

アクリル酸=2 - ヒドロキシエチルのラットを用いた
経口投与によるがん原性試験(混水試験)報告書

試験番号：0347

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APPENDIX A 1

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

STUDY NO. : 0347
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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0347
 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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0347
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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 4

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 5

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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	800 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	2
	2000 ppm	1	1	1	1	1	1	2	2	3	3	3	3	3	4
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
DEATH	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	320 ppm	2	2	2	2	2	2	2	3	3	3	3	3	3	3
	800 ppm	2	2	2	2	2	2	2	3	3	3	3	3	3	4
	2000 ppm	4	4	4	4	5	5	5	5	5	5	5	5	5	5
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	1	1	1	1	1	1	1	1	1	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		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
DEATH	Control	1	1	1	2	2	2	2	2	2	3	3	3	5	6
	320 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	800 ppm	4	5	5	6	6	7	7	7	7	8	8	8	8	8
	2000 ppm	5	5	6	6	6	6	6	6	6	6	6	6	6	6
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	2	2	2	2	3	3
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	1	1	1	1	1	1	2	2	4	4	4	4	5
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	1	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	1	2	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	1	1	0	0	0	0	1	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	0	0	0	0	0	1	1	1	1
	2000 ppm	0	1	0	0	0	0	0	0	1	0	1	1	2	2

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	6	6	6	7	7	7
	320 ppm	4	5	6	6	6	6
	800 ppm	9	10	10	10	11	12
	2000 ppm	6	7	7	8	9	9
MORIBUND SACRIFICE	Control	3	3	3	3	3	3
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	5	5	6	6	6	6
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1
PARALYTIC GAIT	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	1	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	1	1	1	0	0	0
	2000 ppm	2	3	2	2	1	1

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LACRYMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1

