

アリルクロリドのラットを用いた
吸入によるがん原性試験報告書

試験番号：0365

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APPENDIX A 1

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAxic GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTIO	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAxic GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILORECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILORECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	1	1	1	2	2	2	2	2	2	2	2	2	2	2
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILORECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	2	2	3	3	3	3	3	3	3	3	3	3	3	3
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILORECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	100ppm	0	0	0	0	1	1	1	1	1	1	1	1	2	2
MORIBUND SACRIFICE	Control	1	1	2	2	3	4	4	4	4	4	4	4	4	4
	25ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	50ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LOCOMOTOR MOVEMENT DECR	Control	0	0	1	1	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	1	0	1	1	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILORECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	3	3	4	4	4	4	4	4	4	4	4	4	4	4
	25ppm	0	0	0	1	1	1	1	1	1	1	1	2	3	4
	50ppm	2	2	2	2	2	2	3	5	5	5	5	5	5	5
	100ppm	2	3	3	3	4	4	5	6	6	6	6	7	7	7
MORIBUND SACRIFICE	Control	4	5	5	5	5	5	5	5	5	6	7	7	7	7
	25ppm	2	2	2	2	2	3	4	4	4	5	5	5	6	7
	50ppm	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	100ppm	2	3	4	4	4	5	6	7	8	8	9	10	11	11
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	1	0	0	0	1	1	0	1	0	0	0	1	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	1	1	2	2	2	1	1	1
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	1	1	0	0	0	0
	25ppm	0	0	0	0	0	1	0	0	0	0	0	0	1	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	1	0	0	2	1	0	1	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	1	1	0	0	0	0
PILORECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	1	0	0	0	1	1	0	0	1	0	0	0	0

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ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
DEATH	Control	4	4	4	4	5	5
	25ppm	4	5	5	5	5	6
	50ppm	5	6	6	6	6	6
	100ppm	8	9	9	9	10	10
MORIBUND SACRIFICE	Control	7	7	7	7	7	7
	25ppm	7	7	8	8	8	11
	50ppm	3	3	3	3	3	4
	100ppm	11	12	12	14	14	16
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	1	0	1	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	1	1	1	2	12	10
PARALYTIC GAIT	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	3	3
WASTING	Control	0	0	0	0	0	1
	25ppm	0	0	1	0	1	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
PILORECTION	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	3
	100ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	2
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	2	2	2	2	2	3	3	3	3	3	4	4	4	4
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	50ppm	3	3	3	3	3	3	3	3	3	3	4	4	4	4
	100ppm	2	2	2	2	3	3	3	3	3	3	3	3	3	3
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	1	1	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	25ppm	2	2	2	2	2	2	2	3	3	3	3	3	3	3
	50ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	100ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	1	1	1	1	1	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	4	4	4	4	4	4	4	4	4	4	4	4	5	5
	25ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	50ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	100ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1	1	1	0	0	0	0	0	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	25ppm	3	3	3	3	3	3	3	3	3	3	4	4	5	5
	50ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	100ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL GROWTH OF TEETH	Control	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	1	2	1	1	1	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	1	0	0	1	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	5	5	4	4	4	4	4	4	4	4	4	4	5	5
	25ppm	5	5	5	4	4	4	4	4	4	4	3	2	2	1
	50ppm	4	5	5	5	5	5	5	4	4	4	4	4	4	4
	100ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	2
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	1	1	1
SOILED PERI GENITALIA	Control	0	0	0	0	0	0
	25ppm	0	0	1	1	1	0
	50ppm	0	0	0	0	0	0
	100ppm	0	1	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
CATARACT	Control	5	5	5	5	5	5
	25ppm	1	1	1	1	1	1
	50ppm	4	4	5	5	5	4
	100ppm	2	2	2	2	2	2
CORNEAL OPACITY	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
ABNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	1	1	0	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	2
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
M. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	2	1	1	1	1	1	1	3	1
	50ppm	0	0	0	0	0	1	1	1	1	0	0	0	0	0
	100ppm	1	2	1	1	1	1	1	1	1	1	1	1	1	1
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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	1	1	1	1	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	1	1	1	0	0	0	0	0	0	0
	100ppm	1	1	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0
	25ppm	1	1	1	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	1	1	1	2	1	1
M. NOSE	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	1	1
	100ppm	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1
	50ppm	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	1	1
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
M. HEAD	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 ANIMAL : RAT F344/DuCrj
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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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	1	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	1	1	2	2	2	1	1	1	1	2
	50ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	100ppm	1	1	1	1	1	1	1	1	1	3	3	3	3	3
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	2	2	2	2	2	2	2	1	1	1	1	1	2
	100ppm	1	1	1	1	2	2	2	2	2	2	2	2	2	2
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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	2	2
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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ANIMAL : RAT F344/DuCrj
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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	50ppm	1	1	1	1	2	2	2	2	2	2	2	2	2	2
	100ppm	1	1	1	1	1	1	1	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	50ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100ppm	3	3	3	3	4	4	3	3	3	3	2	3	3	3
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	1	0	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	2
M. POSTERIOR DORSUM	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	100ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
M. TAIL	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	2	2	1	1	1

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
M. NECK	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0
	25ppm	1	1	2	2	2	2
	50ppm	2	2	2	3	3	2
	100ppm	0	0	0	0	0	1
M. ABDOMEN	Control	0	0	0	0	0	0
	25ppm	2	2	2	2	3	3
	50ppm	1	1	1	1	1	1
	100ppm	3	3	3	3	3	3
M. ANTERIOR. DORSUM	Control	1	1	3	3	3	3
	25ppm	0	0	0	0	0	0
	50ppm	1	1	1	1	1	0
	100ppm	2	2	2	3	3	3
M. POSTERIOR DORSUM	Control	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0
	50ppm	2	2	2	2	2	2
	100ppm	2	2	2	2	1	1
M. HINDLIMB	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	1	1	1	1
	100ppm	0	0	0	0	0	0
M. TAIL	Control	2	2	2	2	1	1
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	1	1	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANEMIA	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	1	1	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	2	0	0	0	1	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	1	0	0	0	0	0	0	0	0	0	0	1	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	1	0	0	0	1	1	1	0	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1	1	0	0	0	0	0	1	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1	1	0	1	0	0	0	0	0

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	0	0
	25ppm	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0
	25ppm	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0
	25ppm	1	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	1
	25ppm	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	1	0	1	0	0
BRADYPNEA	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	1	0	0	0	0

APPENDIX A 2

CLINICAL OBSERVATION : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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ANIMAL : RAT F344/DuCrj
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CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	1	1	1	1	1	2	2
	25ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	2	2	2	2	2	2	2	3	3	3	3	3	3	3
	25ppm	2	2	2	2	2	2	3	3	3	3	3	3	3	3
	50ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	1	1	1	2	2	2
	25ppm	1	1	1	1	1	2	2	2	2	2	3	4	4	4
	50ppm	1	1	1	1	1	1	1	1	1	1	1	2	3	3
	100ppm	0	1	1	2	2	2	2	2	2	2	2	2	2	2
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	1	0	0	1	0	0
	25ppm	1	0	0	0	0	0	0	0	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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	1	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1	1	1	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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ANIMAL : RAT F344/DuCrj
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CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	3	3	3	3	3	3	3	3	4	4	4	5	5	5
	25ppm	3	3	3	4	4	4	4	6	6	6	6	6	6	6
	50ppm	1	1	1	1	1	1	1	1	1	1	2	2	2	2
	100ppm	2	3	3	3	3	3	3	3	4	4	4	4	4	4
MORIBUND SACRIFICE	Control	2	3	3	3	3	3	3	3	3	3	3	3	3	3
	25ppm	4	5	5	5	5	5	6	6	6	6	6	6	7	7
	50ppm	4	4	4	5	6	6	6	6	6	7	8	10	10	12
	100ppm	2	2	2	2	2	2	2	2	2	2	2	2	4	4
LOCOMOTOR MOVEMENT DECR	Control	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	1	0	0	0	0	1	0	0	0	0	0	0	0
	50ppm	1	0	0	0	0	0	0	0	0	0	1	1	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0

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 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
DEATH	Control	5	5	5	5	5	5
	25ppm	7	7	7	7	7	8
	50ppm	3	3	3	3	4	4
	100ppm	4	4	5	5	5	6
MORIBUND SACRIFICE	Control	3	3	3	3	3	5
	25ppm	7	7	7	8	8	8
	50ppm	12	12	12	12	12	12
	100ppm	6	6	7	9	10	10
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	1	1
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	2	0	0	2	0	0
PRONE	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	1	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	3	3
PARALYTIC GAIT	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0

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 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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ANIMAL : RAT F344/DuCrj
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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	25ppm	3	3	3	3	3	3	3	4	4	4	4	4	4	4
	50ppm	0	0	0	0	0	1	1	2	2	2	2	2	2	2
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	2	2	2	2	2	3	3	3	3	3	3	3	3	3
	25ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	50ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	2	1	0	0	0	2	2	2	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	3	3	3	3	3	3	3	3	3	3	3	3	4	4
	25ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	50ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
WASTING	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	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
	25ppm	0	0	1	0	0	1	0	1	1	1	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	3	3	2	0	0	0	0	2	4	5	2	5	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	4	4	4	4	4	5	5	5	5	4	4	4	4	4
	25ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50ppm	2	2	2	2	2	1	1	1	1	1	1	1	1	1
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
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CLINICAL OBSERVATION (SUMMARY)
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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
WASTING	Control	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	0	0	0	0	0	0	0	0	0	0	1	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0
	100ppm	3	2	0	8	3	3	0	2	2	2	4	2	3	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	25ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
WASTING	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	1	0	0	2	0	0
SOILED	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	2	2	2	2
EXOPHTHALMOS	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
CATARACT	Control	4	4	4	4	5	5
	25ppm	5	5	5	5	5	5
	50ppm	1	1	1	1	1	1
	100ppm	1	1	1	1	1	1
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0

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 ANIMAL : RAT F344/DuCrj
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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 REPORT TYPE : A1 104

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 ANIMAL : RAT F344/DuCrj
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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	2	2	2	2	2	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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 ANIMAL : RAT F344/DuCrj
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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	1	1	1	1	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	2	2	3	3	3	2
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	1	1	2	1	1	1	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	50ppm	0	0	0	0	0	0	0	1	1	2	2	2	2	1
	100ppm	0	0	1	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	2	2	1	1	1	1	1	1	1	1	1	1	1	1
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	25ppm	1	2	1	0	0	1	1	0	0	0	0	0	1	0
	50ppm	3	2	2	2	2	2	2	2	2	1	2	3	2	2
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	1	2	2	2	2	2	2	2	2	2	2	2	2
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1	1	2	2	3	3	3	3	4
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIME	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	1	1	1	1	1	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
INTERNAL MASS	Control	1	1	1	1	2	1
	25ppm	0	0	0	0	1	3
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	1	1
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	1	1	0	0	0	0
M. BREAST	Control	1	1	1	1	1	1
	25ppm	0	0	0	0	0	2
	50ppm	3	3	3	3	3	3
	100ppm	0	1	1	1	1	2
M. ABDOMEN	Control	0	0	0	0	0	0
	25ppm	1	1	1	1	2	1
	50ppm	0	0	0	0	0	1
	100ppm	5	3	2	1	1	2
M. POSTERIOR DORSUM	Control	0	0	1	1	1	1
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0

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		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. GENITALIA	Control	0	1	1	1	1	1	1	1	1	1	1	1	0	0
	25ppm	1	1	1	1	1	1	1	1	1	1	1	1	2	2
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
 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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	2	1	1	1	1	1	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	100ppm	1	2	2	1	1	1	1	2	2	2	1	1	1	1
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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	1	1	1	0	0
	25ppm	1	0	0	0	0	0	0	0	0	0	0	0	1	1
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	100ppm	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	1	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	0	0	0	0	0	0	0	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	2	2	2	2	2	1	1	1	1	2	2	1	1	1
	100ppm	1	1	2	2	2	2	2	2	2	2	2	2	2	1
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	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
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	1	1	0	0	0	0	1	0	0	0	0	0	1	0
	50ppm	1	0	0	0	1	0	0	0	1	0	1	0	0	0
	100ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	50ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	1	0	0	0	0	1	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	0

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : Ai 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1
M. GENITALIA	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	2	2	2	2	2	2
	100ppm	1	1	1	1	1	1
M. ANUS	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	1	1	1
M. TAIL	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	2	1
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	1	0	0
IRREGULAR BREATHING	Control	0	0	0	0	1	1
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	2	0	0	2	0	0
TACHYPNEA	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	1	0	0

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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BAIS 4

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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BAIS 4

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0365
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
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	25ppm	1	0	0	0	0	0	0	0	0	0	1	0	0	0
	50ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 79

Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25ppm	0	1	0	0	0	0	1	0	0	0	0	0	0	0
	50ppm	0	0	0	0	1	0	0	0	0	0	1	1	0	1
	100ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0365
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
		1	1	1	1	1	1
DEEP BREATHING	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0
	25ppm	0	0	0	0	0	0
	50ppm	0	0	0	0	0	0
	100ppm	2	0	0	1	0	0

(HAN190)

BAIS 4

APPENDIX B 1

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 1

Group Name	Administration week													
	0		1		2		3		4		5		6	
Control	115±	5	144±	7	176±	9	203±	10	225±	11	242±	11	256±	13
25ppm	115±	5	143±	7	174±	8	202±	9	224±	10	240±	11	254±	11
50ppm	115±	5	143±	8	173±	12	199±	13	219±	13	237±	14	250±	13
100ppm	115±	5	144±	8	175±	10	201±	11	222±	12	240±	12	253±	13

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
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	270±	13	282±	14	292±	14	301±	14	308±	15	313±	16	319±	16		
25ppm	267±	13	280±	14	289±	14	298±	13	304±	14	310±	14	315±	14		
50ppm	263±	15	274±	15*	284±	16	293±	15	301±	15	307±	15	312±	16		
100ppm	266±	15	278±	15	288±	16	296±	16	304±	17	309±	17	313±	18		

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
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	323±	17	338±	19	350±	20	366±	22	378±	24	388±	26	397±	28
25ppm	320±	14	333±	15	347±	16	362±	17	374±	18	385±	19	393±	20
50ppm	318±	15	336±	16	347±	18	361±	19	372±	21	383±	23	392±	23
100ppm	320±	18	338±	19	350±	19	368±	20	382±	21	393±	22	404±	24

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 4

Group Name	Administration week		46		50		54		58		62		66	
	42													
Control	402±	28	407±	28	411±	29	416±	28	420±	26	423±	26	424±	27
25ppm	398±	22	405±	23	409±	22	412±	22	417±	23	419±	23	421±	23
50ppm	396±	24	403±	24	406±	25	410±	25	415±	27	417±	24	421±	22
100ppm	411±	25	418±	28	426±	27*	429±	28*	437±	28**	441±	28**	446±	29**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
 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	426±	28	425±	30	427±	26	430±	26	426±	28	424±	32	417±	35
25ppm	422±	23	425±	25	424±	26	425±	24	423±	24	418±	27	413±	28
50ppm	421±	22	424±	22	421±	21	422±	20	417±	20	416±	21	412±	20
100ppm	446±	28**	446±	28**	443±	28*	446±	30*	436±	38	431±	44	416±	31

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
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	416± 26		409± 28		400± 33	
25ppm	408± 44		394± 29*		390± 22	
50ppm	409± 24		404± 27		396± 21	
100ppm	404± 29		391± 29*		384± 31	

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

Test of Dunnett

(HAN260)

BAIS 4

APPENDIX B 2

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

STUDY NO. : 0365
 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	
Control	92±	3	105±	4	119±	6	130±	7	139±	7	146±	8
25ppm	92±	4	105±	5	118±	6	129±	7	138±	8	144±	8
50ppm	92±	3	106±	4	120±	5	132±	6	139±	6	145±	7
100ppm	92±	3	107±	5	120±	5	129±	6	137±	7	144±	7**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
 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	157±	8	161±	9	165±	9	170±	9	173±	9	175±	9	178±	10		
25ppm	155±	9	161±	9	163±	10	168±	10	172±	10	175±	10	176±	10		
50ppm	155±	7	158±	7	162±	8	166±	8	170±	8	172±	9	173±	8*		
100ppm	153±	7**	157±	8*	159±	8**	162±	9**	166±	9**	168±	8**	169±	8**		

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

Test of Dunnett

STUDY NO. : 0365
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	179±	10	186±	11	190±	12	196±	13	201±	13	207±	12	211±	13		
25ppm	179±	11	185±	11	190±	12	198±	12	204±	13	208±	14	212±	13		
50ppm	176±	8	184±	9	188±	9	194±	10	200±	11	206±	12	209±	12		
100ppm	173±	8**	180±	10**	186±	11	193±	12	196±	10	201±	12	203±	11**		

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
 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	214± 13		218± 14		222± 14		225± 15		229± 15		231± 16	236± 16
25ppm	216± 14		220± 14		223± 15		227± 16		231± 18		236± 18	241± 20
50ppm	212± 12		214± 13		218± 13		221± 13		225± 14		229± 15	235± 16
100ppm	207± 13*		210± 14**		214± 15*		215± 15**		220± 17*		222± 18*	230± 21

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
 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	241±	19	247±	18	250±	21	256±	21	259±	20	262±	21	264±	21
25ppm	246±	21	252±	21	255±	23	259±	20	262±	22	267±	23	274±	25
50ppm	239±	17	245±	19	248±	17	253±	19	254±	19	257±	19	255±	21
100ppm	236±	26	239±	24	240±	26*	244±	25*	248±	26	249±	27*	251±	30

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
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	266±	22	263±	26	261±	25
25ppm	278±	34	277±	32	268±	23
50ppm	259±	24	262±	23	261±	25
100ppm	254±	33	252±	40	257±	30

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

Test of Dunnett

APPENDIX C 1

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 1

Group Name	Administration week						
	1	2	3	4	5	6	7
Control	14.7± 0.9	15.9± 0.9	17.5± 1.0	17.6± 0.9	17.4± 0.9	17.2± 1.1	17.7± 1.1
25ppm	14.9± 0.9	15.9± 1.1	17.4± 1.0	17.4± 1.0	17.7± 1.1	17.0± 1.0	17.6± 1.2
50ppm	14.7± 0.9	16.0± 1.2	16.8± 1.2**	17.2± 1.1	17.0± 1.0	16.7± 1.0*	17.0± 1.0**
100ppm	15.3± 0.9**	16.8± 1.0**	16.8± 1.1**	17.5± 1.0	17.8± 1.0	17.3± 1.2	17.9± 1.4

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration week						
	8	9	10	11	12	13	14
Control	17.8± 1.0	17.6± 1.1	17.3± 1.1	17.5± 1.0	17.2± 1.0	17.1± 1.0	16.6± 1.6
25ppm	17.5± 1.1	17.7± 1.1	17.3± 1.1	17.4± 1.2	17.2± 1.1	17.1± 1.1	16.7± 1.3
50ppm	17.1± 1.1**	17.0± 1.1**	16.8± 1.0*	16.8± 0.9**	16.4± 1.0**	17.2± 1.0	17.2± 0.9
100ppm	18.2± 1.3	18.1± 1.2	17.7± 1.2	17.6± 1.1	17.2± 1.2	18.1± 1.5**	17.5± 1.0**

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

Test of Dunnett

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 3

Group Name	Administration week	18	22	26	30	34	38	42
Control		16.5± 1.0	17.2± 1.1	17.4± 1.3	17.3± 1.1	17.1± 1.3	17.2± 1.2	17.4± 1.3
25ppm		16.4± 0.9	17.6± 1.0	17.6± 1.0	17.2± 0.8	17.5± 1.0	17.3± 1.1	17.7± 1.1
50ppm		16.5± 0.9	17.3± 1.2	17.5± 1.1	16.9± 1.6	17.3± 1.4	17.3± 1.1	17.5± 1.2
100ppm		17.3± 1.0**	18.4± 1.0**	18.9± 1.2**	18.6± 1.1**	18.5± 1.1**	18.7± 1.2**	19.3± 1.3**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration week 46	50	54	58	62	66	70
Control	17.8± 1.2	17.7± 1.3	17.8± 1.3	17.6± 1.3	17.6± 1.1	17.1± 1.0	17.3± 1.2
25ppm	18.1± 1.1	17.7± 0.9	18.1± 1.0	17.8± 1.0	17.8± 1.0	17.4± 1.1	17.4± 1.1
50ppm	18.0± 1.1	17.8± 1.1	17.7± 1.3	17.5± 1.2	17.5± 1.4	17.5± 1.0	17.7± 1.1
100ppm	19.6± 1.6**	19.8± 1.3**	19.7± 1.2**	19.5± 1.5**	19.5± 1.1**	19.5± 1.2**	19.1± 1.2**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration week						
	74	78	82	86	90	94	98
Control	16.7± 2.5	16.9± 1.1	17.0± 1.2	16.2± 1.3	17.0± 1.5	16.4± 1.7	16.5± 1.1
25ppm	17.6± 1.2*	17.7± 1.2**	17.4± 1.3	17.0± 1.6	16.7± 2.4	16.9± 2.0	17.3± 2.5
50ppm	17.5± 1.0	17.2± 1.1	17.1± 1.1	16.5± 1.3	17.2± 1.3	17.2± 1.2	17.6± 1.9**
100ppm	19.2± 1.3**	19.2± 1.5**	19.4± 1.6**	18.7± 2.6**	19.1± 2.3**	18.8± 2.2**	18.5± 2.7**

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

Test of Dunnett

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 6

Group Name	Administration week	
	102	104
Control	16.5± 1.4	16.0± 2.2
25ppm	17.1± 1.5	16.4± 2.5
50ppm	17.9± 2.0**	17.0± 1.4
100ppm	18.9± 2.6**	17.7± 2.9**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett		

(HAN260)

BAIS 4

APPENDIX C 2

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 7

Group Name	Administration week						
	1	2	3	4	5	6	7
Control	11.3± 0.7	11.2± 0.7	11.6± 0.8	11.9± 0.7	11.9± 0.8	11.7± 0.9	11.6± 1.1
25ppm	11.3± 0.8	11.4± 0.8	11.6± 0.8	11.9± 0.9	11.8± 0.8	11.5± 0.8	11.8± 0.8
50ppm	11.5± 0.6	12.0± 0.8**	11.6± 0.7	11.8± 0.8	11.5± 0.7	11.0± 0.7**	11.2± 0.7*
100ppm	12.2± 0.8**	12.6± 0.8**	11.3± 0.9	11.7± 0.8	11.8± 0.7	11.3± 0.8*	11.6± 0.8

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 8

Group Name	Administration week 8	9	10	11	12	13	14
Control	11.3± 0.8	11.8± 1.2	11.8± 1.0	11.8± 1.3	11.3± 0.8	11.5± 1.0	10.9± 1.8
25ppm	11.5± 0.9	11.7± 0.9	11.5± 0.9	11.6± 0.8	11.5± 0.9	11.4± 0.8	11.4± 1.1*
50ppm	10.9± 0.7*	11.3± 0.8*	11.0± 1.6**	11.2± 1.2**	10.9± 1.0	11.1± 0.9	11.2± 0.8
100ppm	11.4± 0.8	11.4± 0.9	11.2± 0.8*	11.4± 1.0	11.1± 0.8	11.6± 1.0	11.5± 0.9*

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

Test of Dunnett

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 9

Group Name	Administration week						
	18	22	26	30	34	38	42
Control	11.5± 1.3	11.6± 1.1	11.5± 1.0	11.2± 0.8	11.4± 0.8	11.6± 0.9	11.7± 1.0
25ppm	11.2± 0.7	11.6± 0.9	11.8± 1.0	11.4± 0.9	11.2± 0.8	11.7± 0.9	12.0± 0.9
50ppm	11.0± 0.9	11.4± 0.9	11.3± 0.8	11.2± 1.0	11.5± 0.9	11.4± 0.9	11.6± 0.8
100ppm	11.3± 1.1	11.7± 0.9	12.1± 1.1**	11.5± 1.0	11.9± 1.0*	11.7± 0.9	12.1± 0.9

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 10

Group Name	Administration week	46	50	54	58	62	66	70
Control		11.8± 0.8	11.8± 1.1	11.7± 1.0	12.0± 0.8	11.7± 1.0	11.7± 0.7	12.1± 1.0
25ppm		12.0± 1.0	11.9± 1.0	12.1± 1.0	12.1± 1.0	12.4± 1.0**	12.5± 0.9**	12.3± 0.9
50ppm		11.8± 0.7	11.6± 0.8	11.6± 0.9	11.7± 0.8	11.8± 0.9	12.3± 0.9**	12.2± 0.9
100ppm		12.1± 1.1	12.3± 1.2	12.0± 1.0	12.4± 1.1*	12.2± 1.3	12.5± 1.0**	12.5± 1.2

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

Test of Dunnett

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration week						
	74	78	82	86	90	94	98
Control	11.9± 1.0	11.8± 1.0	12.2± 1.4	11.8± 1.1	12.5± 1.0	12.5± 0.9	12.5± 1.0
25ppm	12.6± 0.9**	12.2± 1.3	12.5± 1.1	12.1± 1.3	12.8± 1.2	13.1± 1.2	13.3± 1.6
50ppm	12.4± 1.0*	12.1± 0.9	12.2± 1.1	11.8± 1.0	12.5± 1.1	12.1± 1.5	12.5± 2.2
100ppm	12.5± 1.1**	12.1± 1.2	12.2± 1.2	12.2± 1.4	12.5± 1.4	12.9± 1.4	12.6± 1.9

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

Test of Dunnett

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 12

Group Name	Administration week	
	102	104
Control	12.2± 2.0	12.0± 1.8
25ppm	13.3± 1.1*	12.0± 1.7
50ppm	12.7± 1.3	12.4± 1.5
100ppm	12.4± 3.2	12.5± 1.5

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

Test of Dunnett

(HAN260)

BAIS 4

APPENDIX D 1

HEMATOLOGY : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0365

ANIMAL : RAT F344/DuCrj

MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)

ALL ANIMALS (105W)

PAGE : 1

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ⁹ /μl	
Control	38	8.61±	1.23	14.5±	2.3	42.3±	6.0	49.2±	2.5	16.8±	1.1	34.1±	1.1	853±	225
25ppm	33	7.60±	2.01*	12.9±	3.3*	38.4±	8.3	51.9±	8.8	17.1±	2.3	33.2±	2.1	936±	294
50ppm	40	7.92±	1.51	13.5±	2.6	39.6±	6.7	50.3±	2.9	17.1±	1.1	34.0±	1.5	907±	190
100ppm	23	7.32±	1.75**	12.7±	2.9	37.2±	7.5*	51.6±	5.0	17.5±	1.3*	34.0±	1.7	980±	248

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

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0365
 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		OTHER	
Control	38	9.85±	20.87	4±	3	47±	10	2±	1	0±	0	5±	2	37±	10	5±	14
25ppm	33	7.09±	4.50	6±	3*	47±	10	1±	1	0±	0	4±	2	37±	7	5±	8
50ppm	40	6.69±	2.73	4±	2	43±	10	2±	1	0±	0	5±	2	40±	10	7±	11
100ppm	23	12.72±	26.89	5±	2	46±	11	1±	1*	0±	0	4±	2	36±	9	8±	17

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

APPENDIX D 2

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

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : FEMALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ³ /μl	
Control	39	8.15±	1.22	15.0±	2.2	42.7±	5.8	53.3±	7.4	18.6±	1.7	35.0±	1.1	588±	113
25ppm	34	7.90±	1.78	14.4±	2.8	41.3±	7.1	54.3±	10.9	18.8±	2.8	34.8±	1.4	575±	161
50ppm	34	8.17±	0.60	14.8±	1.2	42.3±	2.9	51.8±	3.0	18.2±	1.1	35.0±	0.7	640±	117
100ppm	32	7.81±	1.05*	14.1±	2.1**	40.3±	5.1**	51.8±	2.6	18.0±	1.2	34.8±	1.3	661±	111*

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0365
 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		OTHER	
Control	39	7.27±	24.78	3±	2	41±	13	2±	1	0±	0	4±	2	45±	13	5±	14
25ppm	34	9.20±	18.87	3±	2	36±	16	1±	1	0±	0	4±	2	43±	15	13±	25
50ppm	34	4.68±	3.75	3±	2	38±	12	1±	1	0±	0	4±	2	49±	13	4±	6
100ppm	32	5.84±	9.42	3±	2	38±	14	1±	1	0±	0	4±	2	51±	15	3±	4

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

APPENDIX E 1

BIOCHEMISTRY : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0365
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	38	6.6±	0.3	3.5±	0.2	1.2±	0.1	0.19±	0.06	153±	22	166±	45	115±	71
25ppm	33	6.4±	0.7	3.3±	0.4**	1.1±	0.1**	0.29±	0.47	148±	28	176±	55	128±	72
50ppm	40	6.6±	0.3	3.4±	0.2*	1.1±	0.1**	0.21±	0.07	151±	23	207±	59**	209±	121**
100ppm	23	6.5±	0.5	3.2±	0.2**	1.0±	0.1**	0.22±	0.05*	134±	27*	303±	139**	343±	168**

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

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0365
 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 I U/l		GPT I U/l		LDH I U/l		ALP I U/l		G-GTP I U/l		CPK I U/l	
Control	38	256±	59	85±	46	41±	19	279±	437	215±	52	12±	6	228±	768
25ppm	33	280±	77	106±	108	38±	15	230±	112	260±	153	17±	13	101±	25
50ppm	40	317±	81**	74±	25	30±	10*	190±	30	195±	68	17±	8	88±	13
100ppm	23	442±	207**	75±	56	39±	33	225±	166	186±	87*	19±	14	115±	160*

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

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0365
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	38	23.6±	20.9	0.6±	0.3	142±	2	3.8±	0.3	106±	2	10.4±	0.4	4.3±	0.8
25ppm	33	22.0±	7.8	0.5±	0.1	142±	2	3.9±	0.4	105±	2	10.3±	0.6	4.3±	0.7
50ppm	40	24.6±	6.3**	0.6±	0.2	141±	2	3.8±	0.3	105±	2	10.5±	0.4	4.4±	0.6
100ppm	23	49.2±	32.4**	1.1±	0.8**	141±	2*	4.1±	0.5**	103±	2**	11.5±	1.1**	7.2±	3.4**

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

APPENDIX E 2

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

STUDY NO. : 0365
 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	40	6.8±	0.4	4.0±	0.3	1.4±	0.2	0.23±	0.37	143±	16	134±	56	81±	99
25ppm	34	6.8±	0.4	3.9±	0.3	1.4±	0.2	0.25±	0.35	141±	24	141±	67	105±	120
50ppm	34	6.8±	0.4	4.0±	0.3	1.4±	0.2	0.17±	0.05	145±	20	143±	47	88±	97
100ppm	34	6.7±	0.5	3.9±	0.4	1.4±	0.2	0.18±	0.07	136±	15	142±	28	81±	40

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

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
MEASURE. TIME : 1
SEX : FEMALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (105W)

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	40	260±	97	161±	140	67±	46	293±	140	150±	77	5±	4	108±	49
25ppm	34	267±	104	220±	309	68±	63	361±	474	181±	136	7±	9	167±	215
50ppm	34	265±	75	149±	154	58±	40	253±	86	148±	77	5±	3	95±	48
100ppm	34	261±	41	177±	189	68±	52	268±	123	175±	120	6±	4	90±	25*

