
105 - 105	NO. OF EXAMINED ANIMALS		38	41	42	39
	NO. OF ANIMALS WITH TUMORS		26	32	25	27
	NO. OF ANIMALS WITH SINGLE TUMORS		13	13	19	21
	NO. OF ANIMALS WITH MULTIPLE TUMORS		13	19	6	6
	NO. OF BENIGN TUMORS		38	45	29	32
	NO. OF MALIGNANT TUMORS		5	12	4	3
	NO. OF TOTAL TUMORS		43	57	33	35

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 4

Time-related Weeks	Items	Group Name	Control	750 ppm	1500 ppm	3000 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		38	41	33	36
	NO. OF ANIMALS WITH SINGLE TUMORS		18	16	23	26
	NO. OF ANIMALS WITH MULTIPLE TUMORS		20	25	10	10
	NO. OF BENIGN TUMORS		48	56	40	42
	NO. OF MALIGNANT TUMORS		14	17	7	8
	NO. OF TOTAL TUMORS		62	73	47	50

(HPT070)

BAIS3

APPENDIX N 1

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS : SUMMARY

RAT : MALE : ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Integumentary system/appandage]						
skin/app		<50>	<50>	<50>	<50>	<50>
	squamous cell papilloma	0 (0%)	1 (2%)	1 (2%)	1 (2%)	1 (2%)
	trichoepithelioma	0 (0%)	1 (2%)	0 (0%)	0 (0%)	0 (0%)
	basal cell epithelioma	0 (0%)	1 (2%)	0 (0%)	0 (0%)	0 (0%)
	keratoacanthoma	0 (0%)	3 (6%)	0 (0%)	0 (0%)	0 (0%)
subcutis	sebaceous adenoma	0 (0%)	1 (2%)	0 (0%)	1 (2%)	1 (2%)
		<50>	<50>	<50>	<50>	<50>
	fibroma	2 (4%)	6 (12%)	4 (8%)	1 (2%)	1 (2%)
	lipoma	0 (0%)	0 (0%)	0 (0%)	1 (2%)	1 (2%)
	xanthoma	0 (0%)	0 (0%)	2 (4%)	0 (0%)	0 (0%)
	liposarcoma	0 (0%)	0 (0%)	1 (2%)	0 (0%)	0 (0%)
	rhabdomyosarcoma	0 (0%)	1 (2%)	0 (0%)	0 (0%)	0 (0%)
	schwannoma:malignant	0 (0%)	0 (0%)	1 (2%)	0 (0%)	0 (0%)
	malignant fibrous histiocytoma	1 (2%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	sarcoma:NOS	1 (2%)	0 (0%)	0 (0%)	1 (2%)	1 (2%)

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

(HPT085)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Respiratory system]						
lung	bronchiolar-alveolar adenoma		<50> 3 (6%)	<50> 2 (4%)	<50> 2 (4%)	<50> 1 (2%)
	bronchial carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
[Hematopoietic system]						
spleen	histiocytic sarcoma		<50> 0 (0%)	<49> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
	mononuclear cell leukemia		4 (8%)	1 (2%)	3 (6%)	3 (6%)
[Circulatory system]						
heart	schwannoma:malignant		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
[Digestive system]						
oral cavity	squamous cell papilloma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
	basal cell carcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
salivary gl	adenocarcinoma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
stomach	squamous cell carcinoma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
large intes	adenoma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Digestive system]						
liver			<50>	<50>	<50>	<50>
	hepatocellular adenoma		0 (0%)	1 (2%)	1 (2%)	1 (2%)
[Urinary system]						
kidney			<50>	<50>	<50>	<50>
	transitional cell carcinoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
[Endocrine system]						
pituitary			<50>	<50>	<50>	<50>
	adenoma		17 (34%)	14 (28%)	12 (24%)	5 (10%)
	adenocarcinoma		2 (4%)	1 (2%)	0 (0%)	0 (0%)
thyroid			<50>	<50>	<50>	<50>
	C-cell adenoma		3 (6%)	6 (12%)	1 (2%)	10 (20%)
	follicular adenoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	follicular adenocarcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
parathyroid			<40>	<42>	<43>	<41>
	adenoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
panc islet			<50>	<50>	<50>	<50>
	islet cell adenoma		3 (6%)	5 (10%)	3 (6%)	0 (0%)
	islet cell adenocarcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
adrenal			<50>	<50>	<50>	<50>
	pheochromocytoma		3 (6%)	6 (12%)	1 (2%)	3 (6%)

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 4

Organ_____	Findings_____	Group Name No. of animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Endocrine system]						
adrenal	pheochromocytoma:malignant		<50> 2 (4%)	<50> 3 (6%)	<50> 2 (4%)	<50> 1 (2%)
[Reproductive system]						
testis	interstitial cell tumor		<50> 46 (92%)	<50> 39 (78%)	<50> 48 (96%)	<50> 48 (96%)
mammary gl	fibroadenoma		<50> 2 (4%)	<50> 1 (2%)	<50> 1 (2%)	<50> 0 (0%)
	adenocarcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
prep/cli gl	adenoma		<50> 2 (4%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
[Nervous system]						
brain	malignant reticulosis		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
spinal cord	malignant reticulosis		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
[Special sense organs/appandage]						
Zymbal gl	squamous cell carcinoma		<50> 0 (0%)	<50> 1 (2%)	<50> 1 (2%)	<50> 0 (0%)
[Musculoskeletal system]						
vertebra	chordoma:malignant		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 5

Organ	Findings	Group Name No. of animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Body cavities]						
pleura			<50>	<50>	<50>	<50>
	mesothelioma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
peritoneum			<50>	<50>	<50>	<50>
	mesothelioma		1 (2%)	1 (2%)	2 (4%)	1 (2%)

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

(HPT085)

BAIS3

APPENDIX N 2

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE : ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name No. of animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Integumentary system/appandage]						
skin/app			<50>	<50>	<50>	<50>
	squamous cell papilloma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
	squamous cell carcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	sebaceous adenocarcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
subcutis			<50>	<50>	<50>	<50>
	fibroma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	schwannoma:malignant		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	malignant fibrous histiocytoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
[Respiratory system]						
nasal cavit			<50>	<50>	<50>	<50>
	adenoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
[Hematopoietic system]						
spleen			<50>	<50>	<50>	<50>
	mononuclear cell leukemia		6 (12%)	4 (8%)	5 (10%)	3 (6%)
[Digestive system]						
stomach			<50>	<50>	<50>	<50>
	squamous cell carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
small intes			<50>	<50>	<50>	<50>
	leiomyoma		0 (0%)	1 (2%)	0 (0%)	1 (2%)