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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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
LACRYMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	2	2	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	1	1	2	2	2	2	2	2	2
LACRYMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	1	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	1	2	2	2	2	2	2	2	2	2	2	2	2	2
CATARACT	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
LACRYMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	1	1	1	1	2	2	2	2	2	2	3	3	3	3
	800 ppm	2	2	2	2	2	2	2	2	2	3	3	3	3	3
	2000 ppm	2	2	3	4	4	4	4	4	4	4	4	4	4	4
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	1	1	1	1	1	1	2	2	2	2
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	1	1	1	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
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	2000 ppm	1	1	2	1	1	1	1	1	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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
LACRYMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	3	3	3	3	3	3	3	3	3	3	4	4	5	5
	800 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	4
	2000 ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	2	2	2	2	2	2	3	3	3	3	4	4	5	5
	800 ppm	2	2	2	3	3	3	3	3	3	3	3	3	3	4
	2000 ppm	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
	320 ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	1	1	1
LACRYMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	320 ppm	5	5	5	5	5	5	5	4	5	5	5	5	5	5
	800 ppm	4	5	5	5	5	5	5	5	5	5	5	5	5	5
	2000 ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	5
CATARACT	Control	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	320 ppm	5	5	5	5	5	5	5	4	5	5	5	5	5	5
	800 ppm	4	5	5	5	5	5	5	5	5	5	5	5	5	5
	2000 ppm	2	2	2	2	2	2	2	2	2	3	3	4	4	5
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	0	0	0	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	0	0	2	2	1	1	1
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	1	1	1	1	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	2	1
LACRYMATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	2	3	3	3	3	3	3	3	3	3	4	4	4	4
	320 ppm	5	5	5	5	5	6	6	6	7	7	7	7	7	7
	800 ppm	5	5	5	5	5	4	4	4	4	4	4	4	4	4
	2000 ppm	5	5	5	6	6	6	6	6	6	5	4	4	4	4
CATARACT	Control	2	3	3	3	3	3	3	3	3	3	4	4	4	4
	320 ppm	5	5	5	5	5	6	6	6	7	7	7	7	7	7
	800 ppm	5	5	5	5	5	4	4	4	4	4	4	4	4	4
	2000 ppm	5	5	5	6	6	6	6	6	6	5	4	4	4	4
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
SOILED	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1
SOILED PERI GENITALIA	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	1	2	4
EXOPHTHALMOS	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1
LACRYMATION	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
EYE OPACITY	Control	4	4	4	4	4	4
	320 ppm	7	7	7	7	8	8
	800 ppm	4	4	4	4	4	4
	2000 ppm	4	4	4	4	4	4
CATARACT	Control	4	4	4	4	4	4
	320 ppm	7	7	7	7	8	8
	800 ppm	4	4	4	4	4	4
	2000 ppm	4	4	4	4	4	4
CORNEAL OPACITY	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	2000 ppm	0	0	0	1	1	1	2	2	2	2	2	2	2	2
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		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
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	2000 ppm	0	0	1	1	1	1	0	0	1	1	0	0	0	1
EXTERNAL MASS	Control	1	1	1	1	1	1	2	2	1	1	1	1	1	1
	320 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	2	2	2	2	2	2	2	2	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	1	1	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		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
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	0	0	1
EXTERNAL MASS	Control	1	1	1	1	1	1	1	1	1	0	0	1	1	1
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	2	3	3
	800 ppm	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	2000 ppm	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	1	1	1	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	0	0	0	0	0	0	0	0	0	0	0	1	0
EXTERNAL MASS	Control	2	3	4	4	5	5	5	6	7	8	8	9	7	6
	320 ppm	4	5	5	5	5	6	6	6	7	7	9	9	9	11
	800 ppm	2	2	4	4	4	4	4	5	5	6	6	6	7	8
	2000 ppm	2	1	1	2	2	2	2	2	2	3	3	3	4	5
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	1	1	1	2	2	3	3	3	3	3	3	4
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	2	2	2	2
	800 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
ANTERIOS CHAMBER OPACITY	Control	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
EXTERNAL MASS	Control	8	9	11	11	11	11
	320 ppm	12	11	10	10	11	12
	800 ppm	7	6	7	8	8	7
	2000 ppm	5	6	7	7	7	7
INTERNAL MASS	Control	0	0	0	1	1	1
	320 ppm	0	1	0	1	1	1
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	3	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0
	320 ppm	2	2	1	1	0	0
	800 ppm	1	1	1	1	1	0
	2000 ppm	0	0	0	0	1	1
M. ORAL CAVITY	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	1	1	1	1
M. MANDIBULAR	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		57-7	58-7	59-7											
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		71-7	72-7	73-7												
M. EAR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
M. PERI EAR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0		0	0	0	0	0	0	0	1	1	1	1
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
M. POSTERIOR DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	1	1	1	1	1	1	1	2	2	1	1	1	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	1	1	1	2	2	2	2	2	2	2	2	2	2
	320 ppm	0	1	1	1	1	1	1	1	1	2	2	2	2	3
	800 ppm	1	1	1	2	2	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	1	1	1	1	1	1	1	1	1	3	3	3	2	1
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	1	1	1	1	1	1	1	1	1	2	2
M. ANTERIOR. DORSUM	Control	0	0	1	1	1	1	1	1	2	2	2	3	3	3
	320 ppm	0	0	0	0	0	1	1	1	1	1	1	1	2	2
	800 ppm	0	0	1	1	1	1	1	2	2	2	2	2	2	2
	2000 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	1
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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		99-7	100-7	101-7	102-7	103-7	104-7
M. EAR	Control	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	1	1	1
	320 ppm	0	0	0	0	0	1
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	1	1	1	1
M. BREAST	Control	2	2	2	2	2	2
	320 ppm	4	3	3	3	3	3
	800 ppm	1	1	2	2	2	2
	2000 ppm	0	0	0	0	0	0
M. ABDOMEN	Control	1	1	1	0	0	0
	320 ppm	1	1	1	1	1	1
	800 ppm	0	0	0	1	1	1
	2000 ppm	2	2	2	2	2	2
M. ANTERIOR. DORSUM	Control	3	4	4	4	4	4
	320 ppm	2	2	2	2	2	2
	800 ppm	1	1	1	1	1	1
	2000 ppm	1	2	2	2	2	2
M. POSTERIOR DORSUM	Control	0	0	1	1	1	1
	320 ppm	1	1	1	1	1	1
	800 ppm	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	2