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0365
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	40	18.3±	2.3	0.5±	0.0	141±	2	3.6±	0.5	104±	2	10.3±	0.3	3.9±	0.6
25ppm	34	18.6±	2.0	0.5±	0.1	141±	2	3.6±	0.6	103±	3	10.3±	0.4	3.9±	1.0
50ppm	34	18.2±	2.3	0.5±	0.1	141±	2	3.4±	0.3	103±	2	10.3±	0.3	4.0±	0.5
100ppm	34	18.2±	2.0	0.4±	0.1	141±	3	3.8±	0.4	104±	3	10.2±	0.4	4.1±	0.7

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

APPENDIX F 1

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

STUDY NO. : 0365
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+
Control	38	0	1	2	8	20	7	0		0	0	0	4	21	13		38	0	0	0	0	0		38	0	0	0	0	0		38	0	0	0
25ppm	35	0	1	5	12	8	9	0		0	0	0	2	19	14		35	0	0	0	0	0		34	1	0	0	0	0		34	0	0	1
50ppm	41	0	0	3	10	22	6	0		0	0	0	0	17	24	*	41	0	0	0	0	0		40	1	0	0	0	0		40	1	0	0
100ppm	24	0	3	3	7	10	1	0		0	0	0	0	6	18	**	24	0	0	0	0	0		24	0	0	0	0	0		24	0	0	0

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

Test of CHI SQUARE

(HCL101)

BAIS 4

STUDY NO. : 0365

URINALYSIS

ANIMAL : RAT F344/DuCrj

MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	Occult blood					CHI	Urobilinogen					CHI
		-	±	+	2+	3+		±	+	2+	3+	4+	
Control	38	35	1	0	1	1		38	0	0	0	0	
25ppm	35	34	0	0	0	1		34	0	1	0	0	
50ppm	41	41	0	0	0	0		41	0	0	0	0	
100ppm	24	23	0	1	0	0		24	0	0	0	0	

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

Test of CHI SQUARE

(HCL101)

BAIS 4

APPENDIX F 2

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

STUDY NO. : 0365

ANIMAL : RAT F344/DuCrj

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

URINALYSIS

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	40	0	4	2	4	19	5	6		0	6	13	17	4	0		40	0	0	0	0	0		38	2	0	0	0	0		40	0	0	0	
25ppm	35	0	2	3	7	11	8	4		0	4	6	16	9	0		35	0	0	0	0	0		32	2	1	0	0	0		35	0	0	0	
50ppm	34	0	4	1	5	10	10	4		0	7	9	11	6	1		34	0	0	0	0	0		33	1	0	0	0	0		34	0	0	0	
100ppm	35	0	2	6	13	9	5	0	**	4	9	9	9	4	0		35	0	0	0	0	0		33	2	0	0	0	0		35	0	0	0	

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

Test of CHI SQUARE

(HCL101)

BATS 4

STUDY NO. : 0365

URINALYSIS

ANIMAL : RAT F344/DuCrj

MEASURE. TIME : 1

SEX : FEMALE

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	Occult blood					CHI	Urobilinogen					CHI
		--	±	+	2+	3+		±	+	2+	3+	4+	
Control	40	40	0	0	0	0	0	40	0	0	0	0	0
25ppm	35	34	0	1	0	0	0	35	0	0	0	0	0
50ppm	34	28	1	1	0	4	4	34	0	0	0	0	0
100ppm	35	31	1	1	2	0	0	35	0	0	0	0	0

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

Test of CHI SQUARE

(HCL101)

BATS 4

APPENDIX G 1

GROSS FINDINGS : SUMMARY, RAT : MALE

ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
 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	25ppm	50ppm	100ppm
			50 (%)	50 (%)	50 (%)	50 (%)
skin/app	nodule		1 (2)	1 (2)	5 (10)	4 (8)
subcutis	jaundice		0 (0)	1 (2)	2 (4)	2 (4)
	mass		4 (8)	6 (12)	8 (16)	8 (16)
lung	red		0 (0)	0 (0)	1 (2)	1 (2)
	white zone		1 (2)	0 (0)	1 (2)	2 (4)
	red zone		0 (0)	1 (2)	0 (0)	0 (0)
	brown zone		1 (2)	0 (0)	0 (0)	2 (4)
	red patch		0 (0)	0 (0)	1 (2)	1 (2)
	edema		0 (0)	0 (0)	0 (0)	1 (2)
	nodule		2 (4)	1 (2)	3 (6)	3 (6)
lymph node	enlarged		1 (2)	0 (0)	0 (0)	0 (0)
thymus	enlarged		1 (2)	0 (0)	0 (0)	0 (0)
spleen	enlarged		2 (4)	8 (16)	7 (14)	9 (18)
	white zone		0 (0)	0 (0)	0 (0)	2 (4)
	nodule		0 (0)	0 (0)	1 (2)	1 (2)
	deformed		0 (0)	0 (0)	0 (0)	1 (2)
heart	white zone		0 (0)	2 (4)	0 (0)	0 (0)
	nodule		1 (2)	0 (0)	0 (0)	0 (0)
vein	induration		0 (0)	0 (0)	0 (0)	1 (2)
oral cavity	nodule		0 (0)	1 (2)	0 (0)	1 (2)
	mass		0 (0)	0 (0)	1 (2)	0 (0)
tongue	nodule		0 (0)	0 (0)	0 (0)	1 (2)

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control	25ppm	50ppm	100ppm
			50 (%)	50 (%)	50 (%)	50 (%)
forestomach	nodule		1 (2)	0 (0)	0 (0)	0 (0)
	adhesion		0 (0)	0 (0)	0 (0)	1 (2)
	ulcer		0 (0)	0 (0)	0 (0)	2 (4)
	thick		0 (0)	0 (0)	0 (0)	1 (2)
gl stomach	ulcer		0 (0)	0 (0)	0 (0)	1 (2)
	thick		0 (0)	0 (0)	0 (0)	1 (2)
stomach	induration		0 (0)	0 (0)	0 (0)	1 (2)
liver	enlarged		0 (0)	0 (0)	0 (0)	1 (2)
	pale		0 (0)	0 (0)	0 (0)	1 (2)
	white zone		1 (2)	0 (0)	0 (0)	0 (0)
	nodule		1 (2)	2 (4)	5 (10)	3 (6)
	cyst		0 (0)	0 (0)	0 (0)	1 (2)
	rough		0 (0)	3 (6)	2 (4)	4 (8)
	herniation		8 (16)	7 (14)	4 (8)	8 (16)
kidney	white zone		0 (0)	2 (4)	0 (0)	1 (2)
	nodule		0 (0)	1 (2)	1 (2)	1 (2)
	cyst		0 (0)	1 (2)	1 (2)	0 (0)
	granular		6 (12)	15 (30)	25 (50)	38 (76)
	hydronephrosis		0 (0)	1 (2)	0 (0)	0 (0)
urin bladd	nodule		0 (0)	1 (2)	0 (0)	0 (0)
	thick		0 (0)	0 (0)	0 (0)	3 (6)
	urine:marked retention		0 (0)	1 (2)	0 (0)	2 (4)

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control	25ppm	50ppm	100ppm
			50 (%)	50 (%)	50 (%)	50 (%)
pituitary	enlarged		2 (4)	4 (8)	1 (2)	9 (18)
	white		0 (0)	1 (2)	0 (0)	0 (0)
	red zone		2 (4)	1 (2)	4 (8)	3 (6)
	nodule		1 (2)	4 (8)	5 (10)	1 (2)
thyroid	enlarged		1 (2)	2 (4)	1 (2)	3 (6)
	nodule		1 (2)	2 (4)	0 (0)	1 (2)
adrenal	enlarged		1 (2)	1 (2)	2 (4)	2 (4)
testis	enlarged		0 (0)	0 (0)	0 (0)	1 (2)
	atrophic		5 (10)	7 (14)	2 (4)	9 (18)
	nodule		35 (70)	41 (82)	46 (92)	40 (80)
epididymis	adhesion		0 (0)	0 (0)	0 (0)	1 (2)
semin ves	reduced		0 (0)	0 (0)	0 (0)	1 (2)
prep/cli gl	nodule		0 (0)	2 (4)	0 (0)	2 (4)
brain	swollen		0 (0)	1 (2)	0 (0)	0 (0)
	brown zone		0 (0)	1 (2)	0 (0)	0 (0)
	hemorrhage		1 (2)	1 (2)	1 (2)	0 (0)
	nodule		1 (2)	0 (0)	0 (0)	0 (0)
	deformed		0 (0)	0 (0)	0 (0)	1 (2)
spinal cord	hemorrhage		0 (0)	1 (2)	0 (0)	0 (0)
eye	white		6 (12)	5 (10)	5 (10)	3 (6)
Zymbal gl	nodule		2 (4)	0 (0)	0 (0)	1 (2)
muscle	nodule		1 (2)	0 (0)	0 (0)	0 (0)

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control	25ppm	50ppm	100ppm
			50 (%)	50 (%)	50 (%)	50 (%)
bone	nodule		1 (2)	0 (0)	0 (0)	0 (0)
	thick		1 (2)	0 (0)	0 (0)	0 (0)
mediastinum	nodule		0 (0)	0 (0)	0 (0)	1 (2)
peritoneum	nodule		0 (0)	1 (2)	4 (8)	5 (10)
	mass		0 (0)	0 (0)	1 (2)	0 (0)
retroperit	cyst		0 (0)	0 (0)	0 (0)	1 (2)
abdominal c	mass		0 (0)	0 (0)	0 (0)	1 (2)
	ascites		0 (0)	1 (2)	3 (6)	4 (8)
thoracic ca	hemorrhage		1 (2)	0 (0)	0 (0)	1 (2)
	pleural fluid		1 (2)	1 (2)	0 (0)	2 (4)
other	tail:nodule		1 (2)	0 (0)	0 (0)	1 (2)
	ear:nodule		0 (0)	1 (2)	0 (0)	0 (0)
whole body	anemic		0 (0)	2 (4)	0 (0)	1 (2)

APPENDIX G 2

GROSS FINDINGS : SUMMARY, RAT : MALE

DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
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				25ppm				50ppm				100ppm			
			12	(%)	17	(%)	10	(%)	26	(%)	12	(%)	17	(%)	26	(%)	10	(%)
skin/app	nodule		0	(0)	0	(0)	1	(10)	1	(4)								
subcutis	jaundice		0	(0)	1	(6)	2	(20)	2	(8)								
	mass		0	(0)	2	(12)	2	(20)	2	(8)								
lung	red		0	(0)	0	(0)	1	(10)	1	(4)								
	white zone		0	(0)	0	(0)	0	(0)	2	(8)								
	red zone		0	(0)	1	(6)	0	(0)	0	(0)								
	brown zone		0	(0)	0	(0)	0	(0)	2	(8)								
	red patch		0	(0)	0	(0)	1	(10)	1	(4)								
	edema		0	(0)	0	(0)	0	(0)	1	(4)								
lymph node	enlarged		1	(8)	0	(0)	0	(0)	0	(0)								
thymus	enlarged		1	(8)	0	(0)	0	(0)	0	(0)								
spleen	enlarged		1	(8)	6	(35)	3	(30)	6	(23)								
	nodule		0	(0)	0	(0)	0	(0)	1	(4)								
heart	white zone		0	(0)	2	(12)	0	(0)	0	(0)								
vein	induration		0	(0)	0	(0)	0	(0)	1	(4)								
oral cavity	mass		0	(0)	0	(0)	1	(10)	0	(0)								
tongue	nodule		0	(0)	0	(0)	0	(0)	1	(4)								
forestomach	adhesion		0	(0)	0	(0)	0	(0)	1	(4)								
	ulcer		0	(0)	0	(0)	0	(0)	2	(8)								
	thick		0	(0)	0	(0)	0	(0)	1	(4)								
gl stomach	ulcer		0	(0)	0	(0)	0	(0)	1	(4)								
	thick		0	(0)	0	(0)	0	(0)	1	(4)								

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control	25ppm	50ppm	100ppm
			12 (%)	17 (%)	10 (%)	26 (%)
stomach	induration		0 (0)	0 (0)	0 (0)	1 (4)
liver	enlarged		0 (0)	0 (0)	0 (0)	1 (4)
	pale		0 (0)	0 (0)	0 (0)	1 (4)
	white zone		1 (8)	0 (0)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	0 (0)	1 (4)
	cyst		0 (0)	0 (0)	0 (0)	1 (4)
	rough		0 (0)	1 (6)	2 (20)	2 (8)
	herniation		3 (25)	1 (6)	0 (0)	4 (15)
	white zone		0 (0)	2 (12)	0 (0)	1 (4)
kidney	cyst		0 (0)	0 (0)	1 (10)	0 (0)
	granular		0 (0)	4 (24)	1 (10)	16 (62)
	hydronephrosis		0 (0)	1 (6)	0 (0)	0 (0)
	nodule		0 (0)	1 (6)	0 (0)	0 (0)
urin bladd	thick		0 (0)	0 (0)	0 (0)	2 (8)
	urine:marked retention		0 (0)	1 (6)	0 (0)	2 (8)
pituitary	enlarged		1 (8)	2 (12)	1 (10)	6 (23)
	white		0 (0)	1 (6)	0 (0)	0 (0)
	red zone		0 (0)	0 (0)	1 (10)	1 (4)
	nodule		1 (8)	3 (18)	0 (0)	0 (0)
thyroid	enlarged		1 (8)	0 (0)	0 (0)	3 (12)
adrenal	enlarged		1 (8)	0 (0)	2 (20)	2 (8)
testis	atrophic		4 (33)	3 (18)	1 (10)	8 (31)

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control 12 (%)	25ppm 17 (%)	50ppm 10 (%)	100ppm 26 (%)
testis	nodule		1 (8)	11 (65)	6 (60)	19 (73)
semin ves	reduced		0 (0)	0 (0)	0 (0)	1 (4)
brain	swollen		0 (0)	1 (6)	0 (0)	0 (0)
	brown zone		0 (0)	1 (6)	0 (0)	0 (0)
	hemorrhage		1 (8)	1 (6)	1 (10)	0 (0)
	nodule		1 (8)	0 (0)	0 (0)	0 (0)
	deformed		0 (0)	0 (0)	0 (0)	1 (4)
spinal cord	hemorrhage		0 (0)	1 (6)	0 (0)	0 (0)
eye	white		1 (8)	4 (24)	1 (10)	1 (4)
Zymbal gl	nodule		2 (17)	0 (0)	0 (0)	1 (4)
bone	thick		1 (8)	0 (0)	0 (0)	0 (0)
mediastinum	nodule		0 (0)	0 (0)	0 (0)	1 (4)
peritoneum	nodule		0 (0)	1 (6)	0 (0)	2 (8)
	mass		0 (0)	0 (0)	1 (10)	0 (0)
abdominal c	mass		0 (0)	0 (0)	0 (0)	1 (4)
	ascites		0 (0)	1 (6)	0 (0)	3 (12)
thoracic ca	hemorrhage		1 (8)	0 (0)	0 (0)	1 (4)
	pleural fluid		1 (8)	1 (6)	0 (0)	2 (8)
other	tail:nodule		0 (0)	0 (0)	0 (0)	1 (4)
whole body	anemic		0 (0)	1 (6)	0 (0)	1 (4)

APPENDIX G 3

GROSS FINDINGS : SUMMARY, RAT : MALE

SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

GROSS FINDINGS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 1

Organ_____	Findings_____	Group Name	Control	25ppm	50ppm	100ppm
		NO. of Animals	38 (%)	33 (%)	40 (%)	24 (%)
skin/app	nodule		1 (3)	1 (3)	4 (10)	3 (13)
subcutis	mass		4 (11)	4 (12)	6 (15)	6 (25)
lung	white zone		1 (3)	0 (0)	1 (3)	0 (0)
	brown zone		1 (3)	0 (0)	0 (0)	0 (0)
	nodule		2 (5)	1 (3)	3 (8)	3 (13)
spleen	enlarged		1 (3)	2 (6)	4 (10)	3 (13)
	white zone		0 (0)	0 (0)	0 (0)	2 (8)
	nodule		0 (0)	0 (0)	1 (3)	0 (0)
	deformed		0 (0)	0 (0)	0 (0)	1 (4)
heart	nodule		1 (3)	0 (0)	0 (0)	0 (0)
oral cavity	nodule		0 (0)	1 (3)	0 (0)	1 (4)
forestomach	nodule		1 (3)	0 (0)	0 (0)	0 (0)
liver	nodule		1 (3)	2 (6)	5 (13)	2 (8)
	rough		0 (0)	2 (6)	0 (0)	2 (8)
	herniation		5 (13)	6 (18)	4 (10)	4 (17)
kidney	nodule		0 (0)	1 (3)	1 (3)	1 (4)
	cyst		0 (0)	1 (3)	0 (0)	0 (0)
	granular		6 (16)	11 (33)	24 (60)	22 (92)
urin bladd	thick		0 (0)	0 (0)	0 (0)	1 (4)
pituitary	enlarged		1 (3)	2 (6)	0 (0)	3 (13)
	red zone		2 (5)	1 (3)	3 (8)	2 (8)
	nodule		0 (0)	1 (3)	5 (13)	1 (4)

STUDY NO. : 0365
 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	25ppm	50ppm	100ppm
			38 (%)	33 (%)	40 (%)	24 (%)
thyroid	enlarged		0 (0)	2 (6)	1 (3)	0 (0)
	nodule		1 (3)	2 (6)	0 (0)	1 (4)
adrenal	enlarged		0 (0)	1 (3)	0 (0)	0 (0)
testis	enlarged		0 (0)	0 (0)	0 (0)	1 (4)
	atrophic		1 (3)	4 (12)	1 (3)	1 (4)
	nodule		34 (89)	30 (91)	40 (100)	21 (88)
epididymis	adhesion		0 (0)	0 (0)	0 (0)	1 (4)
prep/cli gl	nodule		0 (0)	2 (6)	0 (0)	2 (8)
eye	white		5 (13)	1 (3)	4 (10)	2 (8)
muscle	nodule		1 (3)	0 (0)	0 (0)	0 (0)
bone	nodule		1 (3)	0 (0)	0 (0)	0 (0)
peritoneum	nodule		0 (0)	0 (0)	4 (10)	3 (13)
retroperit	cyst		0 (0)	0 (0)	0 (0)	1 (4)
abdominal c	ascites		0 (0)	0 (0)	3 (8)	1 (4)
other	tail:nodule		1 (3)	0 (0)	0 (0)	0 (0)
	ear:nodule		0 (0)	1 (3)	0 (0)	0 (0)
whole body	anemic		0 (0)	1 (3)	0 (0)	0 (0)

APPENDIX G 4

GROSS FINDINGS : SUMMARY, RAT : FEMALE

ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
 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	25ppm	50ppm	100ppm
			50 (%)	50 (%)	50 (%)	50 (%)
skin/app	nodule		1 (2)	0 (0)	0 (0)	0 (0)
subcutis	edema		0 (0)	1 (2)	0 (0)	0 (0)
	jaundice		1 (2)	0 (0)	3 (6)	0 (0)
	mass		4 (8)	11 (22)	13 (26)	9 (18)
lung	red zone		0 (0)	0 (0)	1 (2)	0 (0)
	nodule		0 (0)	0 (0)	1 (2)	0 (0)
lymph node	enlarged		1 (2)	1 (2)	1 (2)	2 (4)
spleen	enlarged		7 (14)	8 (16)	8 (16)	3 (6)
	white zone		1 (2)	0 (0)	0 (0)	1 (2)
	nodule		0 (0)	0 (0)	0 (0)	1 (2)
	deformed		0 (0)	1 (2)	0 (0)	0 (0)
	adhesion		1 (2)	0 (0)	0 (0)	0 (0)
oral cavity	nodule		0 (0)	0 (0)	1 (2)	0 (0)
tongue	nodule		0 (0)	1 (2)	0 (0)	2 (4)
forestomach	ulcer		0 (0)	2 (4)	0 (0)	0 (0)
gl stomach	ulcer		0 (0)	0 (0)	1 (2)	0 (0)
small intes	nodule		0 (0)	0 (0)	1 (2)	0 (0)
large intes	nodule		0 (0)	0 (0)	0 (0)	1 (2)
liver	pale		0 (0)	1 (2)	0 (0)	0 (0)
	white zone		1 (2)	0 (0)	0 (0)	1 (2)
	nodule		1 (2)	1 (2)	2 (4)	4 (8)
	deformed		0 (0)	0 (0)	0 (0)	1 (2)

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name NO. of Animals	Control	25ppm	50ppm	100ppm
			50 (%)	50 (%)	50 (%)	50 (%)
liver	rough		3 (6)	2 (4)	4 (8)	2 (4)
	nodular		0 (0)	2 (4)	0 (0)	0 (0)
	adhesion		0 (0)	0 (0)	1 (2)	1 (2)
	herniation		7 (14)	14 (28)	8 (16)	8 (16)
kidney	white zone		1 (2)	0 (0)	0 (0)	0 (0)
	nodule		1 (2)	0 (0)	1 (2)	0 (0)
	granular		1 (2)	2 (4)	2 (4)	0 (0)
	hydronephrosis		1 (2)	0 (0)	1 (2)	0 (0)
urin bladd	urine:marked retention		0 (0)	1 (2)	0 (0)	2 (4)
pituitary	enlarged		9 (18)	8 (16)	7 (14)	3 (6)
	red zone		8 (16)	4 (8)	7 (14)	9 (18)
	nodule		4 (8)	4 (8)	5 (10)	3 (6)
thyroid	enlarged		0 (0)	0 (0)	0 (0)	2 (4)
	nodule		0 (0)	1 (2)	1 (2)	0 (0)
adrenal	enlarged		1 (2)	0 (0)	1 (2)	1 (2)
ovary	enlarged		0 (0)	0 (0)	0 (0)	1 (2)
	cyst		0 (0)	1 (2)	2 (4)	1 (2)
uterus	nodule		6 (12)	8 (16)	6 (12)	4 (8)
	cyst		1 (2)	1 (2)	0 (0)	1 (2)
vagina	nodule		0 (0)	1 (2)	0 (0)	1 (2)
prep/cli gl	nodule		0 (0)	0 (0)	0 (0)	2 (4)
brain	swollen		0 (0)	0 (0)	1 (2)	0 (0)

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 7

Organ	Findings	Group Name NO. of Animals	Control		25ppm		50ppm		100ppm	
			50	(%)	50	(%)	50	(%)	50	(%)
brain	red zone		0	(0)	0	(0)	2	(4)	1	(2)
	brown zone		0	(0)	0	(0)	0	(0)	1	(2)
	hemorrhage		1	(2)	1	(2)	0	(0)	0	(0)
spinal cord	hemorrhage		1	(2)	1	(2)	0	(0)	0	(0)
eye	turbid		0	(0)	0	(0)	0	(0)	1	(2)
	white		6	(12)	5	(10)	2	(4)	1	(2)
Zymbal gl	nodule		1	(2)	0	(0)	0	(0)	1	(2)
bone	nodule		0	(0)	0	(0)	0	(0)	1	(2)
retroperit	mass		0	(0)	0	(0)	1	(2)	0	(0)
abdominal c	hemorrhage		0	(0)	0	(0)	0	(0)	1	(2)
mesenterium	nodule		1	(2)	0	(0)	0	(0)	0	(0)
thoracic ca	pleural fluid		0	(0)	1	(2)	0	(0)	1	(2)
other	tail:nodule		0	(0)	0	(0)	0	(0)	1	(2)
whole body	anemic		0	(0)	1	(2)	1	(2)	0	(0)

APPENDIX G 5

GROSS FINDINGS : SUMMARY, RAT : FEMALE

DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
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 10 (%)	25ppm 16 (%)	50ppm 16 (%)	100ppm 16 (%)
subcutis	edema		0 (0)	1 (6)	0 (0)	0 (0)
	jaundice		1 (10)	0 (0)	3 (19)	0 (0)
	mass		1 (10)	8 (50)	4 (25)	3 (19)
lung	red zone		0 (0)	0 (0)	1 (6)	0 (0)
	nodule		0 (0)	0 (0)	1 (6)	0 (0)
lymph node	enlarged		1 (10)	1 (6)	1 (6)	2 (13)
spleen	enlarged		6 (60)	5 (31)	8 (50)	2 (13)
	nodule		0 (0)	0 (0)	0 (0)	1 (6)
	deformed		0 (0)	1 (6)	0 (0)	0 (0)
oral cavity	nodule		0 (0)	0 (0)	1 (6)	0 (0)
forestomach	ulcer		0 (0)	2 (13)	0 (0)	0 (0)
gl stomach	ulcer		0 (0)	0 (0)	1 (6)	0 (0)
small intes	nodule		0 (0)	0 (0)	1 (6)	0 (0)
liver	pale		0 (0)	1 (6)	0 (0)	0 (0)
	nodule		1 (10)	0 (0)	1 (6)	2 (13)
	rough		2 (20)	0 (0)	4 (25)	0 (0)
	nodular		0 (0)	1 (6)	0 (0)	0 (0)
	adhesion		0 (0)	0 (0)	0 (0)	1 (6)
	herniation		1 (10)	3 (19)	4 (25)	3 (19)
	white zone		1 (10)	0 (0)	0 (0)	0 (0)
kidney	nodule		0 (0)	0 (0)	1 (6)	0 (0)
	hydronephrosis		1 (10)	0 (0)	1 (6)	0 (0)

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control	25ppm	50ppm	100ppm
			10 (%)	16 (%)	16 (%)	16 (%)
urin bladd	urine:marked retention		0 (0)	1 (6)	0 (0)	2 (13)
pituitary	enlarged		2 (20)	3 (19)	3 (19)	1 (6)
	red zone		3 (30)	0 (0)	2 (13)	2 (13)
	nodule		0 (0)	1 (6)	0 (0)	0 (0)
thyroid	enlarged		0 (0)	0 (0)	0 (0)	1 (6)
adrenal	enlarged		0 (0)	0 (0)	1 (6)	1 (6)
ovary	enlarged		0 (0)	0 (0)	0 (0)	1 (6)
	cyst		0 (0)	0 (0)	1 (6)	0 (0)
uterus	nodule		2 (20)	3 (19)	1 (6)	2 (13)
vagina	nodule		0 (0)	1 (6)	0 (0)	1 (6)
brain	swollen		0 (0)	0 (0)	1 (6)	0 (0)
	red zone		0 (0)	0 (0)	2 (13)	1 (6)
	brown zone		0 (0)	0 (0)	0 (0)	1 (6)
	hemorrhage		1 (10)	1 (6)	0 (0)	0 (0)
spinal cord	hemorrhage		1 (10)	1 (6)	0 (0)	0 (0)
eye	turbid		0 (0)	0 (0)	0 (0)	1 (6)
	white		1 (10)	0 (0)	1 (6)	0 (0)
Zymbal gl	nodule		1 (10)	0 (0)	0 (0)	1 (6)
retroperit	mass		0 (0)	0 (0)	1 (6)	0 (0)
abdominal c	hemorrhage		0 (0)	0 (0)	0 (0)	1 (6)
thoracic ca	pleural fluid		0 (0)	1 (6)	0 (0)	1 (6)
whole body	anemic		0 (0)	1 (6)	1 (6)	0 (0)

APPENDIX G 6

GROSS FINDINGS : SUMMARY, RAT : FEMALE

SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
 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 40 (%)	25ppm 34 (%)	50ppm 34 (%)	100ppm 34 (%)
skin/app	nodule		1 (3)	0 (0)	0 (0)	0 (0)
subcutis	mass		3 (8)	3 (9)	9 (26)	6 (18)
spleen	enlarged		1 (3)	3 (9)	0 (0)	1 (3)
	white zone		1 (3)	0 (0)	0 (0)	1 (3)
	adhesion		1 (3)	0 (0)	0 (0)	0 (0)
tongue	nodule		0 (0)	1 (3)	0 (0)	2 (6)
large intes	nodule		0 (0)	0 (0)	0 (0)	1 (3)
liver	white zone		1 (3)	0 (0)	0 (0)	1 (3)
	nodule		0 (0)	1 (3)	1 (3)	2 (6)
	deformed		0 (0)	0 (0)	0 (0)	1 (3)
	rough		1 (3)	2 (6)	0 (0)	2 (6)
	nodular		0 (0)	1 (3)	0 (0)	0 (0)
	adhesion		0 (0)	0 (0)	1 (3)	0 (0)
	herniation		6 (15)	11 (32)	4 (12)	5 (15)
kidney	nodule		1 (3)	0 (0)	0 (0)	0 (0)
	granular		1 (3)	2 (6)	2 (6)	0 (0)
pituitary	enlarged		7 (18)	5 (15)	4 (12)	2 (6)
	red zone		5 (13)	4 (12)	5 (15)	7 (21)
	nodule		4 (10)	3 (9)	5 (15)	3 (9)
thyroid	enlarged		0 (0)	0 (0)	0 (0)	1 (3)
	nodule		0 (0)	1 (3)	1 (3)	0 (0)
adrenal	enlarged		1 (3)	0 (0)	0 (0)	0 (0)

STUDY NO. : 0365
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		25ppm		50ppm		100ppm	
			40	(%)	34	(%)	34	(%)	34	(%)
ovary	cyst		0	(0)	1	(3)	1	(3)	1	(3)
uterus	nodule		4	(10)	5	(15)	5	(15)	2	(6)
	cyst		1	(3)	1	(3)	0	(0)	1	(3)
prep/cli gl	nodule		0	(0)	0	(0)	0	(0)	2	(6)
eye	white		5	(13)	5	(15)	1	(3)	1	(3)
bone	nodule		0	(0)	0	(0)	0	(0)	1	(3)
mesenterium	nodule		1	(3)	0	(0)	0	(0)	0	(0)
other	tail:nodule		0	(0)	0	(0)	0	(0)	1	(3)

(HPT080)

BAIS 4

APPENDIX H 1

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

STUDY NO. : 0365
 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	38	374± 36	0.076± 0.023	3.706± 1.076	1.192± 0.092	1.398± 0.156	2.711± 0.303
25ppm	33	363± 22	0.097± 0.127	3.394± 1.165	1.214± 0.119	1.505± 0.481	2.838± 0.266
50ppm	40	367± 21	0.073± 0.014	4.593± 1.367**	1.215± 0.099	1.453± 0.119*	2.949± 0.241**
100ppm	24	355± 33*	0.092± 0.030*	4.195± 1.481	1.346± 0.160**	1.789± 0.892**	3.647± 0.469**

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

Test of Dunnett

(HCL040)

BAIS 4

STUDY NO. : 0365
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	38	1.099±	1.321	10.947±	1.841	2.003±	0.057
25ppm	33	1.495±	1.987	12.026±	3.163	2.005±	0.056
50ppm	40	1.319±	0.668**	12.317±	1.583**	2.000±	0.061
100ppm	24	1.583±	1.118**	15.799±	2.195**	1.963±	0.055*

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

Test of Dunnett

(HCL040)

BAIS 4

APPENDIX H 2

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

STUDY NO. : 0365
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	40	243± 24	0.083±	0.045	0.126±	0.020	0.850±	0.075	0.979±	0.136	1.747±	0.339
25ppm	34	249± 23	0.081±	0.016	0.162±	0.203	0.879±	0.073	1.068±	0.234*	1.846±	0.160**
50ppm	34	242± 24	0.077±	0.016	0.143±	0.105	0.842±	0.053	0.978±	0.060	1.797±	0.155*
100ppm	34	239± 29	0.075±	0.012	0.134±	0.042	0.847±	0.068	1.039±	0.120**	1.881±	0.171**

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

Test of Dunnett

(HCL040)

BAIS 4

STUDY NO. : 0365
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	40	0.814±	1.571	6.527±	1.244	1.820±	0.052
25ppm	34	1.552±	2.987	7.280±	1.578	1.823±	0.052
50ppm	34	0.647±	0.419	6.872±	1.495	1.811±	0.045
100ppm	34	0.765±	0.582	7.228±	1.680	1.767±	0.046**

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

Test of Dunnett

(HCL040)