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 7

Organ	Findings	Group Name No. of animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Endocrine system]						
pituitary	adenoma		<50> 16 (32%)	<50> 23 (46%)	<49> 17 (35%)	<50> 12 (24%)
	adenocarcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
thyroid	C-cell adenoma		<49> 5 (10%)	<50> 5 (10%)	<49> 5 (10%)	<50> 6 (12%)
	C-cell carcinoma		0 (0%)	2 (4%)	0 (0%)	1 (2%)
	follicular adenocarcinoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
panc islet	islet cell adenoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
adrenal	pheochromocytoma		<50> 4 (8%)	<50> 2 (4%)	<50> 1 (2%)	<50> 0 (0%)
	pheochromocytoma:malignant		1 (2%)	0 (0%)	0 (0%)	0 (0%)
[Reproductive system]						
uterus	adenoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
	leiomyoma		1 (2%)	0 (0%)	0 (0%)	1 (2%)
	endometrial stromal polyp		8 (16%)	12 (24%)	9 (18%)	15 (30%)
	endometrial stromal sarcoma		1 (2%)	4 (8%)	0 (0%)	0 (0%)

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

(HPT085)

BAIS3

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 8

Organ	Findings	Group Name No. of animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Reproductive system]						
mammary gl			<50>	<50>	<50>	<50>
	adenoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	fibroadenoma		8 (16%)	7 (14%)	5 (10%)	6 (12%)
	adenocarcinoma		3 (6%)	4 (8%)	0 (0%)	0 (0%)
prep/cli gl			<50>	<50>	<50>	<50>
	adenoma		2 (4%)	4 (8%)	2 (4%)	1 (2%)
	keratoacanthoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
[Nervous system]						
brain			<50>	<50>	<50>	<48>
	malignant reticulosis		1 (2%)	0 (0%)	1 (2%)	0 (0%)
[Special sense organs/appandage]						
Zymbal gl			<50>	<50>	<50>	<50>
	squamous cell papilloma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	adenocarcinoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
[Body cavities]						
peritoneum			<50>	<50>	<50>	<50>
	leiomyosarcoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)

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

(HPT085)

BAIS3

APPENDIX O 1

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

RAT : MALE

(2-YEAR STUDY)

STUDY No. : 0267
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	750 ppm	1500 ppm	3000 ppm
SITE : skin/appendage TUMOR : keratoacanthoma				
Tumor rate				
Overall rates(a)	0/50(0.0)	3/50(6.0)	0/50(0.0)	0/50(0.0)
Adjusted rates(b)	0.0	7.32	0.0	0.0
Terminal rates(c)	0/39(0.0)	3/41(7.3)	0/41(0.0)	0/46(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.8220			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.3762			
Fisher Exact test(e)		P = 0.1325	P = 0.5000	P = 0.5000
SITE : subcutis TUMOR : fibroma				
Tumor rate				
Overall rates(a)	2/50(4.0)	6/50(12.0)	4/50(8.0)	1/50(2.0)
Adjusted rates(b)	5.13	14.63	4.55	2.17
Terminal rates(c)	2/39(5.1)	6/41(14.6)	1/41(2.4)	1/46(2.2)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3989			
Prevalence method(d)	P = 0.8782			
Combined analysis(d)	P = 0.8347			
Cochran-Armitage test(e)	P = 0.3570			
Fisher Exact test(e)		P = 0.1606	P = 0.3574	P = 0.4926
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	2/50(4.0)	2/50(4.0)	1/50(2.0)
Adjusted rates(b)	6.98	4.88	4.88	2.17
Terminal rates(c)	2/39(5.1)	2/41(4.9)	2/41(4.9)	1/46(2.2)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.8469			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.3291			
Fisher Exact test(e)		P = 0.4909	P = 0.4909	P = 0.3235

STUDY No. : 0267
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	750 ppm	1500 ppm	3000 ppm
SITE : spleen TUMOR : mononuclear cell leukemia				
Tumor rate				
Overall rates(a)	4/50(8.0)	1/49(2.0)	3/50(6.0)	3/50(6.0)
Adjusted rates(b)	2.56	2.44	4.88	6.52
Terminal rates(c)	1/39(2.6)	1/41(2.4)	2/41(4.9)	3/46(6.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9666			
Prevalence method(d)	P = 0.1494			
Combined analysis(d)	P = 0.5740			
Cochran-Armitage test(e)	P = 0.9513			
Fisher Exact test(e)		P = 0.2063	P = 0.4895	P = 0.4895
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	17/50(34.0)	14/50(28.0)	12/50(24.0)	5/50(10.0)
Adjusted rates(b)	34.15	19.51	24.39	10.64
Terminal rates(c)	13/39(33.3)	8/41(19.5)	10/41(24.4)	4/46(8.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9537			
Prevalence method(d)	P = 0.9930			
Combined analysis(d)	P = 0.9986			
Cochran-Armitage test(e)	P = 0.0036**			
Fisher Exact test(e)		P = 0.3959	P = 0.2725	P = 0.0166*
SITE : pituitary gland TUMOR : adenoma,adenocarcinoma				
Tumor rate				
Overall rates(a)	19/50(38.0)	15/50(30.0)	12/50(24.0)	5/50(10.0)
Adjusted rates(b)	36.59	19.51	24.39	10.64
Terminal rates(c)	14/39(35.9)	8/41(19.5)	10/41(24.4)	4/46(8.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9813			
Prevalence method(d)	P = 0.9965			
Combined analysis(d)	P = 0.9997			
Cochran-Armitage test(e)	P = 0.0009**			
Fisher Exact test(e)		P = 0.3472	P = 0.1858	P = 0.0080**

STUDY No. : 0267
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	750 ppm	1500 ppm	3000 ppm
SITE : thyroid TUMOR : C-cell adenoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	6/50(12.0)	1/50(2.0)	10/50(20.0)
Adjusted rates(b)	7.69	14.63	2.44	21.74
Terminal rates(c)	3/39(7.7)	6/41(14.6)	1/41(2.4)	10/46(21.7)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0396*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0383*			
Fisher Exact test(e)		P = 0.2728	P = 0.3235	P = 0.0604
SITE : pancreas islet TUMOR : islet cell adenoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	5/50(10.0)	3/50(6.0)	0/50(0.0)
Adjusted rates(b)	6.67	12.20	7.32	0.0
Terminal rates(c)	1/39(2.6)	5/41(12.2)	3/41(7.3)	0/46(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9658			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0836			
Fisher Exact test(e)		P = 0.3790	P = 0.3392	P = 0.1325
SITE : pancreas islet TUMOR : islet cell adenoma, islet cell adenocarcinoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	5/50(10.0)	3/50(6.0)	1/50(2.0)
Adjusted rates(b)	6.67	12.20	7.32	0.0
Terminal rates(c)	1/39(2.6)	5/41(12.2)	3/41(7.3)	0/46(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1080			
Prevalence method(d)	P = 0.9658			
Combined analysis(d)	P = 0.8932			
Cochran-Armitage test(e)	P = 0.2271			
Fisher Exact test(e)		P = 0.3790	P = 0.3392	P = 0.3235