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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
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHIAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRIAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration		Week-day		32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7												
M. HINDLIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. ANUS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. TAIL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
M. HINDLIMB	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
M. HINDLIMB	Control	1	1	1	1	1	1	1	1	1	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	1	1	1	1	1	1	1	1	1	0	0	0	0	0
	320 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	800 ppm	0	0	0	0	0	0	1	1	1	1	1	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHIAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	2000 ppm	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
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANUS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	2	1
	320 ppm	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	3	3	3	3	3	3	3	3	3	3	3	3	3
	2000 ppm	0	0	0	0	0	0	1	1	1	1	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0

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		99-7	100-7	101-7	102-7	103-7	104-7
M. HINDLIMB	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
M. ANUS	Control	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
M. TAIL	Control	2	2	3	3	3	3
	320 ppm	1	1	1	1	2	2
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
ANEMIA	Control	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0
	320 ppm	1	0	0	1	1	1
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
CRUSTA	Control	1	1	1	1	1	1
	320 ppm	2	2	3	3	3	3
	800 ppm	4	4	4	4	4	4
	2000 ppm	0	0	0	0	1	1
HEMORRHAGE	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	1	1
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1

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 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

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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
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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				18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7												
RESPIRATORY SOUND ABNOR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA. SOUND	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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				32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7												
RESPIRATORY SOUND ABNOR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA. SOUND	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	1	1		0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	1	1		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
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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				46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7												
RESPIRATORY SOUND ABNOR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA. SOUND	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	1		0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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													
		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
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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													
		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
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	1	0	0	0	0	2	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	2
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
ABNORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	1
SMALL STOOL	Control	0	0	0	0	0	1	1	1	1	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	1	1	1	1	0	1	0	0	0	0	0	0	0
	2000 ppm	1	1	0	0	0	0	0	0	0	1	0	0	0	1
OLIGO-STOOL	Control	0	0	0	0	0	0	0	1	1	0	0	1	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	2	1	1	1	1	0	0	0	1	0	0	0	1	1
	2000 ppm	2	1	0	0	0	0	2	0	0	1	0	0	0	1
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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					
		99-7	100-7	101-7	102-7	103-7	104-7
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	1	1
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1
ABNORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	1
	320 ppm	1	0	1	1	1	1
	800 ppm	0	0	0	0	0	1
	2000 ppm	1	0	0	0	1	1
SMALL STOOL	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
OLIGO-STOOL	Control	1	0	0	0	1	0
	320 ppm	0	0	0	0	0	0
	800 ppm	1	1	0	0	2	1
	2000 ppm	2	3	3	2	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0

APPENDIX A 2

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

STUDY NO. : 0347
 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													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0347
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													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0347
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													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

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
DEATH	Control	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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													
		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
DEATH	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	800 ppm	1	1	1	1	1	2	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	1	1	1	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0347
 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
DEATH	Control	1	1	2	2	2	2	2	2	3	3	3	3	4	5
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	2
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	2	1	0	0