BAIS 4

APPENDIX I 1

ORGAN WEIGHT, RELATIVE : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0365
 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	38	374± 36	0.021± 0.007	0.986± 0.272	0.321± 0.028	0.378± 0.063	0.740± 0.199
25ppm	33	363± 22	0.028± 0.041	0.934± 0.313	0.336± 0.041	0.417± 0.142*	0.784± 0.084**
50ppm	40	367± 21	0.020± 0.004	1.254± 0.378**	0.332± 0.032	0.396± 0.031**	0.806± 0.084**
100ppm	24	355± 33*	0.026± 0.010**	1.178± 0.396	0.383± 0.064**	0.519± 0.327**	1.040± 0.192**

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

Test of Dunnett

(HCL042)

BAIS 4

STUDY NO. : 0365
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	38	0.296± 0.366	2.949± 0.534	0.542± 0.068
25ppm	33	0.411± 0.541*	3.312± 0.842*	0.554± 0.033
50ppm	40	0.359± 0.180**	3.362± 0.453**	0.546± 0.030
100ppm	24	0.461± 0.394**	4.499± 0.876**	0.558± 0.049

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

Test of Dunnett

(HCL042)

BAIS 4

APPENDIX I 2

ORGAN WEIGHT, RELATIVE : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0365
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	40	243± 24	0.035± 0.023	0.053± 0.011	0.352± 0.045	0.409± 0.092	0.727± 0.186
25ppm	34	249± 23	0.033± 0.007	0.065± 0.083	0.355± 0.042	0.434± 0.117	0.746± 0.083*
50ppm	34	242± 24	0.032± 0.008	0.060± 0.046	0.350± 0.032	0.408± 0.043	0.748± 0.081*
100ppm	34	239± 29	0.032± 0.007	0.057± 0.023	0.359± 0.044	0.441± 0.077*	0.796± 0.096**

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

Test of Dunnett

(HCL042)

BAIS 4

STUDY NO. : 0365
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	40	0.362± 0.808	2.705± 0.579	0.755± 0.074
25ppm	34	0.658± 1.313	2.951± 0.733	0.738± 0.069
50ppm	34	0.269± 0.173	2.850± 0.603	0.755± 0.070
100ppm	34	0.330± 0.275	3.048± 0.687	0.750± 0.082

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

Test of Dunnett

(HCL042)

BAIS 4

APPENDIX J 1

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : MALE : ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																		
skin/app			<50>				<50>				<50>				<50>			
	inflammation		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	epidermal cyst		0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
{Respiratory system}																		
nasal cavit			<50>				<50>				<50>				<50>			
	hemorrhage		0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(2)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	thrombus		0	3	0	0	1	5	3	0	0	2	0	0	1	2	4	0
			(0)	(6)	(0)	(0)	(2)	(10)	(6)	(0)	(0)	(4)	(0)	(0)	(2)	(4)	(8)	(0)
	mineralization		35	0	0	0	24	0	0	0 *	19	0	0	0 **	20	0	0	0 **
			(70)	(0)	(0)	(0)	(48)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(40)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		28	15	1	0	1	12	37	0 **	0	19	30	0 **	0	18	31	0 **
			(56)	(30)	(2)	(0)	(2)	(24)	(74)	(0)	(0)	(38)	(60)	(0)	(0)	(36)	(62)	(0)
	eosinophilic change:respiratory epithelium		19	1	0	0	34	0	0	0 **	21	1	1	0	15	0	0	0
			(38)	(2)	(0)	(0)	(68)	(0)	(0)	(0)	(42)	(2)	(2)	(0)	(30)	(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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			<50>				<50>				<50>				<50>			
	inflammation:foreign body		12	5	0	0	8	1	0	0	9	2	1	0	16	0	1	0
			(24)	(10)	(0)	(0)	(16)	(2)	(0)	(0)	(18)	(4)	(2)	(0)	(32)	(0)	(2)	(0)
	inflammation:respiratory epithelium		7	1	0	0	10	0	0	0	10	1	0	0	7	1	0	0
			(14)	(2)	(0)	(0)	(20)	(0)	(0)	(0)	(20)	(2)	(0)	(0)	(14)	(2)	(0)	(0)
	inflammation:olfactory epithelium		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)
	respiratory metaplasia:gland		14	0	0	0	30	0	0	0 **	11	0	0	0	9	0	0	0
			(28)	(0)	(0)	(0)	(60)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(18)	(0)	(0)	(0)
nasopharynx			<50>				<50>				<50>				<50>			
	inflammation		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
larynx			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	inflammation		3	0	0	0	7	0	0	0	3	0	0	0	6	0	0	0
			(6)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
lung			<50>				<50>				<50>				<50>			
	congestion		2	0	0	0	3	0	0	0	2	0	0	0	3	0	0	0
			(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

		Group Name	Control				25ppm				50ppm				100ppm			
		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
Organ_____	Findings_____		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
lung			<50>				<50>				<50>				<50>			
	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)
	ossification		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)
	bronchopneumonia		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)
	bronchiolar-alveolar cell hyperplasia		0	1	0	0	1	0	0	0	2	0	0	0	2	1	0	0
			(0)	(2)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(2)	(0)	(0)
	uremic pneumonitis		0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(4)	(0)	(0)
{Hematopoietic system}																		
bone marrow			<50>				<50>				<50>				<50>			
	granulation		1	0	0	0	4	0	0	0	1	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	increased hematopoiesis		10	5	4	0	9	7	9	0	13	1	7	0	12	9	6	0
			(20)	(10)	(8)	(0)	(18)	(14)	(18)	(0)	(26)	(2)	(14)	(0)	(24)	(18)	(12)	(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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																		
bone marrow	myelofibrosis		<50>				<50>				<50>				<50>			
			0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	erythropoiesis:increased		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)
lymph node	granulation		<50>				<50>				<50>				<50>			
			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)
	lymphadenitis		7	0	0	0	8	0	0	0	6	0	0	0	5	0	1	0
			(14)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(0)	(2)	(0)
spleen	congestion		<50>				<50>				<50>				<50>			
			0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(2)	(0)	(0)
	deposit of hemosiderin		17	2	0	0	13	1	0	0	16	0	0	0	14	4	1	0
			(34)	(4)	(0)	(0)	(26)	(2)	(0)	(0)	(32)	(0)	(0)	(0)	(28)	(8)	(2)	(0)
	fibrosis:focal		1	0	0	0	2	0	0	0	2	3	0	0	6	3	2	0 *
			(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(6)	(0)	(0)	(12)	(6)	(4)	(0)

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

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

b b : Number of animals with lesion

(c) c : b / a * 100

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

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 5

Organ_____	Findings_____	Group Name	Control				25ppm				50ppm				100ppm			
		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>			
	extramedullary hematopoiesis		5	2	0	0	7	3	2	0	6	2	1	0	8	0	2	0
			(10)	(4)	(0)	(0)	(14)	(6)	(4)	(0)	(12)	(4)	(2)	(0)	(16)	(0)	(4)	(0)
{Circulatory system}																		
heart			<50>				<50>				<50>				<50>			
	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)
	inflammatory cell nest		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)
	myocardial fibrosis		35	2	0	0	29	1	0	0	35	0	0	0	36	6	0	0
			(70)	(4)	(0)	(0)	(58)	(2)	(0)	(0)	(70)	(0)	(0)	(0)	(72)	(12)	(0)	(0)
artery/aort			<50>				<50>				<50>				<50>			
	mineralization		14	0	0	0	19	0	0	0	16	0	0	0	19	2	0	0
			(28)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(32)	(0)	(0)	(0)	(38)	(4)	(0)	(0)
	periarteritis nodosa		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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

STUDY NO. : 0365
 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				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
tongue			<50>				<50>				<50>				<49>			
	arteritis		1	0	0	0	3	0	0	0	7	0	0	0	11	0	0	0 **
			(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(22)	(0)	(0)	(0)
salivary gl			<50>				<50>				<50>				<50>			
	atrophy		0	0	0	0	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)
stomach			<50>				<50>				<50>				<49>			
	mineralization		0	0	0	0	1	0	0	0	0	0	0	0	2	2	2	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(4)	(4)	(0)
	inflammatory infiltration		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	ulcer:forestomach		2	1	0	0	1	2	1	0	0	0	0	0	1	0	1	0
			(4)	(2)	(0)	(0)	(2)	(4)	(2)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(2)	(0)
	erosion:glandular stomach		2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0
			(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	intestinal metaplasia: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)

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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 7

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver																		
	herniation		<50>				<50>				<50>				<50>			
			8	0	0	0	7	0	0	0	2	0	0	0	7	0	0	0
			(16)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(14)	(0)	(0)	(0)
	congestion		3	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
			(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	peliosis-like lesion		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)
	necrosis:focal		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)	(4)	(0)	(0)	(0)
	fatty change		0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	fatty change:central		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)
	degeneration:central		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	abscess		0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)

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

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

b b : Number of animals with lesion

(c) c : b / a * 100

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 8

		Group Name	Control				25ppm				50ppm				100ppm			
		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}																		
liver																		
			<50>				<50>				<50>				<50>			
	granulation		2	0	0	0	3	0	0	0	1	0	0	0	7	0	0	0
			(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(14)	(0)	(0)	(0)
	clear cell focus		2	0	0	0	1	2	0	0	4	0	0	0	0	0	0	0
			(4)	(0)	(0)	(0)	(2)	(4)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	acidophilic cell focus		10	4	0	0	6	7	0	0	13	5	0	0	12	10	0	0
			(20)	(8)	(0)	(0)	(12)	(14)	(0)	(0)	(26)	(10)	(0)	(0)	(24)	(20)	(0)	(0)
	basophilic cell focus		8	0	0	0	7	0	0	0	8	2	0	0	7	1	0	0
			(16)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(16)	(4)	(0)	(0)	(14)	(2)	(0)	(0)
	vacuolated cell focus		2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	spongiosis hepatitis		2	0	0	0	2	0	0	0	0	0	0	0	3	1	0	0
			(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(2)	(0)	(0)
	bile duct hyperplasia		0	49	0	0	5	45	0	0 *	9	39	0	0 **	2	41	5	0 *
			(0)	(98)	(0)	(0)	(10)	(90)	(0)	(0)	(18)	(78)	(0)	(0)	(4)	(82)	(10)	(0)
	bile ductular proliferation		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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 9

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
pancreas			<49>				<50>				<50>				<50>			
	atrophy		11 (22)	1 (2)	0 (0)	0 (0)	20 (40)	9 (18)	0 (0)	0 ** (0)	18 (36)	4 (8)	1 (2)	0 (0)	10 (20)	2 (4)	1 (2)	0 (0)
	islet cell hyperplasia		3 (6)	1 (2)	0 (0)	0 (0)	1 (2)	2 (4)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	focal hypertrophy		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)
{Urinary system}																		
kidney			<50>				<50>				<50>				<50>			
	deposit of hemosiderin		3 (6)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	3 (6)	2 (4)	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)	0 (0)	1 (2)	0 (0)	0 (0)
	chronic nephropathy		19 (38)	22 (44)	6 (12)	1 (2)	12 (24)	24 (48)	11 (22)	3 (6)	5 (10)	15 (30)	24 (48)	3 ** (6)	3 (6)	10 (20)	19 (38)	17 ** (34)
	hydronephrosis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	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 ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square																		

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 10

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney																		
	pyelitis		<50>				<50>				<50>				<50>			
			0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	mineralization:papilla		1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	mineralization:pelvis		1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	urothelial hyperplasia:pelvis		1	0	0	0	1	0	0	0	3	0	0	0	14	0	0	0 **
			(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(28)	(0)	(0)	(0)
	nuclear enlargement:proximal tubule		0	0	0	0	0	0	0	0	5	0	0	0	4	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	eosinophilic droplet:proximal tubule		0	0	0	0	1	0	0	0	4	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
urin bladd																		
	inflammation		<50>				<50>				<50>				<50>			
			0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	squamous cell metaplasia		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)	(6)	(0)	(0)	(0)

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 11

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
urin bladd			<50>				<50>				<50>				<50>			
	simple hyperplasia:transitional epithelium		1	0	0	0	0	2	0	0	0	0	0	0	1	4	0	0
			(2)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(8)	(0)	(0)
	nodular hyperplasia:transitional epithelium		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
{Endocrine system}																		
pituitary			<50>				<50>				<50>				<50>			
	angiectasis		7	0	0	0	6	0	0	0	7	0	0	0	6	0	0	0
			(14)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
	cyst		3	1	0	0	2	0	1	0	5	0	0	0	3	1	0	0
			(6)	(2)	(0)	(0)	(4)	(0)	(2)	(0)	(10)	(0)	(0)	(0)	(6)	(2)	(0)	(0)
	hyperplasia		17	3	0	0	9	3	0	0	10	2	0	0	11	0	1	0
			(34)	(6)	(0)	(0)	(18)	(6)	(0)	(0)	(20)	(4)	(0)	(0)	(22)	(0)	(2)	(0)
	Rathke pouch		4	1	0	0	5	0	0	0	4	0	0	0	2	0	0	0
			(8)	(2)	(0)	(0)	(10)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	focal hypertrophy		5	0	0	0	4	0	0	0	3	0	0	0	3	0	0	0
			(10)	(0)	(0)	(0)	(8)	(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. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 12

Organ	Findings	Group Name	Control				25ppm				50ppm				100ppm			
		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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
pituitary			<50>				<50>				<50>				<50>			
	aberrant craniopharyngeal tissue		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)
thyroid			<50>				<50>				<50>				<49>			
	C-cell hyperplasia		6 (12)	0 (0)	0 (0)	0 (0)	5 (10)	1 (2)	0 (0)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)	5 (10)	1 (2)	0 (0)	0 (0)
	focal follicular cell hyperplasia		2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	2 (4)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	3 (6)	3 (6)	0 (0)	0 (0)
parathyroid			<50>				<49>				<49>				<48>			
	hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
adrenal			<50>				<50>				<50>				<50>			
	peliosis-like lesion		5 (10)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)
	extramedullary hematopoiesis		3 (6)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	hyperplasia:cortical cell		10 (20)	1 (2)	0 (0)	0 (0)	11 (22)	0 (0)	0 (0)	0 (0)	15 (30)	0 (0)	0 (0)	0 (0)	11 (22)	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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 13

Organ	Findings	Group Name No. of Animals on Study				Control 50				25ppm 50				50ppm 50				100ppm 50			
		Grade																			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																					
adrenal		<50>				<50>				<50>				<50>				<50>			
	hyperplasia:medulla	10 (20)	2 (4)	1 (2)	0 (0)	15 (30)	3 (6)	0 (0)	0 (0)	17 (34)	1 (2)	0 (0)	0 (0)	15 (30)	5 (10)	0 (0)	0 (0)	15 (30)	5 (10)	0 (0)	0 (0)
	focal fatty change:cortex	12 (24)	0 (0)	0 (0)	0 (0)	14 (28)	0 (0)	0 (0)	0 (0)	5 (10)	1 (2)	0 (0)	0 (0)	16 (32)	0 (0)	0 (0)	0 (0)	16 (32)	0 (0)	0 (0)	0 (0)
{Reproductive system}																					
testis		<50>				<50>				<50>				<50>				<50>			
	atrophy	43 (86)	0 (0)	0 (0)	0 (0)	46 (92)	0 (0)	0 (0)	0 (0)	48 (96)	0 (0)	0 (0)	0 (0)	49 (98)	0 (0)	0 (0)	0 (0)	49 (98)	0 (0)	0 (0)	0 (0)
	mineralization	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)	1 (2)	0 (0)	0 (0)	0 (0)
	interstitial cell hyperplasia	4 (8)	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)
epididymis		<50>				<50>				<50>				<50>				<50>			
	inflammation	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)	1 (2)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 14

Organ	Findings	Group Name	Control				25ppm				50ppm				100ppm			
		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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
prostate			<50>				<50>				<50>				<50>			
	inflammation		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)
mammary gl			<50>				<50>				<50>				<50>			
	hyperplasia		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)
{Nervous system}																		
brain			<50>				<50>				<50>				<50>			
	hemorrhage		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)
	reticulosis		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)
	gliosis		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)	(0)
spinal cord			<50>				<50>				<50>				<50>			
	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 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. : 0365
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				Control 50				25ppm 50				50ppm 50				100ppm 50			
		Grade																			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																					
eye		<50>				<50>				<50>				<50>				<50>			
	cataract	0	4	7	0	0	3	7	1	0	4	5	0	0	3	9	0	0	3	9	0
		(0)	(8)	(14)	(0)	(0)	(6)	(14)	(2)	(0)	(8)	(10)	(0)	(0)	(6)	(18)	(0)	(0)	(6)	(18)	(0)
	retinal atrophy	3	2	6	0	2	2	4	0	0	1	4	0	3	0	4	0	6	0	4	0
		(6)	(4)	(12)	(0)	(4)	(4)	(8)	(0)	(0)	(2)	(8)	(0)	(6)	(0)	(8)	(0)	(6)	(0)	(8)	(0)
	keratitis	3	0	0	0	3	0	0	0	2	0	0	0	1	1	1	0	2	2	2	0
		(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(2)	(2)	(0)	(2)	(2)	(2)	(0)
	iritis	6	1	0	0	2	1	0	0	3	1	0	0	1	0	2	0	2	0	4	0
		(12)	(2)	(0)	(0)	(4)	(2)	(0)	(0)	(6)	(2)	(0)	(0)	(2)	(0)	(4)	(0)	(2)	(0)	(4)	(0)
	degeneration:cornea	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
		(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	mineralization:cornea	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)	(0)
Harder gl		<50>				<50>				<50>				<50>				<50>			
	degeneration	2	0	0	0	3	0	0	0	2	0	0	0	5	0	0	0	10	0	0	0
		(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	inflammatory infiltration	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 16

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
Harder gl			<50>				<50>				<50>				<50>			
	lymphocytic infiltration		24	1	0	0	20	0	0	0	29	0	0	0	26	0	0	0
			(48)	(2)	(0)	(0)	(40)	(0)	(0)	(0)	(58)	(0)	(0)	(0)	(52)	(0)	(0)	(0)
	granulation		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	hyperplasia		0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
{Musculoskeletal system}																		
bone			<50>				<50>				<50>				<50>			
	osteosclerosis		0	0	0	0	5	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
{Body cavities}																		
adipose			<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)

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 J 2

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : MALE : DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
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 12				25ppm 17				50ppm 10				100ppm 26			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																		
skin/app			<12>				<17>				<10>				<26>			
	epidermal cyst		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
{Respiratory system}																		
nasal cavit			<12>				<17>				<10>				<26>			
	hemorrhage		0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(8)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	thrombus		0	3	0	0	1	5	2	0	0	2	0	0	1	2	3	0
			(0)	(25)	(0)	(0)	(6)	(29)	(12)	(0)	(0)	(20)	(0)	(0)	(4)	(8)	(12)	(0)
	mineralization		3	0	0	0	7	0	0	0	1	0	0	0	10	0	0	0
			(25)	(0)	(0)	(0)	(41)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(38)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		6	2	1	0	1	4	12	0 **	0	5	5	0 **	0	13	12	0 **
			(50)	(17)	(8)	(0)	(6)	(24)	(71)	(0)	(0)	(50)	(50)	(0)	(0)	(50)	(46)	(0)
	eosinophilic change:respiratory epithelium		1	0	0	0	9	0	0	0 *	2	0	0	0	4	0	0	0
			(8)	(0)	(0)	(0)	(53)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(15)	(0)	(0)	(0)
	inflammation:foreign body		1	2	0	0	2	0	0	0	1	0	0	0	11	0	0	0 *
			(8)	(17)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(42)	(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. : 0365
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	Group Name No. of Animals on Study Grade	Control 12				25ppm 17				50ppm 10				100ppm 26			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit	inflammation:respiratory epithelium		<12>				<17>				<10>				<26>			
			0	1	0	0	1	0	0	0	2	1	0	0	2	1	0	0
			(0)	(8)	(0)	(0)	(6)	(0)	(0)	(0)	(20)	(10)	(0)	(0)	(8)	(4)	(0)	(0)
	respiratory metaplasia:gland		1	0	0	0	9	0	0	0 *	0	0	0	0	2	0	0	0
			(8)	(0)	(0)	(0)	(53)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
larynx	inflammation		<12>				<17>				<10>				<25>			
			0	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
lung	congestion		<12>				<17>				<10>				<26>			
			1	0	0	0	3	0	0	0	2	0	0	0	3	0	0	0
			(8)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(12)	(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)	(4)	(0)	(0)	(0)
	bronchopneumonia		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)	(4)	(0)	(4)	(0)
	bronchiolar-alveolar cell hyperplasia		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)	(8)	(0)	(0)	(0)

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

STUDY NO. : 0365
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 12				25ppm 17				50ppm 10				100ppm 26			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
lung			<12>				<17>				<10>				<26>			
	uremic pneumonitis		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)	(8)	(4)	(0)	(0)
{Hematopoietic system}																		
bone marrow			<12>				<17>				<10>				<26>			
	granulation		0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	increased hematopoiesis		1	1	1	0	2	1	6	0	1	0	2	0	6	2	4	0
			(8)	(8)	(8)	(0)	(12)	(6)	(35)	(0)	(10)	(0)	(20)	(0)	(23)	(8)	(15)	(0)
	myelofibrosis		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	erythropoiesis:increased		0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lymph node			<12>				<17>				<10>				<26>			
	lymphadenitis		3	0	0	0	4	0	0	0	1	0	0	0	1	0	0	0
			(25)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(4)	(0)	(0)	(0)

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

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

b 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. : 0365
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	Group Name No. of Animals on Study Grade	Control 12				25ppm 17				50ppm 10				100ppm 26			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
spleen			<12>				<17>				<10>				<26>			
	congestion		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)	(4)	(4)	(0)	(0)
	deposit of hemosiderin		6	1	0	0	3	1	0	0	3	0	0	0	8	4	1	0
			(50)	(8)	(0)	(0)	(18)	(6)	(0)	(0)	(30)	(0)	(0)	(0)	(31)	(15)	(4)	(0)
	fibrosis:focal		0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(8)	(0)
	extramedullary hematopoiesis		1	2	0	0	2	2	2	0	1	2	1	0	4	0	1	0
			(8)	(17)	(0)	(0)	(12)	(12)	(12)	(0)	(10)	(20)	(10)	(0)	(15)	(0)	(4)	(0)
{Circulatory system}																		
heart			<12>				<17>				<10>				<26>			
	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)	(8)	(0)	(0)	(0)
	myocardial fibrosis		6	0	0	0	7	1	0	0	6	0	0	0	15	4	0	0
			(50)	(0)	(0)	(0)	(41)	(6)	(0)	(0)	(60)	(0)	(0)	(0)	(58)	(15)	(0)	(0)
artery/aort			<12>				<17>				<10>				<26>			
	mineralization		4	0	0	0	5	0	0	0	4	0	0	0	12	1	0	0
			(33)	(0)	(0)	(0)	(29)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(46)	(4)	(0)	(0)

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

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

b b : Number of animals with lesion

(c) c : b / a * 100

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

STUDY NO. : 0365
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	Group Name No. of Animals on Study Grade	Control 12				25ppm 17				50ppm 10				100ppm 26			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}																		
artery/aort	periarteritis nodosa		<12>				<17>				<10>				<26>			
			0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
{Digestive system}																		
tongue	arteritis		<12>				<17>				<10>				<25>			
			0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
salivary gl	atrophy		<12>				<17>				<10>				<26>			
			0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
stomach	mineralization		<12>				<17>				<10>				<25>			
			0	0	0	0	1	0	0	0	0	0	0	0	1	2	2	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(8)	(8)	(0)
	ulcer:forestomach		<12>				<17>				<10>				<25>			
			2	0	0	0	1	2	1	0	0	0	0	0	1	0	1	0
			(17)	(0)	(0)	(0)	(6)	(12)	(6)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(4)	(0)
	erosion:glandular stomach		<12>				<17>				<10>				<25>			
			0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)

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

STUDY NO. : 0365
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	Group Name No. of Animals on Study- Grade	Control 12				25ppm 17				50ppm 10				100ppm 26			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<12>				<17>				<10>				<26>			
	herniation		3	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0
			(25)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
	congestion		3	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0 *
			(25)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	fatty change		0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	fatty change:central		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	degeneration:central		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	granulation		0	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
	clear 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)	(10)	(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. : 0365
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 12				25ppm 17				50ppm 10				100ppm 26			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																					
liver		<12>				<17>				<10>				<26>							
	acidophilic cell focus	0	0	0	0	1	1	0	0	0	0	0	0	6	3	0	0				
		(0)	(0)	(0)	(0)	(6)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(23)	(12)	(0)	(0)				
	basophilic cell focus	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0				
		(0)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)				
	vacuolated cell focus	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)				
	spongiosis hepatitis	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0				
		(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)				
	bile duct hyperplasia	0	11	0	0	4	13	0	0	2	7	0	0	1	20	4	0				
		(0)	(92)	(0)	(0)	(24)	(76)	(0)	(0)	(20)	(70)	(0)	(0)	(4)	(77)	(15)	(0)				
pancreas		<11>				<17>				<10>				<26>							
	atrophy	4	0	0	0	8	3	0	0	1	2	1	0	4	1	0	0				
		(36)	(0)	(0)	(0)	(47)	(18)	(0)	(0)	(10)	(20)	(10)	(0)	(15)	(4)	(0)	(0)				
	islet cell hyperplasia	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0				
		(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)				
	focal hypertrophy	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0				
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)				

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

STUDY NO. : 0365
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 12				25ppm 17				50ppm 10				100ppm 26			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																					
kidney		<12>				<17>				<10>				<26>							
	deposit of hemosiderin	1 (8)	0 (0)	0 (0)	0 (0)	2 (12)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	2 (8)	2 (8)	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)	0 (0)	1 (4)	0 (0)	0 (0)				
	chronic nephropathy	9 (75)	1 (8)	0 (0)	0 (0)	6 (35)	7 (41)	2 (12)	2 * (12)	3 (30)	2 (20)	2 (20)	1 (10)	3 (12)	8 (31)	7 (27)	8 ** (31)				
	hydronephrosis	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	0 (0)	0 (0)	0 (0)				
	mineralization:papilla	1 (8)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)				
	mineralization:pelvis	1 (8)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	2 (20)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)				
	urothelial hyperplasia:pelvis	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6 (23)	0 (0)	0 (0)	0 (0)				
	nuclear enlargement:proximal tubule	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 (8)	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. : 0365
 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 12				25ppm 17				50ppm 10				100ppm 26			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney	eosinophilic droplet:proximal tubule		<12>				<17>				<10>				<26>			
			0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
urin bladd	inflammation		<12>				<17>				<10>				<26>			
			0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
	squamous cell metaplasia		<12>				<17>				<10>				<26>			
			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)	(8)	(0)	(0)	(0)
	simple hyperplasia:transitional epithelium		<12>				<17>				<10>				<26>			
			0	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0
			(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(8)	(0)	(0)
	nodular hyperplasia:transitional epithelium		<12>				<17>				<10>				<26>			
			0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
{Endocrine system}																		
pituitary	angiectasis		<12>				<17>				<10>				<26>			
			3	0	0	0	4	0	0	0	0	0	0	0	2	0	0	0
			(25)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)

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

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

b 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. : 0365
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_____	Group Name	Control				25ppm				50ppm				100ppm			
		No. of Animals on Study	12				17				10				26			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
pituitary			<12>				<17>				<10>				<26>			
	cyst		0	0	0	0	0	0	1	0	2	0	0	0	1	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(20)	(0)	(0)	(0)	(4)	(4)	(0)	(0)
	hyperplasia		2	0	0	0	3	1	0	0	0	0	0	0	3	0	1	0
			(17)	(0)	(0)	(0)	(18)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(4)	(0)
	Rathke pouch		0	1	0	0	2	0	0	0	0	0	0	1	0	0	0	
			(0)	(8)	(0)	(0)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	
	focal hypertrophy		1	0	0	0	2	0	0	0	0	0	0	1	0	0	0	
			(8)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	
thyroid			<12>				<17>				<10>				<25>			
	C-cell hyperplasia		1	0	0	0	1	0	0	0	0	0	0	3	0	0	0	
			(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	
	focal follicular cell hyperplasia		1	0	0	0	1	0	0	0	0	0	0	1	3	0	0	
			(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(12)	(0)	(0)	
parathyroid			<12>				<16>				< 9>				<24>			
	hyperplasia		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)	(4)	(0)	(0)	(0)	

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 11

Organ	Findings	Group Name No. of Animals on Study Grade	Control 12				25ppm 17				50ppm 10				100ppm 26			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
adrenal			<12>				<17>				<10>				<26>			
	peliosis-like lesion		0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	extramedullary hematopoiesis		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	hyperplasia:cortical cell		0	0	0	0	2	0	0	0	1	0	0	0	4	1	0	0
			(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(15)	(4)	(0)	(0)
	hyperplasia:medulla		2	0	0	0	4	2	0	0	1	0	0	0	7	2	0	0
			(17)	(0)	(0)	(0)	(24)	(12)	(0)	(0)	(10)	(0)	(0)	(0)	(27)	(8)	(0)	(0)
	focal fatty change:cortex		2	0	0	0	9	0	0	0	1	0	0	0	8	0	0	0
			(17)	(0)	(0)	(0)	(53)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(31)	(0)	(0)	(0)
{Reproductive system}																		
testis			<12>				<17>				<10>				<26>			
	atrophy		5	0	0	0	15	0	0	0 *	8	0	0	0	25	0	0	0 **
			(42)	(0)	(0)	(0)	(88)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(96)	(0)	(0)	(0)
	mineralization		2	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
			(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(4)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
b 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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 12

		Group Name	Control				25ppm				50ppm				100ppm			
		No. of Animals on Study	12				17				10				26			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
testis	interstitial cell hyperplasia		<12>				<17>				<10>				<26>			
		4	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0 *
		(33)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
prostate	inflammation		<12>				<17>				<10>				<26>			
		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)	(4)	(0)	(0)	(0)	(0)
mammary gl	hyperplasia		<12>				<17>				<10>				<26>			
		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)	(4)	(0)	(0)	(0)	(0)
{Nervous system}																		
brain	hemorrhage		<12>				<17>				<10>				<26>			
		1	0	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)	(0)	
	gliosis		<12>				<17>				<10>				<26>			
		0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
spinal cord	hemorrhage		<12>				<17>				<10>				<26>			
		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 13

Organ	Findings	Group Name No. of Animals on Study Grade	Control 12				25ppm 17				50ppm 10				100ppm 26			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye			<12>				<17>				<10>				<26>			
	cataract		0	2	3	0	0	1	5	1	0	3	1	0	0	2	6	0
			(0)	(17)	(25)	(0)	(0)	(6)	(29)	(6)	(0)	(30)	(10)	(0)	(0)	(8)	(23)	(0)
	retinal atrophy		0	2	2	0	1	1	3	0	0	0	1	0	0	0	1	0 *
			(0)	(17)	(17)	(0)	(6)	(6)	(18)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(4)	(0)
	keratitis		0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
	iritis		3	0	0	0	1	1	0	0	0	1	0	0	1	0	0	0
			(25)	(0)	(0)	(0)	(6)	(6)	(0)	(0)	(0)	(10)	(0)	(0)	(4)	(0)	(0)	(0)
	degeneration:cornea		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	mineralization:cornea		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Harder gl			<12>				<17>				<10>				<26>			
	degeneration		0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
	inflammatory infiltration		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 14