STUDY No. : 0267
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	750 ppm	1500 ppm	3000 ppm
SITE : adrenal gland TUMOR : pheochromocytoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	6/50(12.0)	1/50(2.0)	3/50(6.0)
Adjusted rates(b)	7.69	14.63	2.44	4.35
Terminal rates(c)	3/39(7.7)	6/41(14.6)	1/41(2.4)	2/46(4.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1175			
Prevalence method(d)	P = 0.8857			
Combined analysis(d)	P = 0.7640			
Cochran-Armitage test(e)	P = 0.5938			
Fisher Exact test(e)		P = 0.2728	P = 0.3235	P = 0.3392
SITE : adrenal gland TUMOR : pheochromocytoma:malignant				
Tumor rate				
Overall rates(a)	2/50(4.0)	3/50(6.0)	2/50(4.0)	1/50(2.0)
Adjusted rates(b)	2.56	4.88	4.44	2.17
Terminal rates(c)	1/39(2.6)	2/41(4.9)	1/41(2.4)	1/46(2.2)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8831			
Prevalence method(d)	P = 0.5675			
Combined analysis(d)	P = 0.7778			
Cochran-Armitage test(e)	P = 0.4642			
Fisher Exact test(e)		P = 0.4909	P = 0.3088	P = 0.4926
SITE : adrenal gland TUMOR : pheochromocytoma,pheochromocytoma:malignant				
Tumor rate				
Overall rates(a)	5/50(10.0)	9/50(18.0)	3/50(6.0)	4/50(8.0)
Adjusted rates(b)	10.26	19.51	6.67	6.52
Terminal rates(c)	4/39(10.3)	8/41(19.5)	2/41(4.9)	3/46(6.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5321			
Prevalence method(d)	P = 0.8488			
Combined analysis(d)	P = 0.8413			
Cochran-Armitage test(e)	P = 0.3699			
Fisher Exact test(e)		P = 0.2379	P = 0.3790	P = 0.4883

STUDY No. : 0267
 ANIMAL : RAT F344/DuCrj
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 5

Group Name	Control	750 ppm	1500 ppm	3000 ppm
SITE : testis				
TUMOR : interstitial cell tumor				
Tumor rate				
Overall rates(a)	46/50(92.0)	39/50(78.0)	48/50(96.0)	48/50(96.0)
Adjusted rates(b)	95.35	88.10	97.96	97.83
Terminal rates(c)	37/39(94.9)	36/41(87.8)	40/41(97.6)	45/46(97.8)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0649			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0947			
Fisher Exact test(e)		P = 0.3407	P = 0.4982	P = 0.4982

(HPT360A)

BAIS3

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

APPENDIX O 2

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

RAT : FEMALE

(2-YEAR STUDY)

STUDY No. : 0267
ANIMAL : RAT F344/DuCrj
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 6

Group Name	Control	750 ppm	1500 ppm	3000 ppm
SITE : spleen TUMOR : mononuclear cell leukemia				
Tumor rate				
Overall rates(a)	6/50(12.0)	4/50(8.0)	5/50(10.0)	3/50(6.0)
Adjusted rates(b)	5.26	4.88	7.14	2.56
Terminal rates(c)	2/38(5.3)	2/41(4.9)	3/42(7.1)	1/39(2.6)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.7468			
Prevalence method(d)	P = 0.6840			
Combined analysis(d)	P = 0.8002			
Cochran-Armitage test(e)	P = 0.3582			
Fisher Exact test(e)		P = 0.3944	P = 0.4872	P = 0.2728
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	16/50(32.0)	23/50(46.0)	17/49(34.7)	12/50(24.0)
Adjusted rates(b)	34.21	46.34	30.43	22.22
Terminal rates(c)	13/38(34.2)	19/41(46.3)	10/41(24.4)	7/39(17.9)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5565			
Prevalence method(d)	P = 0.9104			
Combined analysis(d)	P = 0.8973			
Cochran-Armitage test(e)	P = 0.1607			
Fisher Exact test(e)		P = 0.2231	P = 0.5000	P = 0.3253
SITE : pituitary gland TUMOR : adenoma,adenocarcinoma				
Tumor rate				
Overall rates(a)	17/50(34.0)	23/50(46.0)	17/49(34.7)	12/50(24.0)
Adjusted rates(b)	34.21	46.34	30.43	22.22
Terminal rates(c)	13/38(34.2)	19/41(46.3)	10/41(24.4)	7/39(17.9)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.6832			
Prevalence method(d)	P = 0.9206			
Combined analysis(d)	P = 0.9304			
Cochran-Armitage test(e)	P = 0.1156			
Fisher Exact test(e)		P = 0.2696	P = 0.4414	P = 0.2725

STUDY No. : 0267
ANIMAL : RAT F344/DuCrj
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 7

Group Name	Control	750 ppm	1500 ppm	3000 ppm
SITE : thyroid TUMOR : C-cell adenoma				
Tumor rate				
Overall rates(a)	5/49(10.2)	5/50(10.0)	5/49(10.2)	6/50(12.0)
Adjusted rates(b)	13.16	10.20	11.63	15.38
Terminal rates(c)	5/38(13.2)	4/41(9.8)	4/41(9.8)	6/39(15.4)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.3189			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.7446			
Fisher Exact test(e)		P = 0.3592	P = 0.3709	P = 0.4742
SITE : thyroid TUMOR : C-cell adenoma,C-cell carcinoma				
Tumor rate				
Overall rates(a)	5/49(10.2)	7/50(14.0)	5/49(10.2)	7/50(14.0)
Adjusted rates(b)	13.16	14.63	11.63	15.38
Terminal rates(c)	5/38(13.2)	6/41(14.6)	4/41(9.8)	6/39(15.4)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1056			
Prevalence method(d)	P = 0.4007			
Combined analysis(d)	P = 0.2822			
Cochran-Armitage test(e)	P = 0.6786			
Fisher Exact test(e)		P = 0.4195	P = 0.3709	P = 0.4195
SITE : adrenal gland TUMOR : pheochromocytoma				
Tumor rate				
Overall rates(a)	4/50(8.0)	2/50(4.0)	1/50(2.0)	0/50(0.0)
Adjusted rates(b)	9.30	4.88	2.38	0.0
Terminal rates(c)	3/38(7.9)	2/41(4.9)	1/42(2.4)	0/39(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9890			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0319*			
Fisher Exact test(e)		P = 0.3574	P = 0.1998	P = 0.0688

STUDY No. : 0267
ANIMAL : RAT F344/DuCrj
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 8