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

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Clinical sign	Group Name	Administration Week-day			88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7											
DEATH	Control	5	5	6	7	7	7	7	7	7	7	9	9	9	9
	320 ppm	1	1	1	1	1	2	2	2	2	3	3	4	4	4
	800 ppm	2	2	2	2	2	2	2	3	3	3	3	4	4	5
	2000 ppm	2	2	2	3	3	3	3	3	3	3	3	3	3	3
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	10	11	12	12	12	12
	320 ppm	4	5	6	8	8	8
	800 ppm	6	6	6	6	6	6
	2000 ppm	3	3	3	3	3	5
MORIBUND SACRIFICE	Control	1	1	1	1	1	1
	320 ppm	1	2	2	2	2	2
	800 ppm	1	1	1	2	2	2
	2000 ppm	1	1	1	1	2	3
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1
HUNCHBACK POSITION	Control	0	0	0	0	0	0
	320 ppm	0	1	1	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	1	0
PARALYTIC GAIT	Control	0	0	0	0	0	0
	320 ppm	1	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1
PILOERECTIO	Control	0	0	0	0	0	0
	320 ppm	2	1	1	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day			18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7											
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day			32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7											
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	2	1	1	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	1	1	1	2	2	2	2	2	2	2	2	2	2	2
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	2	2	2	2
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	2	2	3	3	3	3	3	3	3	3	4	4	4	4
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	1	1	2	2	2	2	2	3	3	3	4	4	4	4
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	4	5	5	5	5	5	5	5	5	5	5	6	6	6
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	2	2	2	2	2	2
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	4	5	5	5	5	5	5	5	5	5	5	6	6	6
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	2	2	2	2	2	2
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	1	1	1	1	1	1	1	1	1	1	1	1	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	2	2	2	2	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	1	1	1	1	1	1	1	2	2	2	1
	320 ppm	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	1	1	1	1	1	1	1	1	1	1	1	2	3	2
	320 ppm	0	0	0	1	1	1	1	1	1	1	2	2	2	2
	800 ppm	0	0	1	1	2	2	2	2	2	3	3	3	3	3
	2000 ppm	0	1	1	1	1	1	1	1	2	3	3	3	3	3

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Clinical sign	Group Name	Administration Week-day			88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7											
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	6	6	6	6	6	6	6	6	6	6	6	7	7	7
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	6	6	6	6	6	6	6	6	6	6	6	7	7	7
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	2	2	2	2	2	2	2	2	2	3	2	2	2	3
	320 ppm	2	2	2	2	2	2	2	2	2	2	2	1	1	1
	800 ppm	3	3	3	4	4	5	5	6	6	6	6	6	6	6
	2000 ppm	3	3	3	3	3	3	4	4	4	5	5	5	6	7

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
LOSS OF HAIR	Control	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1
SOILED PERI GENITALIA	Control	0	0	0	0	0	0
	320 ppm	1	1	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1
EXOPHTHALMOS	Control	0	0	0	0	0	0
	320 ppm	1	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	1	1	1
	320 ppm	7	6	6	6	6	6
	800 ppm	0	0	0	0	0	1
	2000 ppm	2	2	2	2	3	3
CATARACT	Control	1	1	1	1	1	1
	320 ppm	7	6	6	6	6	6
	800 ppm	0	0	0	0	0	1
	2000 ppm	2	2	2	2	3	3
CORNEAL OPACITY	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0
	320 ppm	0	1	1	1	1	1
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
EXTERNAL MASS	Control	3	3	3	3	3	3
	320 ppm	1	1	2	2	2	2
	800 ppm	6	7	8	8	8	8
	2000 ppm	7	7	7	7	7	6

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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
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day			32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7											
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		57-7	58-7	59-7											
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	1	1	1	1	1	1	1	1	1	1	1	1	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
INTERNAL MASS	Control	0	0	1	1	1	1	1	1	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	1	1	1	1	1	2	2	2	2	2
	2000 ppm	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
M. ANTERIOR. DORSUM	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		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
INTERNAL MASS	Control	0	1	1	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	2	2	2	2	2
M. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	2	2	2	2	2	2	2	2	3	3	3	3	3
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	2	2
M. ANTERIOR. DORSUM	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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
INTERNAL MASS	Control	1	1	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
M. PERI MOUTH	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
M. NECK	Control	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
M. FORLIMB	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	1
M. BREAST	Control	1	1	1	1	1	1
	320 ppm	0	0	1	1	1	1
	800 ppm	3	4	4	4	4	4
	2000 ppm	2	2	2	2	2	2
M. ABDOMEN	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	1	1	2	2	2	2
	2000 ppm	2	2	2	2	2	2
M. ANTERIOR. DORSUM	Control	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	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
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHIAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day			32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7											
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHIAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		43-7	44-7	45-7											
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHIAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day				60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7												
M. GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0		1	1	1	1	1	1	1	1	1	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0		0	0	0	0	0	0	0	0	1	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0		0	0	0	0	0	0	0	0	1	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	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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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day				74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7												
M. GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		1	1	1	1	1	1	1	2	2	2	2
	800 ppm	0	0	1		1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	1	1	1
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
JAUNDISE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
HEMORRHIAGE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	1	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	2	1	0	0
ABNORMAL RESPIRATION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	1	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	2	1	0	0
DEEP BREATHING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	1	1	1	1	1
	2000 ppm	0	0	0		0	0	3	3	5	4	6	6	7	9	9