Organ	Findings	Group Name	Control				25ppm				50ppm				100ppm						
		No. of Animals on Study	12				17				10				26						
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)			
{Special sense organs/appendage}																					
Harder gl			<12>				<17>				<10>				<26>						
	lymphocytic infiltration	5	0	0	0	0	7	0	0	0	0	4	0	0	0	0	10	0	0	0	0
		(42)	(0)	(0)	(0)	(0)	(41)	(0)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(0)
	hyperplasia	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	
{Musculoskeletal system}																					
bone			<12>				<17>				<10>				<26>						
	osteosclerosis	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)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Body cavities}																					
adipose			<12>				<17>				<10>				<26>						
	granulation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)

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

APPENDIX J 3

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : MALE : SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

		Group Name	Control				25ppm				50ppm				100ppm			
		No. of Animals on Study	38				33				40				24			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																		
skin/app			<38>				<33>				<40>				<24>			
	inflammation		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	epidermal cyst		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)
{Respiratory system}																		
nasal cavit			<38>				<33>				<40>				<24>			
	thrombus		0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
			(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)
	mineralization		32	0	0	0	17	0	0	0 **	18	0	0	0 **	10	0	0	0 **
			(84)	(0)	(0)	(0)	(52)	(0)	(0)	(0)	(45)	(0)	(0)	(0)	(42)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		22	13	0	0	0	8	25	0 **	0	14	25	0 **	0	5	19	0 **
			(58)	(34)	(0)	(0)	(0)	(24)	(76)	(0)	(0)	(35)	(63)	(0)	(0)	(21)	(79)	(0)
	eosinophilic change:respiratory epithelium		18	1	0	0	25	0	0	0 *	19	1	1	0	11	0	0	0
			(47)	(3)	(0)	(0)	(76)	(0)	(0)	(0)	(48)	(3)	(3)	(0)	(46)	(0)	(0)	(0)
	inflammation:foreign body		11	3	0	0	6	1	0	0	8	2	1	0	5	0	1	0
			(29)	(8)	(0)	(0)	(18)	(3)	(0)	(0)	(20)	(5)	(3)	(0)	(21)	(0)	(4)	(0)

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

STUDY NO. : 0365
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 38				25ppm 33				50ppm 40				100ppm 24			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			<38>				<33>				<40>				<24>			
	inflammation:respiratory epithelium		7	0	0	0	9	0	0	0	8	0	0	0	5	0	0	0
			(18)	(0)	(0)	(0)	(27)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(21)	(0)	(0)	(0)
	inflammation:olfactory epithelium		0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	respiratory metaplasia:gland		13	0	0	0	21	0	0	0 *	11	0	0	0	7	0	0	0
			(34)	(0)	(0)	(0)	(64)	(0)	(0)	(0)	(28)	(0)	(0)	(0)	(29)	(0)	(0)	(0)
nasopharynx			<38>				<33>				<40>				<24>			
	inflammation		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
larynx			<38>				<33>				<40>				<24>			
	inflammation		3	0	0	0	6	0	0	0	3	0	0	0	3	0	0	0
			(8)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
lung			<38>				<33>				<40>				<24>			
	congestion		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)
	ossification		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study Grade	Control 38				25ppm 33				50ppm 40				100ppm 24			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
lung			<38>				<33>				<40>				<24>			
	bronchiolar-alveolar cell hyperplasia		0	1	0	0	1	0	0	0	2	0	0	0	0	1	0	0
			(0)	(3)	(0)	(0)	(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
	uremic pneumonitis		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
{Hematopoietic system}																		
bone marrow			<38>				<33>				<40>				<24>			
	granulation		1	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0
			(3)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	increased hematopoiesis		9	4	3	0	7	6	3	0	12	1	5	0	6	7	2	0
			(24)	(11)	(8)	(0)	(21)	(18)	(9)	(0)	(30)	(3)	(13)	(0)	(25)	(29)	(8)	(0)
lymph node			<38>				<33>				<40>				<24>			
	granulation		0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	lymphadenitis		4	0	0	0	4	0	0	0	5	0	0	0	4	0	1	0
			(11)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(17)	(0)	(4)	(0)

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name No. of Animals on Study Grade				Control 38				25ppm 33				50ppm 40				100ppm 24			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																					
spleen		<38>				<33>				<40>				<24>							
	congestion	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0				
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(4)	(0)	(0)	(0)				
	deposit of hemosiderin	11	1	0	0	10	0	0	0	13	0	0	0	6	0	0	0				
		(29)	(3)	(0)	(0)	(30)	(0)	(0)	(0)	(33)	(0)	(0)	(0)	(25)	(0)	(0)	(0)				
	fibrosis:focal	1	0	0	0	2	0	0	0	2	3	0	0	4	3	0	0				
		(3)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(5)	(8)	(0)	(0)	(17)	(13)	(0)	(0)				
	extramedullary hematopoiesis	4	0	0	0	5	1	0	0	5	0	0	0	4	0	1	0				
		(11)	(0)	(0)	(0)	(15)	(3)	(0)	(0)	(13)	(0)	(0)	(0)	(17)	(0)	(4)	(0)				
{Circulatory system}																					
heart		<38>				<33>				<40>				<24>							
	inflammatory cell nest	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0				
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)				
	myocardial fibrosis	29	2	0	0	22	0	0	0	29	0	0	0	21	2	0	0				
		(76)	(5)	(0)	(0)	(67)	(0)	(0)	(0)	(73)	(0)	(0)	(0)	(88)	(8)	(0)	(0)				
artery/aort		<38>				<33>				<40>				<24>							
	mineralization	10	0	0	0	14	0	0	0	12	0	0	0	7	1	0	0				
		(26)	(0)	(0)	(0)	(42)	(0)	(0)	(0)	(30)	(0)	(0)	(0)	(29)	(4)	(0)	(0)				

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

STUDY NO. : 0365
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 Grade	Control 38				25ppm 33				50ppm 40				100ppm 24			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
tongue			<38>				<33>				<40>				<24>			
	arteritis		1	0	0	0	3	0	0	0	6	0	0	0	9	0	0	0 **
			(3)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(38)	(0)	(0)	(0)
salivary gl			<38>				<33>				<40>				<24>			
	atrophy		0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
stomach			<38>				<33>				<40>				<24>			
	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)	(4)	(0)	(0)	(0)
	inflammatory infiltration		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	ulcer:forestomach		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)
	erosion:glandular stomach		2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	intestinal metaplasia: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)	(4)	(0)	(0)	(0)

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 6

Organ_____	Findings_____	Group Name	Control				25ppm				50ppm				100ppm			
		No. of Animals on Study	38				33				40				24			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Digestive system}

liver

herniation

50

(13)

(0)

(0)

(0)

618

(18)

(0)

(0)

(0)

25

(5)

(0)

(0)

(0)

417

(17)

(0)

(0)

(0)

peliosis-like lesion

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(0)

(0)

(0)

(0)

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(0)

(0)

(0)

(0)

00

(0)

(0)

(0)

(0)

14

(4)

(0)

(0)

(0)

necrosis:focal

00

(0)

(0)

(0)

(0)

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(0)

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14

(4)

(0)

(0)

(0)

fatty change

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(0)

(0)

(0)

(0)

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(0)

(0)

(0)

(0)

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granulation

20

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(0)

20

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(0)

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10

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417

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(0)

clear cell focus

20

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(0)

(0)

(0)

12

(3)

(6)

(0)

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30

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(0)

(0)

(0)

00

(0)

(0)

(0)

(0)

acidophilic cell focus

104

(26)

(11)

(0)

(0)

56

(15)

(18)

(0)

(0)

135

(33)

(13)

(0)

(0)

67

(25)

(29)

(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. : 0365
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 38				25ppm 33				50ppm 40				100ppm 24			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																					
liver		<38>				<33>				<40>				<24>							
	basophilic cell focus	8 (21)	0 (0)	0 (0)	0 (0)	4 (12)	0 (0)	0 (0)	0 (0)	8 (20)	2 (5)	0 (0)	0 (0)	5 (21)	1 (4)	0 (0)	0 (0)				
	vacuolated cell focus	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	0 (0)	0 (0)	0 (0)				
	spongiosis hepatis	1 (3)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (8)	1 (4)	0 (0)	0 (0)				
	bile duct hyperplasia	0 (0)	38 (100)	0 (0)	0 (0)	1 (3)	32 (97)	0 (0)	0 (0)	7 (18)	32 (80)	0 (0)	0 * (0)	1 (4)	21 (88)	1 (4)	0 (0)				
	bile ductular proliferation	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)				
pancreas		<38>				<33>				<40>				<24>							
	atrophy	7 (18)	1 (3)	0 (0)	0 (0)	12 (36)	6 (18)	0 (0)	0 ** (0)	17 (43)	2 (5)	0 (0)	0 * (0)	6 (25)	1 (4)	1 (4)	0 (0)				
	islet cell hyperplasia	3 (8)	1 (3)	0 (0)	0 (0)	1 (3)	1 (3)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)				
	focal hypertrophy	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0365
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 38				25ppm 33				50ppm 40				100ppm 24			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																					
kidney		<38>				<33>				<40>				<24>							
	deposit of hemosiderin	2 (5)	0 (0)	0 (0)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	0 (0)	1 (4)	0 (0)	0 (0)	0 (0)				
	chronic nephropathy	10 (26)	21 (55)	6 (16)	1 (3)	6 (18)	17 (52)	9 (27)	1 (3)	2 (5)	13 (33)	22 (55)	2 ** (5)	0 (0)	2 (8)	12 (50)	9 ** (38)				
	pyelitis	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	0 (0)	0 (0)	0 (0)				
	mineralization:papilla	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	1 (4)	0 (0)	0 (0)	0 (0)				
	urothelial hyperplasia:pelvis	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	0 (0)	8 (33)	0 (0)	0 (0)	0 ** (0)				
	nuclear enlargement:proximal tubule	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (13)	0 (0)	0 (0)	0 (0)	2 (8)	0 (0)	0 (0)	0 (0)				
	eosinophilic droplet:proximal tubule	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	2 (8)	0 (0)	0 (0)	0 (0)				
urin bladd		<38>				<33>				<40>				<24>							
	squamous cell metaplasia	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 (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. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 9

Organ	Findings	Group Name	Control				25ppm				50ppm				100ppm			
		No. of Animals on Study	38				33				40				24			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
urin bladd			<38>				<33>				<40>				<24>			
	simple hyperplasia:transitional epithelium		1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
			(3)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)
{Endocrine system}																		
pituitary			<38>				<33>				<40>				<24>			
	angiectasis		4	0	0	0	2	0	0	0	7	0	0	0	4	0	0	0
			(11)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(17)	(0)	(0)	(0)
	cyst		3	1	0	0	2	0	0	0	3	0	0	0	2	0	0	0
			(8)	(3)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	hyperplasia		15	3	0	0	6	2	0	0	10	2	0	0	8	0	0	0
			(39)	(8)	(0)	(0)	(18)	(6)	(0)	(0)	(25)	(5)	(0)	(0)	(33)	(0)	(0)	(0)
	Rathke pouch		4	0	0	0	3	0	0	0	4	0	0	0	1	0	0	0
			(11)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	focal hypertrophy		4	0	0	0	2	0	0	0	3	0	0	0	2	0	0	0
			(11)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	aberrant craniopharyngeal tissue		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 10

		Group Name	Control				25ppm				50ppm				100ppm			
		No. of Animals on Study	38				33				40				24			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
thyroid			<38>				<33>				<40>				<24>			
	C-cell hyperplasia		5	0	0	0	4	1	0	0	7	0	0	0	2	1	0	0
			(13)	(0)	(0)	(0)	(12)	(3)	(0)	(0)	(18)	(0)	(0)	(0)	(8)	(4)	(0)	(0)
	focal follicular cell hyperplasia		1	0	0	0	0	2	0	0	4	0	0	0	2	0	0	0
			(3)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(10)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
parathyroid			<38>				<33>				<40>				<24>			
	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)	(4)	(0)	(0)	(0)
adrenal			<38>				<33>				<40>				<24>			
	peliosis-like lesion		5	0	0	0	0	0	0	0	4	0	0	0	3	0	0	0
			(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
	extramedullary hematopoiesis		3	0	0	0	2	0	0	0	4	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:cortical cell		10	1	0	0	9	0	0	0	14	0	0	0	7	0	0	0
			(26)	(3)	(0)	(0)	(27)	(0)	(0)	(0)	(35)	(0)	(0)	(0)	(29)	(0)	(0)	(0)
	hyperplasia:medulla		8	2	1	0	11	1	0	0	16	1	0	0	8	3	0	0
			(21)	(5)	(3)	(0)	(33)	(3)	(0)	(0)	(40)	(3)	(0)	(0)	(33)	(13)	(0)	(0)

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

STUDY NO. : 0365
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 Grade	Control 38				25ppm 33				50ppm 40				100ppm 24			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
adrenal			<38>				<33>				<40>				<24>			
	focal fatty change:cortex		10	0	0	0	5	0	0	0	4	1	0	0	8	0	0	0
			(26)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(10)	(3)	(0)	(0)	(33)	(0)	(0)	(0)
{Reproductive system}																		
testis			<38>				<33>				<40>				<24>			
	atrophy		38	0	0	0	31	0	0	0	40	0	0	0	24	0	0	0
			(100)	(0)	(0)	(0)	(94)	(0)	(0)	(0)	(100)	(0)	(0)	(0)	(100)	(0)	(0)	(0)
epididymis			<38>				<33>				<40>				<24>			
	inflammation		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)	(4)	(0)	(0)	(0)
prostate			<38>				<33>				<40>				<24>			
	inflammation		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
mammary gl			<38>				<33>				<40>				<24>			
	hyperplasia		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Nervous system}																		
brain			<38>				<33>				<40>				<24>			
	reticulosis		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)

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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 12

Organ	Findings	Group Name No. of Animals on Study Grade	Control 38				25ppm 33				50ppm 40				100ppm 24			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye			<38>				<33>				<40>				<24>			
	cataract		0	2	4	0	0	2	2	0	0	1	4	0	0	1	3	0
			(0)	(5)	(11)	(0)	(0)	(6)	(6)	(0)	(0)	(3)	(10)	(0)	(0)	(4)	(13)	(0)
	retinal atrophy		3	0	4	0	1	1	1	0	0	1	3	0	3	0	3	0
			(8)	(0)	(11)	(0)	(3)	(3)	(3)	(0)	(0)	(3)	(8)	(0)	(13)	(0)	(13)	(0)
	keratitis		3	0	0	0	1	0	0	0	2	0	0	0	1	0	1	0
			(8)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(4)	(0)	(4)	(0)
	iritis		3	1	0	0	1	0	0	0	3	0	0	0	0	0	2	0
			(8)	(3)	(0)	(0)	(3)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(8)	(0)
	degeneration:cornea		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)
Harder gl			<38>				<33>				<40>				<24>			
	degeneration		2	0	0	0	1	0	0	0	2	0	0	0	2	0	0	0
			(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	lymphocytic infiltration		19	1	0	0	13	0	0	0	25	0	0	0	16	0	0	0
			(50)	(3)	(0)	(0)	(39)	(0)	(0)	(0)	(63)	(0)	(0)	(0)	(67)	(0)	(0)	(0)
	granulation		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(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. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 13

Organ_____	Findings_____	Group Name	Control				25ppm				50ppm				100ppm			
		No. of Animals on Study	38				33				40				24			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
{Musculoskeletal system}																		
bone			<38>				<33>				<40>				<24>			
	osteosclerosis		0	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)

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

(HPT150)

BAIS4

APPENDIX J 4

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE: ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
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 No. of Animals on Study Grade	Control 50				25ppm 50				50ppm 50				100ppm 50				
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Integumentary system/appandage}																			
skin/app	epidermal cyst		<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)		
{Respiratory system}																			
nasal cavit	thrombus		<50>				<50>				<50>				<50>				
		1 (2)	3 (6)	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)	1 (2)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	1 (2)	2 (4)	0 (0)	0 (0)
	mineralization		24 (48)	0 (0)	0 (0)	0 (0)	16 (32)	0 (0)	0 (0)	0 (0)	11 (22)	0 (0)	0 (0)	0 (0)	0 (0)	14 (28)	0 (0)	0 (0)	0 (0)
	eosinophilic change:olfactory epithelium		4 (8)	21 (42)	24 (48)	0 (0)	1 (2)	18 (36)	31 (62)	0 (0)	0 (0)	11 (22)	37 (74)	1 (2)	0 (0)	19 (38)	29 (58)	0 (0)	0 (0)
	eosinophilic change:respiratory epithelium		30 (60)	2 (4)	0 (0)	0 (0)	42 (84)	2 (4)	0 (0)	0 (0)	0 (0)	40 (80)	4 (8)	0 (0)	0 (0)	42 (84)	0 (0)	0 (0)	0 (0)
	inflammation:foreign body		3 (6)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	inflammation:respiratory epithelium		2 (4)	1 (2)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	1 (2)	0 (0)
Grade	1 : Slight	2 : Moderate	3 : Marked	4 : Severe															
< a >	a : Number of animals examined at the site																		
b	b : Number of animals with lesion																		
(c)	c : b / a * 100																		
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square																			

STUDY NO. : 0365
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				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit	respiratory metaplasia:gland		<50>				<50>				<50>				<50>			
			29	0	0	0	36	0	0	0	34	0	0	0	24	0	0	0
			(58)	(0)	(0)	(0)	(72)	(0)	(0)	(0)	(68)	(0)	(0)	(0)	(48)	(0)	(0)	(0)
larynx	inflammation		<50>				<50>				<50>				<50>			
			2	0	0	0	1	0	0	0	4	0	0	0	2	0	0	0
			(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
lung	congestion		<50>				<50>				<50>				<50>			
			2	0	0	0	1	0	0	0	4	0	0	0	5	0	0	0
			(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	ossification		<50>				<50>				<50>				<50>			
			0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	accumulation of foamy cells		<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)
	bronchopneumonia		<50>				<50>				<50>				<50>			
			1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(2)	(0)	(0)
	bronchiolar-alveolar cell hyperplasia		<50>				<50>				<50>				<50>			
			1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
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HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
ALL ANIMALS (0-105W)

PAGE : 19

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																		
bone marrow																		
	granulation		<50>				<50>				<50>				<50>			
			7	3	0	0	7	3	4	0	8	3	2	0	7	2	1	0
			(14)	(6)	(0)	(0)	(14)	(6)	(8)	(0)	(16)	(6)	(4)	(0)	(14)	(4)	(2)	(0)
	increased hematopoiesis		2	2	2	0	2	1	8	0	0	6	6	0	5	4	3	0
			(4)	(4)	(4)	(0)	(4)	(2)	(16)	(0)	(0)	(12)	(12)	(0)	(10)	(8)	(6)	(0)
	erythropoiesis:increased		0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)
	granulopoiesis:increased		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)	(4)	(0)
lymph node																		
	granulation		<50>				<50>				<50>				<50>			
			1	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	lymphadenitis		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)
spleen																		
	congestion		<50>				<50>				<50>				<49>			
			1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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. : 0365
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HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)
 ALL ANIMALS (0-105W)

PAGE : 20

Organ_____	Findings_____	Group Name	Control				25ppm				50ppm				100ppm			
		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>				<49>			
	hemorrhage		1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of hemosiderin		30	4	1	0	27	1	0	0	30	3	0	0	29	2	0	0
			(60)	(8)	(2)	(0)	(54)	(2)	(0)	(0)	(60)	(6)	(0)	(0)	(59)	(4)	(0)	(0)
	fibrosis:focal		2	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0
			(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(2)	(0)	(0)
	extramedullary hematopoiesis		8	0	0	0	3	3	4	0 *	4	4	0	0	6	4	1	0
			(16)	(0)	(0)	(0)	(6)	(6)	(8)	(0)	(8)	(8)	(0)	(0)	(12)	(8)	(2)	(0)
(Circulatory system)																		
heart			<50>				<50>				<50>				<50>			
	myocardial fibrosis		23	0	0	0	23	0	0	0	22	0	0	0	29	0	0	0
			(46)	(0)	(0)	(0)	(46)	(0)	(0)	(0)	(44)	(0)	(0)	(0)	(58)	(0)	(0)	(0)
artery/aort			<50>				<50>				<50>				<50>			
	mineralization		10	0	0	0	5	0	0	0	15	1	0	0	4	0	0	0
			(20)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(30)	(2)	(0)	(0)	(8)	(0)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b 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. : 0365
 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				25ppm				50ppm				100ppm			
		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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}																		
artery/aort			<50>				<50>				<50>				<50>			
	periarteritis nodosa		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)
{Digestive system}																		
tongue			<50>				<50>				<50>				<50>			
	hyperkeratosis		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)
	arteritis		1	0	0	0	2	1	0	0	0	0	0	1	0	0	0	0
			(2)	(0)	(0)	(0)	(4)	(2)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)
stomach			<50>				<50>				<50>				<50>			
	mineralization		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)
	ulcer:forestomach		0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:forestomach		0	0	0	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)

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. : 0365
 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				Control 50				25ppm 50				50ppm 50				100ppm 50			
		Grade																			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																					
stomach		<50>				<50>				<50>				<50>				<50>			
	inflammation:forestomach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
large intes		<50>				<50>				<50>				<50>				<50>			
	inflammatory polyp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
liver		<50>				<50>				<50>				<50>				<50>			
	herniation	8	0	0	0	13	0	0	0	8	0	0	0	9	0	0	0	9	0	0	0
		(16)	(0)	(0)	(0)	(26)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(18)	(0)	(0)	(0)
		<50>				<50>				<50>				<50>				<50>			
	congestion	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)
		<50>				<50>				<50>				<50>				<50>			
	necrosis:central	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)
		<50>				<50>				<50>				<50>				<50>			
	necrosis:focal	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)
		<50>				<50>				<50>				<50>				<50>			
	fatty change	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0365
 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				25ppm				50ppm				100ppm			
		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			<50>				<50>				<50>				<50>			
	degeneration:central		0	0	0	0	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)
	inflammatory infiltration		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulation		34	4	1	0	28	7	0	0	30	8	0	0	30	6	0	0
			(68)	(8)	(2)	(0)	(56)	(14)	(0)	(0)	(60)	(16)	(0)	(0)	(60)	(12)	(0)	(0)
	clear cell focus		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	acidophilic cell focus		3	0	0	0	1	0	0	0	2	0	0	0	3	0	0	0
			(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	basophilic cell focus		21	16	0	0	23	7	0	0	24	11	0	0	19	13	0	0
			(42)	(32)	(0)	(0)	(46)	(14)	(0)	(0)	(48)	(22)	(0)	(0)	(38)	(26)	(0)	(0)
	vacuolated cell focus		0	0	0	0	2	0	0	0	4	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	bile duct hyperplasia		9	1	0	0	9	0	1	0	10	0	0	0	13	4	0	0
			(18)	(2)	(0)	(0)	(18)	(0)	(2)	(0)	(20)	(0)	(0)	(0)	(26)	(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. : 0365
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				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<50>				<50>				<50>				<50>			
	bile ductular proliferation		8	0	0	0	5	0	0	0	4	0	0	0	9	0	0	0
			(16)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(18)	(0)	(0)	(0)
	cholangiofibrosis		5	0	0	0	2	1	1	0	3	1	1	0	6	2	0	0
			(10)	(0)	(0)	(0)	(4)	(2)	(2)	(0)	(6)	(2)	(2)	(0)	(12)	(4)	(0)	(0)
pancreas			<50>				<50>				<50>				<50>			
	atrophy		4	0	0	0	4	0	0	0	1	0	0	0	2	1	1	0
			(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(2)	(2)	(0)
	islet cell hyperplasia		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)
{Urinary system}																		
kidney			<50>				<50>				<50>				<50>			
	deposit of hemosiderin		16	2	0	0	11	0	0	0	13	0	0	0	19	0	0	0
			(32)	(4)	(0)	(0)	(22)	(0)	(0)	(0)	(26)	(0)	(0)	(0)	(38)	(0)	(0)	(0)
	chronic nephropathy		42	3	2	0	34	2	4	0	38	5	1	0	39	2	0	0
			(84)	(6)	(4)	(0)	(68)	(4)	(8)	(0)	(76)	(10)	(2)	(0)	(78)	(4)	(0)	(0)

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

STUDY NO. : 0365
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				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney																		
	hydronephrosis		<50>				<50>				<50>				<50>			
			0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
			(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(2)	(0)	(0)	(0)
	mineralization:papilla		2	0	0	0	3	0	0	0	4	0	0	0	1	0	0	0
			(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	mineralization:pelvis		2	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0
			(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	urothelial hyperplasia:pelvis		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	nuclear enlargement:proximal tubule		0	0	0	0	9	0	0	0 **	33	0	0	0 **	41	0	0	0 **
			(0)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(66)	(0)	(0)	(0)	(82)	(0)	(0)	(0)
	eosinophilic droplet:proximal tubule		0	0	0	0	8	0	0	0 **	10	1	0	0 **	23	0	0	0 **
			(0)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(20)	(2)	(0)	(0)	(46)	(0)	(0)	(0)
urin bladd																		
	simple hyperplasia:transitional epithelium		<50>				<50>				<50>				<50>			
			0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	nodular hyperplasia:transitional epithelium		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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. : 0365
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				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
pituitary			<49>				<49>				<50>				<49>			
	angiectasis		3	0	0	0	1	0	0	0	3	0	0	0	2	0	0	0
			(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	cyst		20	2	0	0	12	7	1	0	12	4	0	0	10	3	0	0
			(41)	(4)	(0)	(0)	(24)	(14)	(2)	(0)	(24)	(8)	(0)	(0)	(20)	(6)	(0)	(0)
	hyperplasia		9	9	0	0	11	5	1	0	13	4	0	0	10	4	0	0
			(18)	(18)	(0)	(0)	(22)	(10)	(2)	(0)	(26)	(8)	(0)	(0)	(20)	(8)	(0)	(0)
	Rathke pouch		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)
	focal hypertrophy		2	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0
			(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
thyroid			<50>				<50>				<50>				<50>			
	C-cell hyperplasia		14	0	0	0	12	0	0	0	9	0	0	0	12	1	0	0
			(28)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(24)	(2)	(0)	(0)
	focal follicular cell hyperplasia		2	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
parathyroid	hyperplasia		<50>				<49>				<50>				<50>			
			0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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. : 0365
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				25ppm 50				50ppm 50				100ppm 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>			
			3	0	0	0	3	0	0	0	0	0	0	0	1	1	0	0
			(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(2)	(0)	(0)
	peliosis-like lesion		12	25	1	0	17	17	3	0	32	11	1	0 **	13	22	2	0
			(24)	(50)	(2)	(0)	(34)	(34)	(6)	(0)	(64)	(22)	(2)	(0)	(26)	(44)	(4)	(0)
	extramedullary hematopoiesis		3	0	0	0	1	0	0	0	4	0	0	0	4	0	0	0
			(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
	hyperplasia:cortical cell		11	0	0	0	7	0	0	0	7	0	0	0	5	0	0	0
			(22)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	hyperplasia:medulla		5	0	0	0	6	1	0	0	4	0	0	0	5	0	0	0
			(10)	(0)	(0)	(0)	(12)	(2)	(0)	(0)	(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	focal fatty change:cortex		9	2	0	0	14	1	0	0	9	1	0	0	7	0	0	0
			(18)	(4)	(0)	(0)	(28)	(2)	(0)	(0)	(18)	(2)	(0)	(0)	(14)	(0)	(0)	(0)
	focal hypertrophy:cortex		8	3	0	0	6	2	1	0	7	5	0	0	3	2	2	0
			(16)	(6)	(0)	(0)	(12)	(4)	(2)	(0)	(14)	(10)	(0)	(0)	(6)	(4)	(4)	(0)

{Reproductive system}

ovary																		
	cyst		<50>				<50>				<50>				<50>			
			0	1	0	0	0	1	0	0	1	1	0	0	0	1	0	0
			(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(2)	(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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0365
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				25ppm 50				50ppm 50				100ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
uterus	cystic endometrial hyperplasia		<50>				<50>				<50>				<50>			
			11	0	3	0	3	0	1	0 *	7	4	0	0 *	7	2	2	0
			(22)	(0)	(6)	(0)	(6)	(0)	(2)	(0)	(14)	(8)	(0)	(0)	(14)	(4)	(4)	(0)
vagina	squamous cell hyperplasia		<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)
mammary gl	duct ectasia		<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)
prep/cli gl	inflammation		<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)
{Nervous system}																		
brain	reticulosis		<50>				<50>				<50>				<50>			
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)
{Special sense organs/appendage}																		
eye	cataract		<50>				<50>				<50>				<50>			
			0	2	7	0	0	0	8	0	0	2	5	0	0	3	4	0
			(0)	(4)	(14)	(0)	(0)	(0)	(16)	(0)	(0)	(4)	(10)	(0)	(0)	(6)	(8)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
< a > a : Number of animals examined at the site
h h : Number of animals with lesion

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 29

		Group Name	Control				25ppm				50ppm				100ppm			
		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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye			<50>				<50>				<50>				<50>			
	retinal atrophy		2	0	6	0	2	0	5	1	1	3	2	0	3	0	1	0
			(4)	(0)	(12)	(0)	(4)	(0)	(10)	(2)	(2)	(6)	(4)	(0)	(6)	(0)	(2)	(0)
	keratitis		0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	iritis		4	1	0	0	2	0	1	0	0	1	0	0	1	0	0	0
			(8)	(2)	(0)	(0)	(4)	(0)	(2)	(0)	(0)	(2)	(0)	(0)	(2)	(0)	(0)	(0)
	degeneration:cornea		3	0	0	0	5	0	0	0	5	0	0	0	2	0	0	0
			(6)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	mineralization:cornea		2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Harder gl			<50>				<50>				<50>				<50>			
	degeneration		3	0	0	0	2	0	0	0	3	0	0	0	1	0	0	0
			(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	inflammatory infiltration		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	lymphocytic infiltration		26	0	0	0	27	0	0	0	31	0	0	0	37	1	0	0 *
			(52)	(0)	(0)	(0)	(54)	(0)	(0)	(0)	(62)	(0)	(0)	(0)	(74)	(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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 30

		Group Name	Control				25ppm				50ppm				100ppm			
		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
Organ	Findings		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
Harder gl	granulation		<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)	
	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)	(2)	(0)	(0)	(0)	
nasolacr d	inflammation		<50>				<50>				<50>				<50>			
			11	0	0	0	5	0	0	0	5	0	0	0	3	0	0	0 *
		(22)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	lymphocytic infiltration		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Musculoskeletal system}																		
bone	osteosclerosis		<50>				<50>				<50>				<50>			
			21	20	4	0	27	19	1	0	21	16	9	1	23	14	6	0
		(42)	(40)	(8)	(0)	(54)	(38)	(2)	(0)	(42)	(32)	(18)	(2)	(46)	(28)	(12)	(0)	

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

APPENDIX J 5

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE : DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
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	Group Name No. of Animals on Study Grade	Control 10				25ppm 16				50ppm 16				100ppm 16			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit	thrombus		<10>				<16>				<16>				<16>			
			0	3	0	0	0	2	1	0	0	4	0	0	0	2	0	0
			(0)	(30)	(0)	(0)	(0)	(13)	(6)	(0)	(0)	(25)	(0)	(0)	(0)	(13)	(0)	(0)
	mineralization		5	0	0	0	1	0	0	0 *	2	0	0	0	4	0	0	0
			(50)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(25)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		4	5	1	0	1	10	5	0	0	8	7	0 *	0	7	8	0 *
			(40)	(50)	(10)	(0)	(6)	(63)	(31)	(0)	(0)	(50)	(44)	(0)	(0)	(44)	(50)	(0)
	eosinophilic change:respiratory epithelium		4	0	0	0	15	0	0	0 *	14	0	0	0 *	12	0	0	0
			(40)	(0)	(0)	(0)	(94)	(0)	(0)	(0)	(88)	(0)	(0)	(0)	(75)	(0)	(0)	(0)
	inflammation:respiratory epithelium		0	1	0	0	0	0	0	0	2	0	0	0	1	0	1	0
			(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(6)	(0)	(6)	(0)
	respiratory metaplasia:gland		3	0	0	0	10	0	0	0	11	0	0	0	6	0	0	0
			(30)	(0)	(0)	(0)	(63)	(0)	(0)	(0)	(69)	(0)	(0)	(0)	(38)	(0)	(0)	(0)
larynx	inflammation		<10>				<16>				<16>				<16>			
			0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
lung	congestion		<10>				<16>				<16>				<16>			
			2	0	0	0	1	0	0	0	4	0	0	0	5	0	0	0
			(20)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(31)	(0)	(0)	(0)