Group Name	Control	750 ppm	1500 ppm	3000 ppm
SITE : adrenal gland TUMOR : pheochromocytoma,pheochromocytoma:malignant				
Tumor rate				
Overall rates(a)	5/50(10.0)	2/50(4.0)	1/50(2.0)	0/50(0.0)
Adjusted rates(b)	11.63	4.88	2.38	0.0
Terminal rates(c)	4/38(10.5)	2/41(4.9)	1/42(2.4)	0/39(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9960			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0147*			
Fisher Exact test(e)		P = 0.2425	P = 0.1210	P = 0.0360*
SITE : uterus TUMOR : endometrial stromal polyp				
Tumor rate				
Overall rates(a)	8/50(16.0)	12/50(24.0)	9/50(18.0)	15/50(30.0)
Adjusted rates(b)	16.67	24.00	16.67	32.50
Terminal rates(c)	5/38(13.2)	8/41(19.5)	7/42(16.7)	12/39(30.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.6513			
Prevalence method(d)	P = 0.0391*			
Combined analysis(d)	P = 0.0599			
Cochran-Armitage test(e)	P = 0.1335			
Fisher Exact test(e)		P = 0.2846	P = 0.4846	P = 0.1384
SITE : uterus TUMOR : endometrial stromal sarcoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	4/50(8.0)	0/50(0.0)	1/50(2.0)
Adjusted rates(b)	0.0	4.88	0.0	2.56
Terminal rates(c)	0/38(0.0)	2/41(4.9)	0/42(0.0)	1/39(2.6)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8913			
Prevalence method(d)	P = 0.3754			
Combined analysis(d)	P = 0.7372			
Cochran-Armitage test(e)	P = 0.4835			
Fisher Exact test(e)		P = 0.1998	P = 0.4950	P = 0.2475

STUDY No. : 0267
ANIMAL : RAT F344/DuCrj
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 9

Group Name	Control	750 ppm	1500 ppm	3000 ppm
SITE : mammary gland TUMOR : fibroadenoma				
Tumor rate				
Overall rates(a)	8/50(16.0)	7/50(14.0)	5/50(10.0)	6/50(12.0)
Adjusted rates(b)	17.95	15.91	11.36	13.64
Terminal rates(c)	6/38(15.8)	6/41(14.6)	4/42(9.5)	4/39(10.3)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.6535			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.5224			
Fisher Exact test(e)		P = 0.4854	P = 0.3141	P = 0.4157
SITE : mammary gland TUMOR : adenocarcinoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	4/50(8.0)	0/50(0.0)	0/50(0.0)
Adjusted rates(b)	5.00	9.76	0.0	0.0
Terminal rates(c)	1/38(2.6)	4/41(9.8)	0/42(0.0)	0/39(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9201 ?			
Prevalence method(d)	P = 0.9747			
Combined analysis(d)	P = 0.9904			
Cochran-Armitage test(e)	P = 0.0319*			
Fisher Exact test(e)		P = 0.4895	P = 0.1325	P = 0.1325
SITE : mammary gland TUMOR : fibroadenoma,adenoma				
Tumor rate				
Overall rates(a)	8/50(16.0)	7/50(14.0)	5/50(10.0)	7/50(14.0)
Adjusted rates(b)	17.95	15.91	11.36	15.91
Terminal rates(c)	6/38(15.8)	6/41(14.6)	4/42(9.5)	5/39(12.8)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.5254			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.7529			
Fisher Exact test(e)		P = 0.4854	P = 0.3141	P = 0.4854

STUDY No. : 0267
ANIMAL : RAT F344/DuCrj
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 10

Group Name	Control	750 ppm	1500 ppm	3000 ppm
SITE : mammary gland TUMOR : fibroadenoma, adenoma, adenocarcinoma				
Tumor rate				
Overall rates(a)	11/50(22.0)	10/50(20.0)	5/50(10.0)	7/50(14.0)
Adjusted rates(b)	22.50	22.73	11.36	15.91
Terminal rates(c)	7/38(18.4)	9/41(22.0)	4/42(9.5)	5/39(12.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9201 ?			
Prevalence method(d)	P = 0.8077			
Combined analysis(d)	P = 0.8612			
Cochran-Armitage test(e)	P = 0.2092			
Fisher Exact test(e)		P = 0.4833	P = 0.1300	P = 0.2711
SITE : preputial/clitoral gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	2/50(4.0)	4/50(8.0)	2/50(4.0)	1/50(2.0)
Adjusted rates(b)	4.08	8.89	4.76	2.56
Terminal rates(c)	1/38(2.6)	3/41(7.3)	2/42(4.8)	1/39(2.6)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.7630			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.3871			
Fisher Exact test(e)		P = 0.3574	P = 0.3088	P = 0.4926

(HPT360A)

BAISS

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

APPENDIX P 1

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : MALE : ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

Organ_____ Findings_____		Group Name No. of Animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Respiratory system]						
lung	leukemic cell infiltration		<50> 3	<50> 1	<50> 3	<50> 0
	metastasis:adrenal tumor		2	0	0	0
	metastasis:subcutis tumor		2	0	0	0
	metastasis:vertebra tumor		0	1	0	0
[Hematopoietic system]						
bone marrow	leukemic cell infiltration		<50> 1	<50> 0	<50> 2	<50> 0
	metastasis:adrenal tumor		1	0	0	0
lymph node	leukemic cell infiltration		<50> 2	<50> 0	<50> 0	<50> 0
	metastasis:adrenal tumor		1	0	0	0
thymus	metastasis:adrenal tumor		<50> 1	<50> 0	<50> 0	<50> 0
	metastasis:subcutis tumor		<50> 1	<49> 0	<50> 0	<50> 0
[Circulatory system]						
heart	metastasis:adrenal tumor		<50> 1	<50> 0	<50> 0	<50> 0
	metastasis:subcutis tumor		1	0	0	0
[Digestive system]						
stomach	metastasis:subcutis tumor		<50> 1	<50> 0	<50> 0	<50> 0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Digestive system]						
Liver	Leukemic cell infiltration		<50> 4	<50> 1	<50> 3	<50> 1
	metastasis:subcutis tumor		2	0	0	0
pancreas	metastasis:subcutis tumor		<50> 1	<50> 0	<50> 0	<50> 0
[Urinary system]						
kidney	Leukemic cell infiltration		<50> 1	<50> 0	<50> 0	<50> 0
[Endocrine system]						
pituitary	Leukemic cell infiltration		<50> 2	<50> 0	<50> 0	<50> 0
	Leukemic cell infiltration		<50> 2	<50> 0	<50> 1	<50> 0
[Nervous system]						
spinal cord	Leukemic cell infiltration		<50> 1	<50> 0	<50> 0	<50> 0
[Body cavities]						
pleura	metastasis:subcutis tumor		<50> 1	<50> 0	<50> 0	<50> 0
	metastasis:subcutis tumor		<50> 2	<50> 0	<50> 0	<50> 0

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

APPENDIX P 2

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : MALE : DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Group Name No. of Animals on Study		Control 39	750 ppm 41	1500 ppm 41	3000 ppm 46
Organ	Findings				
[Respiratory system]					
lung		<39>	<41>	<41>	<46>
	leukemic cell infiltration	1	1	2	0
	metastasis:adrenal tumor	1	0	0	0
	metastasis:vertebra tumor	0	1	0	0
[Hematopoietic system]					
bone marrow		<39>	<41>	<41>	<46>
	leukemic cell infiltration	0	0	1	0
thymus		<39>	<41>	<41>	<46>
	metastasis:adrenal tumor	1	0	0	0
[Digestive system]					
liver		<39>	<41>	<41>	<46>
	leukemic cell infiltration	1	1	2	1
< a >		a : Number of animals examined at the site			
b		b : Number of animals with lesion			

(JPT150)