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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7											
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	2	2	2	2	2	2	2	2	2	2	2	1	1	1
	800 ppm	1	1	1	1	1	2	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	2	2	2	1	1	0	1	1
	800 ppm	0	0	0	0	0	0	1	1	1	2	2	2	1	2
	2000 ppm	0	1	1	0	0	0	0	1	1	1	1	1	1	0
JAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	1	1	1	0	0	0	0	0
	800 ppm	0	1	0	0	0	0	1	1	1	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	2	2	2	2	2	2	2	2	2
	2000 ppm	10	11	11	10	11	18	18	18	17	17	18	18	21	21

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 ANIMAL : RAT F344/DuCrj
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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
M. GENITALIA	Control	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1
	800 ppm	2	2	2	2	2	2
	2000 ppm	1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	0	0
	320 ppm	1	1	0	0	0	0
	800 ppm	1	1	2	4	4	5
	2000 ppm	0	0	0	2	2	2
JAUNDISE	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	1	0	0	0
	2000 ppm	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0
	320 ppm	1	0	0	0	0	0
	800 ppm	0	0	0	1	0	0
	2000 ppm	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0
	320 ppm	0	2	1	0	0	0
	800 ppm	0	0	1	1	1	1
	2000 ppm	0	0	0	0	0	1
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0
	320 ppm	0	2	1	0	0	0
	800 ppm	0	0	1	1	1	1
	2000 ppm	0	0	0	0	1	1
DEEP BREATHING	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	1	0
RED URINE	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	2	2	2	2	2	2
	2000 ppm	21	22	24	23	24	25

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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
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

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STUDY NO. : 0347
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
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7												
YELLOW URINE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	1	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	1	0	0	0	1
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	1	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	1	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		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
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7											
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 86

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
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	1	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	800 ppm	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

PAGE : 87

Clinical sign	Group Name	Administration Week-day			88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7											
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	0	0	0	0	0	1	1	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	0	0	0	0	0	1	1	2
	800 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 88

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
YELLOW URINE	Control	0	0	0	0	0	0
	320 ppm	1	1	0	0	0	0
	800 ppm	1	1	3	2	2	3
	2000 ppm	0	0	1	1	1	1
SMALL STOOL	Control	0	0	0	1	1	2
	320 ppm	1	0	0	0	0	0
	800 ppm	0	1	1	1	1	2
	2000 ppm	0	0	0	1	1	0
OLIGO-STOOL	Control	0	0	0	0	0	1
	320 ppm	2	2	1	0	0	0
	800 ppm	0	1	1	0	0	1
	2000 ppm	0	0	0	2	2	1
SUBNORMAL TEMP	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1

(HAN190)

BAIS 3

APPENDIX B 1

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

STUDY NO. : 0347
 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	123±	5	156±	7	185±	8	207±	8	224±	9	239±	9	251±	10
320 ppm	123±	5	153±	9	182±	9	204±	10	222±	11	236±	12	248±	13
800 ppm	123±	5	151±	6**	179±	8**	201±	10**	218±	11**	232±	12**	242±	12**
2000 ppm	123±	5	141±	7**	167±	8**	189±	8**	205±	9**	220±	9**	230±	10**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 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	262±	10	270±	10	279±	10	285±	11	291±	11	296±	11	302±	11		
320 ppm	258±	14	267±	14	274±	14	280±	15	285±	15	291±	16	295±	15*		
800 ppm	253±	13**	261±	13**	268±	14**	275±	14**	280±	14**	285±	14**	290±	15**		
2000 ppm	239±	11**	246±	11**	253±	12**	259±	12**	264±	12**	269±	12**	273±	12**		