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

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

b 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. : 0365
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	Group Name No. of Animals on Study Grade				Control 10				25ppm 16				50ppm 16				100ppm 16			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																					
lung		<10>				<16>				<16>				<16>				<16>			
	accumulation of foamy cells	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	bronchopneumonia	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}																					
bone marrow		<10>				<16>				<16>				<16>				<16>			
	granulation	0	0	0	0	3	0	0	0	1	0	0	0	2	0	0	0	2	0	0	0
		(0)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
	increased hematopoiesis	1	0	1	0	0	0	8	0	0	0	4	0	1	1	1	0	6	6	6	0
		(10)	(0)	(10)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(25)	(0)	(6)	(6)	(6)	(0)	(6)	(6)	(6)	(0)
	erythropoiesis:increased	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)
	granulopoiesis:increased	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	13	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)
lymph node		<10>				<16>				<16>				<16>				<16>			
	granulation	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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. : 0365
 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	Control				25ppm				50ppm				100ppm			
		No. of Animals on Study	10				16				16				16			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
lymph node			<10>				<16>				<16>				<16>			
	lymphadenitis		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
spleen			<10>				<16>				<16>				<16>			
	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)	(6)	(0)	(0)	(0)	(0)
	hemorrhage		1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of hemosiderin		1	1	1	0	4	1	0	0	4	3	0	0	7	1	0	0
			(10)	(10)	(10)	(0)	(25)	(6)	(0)	(0)	(25)	(19)	(0)	(0)	(44)	(6)	(0)	(0)
	fibrosis:focal		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	extramedullary hematopoiesis		2	0	0	0	3	3	4	0	0	4	0	0	1	4	1	0
			(20)	(0)	(0)	(0)	(19)	(19)	(25)	(0)	(0)	(25)	(0)	(0)	(6)	(25)	(6)	(0)
{Circulatory system}																		
heart			<10>				<16>				<16>				<16>			
	myocardial fibrosis		5	0	0	0	9	0	0	0	6	0	0	0	9	0	0	0
			(50)	(0)	(0)	(0)	(56)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(56)	(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. : 0365
 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	Group Name No. of Animals on Study Grade	Control 10				25ppm 16				50ppm 16				100ppm 16			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}																		
artery/aort	mineralization		<10>				<16>				<16>				<16>			
			2	0	0	0	3	0	0	0	4	1	0	0	1	0	0	0
			(20)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(25)	(6)	(0)	(0)	(6)	(0)	(0)	(0)
{Digestive system}																		
stomach	mineralization		<10>				<16>				<16>				<16>			
			0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	ulcer:forestomach		<10>				<16>				<16>				<16>			
			0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:forestomach		<10>				<16>				<16>				<16>			
			0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	inflammation:forestomach		<10>				<16>				<16>				<16>			
			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)	(6)	(0)	(0)
liver	herniation		<10>				<16>				<16>				<16>			
			1	0	0	0	3	0	0	0	4	0	0	0	3	0	0	0
			(10)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(19)	(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. : 0365
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 Grade	Control 10				25ppm 16				50ppm 16				100ppm 16			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver																		
			<10>				<16>				<16>				<16>			
	congestion		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:central		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	fatty change		0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(6)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	degeneration:central		0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
	granulation		3	0	0	0	5	0	0	0	6	0	0	0	7	1	0	0
			(30)	(0)	(0)	(0)	(31)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(44)	(6)	(0)	(0)
	acidophilic cell focus		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	basophilic cell focus		2	2	0	0	6	0	0	0	9	0	0	0	6	2	0	0
			(20)	(20)	(0)	(0)	(38)	(0)	(0)	(0)	(56)	(0)	(0)	(0)	(38)	(13)	(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. : 0365
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 10				25ppm 16				50ppm 16				100ppm 16			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<10>				<16>				<16>				<16>			
	vacuolated 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)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	bile duct hyperplasia		1	1	0	0	0	0	1	0	3	0	0	0	5	1	0	0
			(10)	(10)	(0)	(0)	(0)	(0)	(6)	(0)	(19)	(0)	(0)	(0)	(31)	(6)	(0)	(0)
	bile ductular proliferation		2	0	0	0	1	0	0	0	2	0	0	0	4	0	0	0
			(20)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(25)	(0)	(0)	(0)
	cholangiofibrosis		2	0	0	0	0	0	1	0	2	1	0	0	1	0	0	0
			(20)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(13)	(6)	(0)	(0)	(6)	(0)	(0)	(0)
pancreas			<10>				<16>				<16>				<16>			
	atrophy		2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
			(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)
	islet cell hyperplasia		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Urinary system}																		
kidney			<10>				<16>				<16>				<16>			
	deposit of hemosiderin		2	2	0	0	6	0	0	0	3	0	0	0	4	0	0	0
			(20)	(20)	(0)	(0)	(38)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(25)	(0)	(0)	(0)

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

STUDY NO. : 0365
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 10				25ppm 16				50ppm 16				100ppm 16			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney																		
	chronic nephropathy		<10>				<16>				<16>				<16>			
			7	0	1	0	6	0	1	0	10	0	0	0	8	1	0	0
			(70)	(0)	(10)	(0)	(38)	(0)	(6)	(0)	(63)	(0)	(0)	(0)	(50)	(6)	(0)	(0)
	hydronephrosis		0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
			(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(6)	(0)	(0)	(0)
	mineralization:papilla		1	0	0	0	2	0	0	0	2	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	mineralization:pelvis		1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	nuclear enlargement:proximal tubule		0	0	0	0	3	0	0	0	7	0	0	0 *	11	0	0	0 **
			(0)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(44)	(0)	(0)	(0)	(69)	(0)	(0)	(0)
	eosinophilic droplet:proximal tubule		0	0	0	0	3	0	0	0	2	1	0	0	7	0	0	0 *
			(0)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(13)	(6)	(0)	(0)	(44)	(0)	(0)	(0)
urin bladd																		
	simple hyperplasia:transitional epithelium		<10>				<16>				<16>				<16>			
			0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)
{Endocrine system}																		
pituitary																		
	angiectasis		<10>				<16>				<16>				<16>			
			1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)

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

STUDY NO. : 0365
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	Group Name No. of Animals on Study				Control 10				25ppm 16				50ppm 16				100ppm 16			
		Grade				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																					
pituitary		<10>				<16>				<16>				<16>				<16>			
	cyst	5	0	0	0	2	2	0	0	5	1	0	0	5	1	0	0	5	1	0	0
		(50)	(0)	(0)	(0)	(13)	(13)	(0)	(0)	(31)	(6)	(0)	(0)	(31)	(6)	(0)	(0)	(31)	(6)	(0)	(0)
	hyperplasia	1	1	0	0	4	0	0	0	3	1	0	0	2	0	0	0	2	0	0	0
		(10)	(10)	(0)	(0)	(25)	(0)	(0)	(0)	(19)	(6)	(0)	(0)	(13)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
	Rathke pouch	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	focal hypertrophy	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
thyroid		<10>				<16>				<16>				<16>				<16>			
	C-cell hyperplasia	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(10)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	focal follicular cell hyperplasia	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
adrenal		<10>				<16>				<16>				<16>				<16>			
	hemorrhage	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
		(10)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)

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

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 23

Organ	Findings	Group Name No. of Animals on Study Grade				Control 10				25ppm 16				50ppm 16				100ppm 16			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																					
adrenal		<10>				<16>				<16>				<16>				<16>			
	peliosis-like lesion	3	0	0	0	4	5	1	0	10	2	0	0	4	5	0	0	4	5	0	0
		(30)	(0)	(0)	(0)	(25)	(31)	(6)	(0)	(63)	(13)	(0)	(0)	(25)	(31)	(0)	(0)	(25)	(31)	(0)	(0)
	extramedullary hematopoiesis	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	hyperplasia:cortical cell	1	0	0	0	1	0	0	0	3	0	0	0	2	0	0	0	13	0	0	0
		(10)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
	hyperplasia:medulla	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	focal fatty change:cortex	2	1	0	0	3	1	0	0	3	1	0	0	2	0	0	0	13	0	0	0
		(20)	(10)	(0)	(0)	(19)	(6)	(0)	(0)	(19)	(6)	(0)	(0)	(13)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
	focal hypertrophy:cortex	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0
		(10)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)
{Reproductive system}																					
ovary		<10>				<16>				<16>				<16>				<16>			
	cyst	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)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 24

		Group Name	Control				25ppm				50ppm				100ppm			
		No. of Animals on Study	10				16				16				16			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Organ	Findings		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
uterus			<10>				<16>				<16>				<16>			
	cystic endometrial hyperplasia		2	0	0	0	2	0	0	0	1	3	0	0	1	1	1	0
			(20)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(6)	(19)	(0)	(0)	(6)	(6)	(6)	(0)
{Nervous system}																		
brain			<10>				<16>				<16>				<16>			
	reticulosis		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)	(6)	(0)
{Special sense organs/appendage}																		
eye			<10>				<16>				<16>				<16>			
	cataract		0	1	2	0	0	0	3	0	0	0	4	0	0	1	3	0
			(0)	(10)	(20)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(25)	(0)	(0)	(6)	(19)	(0)
	retinal atrophy		1	0	1	0	2	0	1	0	1	3	1	0	3	0	0	0
			(10)	(0)	(10)	(0)	(13)	(0)	(6)	(0)	(6)	(19)	(6)	(0)	(19)	(0)	(0)	(0)
	keratitis		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 25

Organ	Findings	Group Name No. of Animals on Study Grade	Control 10				25ppm 16				50ppm 16				100ppm 16			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye	iritis		<10>				<16>				<16>				<16>			
			2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	degeneration:cornea		1	0	0	0	4	0	0	0	3	0	0	0	2	0	0	0
			(10)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
Harder gl	degeneration		<10>				<16>				<16>				<16>			
			0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammatory infiltration		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	lymphocytic infiltration		2	0	0	0	7	0	0	0	6	0	0	0	10	0	0	0
			(20)	(0)	(0)	(0)	(44)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(63)	(0)	(0)	(0)
	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)	(6)	(0)	(0)	(0)
nasolacr d	inflammation		<10>				<16>				<16>				<16>			
			0	0	0	0	2	0	0	0	2	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(19)	(0)	(0)	(0)

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 26

Organ	Findings	Group Name				Control				25ppm				50ppm				100ppm			
		No. of Animals on Study				10				16				16				16			
		Grade				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
						(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Musculoskeletal system}

bone		<10>				<16>				<16>				<16>			
	osteosclerosis	5	2	3	0	8	7	0	0	5	7	2	0	9	4	1	0
		(50)	(20)	(30)	(0)	(50)	(44)	(0)	(0)	(31)	(44)	(13)	(0)	(56)	(25)	(6)	(0)

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

(HPT150)

BAIS4

APPENDIX J 6

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE : SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 14

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				25ppm 34				50ppm 34				100ppm 34			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																		
skin/app			<40>				<34>				<34>				<34>			
	epidermal cyst		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Respiratory system}																		
nasal cavit			<40>				<34>				<34>				<34>			
	thrombus		1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
			(3)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	mineralization		19	0	0	0	15	0	0	0	9	0	0	0	10	0	0	0
			(48)	(0)	(0)	(0)	(44)	(0)	(0)	(0)	(26)	(0)	(0)	(0)	(29)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		0	16	23	0	0	8	26	0	0	3	30	1 **	0	12	21	0
			(0)	(40)	(58)	(0)	(0)	(24)	(76)	(0)	(0)	(9)	(88)	(3)	(0)	(35)	(62)	(0)
	eosinophilic change:respiratory epithelium		26	2	0	0	27	2	0	0	26	4	0	0	30	0	0	0
			(65)	(5)	(0)	(0)	(79)	(6)	(0)	(0)	(76)	(12)	(0)	(0)	(88)	(0)	(0)	(0)
	inflammation:foreign body		3	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0
			(8)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	inflammation:respiratory epithelium		2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 15

Organ	Findings	Group Name No. of Animals on Study Grade				Control 40				25ppm 34				50ppm 34				100ppm 34			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																					
nasal cavit	respiratory metaplasia:gland	<40>				<34>				<34>				<34>				<34>			
		26	0	0	0	26	0	0	0	23	0	0	0	18	0	0	0	18	0	0	0
		(65)	(0)	(0)	(0)	(76)	(0)	(0)	(0)	(68)	(0)	(0)	(0)	(53)	(0)	(0)	(0)	(53)	(0)	(0)	(0)
larynx	inflammation	<40>				<34>				<34>				<34>				<34>			
		2	0	0	0	1	0	0	0	4	0	0	0	1	0	0	0	1	0	0	0
		(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
lung	ossification	<40>				<34>				<34>				<34>				<34>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	accumulation of foamy cells	<40>				<34>				<34>				<34>				<34>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	bronchopneumonia	<40>				<34>				<34>				<34>				<34>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(3)	(0)	(0)	(3)	(3)	(0)	(0)
	bronchiolar-alveolar cell hyperplasia	<40>				<34>				<34>				<34>				<34>			
		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
{Hematopoietic system}																					
bone marrow	granulation	<40>				<34>				<34>				<34>				<34>			
		7	3	0	0	4	3	4	0	7	3	2	0	5	2	1	0	5	2	1	0
		(18)	(8)	(0)	(0)	(12)	(9)	(12)	(0)	(21)	(9)	(6)	(0)	(15)	(6)	(3)	(0)	(15)	(6)	(3)	(0)

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

STUDY NO. : 0365
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 40				25ppm 34				50ppm 34				100ppm 34			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																		
bone marrow	increased hematopoiesis		<40>				<34>				<34>				<34>			
			1	2	1	0	2	1	0	0	0	6	2	0	4	3	2	0
			(3)	(5)	(3)	(0)	(6)	(3)	(0)	(0)	(0)	(18)	(6)	(0)	(12)	(9)	(6)	(0)
lymph node	granulation		<40>				<34>				<34>				<34>			
			1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	lymphadenitis		<40>				<34>				<34>				<34>			
			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	congestion		<40>				<34>				<34>				<33>			
			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	deposit of hemosiderin		<40>				<34>				<34>				<33>			
			29	3	0	0	23	0	0	0	26	0	0	0	22	1	0	0
			(73)	(8)	(0)	(0)	(68)	(0)	(0)	(0)	(76)	(0)	(0)	(0)	(67)	(3)	(0)	(0)
	fibrosis:focal		<40>				<34>				<34>				<33>			
			1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(3)	(0)	(0)
	extramedullary hematopoiesis		<40>				<34>				<34>				<33>			
			6	0	0	0	0	0	0	0	4	0	0	0	5	0	0	0
			(15)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(15)	(0)	(0)	(0)

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

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

b 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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 17

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				25ppm 34				50ppm 34				100ppm 34			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Circulatory system)																		
heart	myocardial fibrosis		<40>				<34>				<34>				<34>			
			18	0	0	0	14	0	0	0	16	0	0	0	20	0	0	0
			(45)	(0)	(0)	(0)	(41)	(0)	(0)	(0)	(47)	(0)	(0)	(0)	(59)	(0)	(0)	(0)
artery/aort	mineralization		<40>				<34>				<34>				<34>			
			8	0	0	0	2	0	0	0	11	0	0	0	3	0	0	0
			(20)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(32)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	periarteritis nodosa		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)
(Digestive system)																		
tongue	hyperkeratosis		<40>				<34>				<34>				<34>			
			0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	arteritis		1	0	0	0	2	1	0	0	0	0	0	0	1	0	0	0
			(3)	(0)	(0)	(0)	(6)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
stomach	hyperplasia:forestomach		<40>				<34>				<34>				<34>			
			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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 18

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				25ppm 34				50ppm 34				100ppm 34			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
large intes	inflammatory polyp		<40>				<34>				<34>				<34>			
			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)
liver	herniation		<40>				<34>				<34>				<34>			
			7	0	0	0	10	0	0	0	4	0	0	0	6	0	0	0
			(18)	(0)	(0)	(0)	(29)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(18)	(0)	(0)	(0)
	inflammatory infiltration		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulation		31	4	1	0	23	7	0	0	24	8	0	0	23	5	0	0
			(78)	(10)	(3)	(0)	(68)	(21)	(0)	(0)	(71)	(24)	(0)	(0)	(68)	(15)	(0)	(0)
	clear cell focus		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	acidophilic cell focus		3	0	0	0	1	0	0	0	2	0	0	0	2	0	0	0
			(8)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	basophilic cell focus		19	14	0	0	17	7	0	0	15	11	0	0	13	11	0	0
			(48)	(35)	(0)	(0)	(50)	(21)	(0)	(0)	(44)	(32)	(0)	(0)	(38)	(32)	(0)	(0)
	vacuolated cell focus		0	0	0	0	2	0	0	0	3	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(0)	(3)	(0)	(0)

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 19

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				25ppm 34				50ppm 34				100ppm 34			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<40>				<34>				<34>				<34>			
	bile duct hyperplasia		8	0	0	0	9	0	0	0	7	0	0	0	8	3	0	0
			(20)	(0)	(0)	(0)	(26)	(0)	(0)	(0)	(21)	(0)	(0)	(0)	(24)	(9)	(0)	(0)
	bile ductular proliferation		6	0	0	0	4	0	0	0	2	0	0	0	5	0	0	0
			(15)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(15)	(0)	(0)	(0)
	cholangiofibrosis		3	0	0	0	2	1	0	0	1	0	1	0	5	2	0	0
			(8)	(0)	(0)	(0)	(6)	(3)	(0)	(0)	(3)	(0)	(3)	(0)	(15)	(6)	(0)	(0)
pancreas			<40>				<34>				<34>				<34>			
	atrophy		2	0	0	0	4	0	0	0	1	0	0	0	2	1	0	0
			(5)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(6)	(3)	(0)	(0)
	islet cell hyperplasia		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Urinary system}																		
kidney			<40>				<34>				<34>				<34>			
	deposit of hemosiderin		14	0	0	0	5	0	0	0	10	0	0	0	15	0	0	0
			(35)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(29)	(0)	(0)	(0)	(44)	(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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 20

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				25ppm 34				50ppm 34				100ppm 34			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney			<40>				<34>				<34>				<34>			
	chronic nephropathy		35	3	1	0	28	2	3	0	28	5	1	0	31	1	0	0
			(88)	(8)	(3)	(0)	(82)	(6)	(9)	(0)	(82)	(15)	(3)	(0)	(91)	(3)	(0)	(0)
	mineralization:papilla		1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization:pelvis		1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	urothelial hyperplasia:pelvis		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)
	nuclear enlargement:proximal tubule		0	0	0	0	6	0	0	0 *	26	0	0	0 **	30	0	0	0 **
			(0)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(76)	(0)	(0)	(0)	(88)	(0)	(0)	(0)
	eosinophilic droplet:proximal tubule		0	0	0	0	5	0	0	0 *	8	0	0	0 **	16	0	0	0 **
			(0)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(47)	(0)	(0)	(0)
urin bladd			<40>				<34>				<34>				<34>			
	nodular hyperplasia:transitional epithelium		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
{Endocrine system}																		
pituitary			<39>				<33>				<34>				<33>			
	angiectasis		2	0	0	0	1	0	0	0	3	0	0	0	1	0	0	0
			(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(9)	(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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0365
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 40				25ppm 34				50ppm 34				100ppm 34			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Endocrine system)																		
pituitary	cyst		<39>				<33>				<34>				<33>			
			15	2	0	0	10	5	1	0	7	3	0	0	5	2	0	0
			(38)	(5)	(0)	(0)	(30)	(15)	(3)	(0)	(21)	(9)	(0)	(0)	(15)	(6)	(0)	(0)
	hyperplasia		8	8	0	0	7	5	1	0	10	3	0	0	8	4	0	0
			(21)	(21)	(0)	(0)	(21)	(15)	(3)	(0)	(29)	(9)	(0)	(0)	(24)	(12)	(0)	(0)
	focal hypertrophy		2	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
thyroid	C-cell hyperplasia		<40>				<34>				<34>				<34>			
			13	0	0	0	11	0	0	0	8	0	0	0	12	1	0	0
			(33)	(0)	(0)	(0)	(32)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(35)	(3)	(0)	(0)
	focal follicular cell hyperplasia		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)
parathyroid	hyperplasia		<40>				<33>				<34>				<34>			
			0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
adrenal	hemorrhage		<40>				<34>				<34>				<34>			
			2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
			(5)	(0)	(0)	(0)	(6)	(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 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. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 22

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				25ppm 34				50ppm 34				100ppm 34			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
adrenal																		
			<40>				<34>				<34>				<34>			
	peliosis-like lesion		9	25	1	0	13	12	2	0	22	9	1	0 **	9	17	2	0
			(23)	(63)	(3)	(0)	(38)	(35)	(6)	(0)	(65)	(26)	(3)	(0)	(26)	(50)	(6)	(0)
	extramedullary hematopoiesis		3	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	hyperplasia:cortical cell		10	0	0	0	6	0	0	0	4	0	0	0	3	0	0	0
			(25)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	hyperplasia:medulla		5	0	0	0	5	1	0	0	3	0	0	0	5	0	0	0
			(13)	(0)	(0)	(0)	(15)	(3)	(0)	(0)	(9)	(0)	(0)	(0)	(15)	(0)	(0)	(0)
	focal fatty change:cortex		7	1	0	0	11	0	0	0	6	0	0	0	5	0	0	0
			(18)	(3)	(0)	(0)	(32)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(15)	(0)	(0)	(0)
	focal hypertrophy:cortex		7	3	0	0	5	2	1	0	7	4	0	0	3	2	1	0
			(18)	(8)	(0)	(0)	(15)	(6)	(3)	(0)	(21)	(12)	(0)	(0)	(9)	(6)	(3)	(0)
{Reproductive system}																		
ovary																		
			<40>				<34>				<34>				<34>			
	cyst		0	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0
			(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(3)	(0)	(0)

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 23

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				25ppm 34				50ppm 34				100ppm 34			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
uterus	cystic endometrial hyperplasia		<40>				<34>				<34>				<34>			
			9	0	3	0	1	0	1	0 *	6	1	0	0	6	1	1	0
			(23)	(0)	(8)	(0)	(3)	(0)	(3)	(0)	(18)	(3)	(0)	(0)	(18)	(3)	(3)	(0)
vagina	squamous cell hyperplasia		<40>				<34>				<34>				<34>			
			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)
mammary gl	duct ectasia		<40>				<34>				<34>				<34>			
			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)
prep/cli gl	inflammation		<40>				<34>				<34>				<34>			
			0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Special sense organs/appendage}																		
eye	cataract		<40>				<34>				<34>				<34>			
			0	1	5	0	0	0	5	0	0	2	1	0	0	2	1	0
			(0)	(3)	(13)	(0)	(0)	(0)	(15)	(0)	(0)	(6)	(3)	(0)	(0)	(6)	(3)	(0)
	retinal atrophy		<40>				<34>				<34>				<34>			
			1	0	5	0	0	0	4	1	0	0	1	0	0	0	1	0
			(3)	(0)	(13)	(0)	(0)	(0)	(12)	(3)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 24

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				25ppm 34				50ppm 34				100ppm 34			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye			<40>				<34>				<34>				<34>			
	keratitis		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	iritis		2	1	0	0	2	0	1	0	0	1	0	0	1	0	0	0
			(5)	(3)	(0)	(0)	(6)	(0)	(3)	(0)	(0)	(3)	(0)	(0)	(3)	(0)	(0)	(0)
	degeneration:cornea		2	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization:cornea		2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Harder gl			<40>				<34>				<34>				<34>			
	degeneration		3	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	lymphocytic infiltration		24	0	0	0	20	0	0	0	25	0	0	0	27	1	0	0
			(60)	(0)	(0)	(0)	(59)	(0)	(0)	(0)	(74)	(0)	(0)	(0)	(79)	(3)	(0)	(0)
	granulation		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	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)	(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. : 0365
 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				Control 40				25ppm 34				50ppm 34				100ppm 34			
		Grade				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)				(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Special sense organs/appendage}

nasolacr d		<40>				<34>				<34>				<34>			
inflammation		11	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0 **
		(28)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lymphocytic infiltration		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

{Musculoskeletal system}

bone		<40>				<34>				<34>				<34>			
osteosclerosis		16	18	1	0	19	12	1	0	16	9	7	1 *	14	10	5	0
		(40)	(45)	(3)	(0)	(56)	(35)	(3)	(0)	(47)	(26)	(21)	(3)	(41)	(29)	(15)	(0)

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

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

b b : Number of animals with lesion

(c) c : b / a * 100

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

(HPT150)

BAIS4

APPENDIX K 1

NUMBER OF ANIMALS WITH TUMORS AND NUMBER OF
TUMORS-TIME RELATED, RAT : MALE
(2-YEAR STUDY)

STUDY NO. : 0365
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	25ppm	50ppm	100ppm
0 - 52	NO. OF EXAMINED ANIMALS		2	0	1	0
	NO. OF ANIMALS WITH TUMORS		1	0	1	0
	NO. OF ANIMALS WITH SINGLE TUMORS		1	0	1	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	0
	NO. OF MALIGNANT TUMORS		1	0	1	0
	NO. OF TOTAL TUMORS		1	0	1	0
53 - 78	NO. OF EXAMINED ANIMALS		5	0	1	1
	NO. OF ANIMALS WITH TUMORS		4	0	1	1
	NO. OF ANIMALS WITH SINGLE TUMORS		1	0	1	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		3	0	0	1
	NO. OF BENIGN TUMORS		7	0	0	2
	NO. OF MALIGNANT TUMORS		2	0	1	0
	NO. OF TOTAL TUMORS		9	0	1	2
79 - 104	NO. OF EXAMINED ANIMALS		5	17	8	25
	NO. OF ANIMALS WITH TUMORS		4	17	8	25
	NO. OF ANIMALS WITH SINGLE TUMORS		1	0	1	3
	NO. OF ANIMALS WITH MULTIPLE TUMORS		3	17	7	22
	NO. OF BENIGN TUMORS		10	31	16	51
	NO. OF MALIGNANT TUMORS		1	12	7	16
	NO. OF TOTAL TUMORS		11	43	23	67
105 - 105	NO. OF EXAMINED ANIMALS		38	33	40	24
	NO. OF ANIMALS WITH TUMORS		37	33	40	24
	NO. OF ANIMALS WITH SINGLE TUMORS		13	5	4	1
	NO. OF ANIMALS WITH MULTIPLE TUMORS		24	28	36	23
	NO. OF BENIGN TUMORS		77	67	86	59
	NO. OF MALIGNANT TUMORS		7	9	18	12
	NO. OF TOTAL TUMORS		84	76	104	71

STUDY NO. : 0365
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	25ppm	50ppm	100ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		46	50	50	50
	NO. OF ANIMALS WITH SINGLE TUMORS		16	5	7	4
	NO. OF ANIMALS WITH MULTIPLE TUMORS		30	45	43	46
	NO. OF BENIGN TUMORS		94	98	102	112
	NO. OF MALIGNANT TUMORS		11	21	27	28
	NO. OF TOTAL TUMORS		105	119	129	140

(HPT070)

BAIS4

APPENDIX K 2

NUMBER OF ANIMALS WITH TUMORS AND NUMBER OF
TUMORS-TIME RELATED, RAT : FEMALE
(2-YEAR STUDY)

STUDY NO. : 0365
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	25ppm	50ppm	100ppm
0 - 52	NO. OF EXAMINED ANIMALS		0	1	0	0
	NO. OF ANIMALS WITH TUMORS		0	1	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		0	1	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	1	0	0
	NO. OF TOTAL TUMORS		0	1	0	0
53 - 78	NO. OF EXAMINED ANIMALS		3	4	2	3
	NO. OF ANIMALS WITH TUMORS		3	4	1	3
	NO. OF ANIMALS WITH SINGLE TUMORS		1	4	1	2
	NO. OF ANIMALS WITH MULTIPLE TUMORS		2	0	0	1
	NO. OF BENIGN TUMORS		2	3	0	1
	NO. OF MALIGNANT TUMORS		3	1	1	3
	NO. OF TOTAL TUMORS		5	4	1	4
79 - 104	NO. OF EXAMINED ANIMALS		7	11	14	13
	NO. OF ANIMALS WITH TUMORS		6	11	14	9
	NO. OF ANIMALS WITH SINGLE TUMORS		2	6	5	4
	NO. OF ANIMALS WITH MULTIPLE TUMORS		4	5	9	5
	NO. OF BENIGN TUMORS		7	10	16	10
	NO. OF MALIGNANT TUMORS		4	7	10	8
	NO. OF TOTAL TUMORS		11	17	26	18
105 - 105	NO. OF EXAMINED ANIMALS		40	34	34	34
	NO. OF ANIMALS WITH TUMORS		28	27	26	28
	NO. OF ANIMALS WITH SINGLE TUMORS		18	13	11	13
	NO. OF ANIMALS WITH MULTIPLE TUMORS		10	14	15	15
	NO. OF BENIGN TUMORS		33	36	39	37
	NO. OF MALIGNANT TUMORS		10	8	8	12
	NO. OF TOTAL TUMORS		43	44	47	49

STUDY NO. : 0365
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	25ppm	50ppm	100ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		37	43	41	40
	NO. OF ANIMALS WITH SINGLE TUMORS		21	24	17	19
	NO. OF ANIMALS WITH MULTIPLE TUMORS		16	19	24	21
	NO. OF BENIGN TUMORS		42	49	55	48
	NO. OF MALIGNANT TUMORS		17	17	19	23
	NO. OF TOTAL TUMORS		59	66	74	71

(HPT070)

BAIS4

APPENDIX L 1

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS : SUMMARY

RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0365
 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	25ppm 50	50ppm 50	100ppm 50
{Integumentary system/appandage}						
skin/app	squamous cell papilloma		<50> 0 (0%)	<50> 1 (2%)	<50> 1 (2%)	<50> 1 (2%)
	fibroma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
	keratoacanthoma		1 (2%)	0 (0%)	2 (4%)	4 (8%)
	squamous cell carcinoma		0 (0%)	0 (0%)	2 (4%)	0 (0%)
subcutis	fibroma		<50> 2 (4%)	<50> 5 (10%)	<50> 1 (2%)	<50> 4 (8%)
	lipoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	leiomyosarcoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	malignant fibrous histiocyoma		0 (0%)	0 (0%)	1 (2%)	1 (2%)
{Respiratory system}						
lung	bronchiolar-alveolar adenoma		<50> 5 (10%)	<50> 0 (0%)	<50> 4 (8%)	<50> 8 (16%)
	bronchiolar-alveolar carcinoma		0 (0%)	1 (2%)	2 (4%)	1 (2%)
{Hematopoietic system}						
bone marrow	histiocytic sarcoma		<50> 0 (0%)	<50> 1 (2%)	<50> 1 (2%)	<50> 0 (0%)

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

(HPT085)