BAIS3

APPENDIX P 3

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : MALE : SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study	Control 11	750 ppm 9	1500 ppm 9	3000 ppm 4
[Respiratory system]						
lung			<11>	< 9>	< 9>	< 4>
	leukemic cell infiltration		2	0	1	0
	metastasis:adrenal tumor		1	0	0	0
	metastasis:subcutis tumor		2	0	0	0
[Hematopoietic system]						
bone marrow			<11>	< 9>	< 9>	< 4>
	leukemic cell infiltration		1	0	1	0
lymph node			<11>	< 9>	< 9>	< 4>
	leukemic cell infiltration		2	0	0	0
	metastasis:adrenal tumor		1	0	0	0
spleen			<11>	< 8>	< 9>	< 4>
	metastasis:subcutis tumor		1	0	0	0
[Circulatory system]						
heart			<11>	< 9>	< 9>	< 4>
	metastasis:adrenal tumor		1	0	0	0
	metastasis:subcutis tumor		1	0	0	0
[Digestive system]						
stomach			<11>	< 9>	< 9>	< 4>
	metastasis:subcutis tumor		1	0	0	0
liver			<11>	< 9>	< 9>	< 4>
	leukemic cell infiltration		3	0	1	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study	Control 11	750 ppm 9	1500 ppm 9	3000 ppm 4
[Digestive system]						
liver			<11>	< 9>	< 9>	< 4>
	metastasis:subcutis tumor		2	0	0	0
pancreas			<11>	< 9>	< 9>	< 4>
	metastasis:subcutis tumor		1	0	0	0
[Urinary system]						
kidney			<11>	< 9>	< 9>	< 4>
	leukemic cell infiltration		1	0	0	0
[Endocrine system]						
pituitary			<11>	< 9>	< 9>	< 4>
	leukemic cell infiltration		2	0	0	0
adrenal			<11>	< 9>	< 9>	< 4>
	leukemic cell infiltration		2	0	1	0
[Nervous system]						
spinal cord			<11>	< 9>	< 9>	< 4>
	leukemic cell infiltration		1	0	0	0
[Body cavities]						
pleura			<11>	< 9>	< 9>	< 4>
	metastasis:subcutis tumor		1	0	0	0
peritoneum			<11>	< 9>	< 9>	< 4>
	metastasis:subcutis tumor		2	0	0	0

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

APPENDIX P 4

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : FEMALE : ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Respiratory system]						
Larynx	metastasis:thyroid tumor		<50> 0	<50> 0	<50> 0	<50> 1
Lung	leukemic cell infiltration		<50> 5	<50> 3	<50> 3	<50> 3
	metastasis:adrenal tumor		1	0	0	0
	metastasis:thyroid tumor		0	0	0	1
	metastasis:subcutis tumor		0	0	0	1
[Hematopoietic system]						
bone marrow	leukemic cell infiltration		<50> 3	<50> 2	<50> 2	<50> 1
Lymph node	leukemic cell infiltration		<50> 0	<50> 1	<50> 1	<50> 0
	metastasis:thyroid tumor		0	0	0	1
thymus	leukemic cell infiltration		<50> 0	<50> 2	<50> 2	<50> 1
[Circulatory system]						
heart	leukemic cell infiltration		<50> 1	<50> 1	<50> 0	<50> 0
[Digestive system]						
salivary gl	leukemic cell infiltration		<50> 0	<50> 1	<50> 0	<50> 0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 4

Group Name No. of Animals on Study		Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
Organ	Findings				
[Digestive system]					
stomach		<50>	<50>	<50>	<50>
	Leukemic cell infiltration	0	1	1	0
liver		<50>	<50>	<50>	<50>
	Leukemic cell infiltration	6	4	5	2
pancreas		<50>	<50>	<50>	<50>
	Leukemic cell infiltration	0	1	0	0
[Urinary system]					
kidney		<50>	<50>	<50>	<50>
	Leukemic cell infiltration	0	1	1	0
urin bladd		<50>	<50>	<50>	<50>
	Leukemic cell infiltration	0	0	1	0
[Endocrine system]					
pituitary		<50>	<50>	<50>	<50>
	Leukemic cell infiltration	0	1	1	0
adrenal		<50>	<50>	<50>	<50>
	Leukemic cell infiltration	0	2	0	0
[Reproductive system]					
ovary		<50>	<50>	<50>	<50>
	Leukemic cell infiltration	0	1	1	0
uterus		<50>	<50>	<50>	<50>
	Leukemic cell infiltration	0	1	1	0
< a >	a : Number of animals examined at the site				
b	b : Number of animals with lesion				

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name No. of Animals on Study	Control 50	750 ppm 50	1500 ppm 50	3000 ppm 50
[Reproductive system]						
vagina	leukemic cell infiltration		<50> 0	<50> 1	<50> 1	<50> 0
mammary gl	leukemic cell infiltration		<50> 1	<50> 1	<50> 1	<50> 0
[Nervous system]						
brain	leukemic cell infiltration		<50> 1	<50> 0	<50> 1	<50> 0
[Body cavities]						
pleura	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

(JPT150)

BAIS3

APPENDIX P 5

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : FEMALE : DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study	Control 12	750 ppm 9	1500 ppm 8	3000 ppm 11
[Respiratory system]						
larynx			<12>	< 9>	< 8>	<11>
	metastasis:thyroid tumor		0	0	0	1
lung			<12>	< 9>	< 8>	<11>
	leukemic cell infiltration		4	2	2	2
	metastasis:thyroid tumor		0	0	0	1
	metastasis:subcutis tumor		0	0	0	1
[Hematopoietic system]						
bone marrow			<12>	< 9>	< 8>	<11>
	leukemic cell infiltration		2	2	1	1
lymph node			<12>	< 9>	< 8>	<11>
	leukemic cell infiltration		0	0	1	0
	metastasis:thyroid tumor		0	0	0	1
thymus			<12>	< 9>	< 8>	<11>
	leukemic cell infiltration		0	1	2	1
[Circulatory system]						
heart			<12>	< 9>	< 8>	<11>
	leukemic cell infiltration		1	1	0	0
[Digestive system]						
salivary gl			<12>	< 9>	< 8>	<11>
	leukemic cell infiltration		0	1	0	0

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

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name No. of Animals on Study	Control 12	750 ppm 9	1500 ppm 8	3000 ppm 11
[Digestive system]						
stomach	leukemic cell infiltration		<12> 0	< 9> 1	< 8> 1	<11> 0
Liver	leukemic cell infiltration		<12> 4	< 9> 2	< 8> 2	<11> 1
[Urinary system]						
kidney	leukemic cell infiltration		<12> 0	< 9> 1	< 8> 1	<11> 0
urin bladd	leukemic cell infiltration		<12> 0	< 9> 0	< 8> 1	<11> 0
[Endocrine system]						
pituitary	leukemic cell infiltration		<12> 0	< 9> 1	< 8> 1	<11> 0
adrenal	leukemic cell infiltration		<12> 0	< 9> 1	< 8> 0	<11> 0
[Reproductive system]						
ovary	leukemic cell infiltration		<12> 0	< 9> 1	< 8> 1	<11> 0
uterus	leukemic cell infiltration		<12> 0	< 9> 1	< 8> 1	<11> 0
vagina	leukemic cell infiltration		<12> 0	< 9> 1	< 8> 1	<11> 0