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration week		14		18		22		26		30		34		38	
Control	307±	11	322±	12	335±	14	348±	14	355±	15	364±	17	374±	17		
320 ppm	299±	15*	314±	16*	326±	17**	336±	18**	343±	19**	350±	21**	357±	23**		
800 ppm	294±	15**	308±	16**	321±	16**	332±	18**	340±	18**	345±	21**	353±	22**		
2000 ppm	277±	13**	292±	15**	305±	15**	317±	16**	324±	21**	331±	20**	338±	23**		

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration week													
	42		46		50		54		58		62		66	
Control	382±	19	388±	19	392±	20	398±	20	403±	21	406±	24	409±	29
320 ppm	363±	23**	369±	25**	373±	27**	379±	29**	383±	28**	387±	30**	392±	30**
800 ppm	359±	23**	365±	25**	369±	25**	374±	26**	377±	27**	381±	28**	385±	27**
2000 ppm	343±	24**	348±	22**	351±	22**	355±	22**	357±	21**	356±	21**	357±	21**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration		week									
	70		74		78		82		86		90	
Control	406±	40	416±	27	419±	33	428±	22	425±	24	423±	25
320 ppm	393±	29*	400±	27**	402±	28*	407±	26**	405±	26**	404±	27**
800 ppm	385±	28**	387±	28**	388±	30**	388±	31**	385±	34**	382±	27**
2000 ppm	355±	20**	355±	20**	356±	19**	357±	18**	348±	24**	341±	21**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
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	419±	33	412±	40	408±	41
320 ppm	393±	28**	388±	28**	383±	32**
800 ppm	367±	30**	357±	36**	353±	33**
2000 ppm	325±	30**	318±	33**	316±	30**

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

Test of Dunnett

(HAN260)

BAIS 3

APPENDIX B 2

BODY WEIGHT CHANGES : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration		week											
	0		1		2		3		4		5		6	
Control	96±	3	115±	4	126±	5	134±	5	140±	5	147±	6	151±	6
320 ppm	96±	3	113±	4	124±	5	132±	6	138±	8	146±	7	149±	8
800 ppm	96±	3	112±	4**	123±	5*	132±	6	138±	7	144±	7	149±	8
2000 ppm	96±	3	108±	4**	119±	5**	127±	5**	132±	6**	137±	6**	141±	7**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 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	
Control	154±	7	157±	8	160±	8	163±	9	166±	9	168±	9
320 ppm	153±	8	156±	8	160±	9	163±	9	165±	9	168±	10
800 ppm	152±	8	155±	9	158±	9	161±	9	164±	9	167±	9
2000 ppm	143±	7**	146±	7**	149±	7**	150±	8**	154±	8**	155±	8**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 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	171± 10	179± 11	185± 12	189± 12	194± 12	198± 13	200± 13			
320 ppm	173± 10	180± 11	187± 12	191± 12	197± 13	200± 14	204± 15			
800 ppm	171± 10	177± 10	184± 10	188± 10	193± 11	195± 11	197± 12			
2000 ppm	159± 8**	165± 9**	171± 9**	175± 10**	179± 10**	181± 10**	183± 11**			

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 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	205±	14	210±	15	213±	16	217±	17	220±	18	224±	19	230±	21
320 ppm	208±	16	212±	17	215±	18	219±	18	223±	19	228±	22	233±	24
800 ppm	201±	13	205±	14	208±	15	212±	16	215±	16	219±	17	223±	19
2000 ppm	186±	11**	188±	11**	191±	12**	193±	12**	194±	13**	195±	13**	198±	13**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration week											
	70		74		78		82		86		90	
Control	234±	22	241±	23	247±	24	253±	24	257±	26	262±	25
320 ppm	234±	26	241±	27	247±	28	254±	28	255±	28	257±	30
800 ppm	225±	19	229±	19	233±	21*	240±	22*	242±	22*	242±	24**
2000 ppm	199±	14**	199±	14**	202±	17**	206±	19**	210±	18**	211±	18**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
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	265±	25	268±	24	266±	23
320 ppm	257±	34	264±	28	261±	28
800 ppm	242±	23**	242±	25**	240±	28**
2000 ppm	212±	25**	212±	34**	208±	23**