BAIS4

STUDY NO. : 0365
 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	25ppm 50	50ppm 50	100ppm 50
(Hematopoietic system)						
lymph node	malignant lymphoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
spleen	hemangioma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
	mononuclear cell leukemia		6 (12%)	11 (22%)	10 (20%)	9 (18%)
(Circulatory system)						
heart	schwannoma:malignant		<50> 1 (2%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
(Digestive system)						
oral cavity	keratoacanthoma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
	squamous cell carcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
stomach	epidermal cyst		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<49> 0 (0%)
liver	hepatocellular adenoma		<50> 0 (0%)	<50> 1 (2%)	<50> 1 (2%)	<50> 2 (4%)
	hepatocellular carcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
pancreas	islet cell adenoma		<49> 2 (4%)	<50> 5 (10%)	<50> 4 (8%)	<50> 1 (2%)
(Urinary system)						
kidney	lipoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 2 (4%)

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

STUDY NO. : 0365
 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	25ppm 50	50ppm 50	100ppm 50
{Urinary system}						
urin bladd	transitional cell papilloma		<50> 2 (4%)	<50> 0 (0%)	<50> 0 (0%)	<50> 2 (4%)
	transitional cell carcinoma		0 (0%)	1 (2%)	0 (0%)	5 (10%)
{Endocrine system}						
pituitary	adenoma		<50> 15 (30%)	<50> 17 (34%)	<50> 13 (26%)	<50> 17 (34%)
thyroid	C-cell adenoma		<50> 14 (28%)	<50> 12 (24%)	<50> 15 (30%)	<49> 7 (14%)
	follicular adenoma		1 (2%)	2 (4%)	2 (4%)	4 (8%)
	C-cell carcinoma		0 (0%)	1 (2%)	0 (0%)	3 (6%)
	follicular adenocarcinoma		0 (0%)	1 (2%)	2 (4%)	2 (4%)
adrenal	pheochromocytoma		<50> 6 (12%)	<50> 5 (10%)	<50> 9 (18%)	<50> 8 (16%)
	cortical adenoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	pheochromocytoma:malignant		1 (2%)	1 (2%)	2 (4%)	0 (0%)
{Reproductive system}						
testis	interstitial cell tumor		<50> 38 (76%)	<50> 47 (94%)	<50> 45 (90%)	<50> 43 (86%)

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

STUDY NO. : 0365
 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	25ppm 50	50ppm 50	100ppm 50
{Reproductive system}						
mammary gl	adenoma		<50> 2 (4%)	<50> 0 (0%)	<50> 0 (0%)	<50> 2 (4%)
	fibroadenoma		0 (0%)	0 (0%)	3 (6%)	3 (6%)
prep/cli gl	adenoma		<50> 1 (2%)	<50> 1 (2%)	<50> 0 (0%)	<50> 2 (4%)
{Nervous system}						
brain	meningioma:benign		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
	glioma		0 (0%)	2 (4%)	0 (0%)	1 (2%)
{Special sense organs/appendage}						
Zymbal gl	adenoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
{Musculoskeletal system}						
bone	osteoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
	osteosarcoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
{Body cavities}						
mediastinum	schwannoma:malignant		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
< a > a : Number of animals examined at the site b (c) b : Number of animals with neoplasm c : b / a * 100						
(HPT085)						

BAIS4

STUDY NO. : 0365
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	25ppm 50	50ppm 50	100ppm 50
{Body cavities}						
peritoneum	schwannoma:malignant		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
	mesothelioma		0 (0%)	1 (2%)	4 (8%)	4 (8%)
retroperit	paraganglioma:malignant		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)

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

(HPT085)

BAIS4

APPENDIX L 2

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0365
 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	25ppm 50	50ppm 50	100ppm 50
{Integumentary system/appandage}						
skin/app	squamous cell papilloma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
	trichoepithelioma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	keratoacanthoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
subcutis	lipoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
	histiocytic sarcoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
{Respiratory system}						
nasal cavit	chondroma		<50> 2 (4%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
lung	bronchiolar-alveolar adenoma		<50> 1 (2%)	<50> 2 (4%)	<50> 0 (0%)	<50> 3 (6%)
	bronchiolar-alveolar carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
{Hematopoietic system}						
lymph node	malignant lymphoma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
spleen	mononuclear cell leukemia		<50> 11 (22%)	<50> 10 (20%)	<50> 9 (18%)	<49> 9 (18%)
{Digestive system}						
oral cavity	squamous cell papilloma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<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. : 0365
 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	25ppm 50	50ppm 50	100ppm 50
{Digestive system}						
tongue	squamous cell papilloma		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 1 (2%)
liver	hepatocellular adenoma		<50> 0 (0%)	<50> 2 (4%)	<50> 0 (0%)	<50> 0 (0%)
	hepatocellular carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
pancreas	islet cell adenoma		<50> 1 (2%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
{Urinary system}						
kidney	renal cell carcinoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
urin bladd	transitional cell papilloma		<50> 0 (0%)	<50> 1 (2%)	<50> 2 (4%)	<50> 0 (0%)
{Endocrine system}						
pituitary	adenoma		<49> 15 (31%)	<49> 14 (29%)	<50> 17 (34%)	<49> 15 (31%)
	adenocarcinoma		0 (0%)	1 (2%)	1 (2%)	1 (2%)
thyroid	C-cell adenoma		<50> 6 (12%)	<50> 9 (18%)	<50> 10 (20%)	<50> 9 (18%)
	follicular adenoma		0 (0%)	0 (0%)	2 (4%)	1 (2%)
	C-cell carcinoma		1 (2%)	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. : 0365
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	25ppm 50	50ppm 50	100ppm 50
{Endocrine system}						
thyroid	follicular adenocarcinoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 1 (2%)
adrenal	pheochromocytoma		<50> 1 (2%)	<50> 1 (2%)	<50> 1 (2%)	<50> 1 (2%)
	cortical adenoma		1 (2%)	0 (0%)	0 (0%)	1 (2%)
	pheochromocytoma:malignant		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	cortical adenocarcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
{Reproductive system}						
uterus	endometrial stromal polyp		<50> 9 (18%)	<50> 11 (22%)	<50> 8 (16%)	<50> 4 (8%)
	adenocarcinoma		0 (0%)	1 (2%)	0 (0%)	2 (4%)
	leiomyosarcoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
	endometrial stromal sarcoma		2 (4%)	0 (0%)	3 (6%)	3 (6%)
mammary gl	fibroadenoma		<50> 4 (8%)	<50> 6 (12%)	<50> 11 (22%)	<50> 8 (16%)
	adenocarcinoma		0 (0%)	3 (6%)	1 (2%)	0 (0%)
prep/cli gl	adenoma		<50> 1 (2%)	<50> 1 (2%)	<50> 1 (2%)	<50> 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. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 9

Organ	Findings	Group Name No. of animals on Study	Control 50	25ppm 50	50ppm 50	100ppm 50
{Nervous system}						
brain	glioma		<50> 0 (0%)	<50> 0 (0%)	<50> 2 (4%)	<50> 1 (2%)
{Special sense organs/appendage}						
Zymbal gl	squamous cell carcinoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
{Musculoskeletal system}						
bone	osteosarcoma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)

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

(HPT085)

BAIS4

APPENDIX M 1

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS, RAT : MALE (2-YEAR STUDY)

STUDY No. : 0365
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	25ppm	50ppm	100ppm
SITE : skin/appendage TUMOR : keratoacanthoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	0/50(0.0)	2/50(4.0)	4/50(8.0)
Adjusted rates(b)	2.63	0.0	5.00	10.71
Terminal rates(c)	1/38(2.6)	0/33(0.0)	2/40(5.0)	2/24(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0172*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0438*			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	P = 0.1811
SITE : skin/appendage TUMOR : squamous cell papilloma, keratoacanthoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	1/50(2.0)	3/50(6.0)	5/50(10.0)
Adjusted rates(b)	2.63	3.03	7.50	14.29
Terminal rates(c)	1/38(2.6)	1/33(3.0)	3/40(7.5)	2/24(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0108*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0372*			
Fisher Exact test(e)		P = 0.7525	P = 0.3087	P = 0.1022
SITE : skin/appendage TUMOR : squamous cell papilloma, keratoacanthoma, squamous cell carcinoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	1/50(2.0)	5/50(10.0)	5/50(10.0)
Adjusted rates(b)	2.63	3.03	10.42	14.29
Terminal rates(c)	1/38(2.6)	1/33(3.0)	4/40(10.0)	2/24(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0187*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0441*			
Fisher Exact test(e)		P = 0.7525	P = 0.1022	P = 0.1022

STUDY No. : 0365
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	25ppm	50ppm	100ppm
SITE : subcutis TUMOR : fibroma				
Tumor rate				
Overall rates(a)	2/50(4.0)	5/50(10.0)	1/50(2.0)	4/50(8.0)
Adjusted rates(b)	5.26	9.09	2.50	12.50
Terminal rates(c)	2/38(5.3)	3/33(9.1)	1/40(2.5)	3/24(12.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3581			
Prevalence method(d)	P = 0.2202			
Combined analysis(d)	P = 0.2031			
Cochran-Armitage test(e)	P = 0.6872			
Fisher Exact test(e)		P = 0.2180	P = 0.5000	P = 0.3389
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	5/50(10.0)	0/50(0.0)	4/50(8.0)	8/50(16.0)
Adjusted rates(b)	11.63	0.0	10.00	28.57
Terminal rates(c)	3/38(7.9)	0/33(0.0)	4/40(10.0)	5/24(20.8)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0229*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0789			
Fisher Exact test(e)		P = 0.0281*	P = 0.5000	P = 0.2768
SITE : lung TUMOR : bronchiolar-alveolar adenoma, bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	5/50(10.0)	1/50(2.0)	6/50(12.0)	9/50(18.0)
Adjusted rates(b)	11.63	3.03	15.00	32.14
Terminal rates(c)	3/38(7.9)	1/33(3.0)	6/40(15.0)	6/24(25.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0121*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0561			
Fisher Exact test(e)		P = 0.1022	P = 0.5000	P = 0.1940

STUDY No. : 0365
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	25ppm	50ppm	100ppm
SITE : spleen TUMOR : mononuclear cell leukemia				
Tumor rate				
Overall rates(a)	6/50(12.0)	11/50(22.0)	10/50(20.0)	9/50(18.0)
Adjusted rates(b)	13.16	15.15	17.50	16.67
Terminal rates(c)	5/38(13.2)	5/33(15.2)	7/40(17.5)	4/24(16.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1095			
Prevalence method(d)	P = 0.3299			
Combined analysis(d)	P = 0.1225			
Cochran-Armitage test(e)	P = 0.6186			
Fisher Exact test(e)		P = 0.1434	P = 0.2070	P = 0.2883
SITE : pancreas TUMOR : islet cell adenoma				
Tumor rate				
Overall rates(a)	2/49(4.1)	5/50(10.0)	4/50(8.0)	1/50(2.0)
Adjusted rates(b)	4.65	14.29	10.00	2.63
Terminal rates(c)	1/38(2.6)	4/33(12.1)	4/40(10.0)	0/24(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.7524			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.4080			
Fisher Exact test(e)		P = 0.2264	P = 0.3485	P = 0.4923
SITE : urinary bladder TUMOR : transitional cell carcinoma				
Tumor rate				
Overall rates(a)	0/50(0.0)	1/50(2.0)	0/50(0.0)	5/50(10.0)
Adjusted rates(b)	0.0	0.0	0.0	10.00
Terminal rates(c)	0/38(0.0)	0/33(0.0)	0/40(0.0)	2/24(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1968			
Prevalence method(d)	P = 0.0007**?			
Combined analysis(d)	P = 0.0012**			
Cochran-Armitage test(e)	P = 0.0033**			
Fisher Exact test(e)		P = 0.5000	P = N.C.	P = 0.0281*

STUDY No. : 0365
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	25ppm	50ppm	100ppm
SITE : urinary bladder TUMOR : transitional cell papilloma, transitional cell carcinoma				
Tumor rate				
Overall rates(a)	2/50(4.0)	1/50(2.0)	0/50(0.0)	7/50(14.0)
Adjusted rates(b)	4.17	0.0	0.0	16.67
Terminal rates(c)	0/38(0.0)	0/33(0.0)	0/40(0.0)	3/24(12.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1968			
Prevalence method(d)	P = 0.0092**			
Combined analysis(d)	P = 0.0063**			
Cochran-Armitage test(e)	P = 0.0116*			
Fisher Exact test(e)		P = 0.5000	P = 0.2475	P = 0.0798
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	15/50(30.0)	17/50(34.0)	13/50(26.0)	17/50(34.0)
Adjusted rates(b)	31.11	33.33	26.09	33.33
Terminal rates(c)	10/38(26.3)	8/33(24.2)	9/40(22.5)	6/24(25.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0254*			
Prevalence method(d)	P = 0.7071			
Combined analysis(d)	P = 0.3529			
Cochran-Armitage test(e)	P = 0.7961			
Fisher Exact test(e)		P = 0.4152	P = 0.4120	P = 0.4152
SITE : thyroid TUMOR : C-cell adenoma				
Tumor rate				
Overall rates(a)	14/50(28.0)	12/50(24.0)	15/50(30.0)	7/49(14.3)
Adjusted rates(b)	34.21	30.30	32.61	19.23
Terminal rates(c)	13/38(34.2)	10/33(30.3)	13/40(32.5)	4/24(16.7)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9055			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.1304			
Fisher Exact test(e)		P = 0.4100	P = 0.5000	P = 0.0768

STUDY No. : 0365
 ANIMAL : RAT F344/DuCrj
 SEX : MALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 5

Group Name	Control	25ppm	50ppm	100ppm
SITE : thyroid TUMOR : follicular adenoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	2/50(4.0)	2/50(4.0)	4/49(8.2)
Adjusted rates(b)	2.63	6.06	4.65	16.67
Terminal rates(c)	1/38(2.6)	2/33(6.1)	0/40(0.0)	4/24(16.7)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0470*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.1416			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	P = 0.1748
SITE : thyroid TUMOR : C-cell carcinoma				
Tumor rate				
Overall rates(a)	0/50(0.0)	1/50(2.0)	0/50(0.0)	3/49(6.1)
Adjusted rates(b)	0.0	2.04	0.0	10.34
Terminal rates(c)	0/38(0.0)	0/33(0.0)	0/40(0.0)	1/24(4.2)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0247*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0383*			
Fisher Exact test(e)		P = 0.5000	P = N.C.	P = 0.1175
SITE : thyroid TUMOR : C-cell adenoma, C-cell carcinoma				
Tumor rate				
Overall rates(a)	14/50(28.0)	13/50(26.0)	15/50(30.0)	10/49(20.4)
Adjusted rates(b)	34.21	30.30	32.61	27.59
Terminal rates(c)	13/38(34.2)	10/33(30.3)	13/40(32.5)	5/24(20.8)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.7623			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.4172			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	P = 0.2593

STUDY No. : 0365
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 6

Group Name	Control	25ppm	50ppm	100ppm
SITE : thyroid TUMOR : follicular adenoma, follicular adenocarcinoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	3/50(6.0)	4/50(8.0)	5/49(10.2)
Adjusted rates(b)	2.63	9.09	9.30	16.67
Terminal rates(c)	1/38(2.6)	3/33(9.1)	2/40(5.0)	4/24(16.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0823 ?			
Prevalence method(d)	P = 0.0563			
Combined analysis(d)	P = 0.0235*			
Cochran-Armitage test(e)	P = 0.1022			
Fisher Exact test(e)		P = 0.3087	P = 0.1811	P = 0.0976
SITE : adrenal gland TUMOR : pheochromocytoma				
Tumor rate				
Overall rates(a)	6/50(12.0)	5/50(10.0)	9/50(18.0)	8/50(16.0)
Adjusted rates(b)	15.79	12.82	20.93	23.08
Terminal rates(c)	6/38(15.8)	4/33(12.1)	8/40(20.0)	5/24(20.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1104			
Prevalence method(d)	P = 0.1943			
Combined analysis(d)	P = 0.1234			
Cochran-Armitage test(e)	P = 0.4084			
Fisher Exact test(e)		P = 0.5000	P = 0.2883	P = 0.3871
SITE : adrenal gland TUMOR : pheochromocytoma, pheochromocytoma:malignant				
Tumor rate				
Overall rates(a)	7/50(14.0)	6/50(12.0)	11/50(22.0)	8/50(16.0)
Adjusted rates(b)	15.79	15.38	20.93	23.08
Terminal rates(c)	6/38(15.8)	5/33(15.2)	8/40(20.0)	5/24(20.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3599			
Prevalence method(d)	P = 0.2222			
Combined analysis(d)	P = 0.2019			
Cochran-Armitage test(e)	P = 0.6019			
Fisher Exact test(e)		P = 0.5000	P = 0.2178	P = 0.5000

STUDY No. : 0365
 ANIMAL : RAT F344/DuCrj
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 7

Group Name	Control	25ppm	50ppm	100ppm
SITE : testis TUMOR : interstitial cell tumor				
Tumor rate				
Overall rates(a)	38/50(76.0)	47/50(94.0)	45/50(90.0)	43/50(86.0)
Adjusted rates(b)	89.47	94.87	97.73	91.43
Terminal rates(c)	34/38(89.5)	31/33(93.9)	39/40(97.5)	21/24(87.5)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.3219			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.3819			
Fisher Exact test(e)		P = 0.0113*	P = 0.0542	P = 0.1540
SITE : mammary gland TUMOR : fibroadenoma				
Tumor rate				
Overall rates(a)	0/50(0.0)	0/50(0.0)	3/50(6.0)	3/50(6.0)
Adjusted rates(b)	0.0	0.0	7.50	12.50
Terminal rates(c)	0/38(0.0)	0/33(0.0)	3/40(7.5)	3/24(12.5)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0060**			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0356*			
Fisher Exact test(e)		P = N. C.	P = 0.1212	P = 0.1212
SITE : mammary gland TUMOR : adenoma, fibroadenoma				
Tumor rate				
Overall rates(a)	2/50(4.0)	0/50(0.0)	3/50(6.0)	5/50(10.0)
Adjusted rates(b)	5.26	0.0	7.50	17.24
Terminal rates(c)	2/38(5.3)	0/33(0.0)	3/40(7.5)	4/24(16.7)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0131*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0622			
Fisher Exact test(e)		P = 0.2475	P = 0.5000	P = 0.2180

STUDY No. : 0365
 ANIMAL : RAT F344/DuCrj
 SEX : MALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 8

Group Name	Control	25ppm	50ppm	100ppm
SITE : peritoneum TUMOR : mesothelioma				
Tumor rate				
Overall rates(a)	0/50(0.0)	1/50(2.0)	4/50(8.0)	4/50(8.0)
Adjusted rates(b)	0.0	0.0	10.00	8.33
Terminal rates(c)	0/38(0.0)	0/33(0.0)	4/40(10.0)	2/24(8.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0694			
Prevalence method(d)	P = 0.0262*			
Combined analysis(d)	P = 0.0068**			
Cochran-Armitage test(e)	P = 0.0329*			
Fisher Exact test(o)		P = 0.5000	P = 0.0587	P = 0.0587

(HPT360A)

BAIS4

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

STUDY No. : 0365
 ANIMAL : RAT F344/DuCrj
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	25ppm	50ppm	100ppm
SITE : ALL SITE				
TUMOR : keratoacanthoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	0/50(0.0)	2/50(4.0)	5/50(10.0)
Adjusted rates(b)	2.63	0.0	5.00	14.29
Terminal rates(c)	1/38(2.6)	0/33(0.0)	2/40(5.0)	3/24(12.5)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0048**			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0147*			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	P = 0.1022

(HPT360A)

BAIS4

- (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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$
 N.C. : Statistical value cannot be calculated and was not significant.

APPENDIX M 2

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS, RAT : FEMALE (2-YEAR STUDY)

STUDY No. : 0365
ANIMAL : RAT F344/DuCrj
SEX : FEMALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

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Group Name	Control	25ppm	50ppm	100ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	2/50(4.0)	0/50(0.0)	3/50(6.0)
Adjusted rates(b)	2.50	5.88	0.0	7.14
Terminal rates(c)	1/40(2.5)	2/34(5.9)	0/34(0.0)	2/34(5.9)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.1809			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.3266			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	P = 0.3087
SITE : lung TUMOR : bronchiolar-alveolar adenoma, bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	2/50(4.0)	0/50(0.0)	4/50(8.0)
Adjusted rates(b)	2.50	5.88	0.0	9.52
Terminal rates(c)	1/40(2.5)	2/34(5.9)	0/34(0.0)	3/34(8.8)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0823			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.1347			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	P = 0.1811
SITE : spleen TUMOR : mononuclear cell leukemia				
Tumor rate				
Overall rates(a)	11/50(22.0)	10/50(20.0)	9/50(18.0)	9/49(18.4)
Adjusted rates(b)	12.50	20.59	8.82	21.21
Terminal rates(c)	5/40(12.5)	7/34(20.6)	3/34(8.8)	7/33(21.2)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8574			
Prevalence method(d)	P = 0.2411			
Combined analysis(d)	P = 0.5893			
Cochran-Armitage test(e)	P = 0.6445			
Fisher Exact test(e)		P = 0.5000	P = 0.4016	P = 0.4213

STUDY No. : 0365
 ANIMAL : RAT F344/DuCrj
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 10

Group Name	Control	25ppm	50ppm	100ppm
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	15/49(30.6)	14/49(28.6)	17/50(34.0)	15/49(30.6)
Adjusted rates(b)	31.71	33.33	36.59	39.39
Terminal rates(c)	11/39(28.2)	11/33(33.3)	12/34(35.3)	13/33(39.4)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8947			
Prevalence method(d)	P = 0.3397			
Combined analysis(d)	P = 0.5393			
Cochran-Armitage test(e)	P = 0.9025			
Fisher Exact test(e)		P = 0.5000	P = 0.4424	P = 0.5866
SITE : pituitary gland TUMOR : adenoma, adenocarcinoma				
Tumor rate				
Overall rates(a)	15/49(30.6)	15/49(30.6)	18/50(36.0)	16/49(32.7)
Adjusted rates(b)	31.71	33.33	37.50	39.47
Terminal rates(c)	11/39(28.2)	11/33(33.3)	12/34(35.3)	13/33(39.4)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.7189			
Prevalence method(d)	P = 0.3136			
Combined analysis(d)	P = 0.4333			
Cochran-Armitage test(e)	P = 0.7634			
Fisher Exact test(e)		P = 0.5866	P = 0.3614	P = 0.5000
SITE : thyroid TUMOR : C-cell adenoma				
Tumor rate				
Overall rates(a)	6/50(12.0)	9/50(18.0)	10/50(20.0)	9/50(18.0)
Adjusted rates(b)	15.00	24.32	22.22	22.22
Terminal rates(c)	6/40(15.0)	7/34(20.6)	7/34(20.6)	6/34(17.6)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.2871			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.4839			
Fisher Exact test(e)		P = 0.2883	P = 0.2070	P = 0.2883

STUDY No. : 0365
ANIMAL : RAT F344/DuCrj
SEX : FEMALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 11

Group Name	Control	25ppm	50ppm	100ppm
SITE : thyroid TUMOR : C-cell adenoma,C-cell carcinoma				
Tumor rate				
Overall rates(a)	7/50(14.0)	10/50(20.0)	10/50(20.0)	10/50(20.0)
Adjusted rates(b)	17.50	27.03	22.22	23.68
Terminal rates(c)	7/40(17.5)	8/34(23.5)	7/34(20.6)	6/34(17.6)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.2985			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.5180			
Fisher Exact test(e)		P = 0.2977	P = 0.2977	P = 0.2977
SITE : thyroid TUMOR : follicular adenoma,follicular adenocarcinoma				
Tumor rate				
Overall rates(a)	0/50(0.0)	0/50(0.0)	3/50(6.0)	2/50(4.0)
Adjusted rates(b)	0.0	0.0	8.82	5.00
Terminal rates(c)	0/40(0.0)	0/34(0.0)	3/34(8.8)	1/34(2.9)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0638			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.1079			
Fisher Exact test(e)		P = N. C.	P = 0.1212	P = 0.2475
SITE : uterus TUMOR : endometrial stromal polyp				
Tumor rate				
Overall rates(a)	9/50(18.0)	11/50(22.0)	8/50(16.0)	4/50(8.0)
Adjusted rates(b)	18.00	26.47	18.42	11.76
Terminal rates(c)	7/40(17.5)	9/34(26.5)	6/34(17.6)	4/34(11.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5870			
Prevalence method(d)	P = 0.9336			
Combined analysis(d)	P = 0.9423			
Cochran-Armitage test(e)	P = 0.0900			
Fisher Exact test(e)		P = 0.4016	P = 0.5000	P = 0.1168

STUDY No. : 0365
 ANIMAL : RAT F344/DuCrj
 SEX : FEMALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 12

Group Name	Control	25ppm	50ppm	100ppm
SITE : uterus TUMOR : endometrial stromal sarcoma				
Tumor rate				
Overall rates(a)	2/50(4.0)	0/50(0.0)	3/50(6.0)	3/50(6.0)
Adjusted rates(b)	2.50	0.0	2.94	0.0
Terminal rates(c)	1/40(2.5)	0/34(0.0)	1/34(2.9)	0/34(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0743			
Prevalence method(d)	P = 0.7014			
Combined analysis(d)	P = 0.1684			
Cochran-Armitage test(e)	P = 0.3291			
Fisher Exact test(e)		P = 0.2475	P = 0.5000	P = 0.5000
SITE : mammary gland TUMOR : fibroadenoma				
Tumor rate				
Overall rates(a)	4/50(8.0)	6/50(12.0)	11/50(22.0)	8/50(16.0)
Adjusted rates(b)	9.09	8.82	26.83	17.65
Terminal rates(c)	3/40(7.5)	3/34(8.8)	8/34(23.5)	6/34(17.6)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.4768			
Prevalence method(d)	P = 0.1083			
Combined analysis(d)	P = 0.1270			
Cochran-Armitage test(e)	P = 0.2091			
Fisher Exact test(e)		P = 0.3703	P = 0.0453*	P = 0.1783
SITE : mammary gland TUMOR : adenocarcinoma				
Tumor rate				
Overall rates(a)	0/50(0.0)	3/50(6.0)	1/50(2.0)	0/50(0.0)
Adjusted rates(b)	0.0	2.08	2.94	0.0
Terminal rates(c)	0/40(0.0)	0/34(0.0)	1/34(2.9)	0/34(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.7316			
Prevalence method(d)	P = 0.5611			
Combined analysis(d)	P = 0.7375			
Cochran-Armitage test(e)	P = 0.4946			
Fisher Exact test(e)		P = 0.1212	P = 0.5000	P = N.C.

STUDY No. : 0365
 ANIMAL : RAT F344/DuCrj
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 13

Group Name	Control	25ppm	50ppm	100ppm
SITE : preputial/clitoral gland				
TUMOR : adenoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	1/50(2.0)	1/50(2.0)	3/50(6.0)
Adjusted rates(b)	2.04	0.0	0.0	5.88
Terminal rates(c)	0/40(0.0)	0/34(0.0)	0/34(0.0)	2/34(5.9)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2614			
Prevalence method(d)	P = 0.1503			
Combined analysis(d)	P = 0.1162			
Cochran-Armitage test(e)	P = 0.2072			
Fisher Exact test(e)		P = 0.7525	P = 0.7525	P = 0.3087

(HPT360A)

BAIS4

(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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$
 N.C. : Statistical value cannot be calculated and was not significant.