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

STUDY NO. : 0267
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 5

		Group Name	Control	750 ppm	1500 ppm	3000 ppm
		No. of Animals on Study	12	9	8	11
Organ	Findings					
[Reproductive system]						
mammary gl			<12>	< 9>	< 8>	<11>
	leukemic cell infiltration		0	1	1	0
[Nervous system]						
brain			<12>	< 9>	< 8>	<11>
	leukemic cell infiltration		1	0	1	0
[Body cavities]						
pleura			<12>	< 9>	< 8>	<11>
	leukemic cell infiltration		0	0	1	0

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

(JPT150)

BAISS

APPENDIX P 6

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : FEMALE : SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0267
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study	Control 38	750 ppm 41	1500 ppm 42	3000 ppm 39
[Respiratory system]						
Lung	leukemic cell infiltration		<38> 1	<41> 1	<42> 1	<39> 1
	metastasis:adrenal tumor		1	0	0	0
[Hematopoietic system]						
bone marrow	leukemic cell infiltration		<38> 1	<41> 0	<42> 1	<39> 0
Lymph node	leukemic cell infiltration		<38> 0	<41> 1	<42> 0	<39> 0
thymus	leukemic cell infiltration		<38> 0	<41> 1	<42> 0	<39> 0
[Digestive system]						
Liver	leukemic cell infiltration		<38> 2	<41> 2	<42> 3	<39> 1
pancreas	leukemic cell infiltration		<38> 0	<41> 1	<42> 0	<39> 0
[Endocrine system]						
adrenal	leukemic cell infiltration		<38> 0	<41> 1	<42> 0	<39> 0
[Reproductive system]						
mammary gl	leukemic cell infiltration		<38> 1	<41> 0	<42> 0	<39> 0

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

APPENDIX Q 1

IDENTITY OF GLYOXAL IN THE 2-YEAR DRINKING WATER STUDY

IDENTITY OF GLYOXAL IN THE 2-YEAR DRINKING WATER STUDY

Test Substance : Glyoxal (Wako Pure Chemical Industries, LTD.)

A. Lot No. : CAK4487

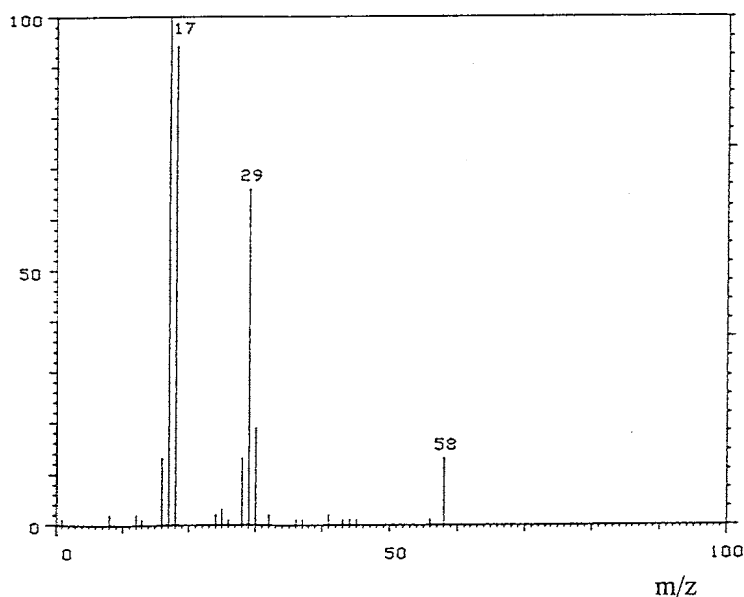
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Determined Values
Fragment Peak (m/z)17
29
58Literature Values*
Fragment Peak (m/z)17
29
58

Results: The mass spectrum was consistent with literature spectrum.

(*S. R. Heller and G. W. A. Milne (1978) EPA/NIH Mass spectral data base.
Nat. Stand. Ref. Data Ser., Nat. Bur. Stand. (U.S.), 63, Vol. 1, pp. 7)

2. Conclusions: The test substance was identified as glyoxal, by the mass spectrum.

B. Lot No. : SKQ5736

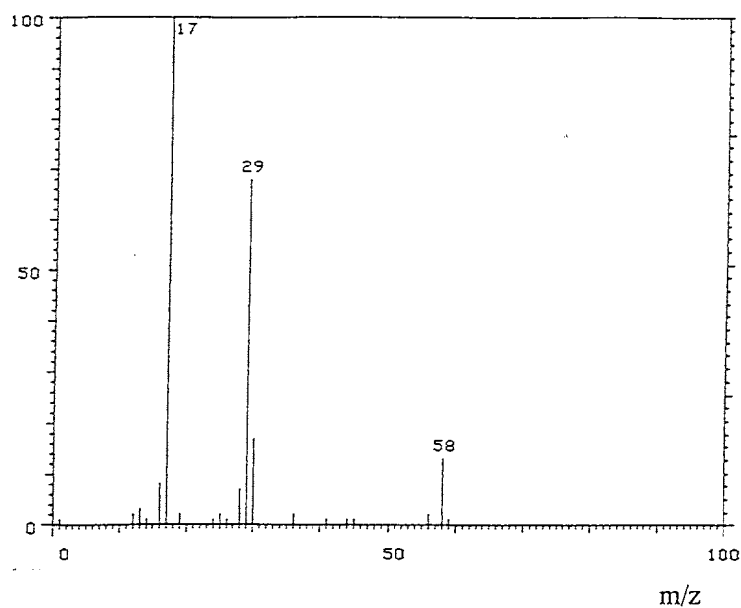
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Determined Values
Fragment Peak (m/z)

17
29
58

Literature Values^{*}
Fragment Peak (m/z)

17
29
58

Results: The mass spectrum was consistent with literature spectrum.

(*S. R. Heller and G. W. A. Milne (1978) EPA/NIH Mass spectral data base.
Nat. Stand. Ref. Data Ser., Nat. Bur. Stand. (U.S.), 63, Vol. 1, pp. 7)

2. Conclusions: The test substance was identified as glyoxal, by the mass spectrum.

C. Lot No. : SKE5515

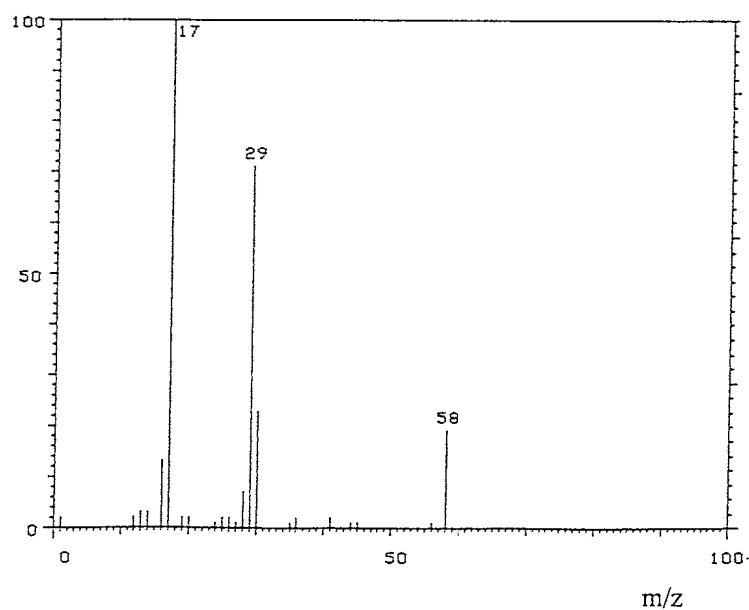
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Determined Values
Fragment Peak (m/z)

Literature Values^{*}
Fragment Peak (m/z)

17

17

29

29

58

58

Results: The mass spectrum was consistent with literature spectrum.