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

Test of Dunnett

(HAN260)

BAIS 3

APPENDIX C 1

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration week-day(effective)						
	1-7(4)	2-7(4)	3-7(4)	4-7(4)	5-7(4)	6-7(4)	7-7(4)
Control	18.0± 1.0	18.8± 1.1	20.3± 2.3	19.9± 2.4	18.9± 1.2	18.6± 1.6	18.5± 1.3
320 ppm	15.6± 2.3**	16.8± 1.2**	16.9± 1.1**	17.3± 1.4**	16.4± 1.2**	16.1± 1.1**	16.9± 3.5**
800 ppm	14.2± 2.0**	15.1± 4.1**	15.4± 1.6**	15.5± 1.2**	14.9± 1.0**	14.6± 1.4**	14.5± 1.3**
2000 ppm	11.7± 1.0**	12.1± 0.9**	13.3± 3.4**	13.4± 2.7**	12.8± 1.2**	12.2± 0.9**	12.2± 1.0**

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

Test of Dunnett

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration 8-7(4)	week-day(effective) 9-7(4)	10-7(4)	11-7(4)	12-7(4)	13-7(4)	14-7(4)
Control	18.2± 1.5	17.9± 1.5	17.8± 1.4	17.1± 1.4	16.9± 1.4	17.7± 1.7	17.5± 1.3
320 ppm	16.4± 3.6**	15.8± 1.1**	16.0± 1.1**	15.2± 1.3**	15.0± 1.2**	16.0± 1.5**	15.3± 1.3**
800 ppm	13.9± 1.1**	13.9± 0.9**	14.6± 1.0**	13.5± 1.1**	13.6± 1.0**	14.2± 1.0**	13.9± 0.8**
2000 ppm	11.6± 0.8**	11.9± 0.9**	12.1± 0.9**	11.6± 1.0**	11.5± 0.8**	11.8± 1.7**	11.7± 1.4**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration 18-7(4)	week-day(effective) 22-7(4)	26-7(4)	30-7(4)	34-7(4)	38-7(4)	42-7(4)
Control	16.5± 1.2	16.2± 1.1	16.7± 2.4	16.5± 1.2	16.5± 1.6	16.4± 1.4	16.3± 1.3
320 ppm	14.8± 0.9**	14.9± 1.7**	14.6± 0.8**	15.0± 2.8**	14.4± 1.1**	14.4± 1.0**	14.4± 1.1**
800 ppm	13.8± 1.5**	13.1± 0.8**	13.3± 0.8**	13.5± 0.8**	13.3± 1.4**	13.6± 1.0**	13.7± 0.9**
2000 ppm	11.7± 0.8**	11.4± 0.8**	11.6± 0.9**	11.6± 1.8**	11.7± 0.9**	12.3± 1.3**	12.0± 1.7**