APPENDIX N 1

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : MALE : ALL ANIMALS

(2-YEAR STUDY)

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

Organ	Findings	Group Name No. of Animals on Study	Control 50	25ppm 50	50ppm 50	100ppm 50
{Integumentary system/appandage}						
skin/app			<50>	<50>	<50>	<50>
	metastasis:mediastinum tumor		0	0	0	1
{Respiratory system}						
nasal cavit			<50>	<50>	<50>	<50>
	metastasis:brain tumor		0	1	0	0
lung			<50>	<50>	<50>	<50>
	leukemic cell infiltration		3	6	4	6
	metastasis:adrenal tumor		0	0	1	0
{Hematopoietic system}						
bone marrow			<50>	<50>	<50>	<50>
	leukemic cell infiltration		2	4	9	7
lymph node			<50>	<50>	<50>	<50>
	leukemic cell infiltration		2	3	1	2
spleen			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	0	0	0
{Circulatory system}						
heart			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	1	0
	metastasis:mediastinum tumor		0	0	0	1
{Digestive system}						
liver			<50>	<50>	<50>	<50>
	leukemic cell infiltration		3	9	7	8

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

STUDY NO. : 0365
 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	25ppm 50	50ppm 50	100ppm 50
{Digestive system}						
liver	metastasis:peritoneum tumor		<50> 0	<50> 1	<50> 0	<50> 1
	metastasis:bone marrow tumor		0	0	1	0
pancreas	leukemic cell infiltration		<50> 0	<50> 1	<50> 0	<50> 0
{Urinary system}						
kidney	leukemic cell infiltration		<50> 1	<50> 3	<50> 2	<50> 3
{Endocrine system}						
pituitary	leukemic cell infiltration		<50> 1	<50> 2	<50> 2	<50> 1
adrenal	leukemic cell infiltration		<50> 2	<50> 2	<50> 1	<50> 2
{Reproductive system}						
epididymis	metastasis:urinary bladder tumor		<50> 0	<50> 1	<50> 0	<50> 0
semin ves	metastasis:urinary bladder tumor		<50> 0	<50> 1	<50> 0	<50> 0
prostate	leukemic cell infiltration		<50> 0	<50> 1	<50> 1	<50> 0
	metastasis:urinary bladder tumor		0	1	0	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

		Group Name No. of Animals on Study	Control 50	25ppm 50	50ppm 50	100ppm 50
Organ	Findings					
{Reproductive system}						
mammary gl	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
{Nervous system}						
brain	leukemic cell infiltration		<50> 0	<50> 2	<50> 1	<50> 0
	metastasis:bone tumor		1	0	0	0
{Musculoskeletal system}						
muscle	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					
(JPT150)						BAIS4

APPENDIX N 2

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : MALE : DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

		Group Name No. of Animals on Study	Control 12	25ppm 17	50ppm 10	100ppm 26
Organ	Findings					
{Integumentary system/appandage}						
skin/app	metastasis:mediastinum tumor		<12> 0	<17> 0	<10> 0	<26> 1
{Respiratory system}						
nasal cavit	metastasis:brain tumor		<12> 0	<17> 1	<10> 0	<26> 0
lung	leukemic cell infiltration		<12> 2	<17> 6	<10> 3	<26> 5
	metastasis:adrenal tumor		0	0	1	0
{Hematopoietic system}						
bone marrow	leukemic cell infiltration		<12> 2	<17> 3	<10> 3	<26> 5
lymph node	leukemic cell infiltration		<12> 1	<17> 2	<10> 1	<26> 1
spleen	leukemic cell infiltration		<12> 1	<17> 0	<10> 0	<26> 0
{Circulatory system}						
heart	leukemic cell infiltration		<12> 0	<17> 0	<10> 1	<26> 0
	metastasis:mediastinum tumor		0	0	0	1
{Digestive system}						
liver	leukemic cell infiltration		<12> 2	<17> 6	<10> 3	<26> 4

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

STUDY NO. : 0365
 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 12	25ppm 17	50ppm 10	100ppm 26
{Digestive system}						
liver			<12>	<17>	<10>	<26>
	metastasis:peritoneum tumor		0	1	0	1
pancreas			<12>	<17>	<10>	<26>
	leukemic cell infiltration		0	1	0	0
{Urinary system}						
kidney			<12>	<17>	<10>	<26>
	leukemic cell infiltration		1	3	2	2
{Endocrine system}						
pituitary			<12>	<17>	<10>	<26>
	leukemic cell infiltration		0	2	2	0
adrenal			<12>	<17>	<10>	<26>
	leukemic cell infiltration		2	2	1	2
{Reproductive system}						
epididymis			<12>	<17>	<10>	<26>
	metastasis:urinary bladder tumor		0	1	0	0
semin ves			<12>	<17>	<10>	<26>
	metastasis:urinary bladder tumor		0	1	0	0
prostate			<12>	<17>	<10>	<26>
	leukemic cell infiltration		0	1	0	0
	metastasis:urinary bladder tumor		0	1	0	0
{Nervous system}						
brain			<12>	<17>	<10>	<26>
	leukemic cell infiltration		0	2	1	0

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

		Group Name	Control	25ppm	50ppm	100ppm
		No. of Animals on Study	12	17	10	26
Organ	Findings					
{Nervous system}						
brain			<12>	<17>	<10>	<26>
	metastasis:bone tumor		1	0	0	0

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

(JPT150)

BAIS4

APPENDIX N 3

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : MALE : SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
 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 38	25ppm 33	50ppm 40	100ppm 24
Organ	Findings					
{Respiratory system}						
lung	leukemic cell infiltration		<38> 1	<33> 0	<40> 1	<24> 1
{Hematopoietic system}						
bone marrow	leukemic cell infiltration		<38> 0	<33> 1	<40> 6	<24> 2
lymph node	leukemic cell infiltration		<38> 1	<33> 1	<40> 0	<24> 1
{Digestive system}						
liver	leukemic cell infiltration		<38> 1	<33> 3	<40> 4	<24> 4
	metastasis:bone marrow tumor		0	0	1	0
{Urinary system}						
kidney	leukemic cell infiltration		<38> 0	<33> 0	<40> 0	<24> 1
{Endocrine system}						
pituitary	leukemic cell infiltration		<38> 1	<33> 0	<40> 0	<24> 1
{Reproductive system}						
prostate	leukemic cell infiltration		<38> 0	<33> 0	<40> 1	<24> 0

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

		Group Name	Control	25ppm	50ppm	100ppm
		No. of Animals on Study	38	33	40	24
Organ	Findings					
{Reproductive system}						
mammary gl			<38>	<33>	<40>	<24>
	leukemic cell infiltration		0	0	1	0
{Musculoskeletal system}						
muscle			<38>	<33>	<40>	<24>
	metastasis:subcutis tumor		1	0	0	0
< a > a : Number of animals examined at the site						
b b : Number of animals with lesion						

(JPT150)

BAIS4

APPENDIX N 4

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : FEMALE: ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
 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	25ppm 50	50ppm 50	100ppm 50
Organ	Findings					
{Integumentary system/appandage}						
skin/app			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	1	1
{Respiratory system}						
trachea			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	1
lung			<50>	<50>	<50>	<50>
	leukemic cell infiltration		4	5	6	2
	metastasis:uterus tumor		0	0	1	1
	metastasis:thyroid tumor		0	0	0	1
	metastasis:bone tumor		0	0	0	1
	metastasis:mammary gland tumor		0	1	0	0
{Hematopoietic system}						
bone marrow			<50>	<50>	<50>	<50>
	leukemic cell infiltration		7	7	5	5
	metastasis:bone tumor		0	0	0	1
lymph node			<50>	<50>	<50>	<50>
	leukemic cell infiltration		4	1	1	0
spleen			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	1
	metastasis:uterus tumor		0	1	0	0

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

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 5

		Group Name No. of Animals on Study	Control 50	25ppm 50	50ppm 50	100ppm 50
Organ	Findings					
{Digestive system}						
stomach			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	1
liver			<50>	<50>	<50>	<50>
	leukemic cell infiltration		10	9	7	8
	metastasis:uterus tumor		0	0	0	1
pancreas			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	1	1	1
	metastasis:uterus tumor		0	0	0	1
{Urinary system}						
kidney			<50>	<50>	<50>	<50>
	leukemic cell infiltration		4	1	1	1
	metastasis:uterus tumor		0	0	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	0	2	0
thyroid			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	1
parathyroid			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	1
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study	Control 50	25ppm 50	50ppm 50	100ppm 50
{Endocrine system}						
adrenal	leukemic cell infiltration		<50> 1	<50> 3	<50> 0	<50> 2
{Reproductive system}						
ovary	leukemic cell infiltration		<50> 0	<50> 1	<50> 0	<50> 0
vagina	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
	metastasis:uterus tumor		0	1	0	1
	metastasis:subcutis tumor		0	0	1	0
mammary gl	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
{Nervous system}						
brain	leukemic cell infiltration		<50> 1	<50> 2	<50> 1	<50> 0
	metastasis:pituitary tumor		0	1	1	1
spinal cord	leukemic cell infiltration		<50> 1	<50> 1	<50> 0	<50> 0
{Special sense organs/appendage}						
Harder gl	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1

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

STUDY NO. : 0365
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 7

		Group Name	Control	25ppm	50ppm	100ppm
		No. of Animals on Study	50	50	50	50
Organ	Findings					
(Body cavities)						
peritoneum	metastasis:uterus tumor		<50> 0	<50> 0	<50> 1	<50> 1

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

(JPT150)

BAIS4

APPENDIX N 5

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : FEMALE : DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
 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 10	25ppm 16	50ppm 16	100ppm 16
{Integumentary system/appandage}						
skin/app	leukemic cell infiltration		<10> 0	<16> 0	<16> 1	<16> 1
{Respiratory system}						
trachea	leukemic cell infiltration		<10> 0	<16> 0	<16> 0	<16> 1
lung	leukemic cell infiltration		<10> 3	<16> 3	<16> 6	<16> 2
	metastasis:uterus tumor		0	0	1	1
	metastasis:thyroid tumor		0	0	0	1
	metastasis:mammary gland tumor		0	1	0	0
{Hematopoietic system}						
bone marrow	leukemic cell infiltration		<10> 5	<16> 3	<16> 5	<16> 3
lymph node	leukemic cell infiltration		<10> 2	<16> 0	<16> 1	<16> 0
spleen	leukemic cell infiltration		<10> 0	<16> 0	<16> 0	<16> 1
	metastasis:uterus tumor		0	1	0	0
{Digestive system}						
stomach	leukemic cell infiltration		<10> 0	<16> 0	<16> 0	<16> 1

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

STUDY NO. : 0365
 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 No. of Animals on Study	Control 10	25ppm 16	50ppm 16	100ppm 16
Organ	Findings					
{Digestive system}						
liver			<10>	<16>	<16>	<16>
	leukemic cell infiltration		6	3	6	3
	metastasis:uterus tumor		0	0	0	1
pancreas			<10>	<16>	<16>	<16>
	leukemic cell infiltration		0	1	1	1
	metastasis:uterus tumor		0	0	0	1
{Urinary system}						
kidney			<10>	<16>	<16>	<16>
	leukemic cell infiltration		4	1	1	1
	metastasis:uterus tumor		0	0	1	0
urin bladd			<10>	<16>	<16>	<16>
	leukemic cell infiltration		0	0	1	0
{Endocrine system}						
pituitary			<10>	<16>	<16>	<16>
	leukemic cell infiltration		0	0	2	0
thyroid			<10>	<16>	<16>	<16>
	leukemic cell infiltration		0	0	0	1
parathyroid			<10>	<16>	<16>	<16>
	leukemic cell infiltration		0	0	0	1
adrenal			<10>	<16>	<16>	<16>
	leukemic cell infiltration		1	1	0	2
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 6

		Group Name No. of Animals on Study	Control 10	25ppm 16	50ppm 16	100ppm 16
Organ	Findings					
{Reproductive system}						
ovary			<10>	<16>	<16>	<16>
	leukemic cell infiltration		0	1	0	0
vagina			<10>	<16>	<16>	<16>
	leukemic cell infiltration		0	0	0	1
	metastasis:uterus tumor		0	1	0	1
	metastasis:subcutis tumor		0	0	1	0
mammary gl			<10>	<16>	<16>	<16>
	leukemic cell infiltration		0	0	0	1
{Nervous system}						
brain			<10>	<16>	<16>	<16>
	leukemic cell infiltration		1	1	1	0
	metastasis:pituitary tumor		0	1	1	1
spinal cord			<10>	<16>	<16>	<16>
	leukemic cell infiltration		1	1	0	0
{Special sense organs/appendage}						
Harder gl			<10>	<16>	<16>	<16>
	leukemic cell infiltration		0	0	0	1
{Body cavities}						
peritoneum			<10>	<16>	<16>	<16>
	metastasis:uterus tumor		0	0	1	1

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

APPENDIX N 6

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : FEMALE : SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0365
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 3

		Group Name No. of Animals on Study	Control 40	25ppm 34	50ppm 34	100ppm 34
Organ	Findings					
(Respiratory system)						
lung	leukemic cell infiltration		<40> 1	<34> 2	<34> 0	<34> 0
	metastasis:bone tumor		0	0	0	1
(Hematopoietic system)						
bone marrow	leukemic cell infiltration		<40> 2	<34> 4	<34> 0	<34> 2
	metastasis:bone tumor		0	0	0	1
lymph node	leukemic cell infiltration		<40> 2	<34> 1	<34> 0	<34> 0
(Digestive system)						
liver	leukemic cell infiltration		<40> 4	<34> 6	<34> 1	<34> 5
(Endocrine system)						
adrenal	leukemic cell infiltration		<40> 0	<34> 2	<34> 0	<34> 0
(Nervous system)						
brain	leukemic cell infiltration		<40> 0	<34> 1	<34> 0	<34> 0

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

APPENDIX O 1

IDENTITY AND IMPURITY OF ALLYL CHLORIDE IN THE 2-YEAR INHALATION STUDY

IDENTITY AND IMPURITY OF ALLYL CHLORIDE IN THE 2-YEAR INHALATION STUDY

Test Substance : Allyl chloride (Wako Pure Chemical Industries, Ltd.)

A. Lot No. : WTK5293

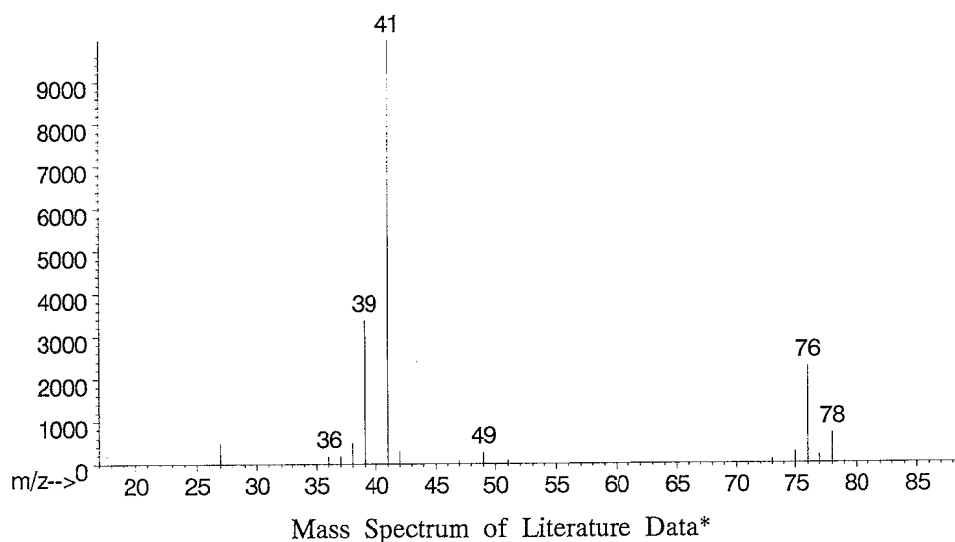
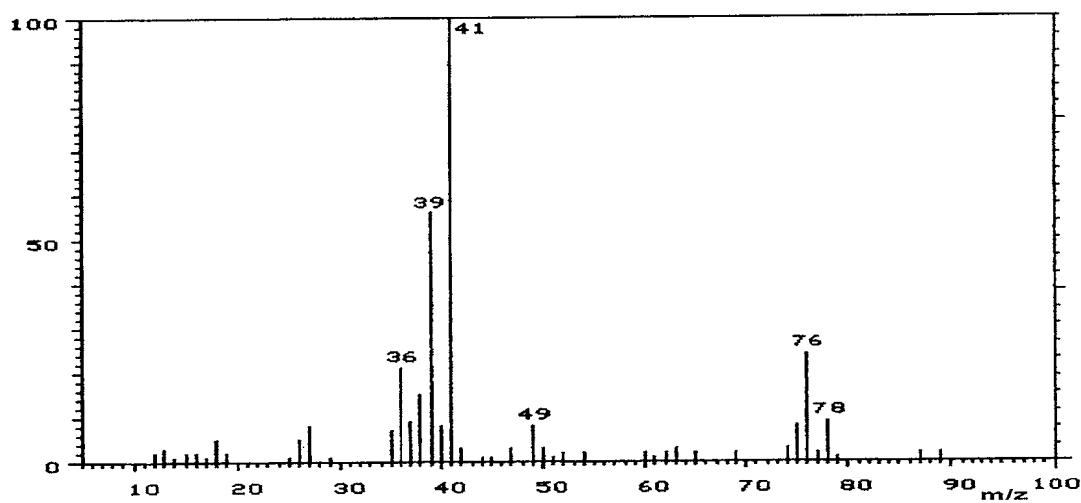
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Result: The mass spectrum was consistent with literature spectrum.

(*McLafferty, F.W. (1994)

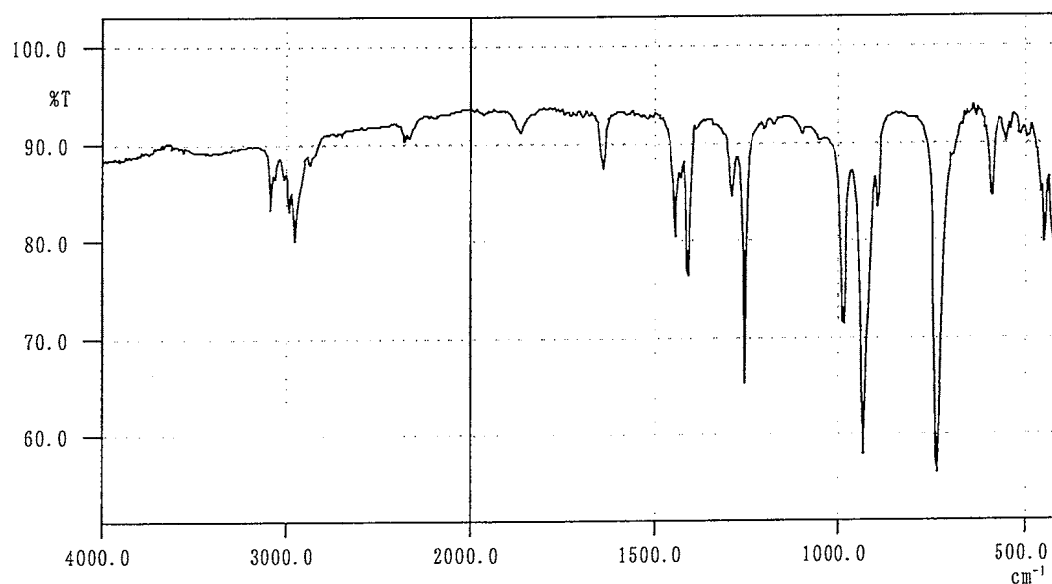
Wiley Registry of Mass Spectral Data, 6th edition, Entry Number 1989
John Wiley and Sons, Inc. New York)

Infrared Spectrometry

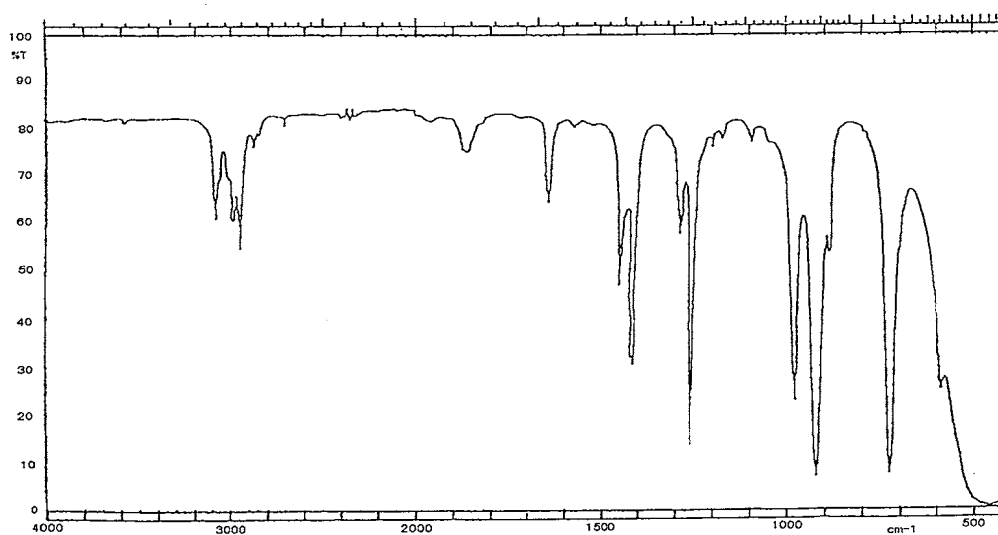
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4.0 cm^{-1}



Infrared Spectrum of Test Substance



Infrared Spectrum of Literature Data*

Result: The infrared spectrum was consistent with literature spectrum.

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

2. Impurity

Instrument	: Hewlett Packard 6890
Column	: INNOWAX (0.53 mm ϕ \times 60 m)
Column Temperature	: 50° C
Flow Rate	: 10 mL/min
Detector	: FID (Flame Ionization Detector)
Injection Volume	: 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.8111	1-Chloropropene
	2	0.6247	1,5-Hexadiene
	3	98.5397	Allyl chloride
	4	0.0245	2-Propanol

Result : Gas chromatography indicated one major peak (peak No.3) and three impurities. It was identified only by comparing its gas chromatograph with that of 1-chloropropene (peak No.1), 1,5-hexadiene (peak No.2) and 2-propanol (peak No.4) in the allyl chloride, the amount in the test substance were 0.8111%, 0.6247% and 0.0245%.

3. Conclusion: The test substance was identified as allyl chloride by mass spectrum and infrared spectrum. Gas chromatography indicated one major peak (peak No.3) and three impurities. It was identified only by comparing its gas chromatograph with that of 1-chloropropene (peak No.1), 1,5-hexadiene (peak No.2) and 2-propanol (peak No.4) in the allyl chloride, the amount in the test substance were 0.8111%, 0.6247% and 0.0245%.

B. Lot No. : PAK5623

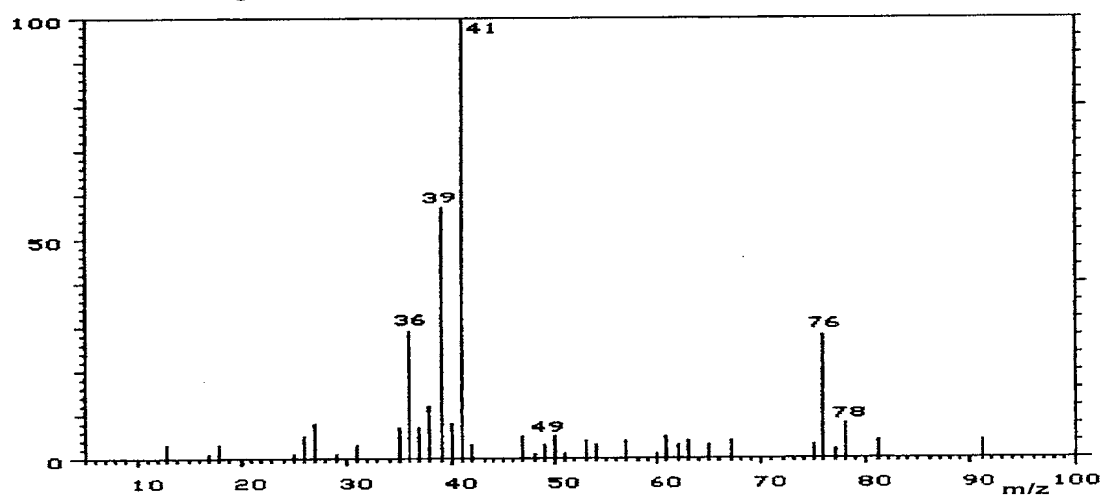
1. Spectral data

Mass Spectrometry

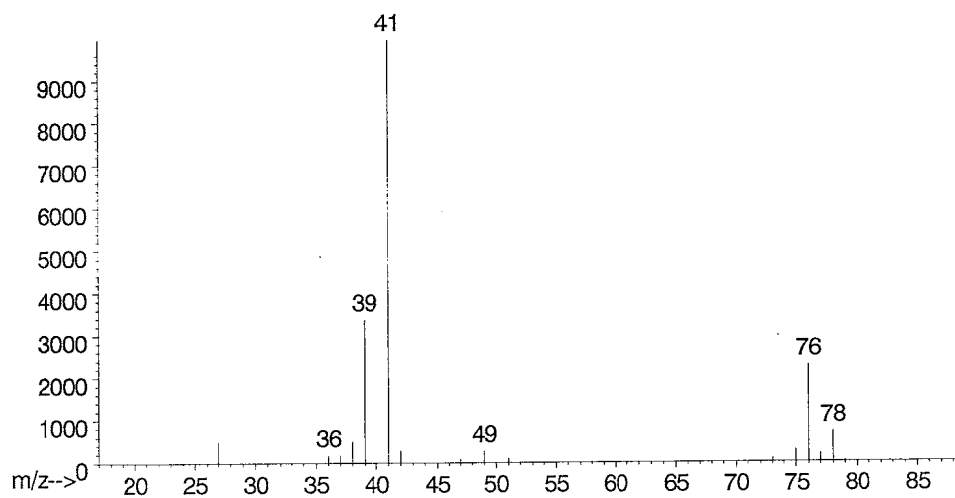
Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance



Mass Spectrum of Literature Data*

Result: The mass spectrum was consistent with literature spectrum.

(*McLafferty, F.W. (1994)

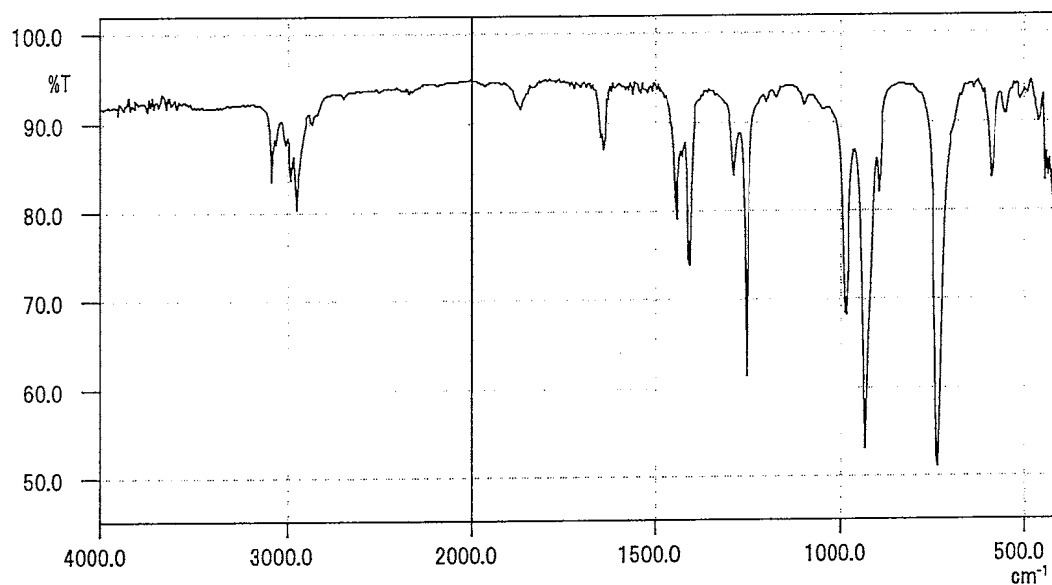
Wiley Registry of Mass Spectral Data, 6th edition, Entry Number 1989
John Wiley and Sons, Inc. New York)

Infrared Spectrometry

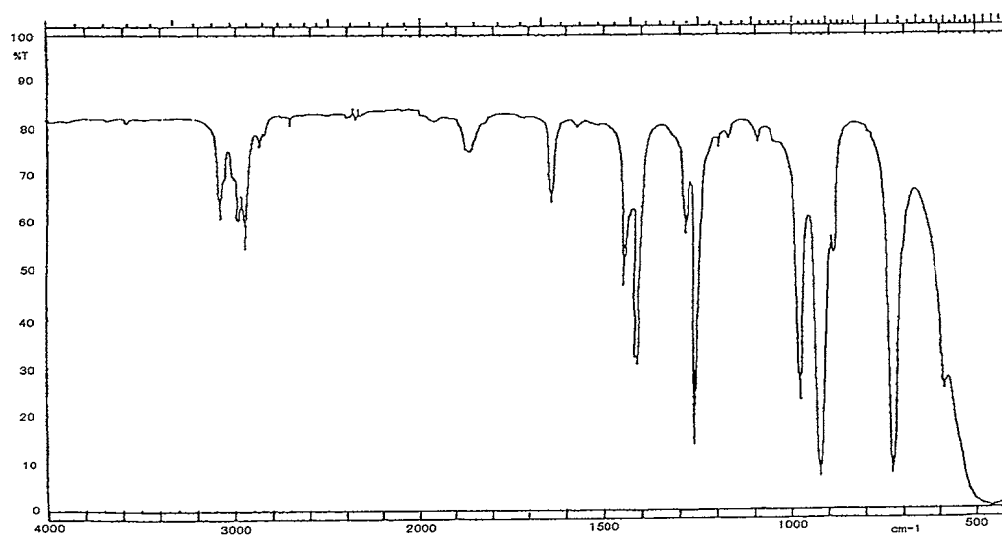
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4.0 cm^{-1}



Infrared Spectrum of Test Substance



Infrared Spectrum of Literature Data*

Result: The infrared spectrum was consistent with literature spectrum.
(*Performed by Wako Pure Chemical Industries, Ltd.)

2. Impurity

Instrument	: Hewlett Packard 6890
Column	: INNOWAX (0.53 mm ϕ \times 60 m)
Column Temperature	: 50° C
Flow Rate	: 10 mL/min
Detector	: FID (Flame Ionization Detector)
Injection Volume	: 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.7956	1-Chloropropene
	2	0.7229	1,5-Hexadiene
	3	98.4731	Allyl chloride
	4	0.0084	2-Propanol

Result : Gas chromatography indicated one major peak (peak No.3) and three impurities. It was identified only by comparing its gas chromatograph with that of 1-chloropropene (peak No.1), 1,5-hexadiene (peak No.2) and 2-propanol (peak No.4) in the allyl chloride, the amount in the test substance were 0.7956%, 0.7229% and 0.0084%.

3. Conclusion: The test substance was identified as allyl chloride by mass spectrum and infrared spectrum. Gas chromatography indicated one major peak (peak No.3) and three impurities. It was identified only by comparing its gas chromatograph with that of 1-chloropropene (peak No.1), 1,5-hexadiene (peak No.2) and 2-propanol (peak No.4) in the allyl chloride, the amount in the test substance were 0.7956%, 0.7229% and 0.0084%.

C. Lot No. : CKJ5754

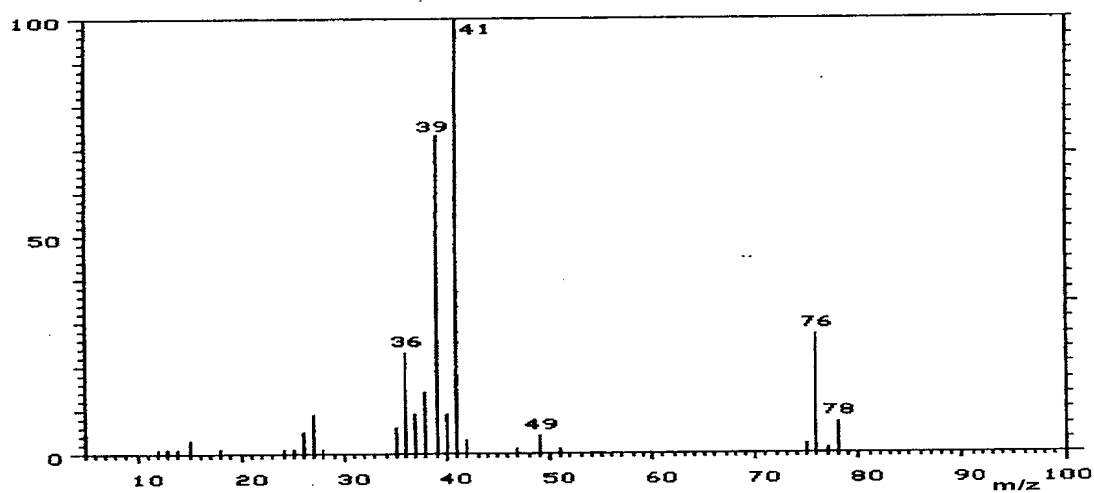
1. Spectral data

Mass Spectrometry

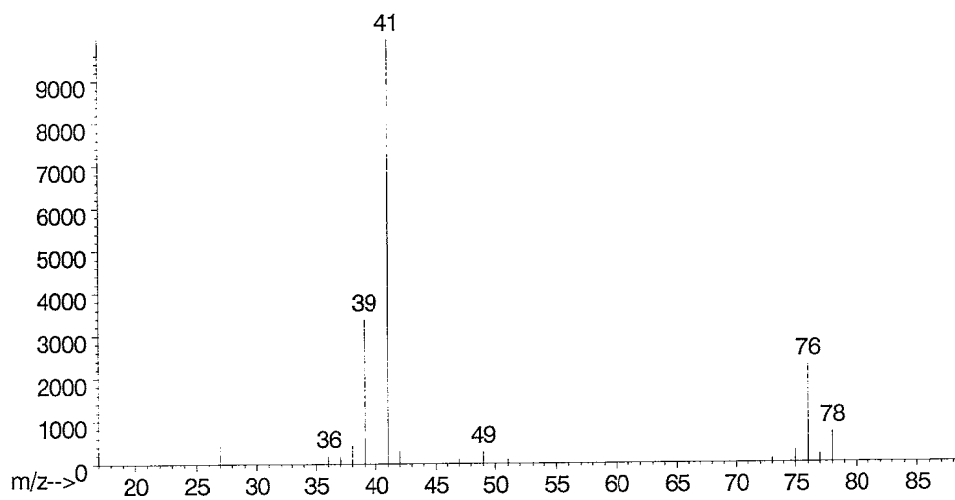
Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance



Mass Spectrum of Literature Data*

Result: The mass spectrum was consistent with literature spectrum.