(*S. R. Heller and G. W. A. Milne (1978) EPA/NIH Mass spectral data base.
Nat. Stand. Ref. Data Ser., Nat. Bur. Stand. (U.S.), 63, Vol. 1, pp. 7)

2. Conclusions: The test substance was identified as glyoxal, by the mass spectrum.

APPENDIX Q 2

STABILITY OF GLYOXAL IN THE 2-YEAR DRINKING WATER STUDY

STABILITY OF GLYOXAL IN FORMULATED WATER IN THE 2-YEAR DRINKING WATER STUDY

Date Prepared	Date Analyzed	Target Concentration	
		750 ^a	3000
1994.08.29	1994.08.29	773 (100) ^b	3145 (100)
	1994.09.02 ^c	759 (98.2)	3096 (98.4)
	1994.09.06 ^c	728 (94.2)	2955 (94.0)

Date Prepared	Date Analyzed	Target Concentration	
		750 ^a	3000
1994.12.02	1994.12.02	773 (100) ^b	3107 (100)
	1994.12.16 ^c	717 (92.8)	3077 (99.0)

^a ppm

^b % (Percentage were based on the concentration on date of preparation.)

^c Animal room samples

Analytical method : The samples were analyzed by the GC.

Instrument	: Hewlett Packard 5890A Gas Chromatograph	
Column	: Methyl Silicone (0.2 mm ϕ \times 25 m)	Column Temperature: 140 °C
Flow Rate	: 0.7 mL/min	Injection Volume : 1 μ L
Detector	: FID (Flame Ionization Detector)	

Pre-Treatment : Glyoxal was allowed to react with quinoxaline, and analyzed. First, 50% hydroxylammonium chloride (0.02 mL), 36% hydrochloric acid (0.1 mL), 4% o-phenylene diamine dihydrochloride (0.05 mL) were added to a glyoxal solution (1 mL). This mixture was stirred at 75 °C for 0.5 hr. Then, this solution was extracted with ethyl acetate (2 mL) and analyzed.

APPENDIX R 1

CONCENTRATION OF GLYOXAL IN FORMULATED WATER IN THE 2-YEAR DRINKING WATER STUDY

CONCENTRATION OF GLYOXAL IN FORMULATED WATER IN THE 2-YEAR DRINKING WATER STUDY

Date Analyzed	Target Concentration		
	750 ^a	1500	3000
1994.09.09	755 (100.7) ^b	1512 (100.8)	3038 (101.3)
1994.12.02	773 (103.1)	1549 (103.3)	3107 (103.6)
1995.02.17	745 (99.3)	1654 (110.3)	3366 (112.2)
1995.05.23	727 (96.9)	1485 (99.0)	3007 (100.2)
1995.08.15	780 (104.0)	1571 (104.7)	3194 (106.5)
1995.11.07	804 (107.2)	1526 (101.7)	3126 (104.2)
1996.01.30	768 (102.4)	1565 (104.3)	3144 (104.8)
1996.04.23	806 (107.5)	1614 (107.6)	3173 (105.8)
1996.07.16	752 (100.3)	1548 (103.2)	3087 (102.9)

^a ppm

^b %

Analytical method: The samples were analyzed by the GC.

Instrument : Hewlett Packard 5890A Gas Chromatograph
 Column : Methyl Silicone (0.2 mm ϕ \times 25 m)
 Flow Rate : 0.7 mL/min
 Detector : FID (Flame Ionization Detector)

Column Temperature: 140 °C
 Injection Volume : 1 μ L

Pre-Treatment : Glyoxal was allowed to react with quinoxaline, and analyzed. First, 50% hydroxylammonium chloride (0.02 mL), 36% hydrochloric acid (0.1 mL), 4% o-phenylene diamine dihydrochloride (0.05 mL) were added to a glyoxal solution (1 mL). This mixture was stirred at 75 °C for 0.5 hr. Then, this solution was extracted with ethyl acetate (2 mL) and analyzed.

APPENDIX R 2

STABILITY OF GLYOXAL IN FORMULATED WATER IN THE 2-YEAR DRINKING WATER STUDY

STABILITY OF GLYOXAL IN THE 2-YEAR DRINKING WATER STUDY

Test Substance : Glyoxal (Wako Pure Chemical Industries, LTD.)

A. Lot No. : CAK4487

1. Sample : This lot was used from 1994.9.9 to 1995.8.18. Test substance was stored in the dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2 mm ϕ \times 25 m)

Column Temperature : 140 °C

Flow Rate : 0.7 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Pre-Treatment : Glyoxal was allowed to react with quinoxaline, and analyzed. First, 50% hydroxylammonium chloride (0.02 mL), 36% hydrochloric acid (0.1 mL), 4% o-phenylene diamine dihydrochloride (0.05 mL) were added to a glyoxal solution (1 mL). This mixture was stirred at 75 °C for 0.5 hr. Then, this solution was extracted with ethyl acetate (2 mL) and analyzed.

Date (date analyzed)	Peak No.	Retention Time (min)	Area* (%)
1994.09.05	1	1.293 (Solvent Peak)	100
	2	2.03	
1995.08.28	1	1.292 (Solvent Peak)	100
	2	2.028	

* The solvent peak was excluded from the area calculation.

Results: Gas chromatography indicated one major peak (peak No.2) and solvent peak (peak No.1) analyzed at 1994.9.5 and one major peak (peak No.2) and solvent peak (peak No.1) analyzed at 1995.8.28. No new trace impurity peak in the test substance analyzed at 1995.8.28 was detected.

3. Conclusions: The test substance was stable for about 1 year in the dark place at room temperature.

B. Lot No. : SKQ5736

1. Sample : This lot was used from 1995.8.18 to 1996.3.8. Test substance was stored in the dark at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2mm ϕ \times 25m)

Column Temperature : 140° C

Flow Rate : 0.7 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Pre-Treatment : Glyoxal was allowed to react with quinoxaline, and analyzed. First, 50% hydroxylammonium chloride (0.02mL), 36% hydrochloric acid (0.1mL), 4% o-phenylene diamine dihydrochloride (0.05mL) were added to a glyoxal solution (1mL). This mixture was stirred at 75°C for 0.5 hr. Then, this solution was extracted with ethyl acetate (2mL) and analyzed.