(*McLafferty, F.W. (1994)

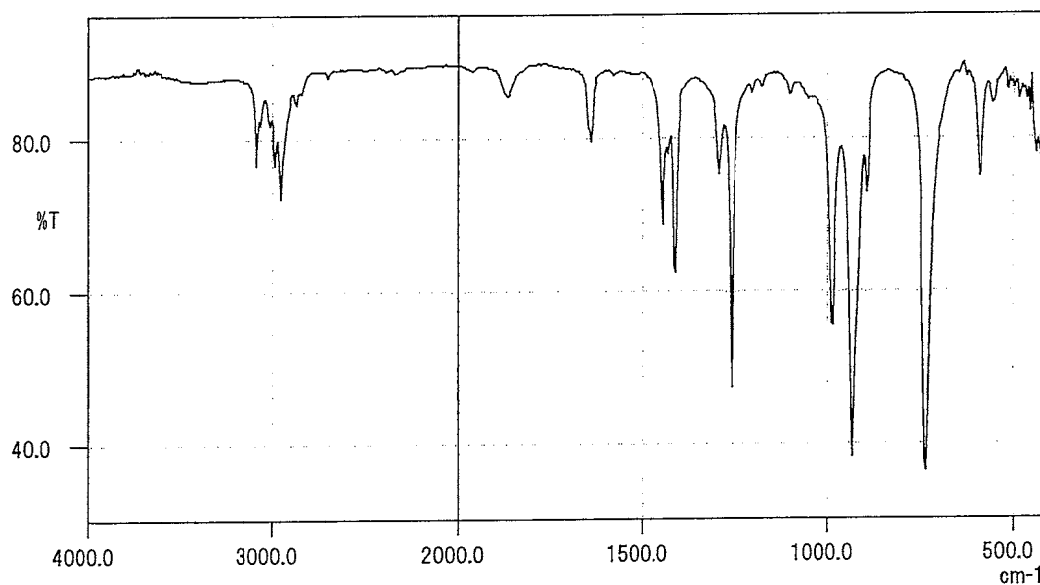
Wiley Registry of Mass Spectral Data, 6th edition, Entry Number 1989
John Wiley and Sons, Inc. New York)

Infrared Spectrometry

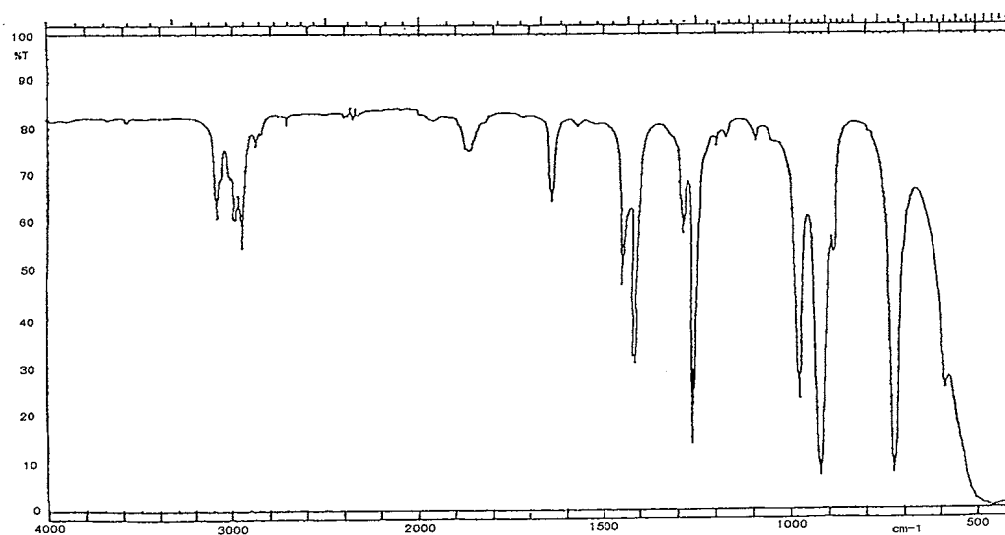
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4.0 cm^{-1}



Infrared Spectrum of Test Substance



Infrared Spectrum of Literature Data*

Result: The infrared spectrum was consistent with literature spectrum.
(*Performed by Wako Pure Chemical Industries, Ltd.)

2. Impurity

Instrument	: Hewlett Packard 6890
Column	: INNOWAX (0.53 mm ϕ \times 60 m)
Column Temperature	: 50° C
Flow Rate	: 10 mL/min
Detector	: FID (Flame Ionization Detector)
Injection Volume	: 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.7944	1-Chloropropene
	2	0.6958	1,5-Hexadiene
	3	98.4961	Allyl chloride
	4	0.0137	2-Propanol

Result : Gas chromatography indicated one major peak (peak No.3) and three impurities. It was identified only by comparing its gas chromatograph with that of 1-chloropropene (peak No.1), 1,5-hexadiene (peak No.2) and 2-propanol (peak No.4) in the allyl chloride, the amount in the test substance were 0.7944%, 0.6958% and 0.0137%.

3. Conclusion: The test substance was identified as allyl chloride by mass spectrum and infrared spectrum. Gas chromatography indicated one major peak (peak No.3) and three impurities. It was identified only by comparing its gas chromatograph with that of 1-chloropropene (peak No.1), 1,5-hexadiene (peak No.2) and 2-propanol (peak No.4) in the allyl chloride, the amount in the test substance were 0.7944%, 0.6958% and 0.0137%.

D. Lot No. : SEK5898

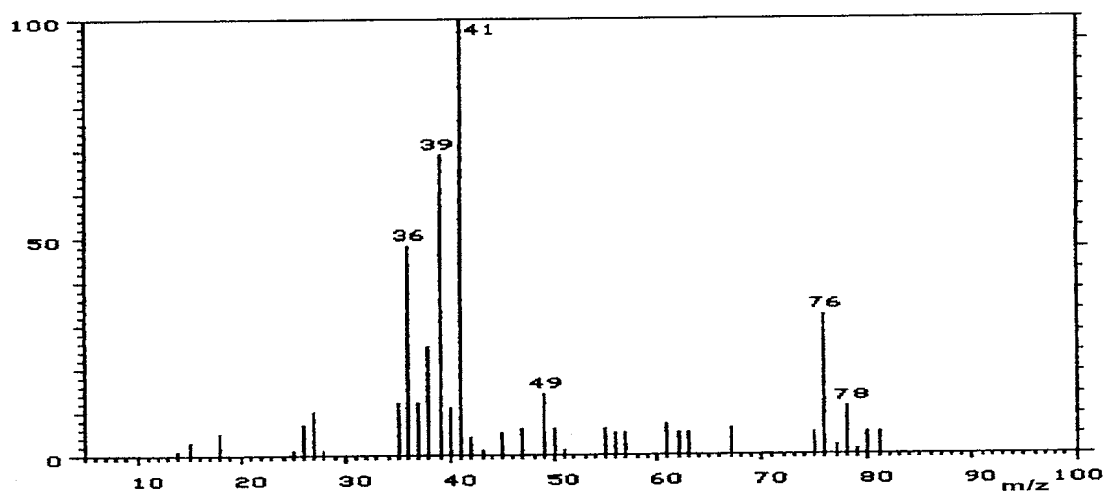
1. Spectral data

Mass Spectrometry

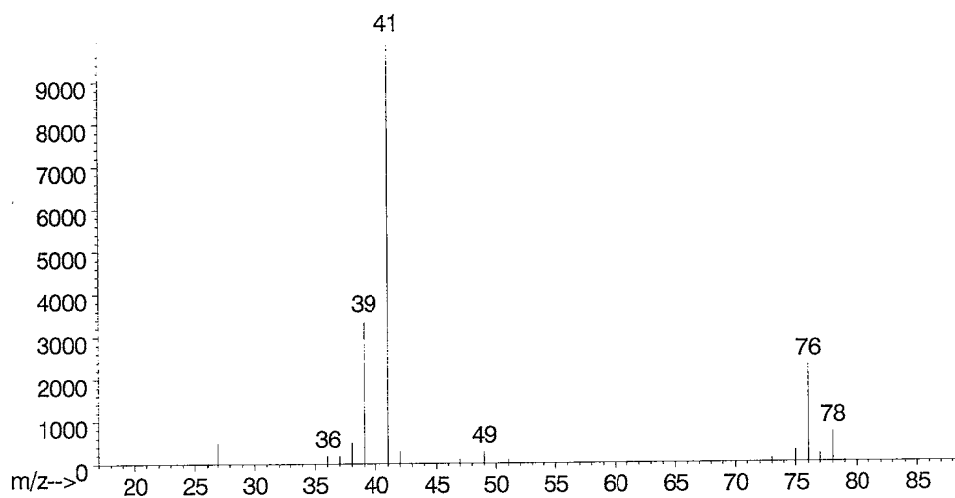
Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance



Mass Spectrum of Literature Data*

Result: The mass spectrum was consistent with literature spectrum.

(*McLafferty, F.W. (1994)

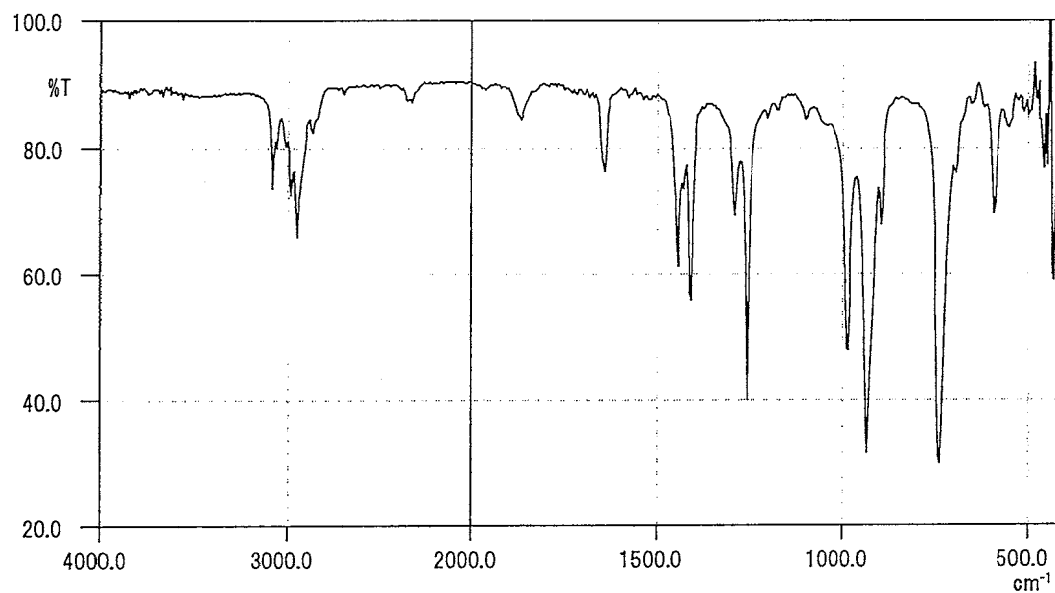
Wiley Registry of Mass Spectral Data, 6th edition, Entry Number 1989
John Wiley and Sons, Inc. New York)

Infrared Spectrometry

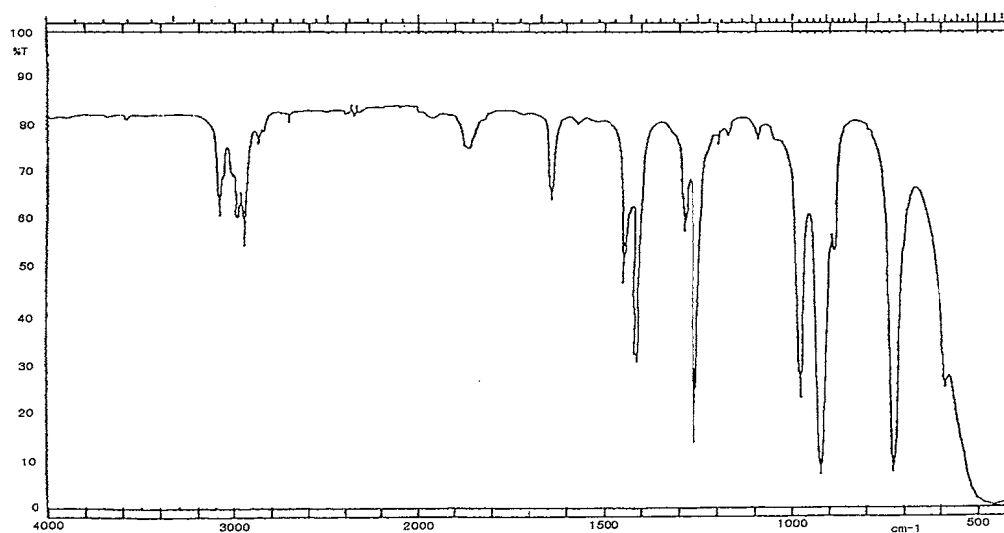
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4.0 cm^{-1}



Infrared Spectrum of Test Substance



Infrared Spectrum of Literature Data*

Result: The infrared spectrum was consistent with literature spectrum.
(*Performed by Wako Pure Chemical Industries, Ltd.)

2. Impurity

Instrument	: Hewlett Packard 6890
Column	: INNOWAX (0.53 mm ϕ \times 60 m)
Column Temperature	: 50° C
Flow Rate	: 10 mL/min
Detector	: FID (Flame Ionization Detector)
Injection Volume	: 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.8178	1-Chloropropene
	2	0.6306	1,5-Hexadiene
	3	98.5275	Allyl chloride
	4	0.0241	2-Propanol

Result : Gas chromatography indicated one major peak (peak No.3) and three impurities.

It was identified only by comparing its gas chromatograph with that of 1-chloropropene (peak No.1), 1,5-hexadiene (peak No.2) and 2-propanol (peak No.4) in the allyl chloride, the amount in the test substance were 0.8178%, 0.6306% and 0.0241%.

3. Conclusion: The test substance was identified as allyl chloride by mass spectrum and infrared spectrum. Gas chromatography indicated one major peak (peak No.3) and three impurities. It was identified only by comparing its gas chromatograph with that of 1-chloropropene (peak No.1), 1,5-hexadiene (peak No.2) and 2-propanol (peak No.4) in the allyl chloride, the amount in the test substance were 0.8178%, 0.6306% and 0.0241%.

E. Lot No. : SER4744

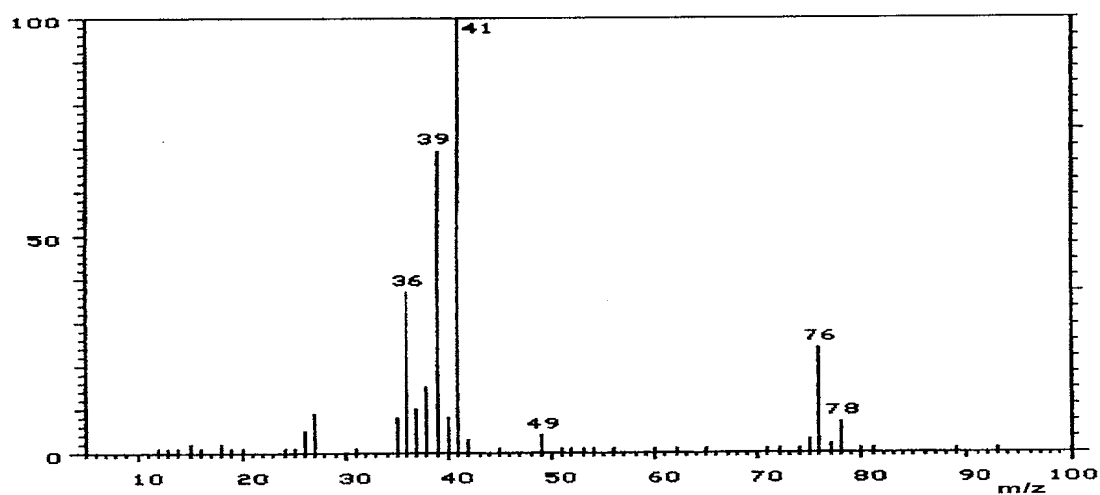
1. Spectral data

Mass Spectrometry

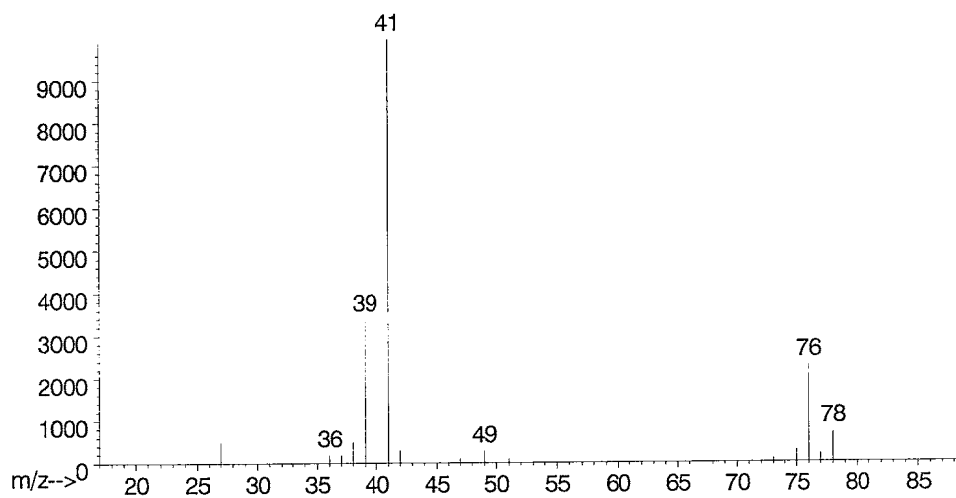
Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance



Mass Spectrum of Literature Data*

Result: The mass spectrum was consistent with literature spectrum.

(*McLafferty, F.W. (1994)

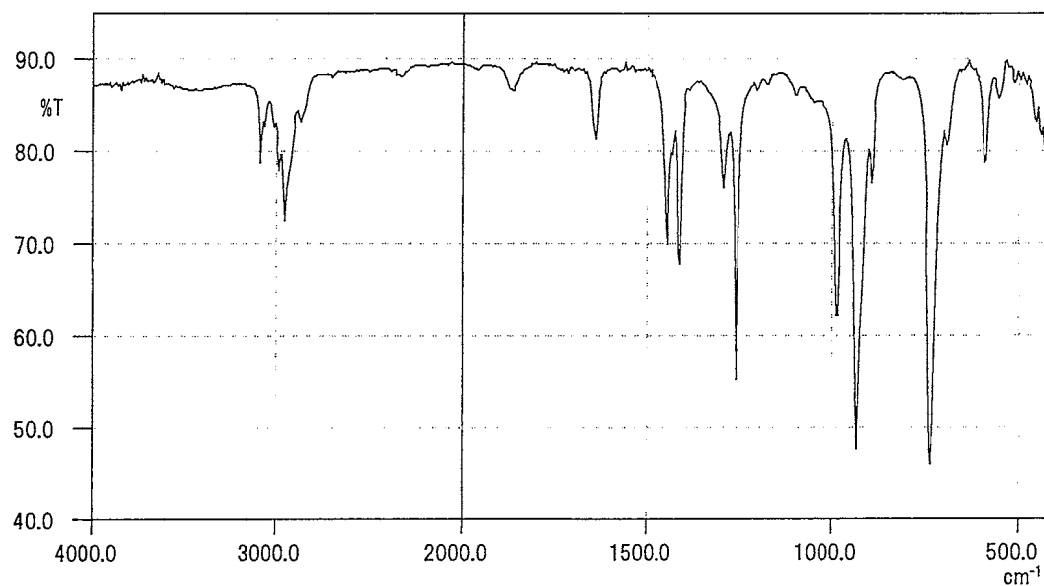
Wiley Registry of Mass Spectral Data, 6th edition, Entry Number 1989
John Wiley and Sons, Inc. New York)

Infrared Spectrometry

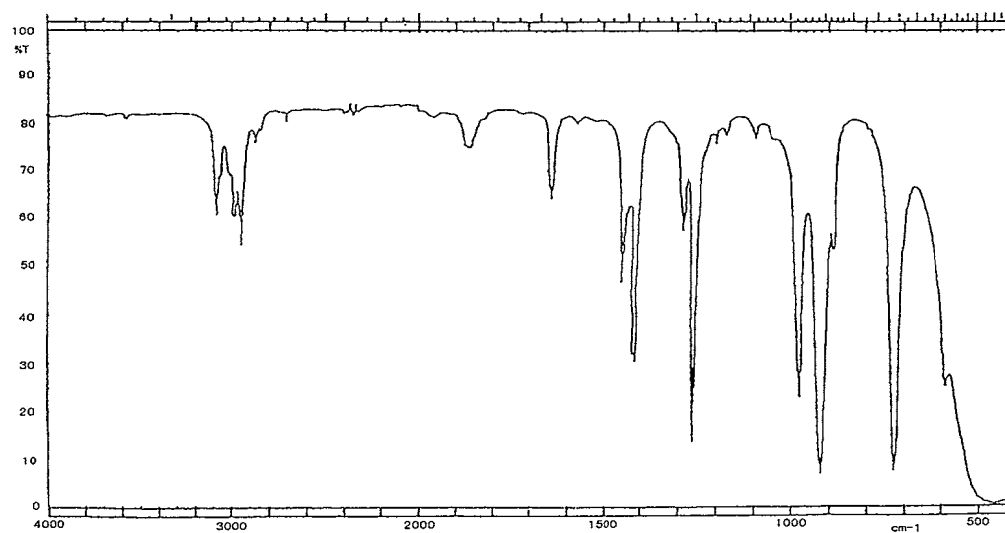
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 4.0 cm^{-1}



Infrared Spectrum of Test Substance



Infrared Spectrum of Literature Data*

Result: The infrared spectrum was consistent with literature spectrum.

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

2. Impurity

Instrument : Hewlett Packard 6890
Column : INNOWAX (0.53 mm ϕ \times 60 m)
Column Temperature : 50° C
Flow Rate : 10 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.7882	1-Chloropropene
	2	0.6948	1,5-Hexadiene
	3	98.5032	Allyl chloride
	4	0.0138	2-Propanol

Result : Gas chromatography indicated one major peak (peak No.3) and three impurities.

It was identified only by comparing its gas chromatograph with that of 1-chloropropene (peak No.1), 1,5-hexadiene (peak No.2) and 2-propanol (peak No.4) in the allyl chloride, the amount in the test substance were 0.7882%, 0.6948% and 0.0138%.

3. Conclusion: The test substance was identified as allyl chloride by mass spectrum and infrared spectrum. Gas chromatography indicated one major peak (peak No.3) and three impurities. It was identified only by comparing its gas chromatograph with that of 1-chloropropene (peak No.1), 1,5-hexadiene (peak No.2) and 2-propanol (peak No.4) in the allyl chloride, the amount in the test substance were 0.7882%, 0.6948% and 0.0138%.

APPENDIX O 2

STABILITY OF ALLYL CHLORIDE IN THE 2-YEAR INHALATION STUDY

STABILITY OF ALLYL CHLORIDE IN THE 2-YEAR INHALATION STUDY

Test Substance : Allyl chloride (Wako Pure Chemical Industries, Ltd.)

A. Lot No. : WTK5293

1. Sample : This lot was used from 1998.10.20 to 1999.1.26. Test substance was stored in a dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 6890

Column : INNOWAX (0.53 mm ϕ \times 60 m)

Column Temperature : 50° C

Flow Rate : 10 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
1998.10.14	1	2.586	0.8111
	2	2.911	0.6247
	3	3.305	98.5397
	4	5.527	0.0245
1999.01.27	1	2.586	0.7849
	2	2.911	0.7262
	3	3.305	98.4805
	4	5.530	0.0084

Result : Gas chromatography indicated one major peak (peak No.3) and three impurities (peak No.1,2,4 < 2% of total area) analyzed on 1998.10.14 and one major peak (peak No.3) and three impurities (peak No.1,2,4 < 2% of total area) analyzed on 1999.1.27. No new trace impurity peak in the test substance analyzed on 1999.1.27 was detected.

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

B. Lot No. : PAK5623

1. Sample : This lot was used from 1999.1.27 to 1999.10.26. Test substance was stored in a dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 6890

Column : INNOWAX (0.53 mm ϕ \times 60 m)

Column Temperature : 50° C

Flow Rate : 10 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
1999.01.26	1	2.582	0.7956
	2	2.907	0.7229
	3	3.303	98.4731
	4	5.526	0.0084
1999.10.27	1	2.583	0.7954
	2	2.908	0.7233
	3	3.302	98.4730
	4	5.525	0.0083

Result : Gas chromatography indicated one major peak (peak No.3) and three impurities (peak No.1,2,4 < 2% of total area) analyzed on 1999.1.26 and one major peak (peak No.3) and three impurities (peak No.1,2,4 < 2% of total area) analyzed on 1999.10.27. No new trace impurity peak in a test substance analyzed on 1999.10.27 was detected.

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

C. Lot No. : CKJ5754

1. Sample : This lot was used from 1999.10.27 to 2000.8.4. Test substance was stored in a dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 6890

Column : INNOWAX (0.53 mm ϕ \times 60 m)

Column Temperature : 50° C

Flow Rate : 10 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
1999.10.25	1	2.582	0.7944
	2	2.908	0.6958
	3	3.302	98.4961
	4	5.522	0.0137
2000.08.07	1	2.583	0.7975
	2	2.909	0.6934
	3	3.302	98.4953
	4	5.523	0.0138

Result : Gas chromatography indicated one major peak (peak No.3) and three impurities (peak No.1,2,4 < 2% of total area) analyzed on 1999.10.25 and one major peak (peak No.3) and three impurities (peak No.1,2,4 < 2% of total area) analyzed on 2000.8.7. No new trace impurity peak in the test substance analyzed on 2000.8.7 was detected.

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

D. Lot No. : SEK5898

1. Sample : This lot was used from 2000.8.7 to 2000.9.7. Test substance was stored in a dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 6890

Column : INNOWAX (0.53 mm ϕ \times 60 m)

Column Temperature : 50° C

Flow Rate : 10 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
2000.07.24	1	2.584	0.8178
	2	2.908	0.6306
	3	3.301	98.5275
	4	5.521	0.0241
2000.09.08	1	2.584	0.8225
	2	2.909	0.6303
	3	3.302	98.5233
	4	5.522	0.0239

Result : Gas chromatography indicated one major peak (peak No.3) and three impurities (peak No.1,2,4 < 2% of total area) analyzed on 2000.7.24 and one major peak (peak No.3) and three impurities (peak No.1,2,4 < 2% of total area) analyzed on 2000.9.8. No new trace impurity peak in the test substance analyzed on 2000.9.8 was detected.

3. Conclusion: The test substance was stable for about 1 month in a dark place at room temperature.

E. Lot No. : SER4744

1. Sample : This lot was used from 2000.9.8 to 2000.10.16. Test substance was stored in a dark place at room temperature.

2. Gas Chromatography

Instrument : Hewlett Packard 6890

Column : INNOWAX (0.53 mm ϕ \times 60 m)

Column Temperature : 50° C

Flow Rate : 10 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
2000.09.07	1	2.583	0.7882
	2	2.908	0.6948
	3	3.301	98.5032
	4	5.523	0.0138
2000.11.30	1	2.593	0.8018
	2	2.923	0.6976
	3	3.321	98.4857
	4	5.584	0.0149

Result : Gas chromatography indicated one major peak (peak No.3) and three impurities (peak No.1,2,4 < 2% of total area) analyzed on 2000.9.7 and one major peak (peak No.3) and three impurities (peak No.1,2,4 < 2% of total area) analyzed on 2000.11.30. No new trace impurity peak in the test substance analyzed on 2000.11.30 was detected.

3. Conclusion: The test substance was stable for about 2 months in a dark place at room temperature.

APPENDIX P 1

CONCENTRATION OF ALLYL CHLORIDE IN THE INHALATION CHAMBER OF THE 2-YEAR INHALATION STUDY

CONCENTRATION OF ALLYL CHLORIDE IN THE INHALATION
CHAMBER OF THE 2-YEAR INHALATION STUDY

Group Name	Concentration (ppm)	
	Mean	± S.D.
0 ppm	0.0	± 0.0
25 ppm	25.1	± 0.1
50 ppm	50.1	± 0.2
100 ppm	100.2	± 0.4

APPENDIX P 2

ENVIRONMENTAL CONDITIONS OF INHALATION CHAMBER IN THE 2-YEAR INHALATION STUDY OF ALLYL CHLORIDE

ENVIRONMENTAL CONDITIONS OF INHALATION CHAMBER
IN THE 2-YEAR INHALATION STUDY OF ALLYL CHLORIDE

Group Name	Temperature(°C)			Humidity(%)			Ventilation Rate (L/min)			Air Changes (time/h)	
	Mean	±	S.D.	Mean	±	S.D.	Mean	±	S.D.	Mean	
0 ppm	22.2	±	0.2	53.1	±	1.3	1660.4	±	5.9	12.0	
25 ppm	22.3	±	0.3	52.9	±	1.8	1657.7	±	5.5	12.0	
50 ppm	22.1	±	0.3	53.6	±	1.7	1662.5	±	4.7	12.0	
100 ppm	22.2	±	0.2	52.9	±	1.8	1662.1	±	5.2	12.0	

APPENDIX Q

METHODS, UNITS AND DECIMAL PLACE FOR HEMATOLOGY
AND BIOCHEMISTRY IN THE 2-YEAR INHALATION STUDY OF ALLYL CHLORIDE

METHODS, UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY
IN THE 2-YEAR INHALATION STUDY OF ALLYL CHLORIDE

Item	Method	Unit	Decimal place
Hematology			
Red blood cell (RBC)	Light scattering method ¹⁾	$\times 10^6/\mu\text{L}$	2
Hemoglobin(Hgb)	Cyanmethemoglobin method ¹⁾	g/dL	1
Hematocrit(Hct)	Calculated as $\text{RBC} \times \text{MCV}/10$ ¹⁾	%	1
Mean corpuscular volume(MCV)	Light scattering method ¹⁾	fL	1
Mean corpuscular hemoglobin(MCH)	Calculated as $\text{Hgb}/\text{RBC} \times 10$ ¹⁾	pg	1
Mean corpuscular hemoglobin concentration (MCHC)	Calculated as $\text{Hgb}/\text{Hct} \times 100$ ¹⁾	g/dL	1
Platelet	Light scattering method ¹⁾	$\times 10^3/\mu\text{L}$	0
White blood cell(WBC)	Light scattering method ¹⁾	$\times 10^3/\mu\text{L}$	2
Differential WBC	Pattern recognition method ²⁾ (Wright staining)	%	0
Biochemistry			
Total protein(TP)	Biuret method ³⁾	g/dL	1
Albumin (Alb)	BCG method ³⁾	g/dL	1
A/G ratio	Calculated as $\text{Alb}/(\text{TP} - \text{Alb})$ ³⁾	—	1
T-bilirubin	Alkaline azobilirubin method ³⁾	mg/dL	2
Glucose	GlcK·G-6-PDH method ³⁾	mg/dL	0
T-cholesterol	CE·COD·POD method ²⁾	mg/dL	0
Triglyceride	LPL·GK·GPO·POD method ³⁾	mg/dL	0
Phospholipid	PLD·ChOD·POD method ³⁾	mg/dL	0
Glutamic oxaloacetic transaminase (GOT)	JSCC method ³⁾	IU/L	0
Glutamic pyruvic transaminase (GPT)	JSCC method ³⁾	IU/L	0
Lactate dehydrogenase (LDH)	SFBC method ³⁾	IU/L	0
Alkaline phosphatase (ALP)	GSCC method ³⁾	IU/L	0
γ -Glutamyl transpeptidase (γ -GTP)	L- γ -Glutamyl-p-nitroanilide method ³⁾	IU/L	0
Creatine phosphokinase (CPK)	JSCC method ³⁾	IU/L	0
Urea nitrogen	Urease·GLDH method ³⁾	mg/dL	1
Creatinine	Jaffe method ³⁾	mg/dL	1
Sodium	Ion selective electrode method ³⁾	mEq/L	0
Potassium	Ion selective electrode method ³⁾	mEq/L	1
Chloride	Ion selective electrode method ³⁾	mEq/L	0
Calcium	OCPC method ³⁾	mg/dL	1
Inorganic phosphorus	PNP·XOD·POD method ³⁾	mg/dL	1

1) Automatic blood cell analyzer (Technicon H·1 : Bayer Corporation)

2) Automatic blood cell differential analyzer (MICROX HEG-120NA : OMRON Corporation)

3) Automatic analyzer (Hitachi 7070 : Hitachi, Ltd.)