Date (date analyzed)	Peak No.	Retention Time (min)	Area* (%)
1995.08.15	1	1.227 (Solvent peak)	100
	2	2.055	
1996.03.15	1	1.227 (Solvent peak)	100
	2	2.055	

* The solvent peak was excluded from the area calculation.

Results: Gas chromatography indicated one major peak (peak No.2) and solvent peak (peak No.1) analyzed at 1995.8.15 and one major peak (peak No.2) and solvent peak (peak No.1) analyzed at 1996.3.15. No new trace impurity peak in the test substance analyzed at 1996.3.15 was detected.

3. Conclusions: The test substance was stable for about 7 months in the dark at room temperature.

C. Lot No. : SKE5515

1. Sample : This lot was used from 1996.3.8 to 1996.9.13. Test substance was stored in the dark at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2mm ϕ \times 25m)

Column Temperature : 140° C

Flow Rate : 0.7 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Pre-Treatment : Glyoxal was allowed to react with quinoxaline, and analyzed. First, 50% hydroxylammonium chloride (0.02mL), 36% hydrochloric acid (0.1mL), 4% o-phenylene diamine dihydrochloride (0.05mL) were added to a glyoxal solution (1mL). This mixture was stirred at 75°C for 0.5 hr. Then, this solution was extracted with ethyl acetate (2mL) and analyzed.

Date (date analyzed)	Peak No.	Retention Time (min)	Area* (%)
1996.02.13	1	1.207 (Solvent peak)	100
	2	2.008	
1996.10.15	1	1.207 (Solvent peak)	100
	2	2.01	

* The solvent peak was excluded from the area calculation.

Results: Gas chromatography indicated one major peak (peak No.2) and solvent peak (peak No.1) analyzed at 1996.2.13 and one major peak (peak No.2) and solvent peak (peak No.1) analyzed at 1996.10.15. No new trace impurity peak in the test substance analyzed at 1996.10.15 was detected.

3. Conclusions: The test substance was stable for about 8 months in the dark at room temperature.

APPENDIX S 1

METHODS FOR HEMATOLOGY, BIOCHEMISTRY AND URINALYSIS IN THE 2-YEAR DRINKING WATER STUDY OF GLYOXAL

METHODS FOR HEMATOLOGY,BIOCHEMISTRY AND URINALYSIS
IN THE 2-YEAR DRINKING WATER STUDY OF GLYOXAL

Item	Method
Hematology	
Red blood cell (RBC)	Light scattering method ¹⁾
Hemoglobin (Hgb)	Cyanmethemoglobin method ¹⁾
Hematocrit (Hct)	Calculated as $RBC \times MCV/10$ ¹⁾
Mean corpuscular volume (MCV)	Light scattering method ¹⁾
Mean corpuscular hemoglobin (MCH)	Calculated as $Hgb/RBC \times 10$ ¹⁾
Mean corpuscular hemoglobin concentration (MCHC)	Calculated as $Hgb/Hct \times 100$ ¹⁾
Platelet	Light scattering method ¹⁾
White blood cell (WBC)	Light scattering method ¹⁾
Differential WBC	Pattern recognition method ²⁾ (May-Grunwald-Giemsa staining)
Biochemistry	
Total protein (TP)	Biuret method ³⁾
Albumin (Alb)	BCG method ³⁾
A/G ratio	Calculated as $Alb/(TP - Alb)$ ³⁾
T-bilirubin	Alkaline azobilirubin method ³⁾
Glucose	Enzymatic method (GLK•G-6-PDH) ³⁾
T-cholesterol	Enzymatic method (CE•COD•POD) ³⁾
Triglyceride	Enzymatic method (LPL•GK•GPO•POD) ³⁾
Phospholipid	Enzymatic method (PLD•COD•POD) ³⁾
Glutamic oxaloacetic transaminase (GOT)	UV•Rate method ³⁾
Glutamic pyruvic transaminase (GPT)	UV•Rate method ³⁾
Lactate dehydrogenase (LDH)	UV•Rate method ³⁾
Alkaline phosphatase (ALP)	p-Nitrophenylphosphate method ³⁾
γ -Glutamyl transpeptidase (γ -GTP)	L-γ -Glutamyl-p-nitroanilide method ³⁾
Creatine phosphokinase (CPK)	UV•Rate method ³⁾
Urea nitrogen	Enzymatic method (Urease•GLDH) ³⁾
Creatinine	Jaffe method ³⁾
Sodium	Ion selective electrode method ³⁾
Potassium	Ion selective electrode method ³⁾
Chloride	Ion selective electrode method ³⁾
Calcium	OCPC method ³⁾
Inorganic phosphorus	Enzymatic method (PNP•XOD•POD) ³⁾
Urinalysis	
pH,Protein,Glucose,Ketone body,Bilirubin,Occult blood, Urobilinogen	Urinalysis reagent paper method ⁴⁾

1) Automatic blood cell analyzer (Technicon H•1 : Technicon Instruments Corporation,USA)

2) Automatic blood cell differential analyzer (Hitachi 8200 : Hitachi,Ltd.,Japan)

3) Automatic analyzer (Hitachi 7070 : Hitachi,Ltd.,Japan)

4) Ames reagent strips for urinalysis (Multistix : Bayer-Sankyo Co.,Ltd.,Japan)

APPENDIX S 2

UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE
2-YEAR DRINKING WATER STUDY OF GLYOXAL

UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY
IN THE 2-YEAR DRINKING WATER STUDY OF GLYOXAL

Item	Unit	Decimal place
Hematology		
Red blood cell (RBC)	$\times 10^6/\mu\text{L}$	2
Hemoglobin	g/dL	1
Hematocrit	%	1
Mean corpuscular volume (MCV)	fL	1
Mean corpuscular hemoglobin (MCH)	pg	1
Mean corpuscular hemoglobin concentration (MCHC)	g/dL	1
Platelet	$\times 10^3/\mu\text{L}$	0
White blood cell (WBC)	$\times 10^3/\mu\text{L}$	2
Differential WBC	%	0
Biochemistry		
Total protein	g/dL	1
Albumin	g/dL	1
A/G ratio	—	1
T-bilirubin	mg/dL	2
Glucose	mg/dL	0
T-cholesterol	mg/dL	0
Triglyceride	mg/dL	0
Phospholipid	mg/dL	0
Glutamic oxaloacetic transminase (GOT)	IU/L	0
Glutamic pyruvic transaminase (GPT)	IU/L	0
Lactate dehydrogenase (LDH)	IU/L	0
Alkaline phosphatase (ALP)	IU/L	0
γ -Glutamyl transpeptidase (γ -GTP)	IU/L	0
Creatine phosphokinase (CPK)	IU/L	0
Urea nitrogen	mg/dL	1
Creatinine	mg/dL	1
Sodium	mEq/L	0
Potassium	mEq/L	1
Chloride	mEq/L	0
Calcium	mg/dL	1
Inorganic phosphorus	mg/dL	1