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

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration week-day(effective)						
	46-7(4)	50-7(4)	54-7(4)	58-7(4)	62-7(4)	66-7(4)	70-7(4)
Control	16.4± 1.1	16.5± 0.9	17.5± 1.1	16.8± 1.2	17.5± 1.4	17.0± 2.9	18.6± 2.6
320 ppm	14.7± 1.2**	15.4± 3.2**	15.8± 1.4**	15.3± 1.0**	15.9± 1.2**	15.7± 1.3**	16.6± 1.3**
800 ppm	13.7± 1.2**	14.1± 0.9**	14.9± 1.2**	14.5± 1.4**	15.4± 1.3**	15.0± 1.1**	15.7± 1.4**
2000 ppm	12.6± 1.2**	12.6± 1.0**	13.1± 1.1**	12.8± 1.1**	13.5± 1.6**	13.3± 1.5**	13.7± 1.5**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration 74-7(4)	week-day(effective) 78-7(4)	82-7(4)	86-7(4)	90-7(4)	94-7(4)	98-7(4)
Control	18.3± 1.4	18.3± 1.7	17.8± 1.8	18.0± 2.6	18.4± 2.3	18.9± 2.9	19.7± 3.0
320 ppm	16.4± 1.2**	16.4± 2.9**	16.4± 1.2**	16.2± 2.0**	16.7± 1.7**	17.0± 2.1**	17.2± 2.6**
800 ppm	15.5± 1.4**	15.3± 1.5**	15.3± 1.5**	15.1± 1.8**	16.4± 4.3**	16.5± 2.3**	17.4± 3.8**
2000 ppm	13.7± 1.5**	13.7± 1.6**	13.6± 1.7**	13.7± 1.7**	14.1± 2.3**	14.1± 2.4**	15.3± 3.7**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 3

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 6

Group Name	Administration week-day(effective)	
	102-7(4)	104-7(4)
Control	20.4± 3.6	20.4± 4.3
320 ppm	17.7± 2.7**	17.5± 3.2**
800 ppm	17.6± 4.8**	17.7± 5.5**
2000 ppm	15.8± 2.6**	15.8± 2.9**

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

Test of Dunnett

(HAN260)

BAIS 3

APPENDIX C 2

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration		week-day(effective)					
	1-7(4)		2-7(4)		3-7(4)		4-7(4)	
Control	15.5± 1.8		16.5± 3.1		16.9± 3.3		17.7± 4.8	
320 ppm	13.3± 1.1**		14.0± 3.1**		14.8± 3.2**		15.8± 5.1*	
800 ppm	12.2± 1.6**		11.8± 2.2**		12.1± 2.0**		12.2± 2.5**	
2000 ppm	10.0± 1.1**		9.6± 0.7**		9.9± 1.2**		9.8± 0.7**	

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group Name	Administration 8-7(4)	week-day(effective) 9-7(4)	10-7(4)	11-7(4)	12-7(4)	13-7(4)	14-7(4)
Control	15.9± 3.0	16.5± 4.3	16.7± 4.9	15.2± 3.8	16.5± 5.2	17.1± 5.5	17.4± 5.7
320 ppm	14.3± 5.4*	14.8± 5.1	14.7± 5.8*	14.1± 5.2	14.5± 5.4*	15.1± 5.9	15.1± 6.8*
800 ppm	11.5± 4.4**	11.4± 2.1**	11.4± 2.7**	11.7± 4.3**	12.1± 4.6**	11.6± 2.3**	11.4± 2.9**
2000 ppm	8.6± 0.8**	9.2± 0.8**	8.5± 0.8**	8.9± 1.4**	9.2± 1.4**	8.8± 0.9**	8.8± 0.7**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 9

Group Name	Administration 18-7(4)	week-day(effective) 22-7(4)	26-7(4)	30-7(4)	34-7(4)	38-7(4)	42-7(4)
Control	17.5± 6.0	16.6± 4.5	16.1± 4.6	17.1± 5.9	16.6± 5.1	16.1± 5.4	16.8± 6.8
320 ppm	15.3± 5.1	14.4± 4.7*	14.8± 6.4	15.3± 6.4	14.7± 5.5	15.2± 5.9	16.0± 7.0
800 ppm	11.8± 3.4**	12.3± 4.8**	12.0± 4.9**	12.9± 5.5**	11.2± 2.0**	11.3± 3.5**	12.4± 5.6**
2000 ppm	8.8± 1.0**	9.0± 0.9**	8.9± 1.0**	9.0± 0.8**	8.8± 0.8**	9.0± 0.9**	9.0± 0.8**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 10

Group Name	Administration		week-day(effective)		54-7(4)	58-7(4)	62-7(4)	66-7(4)	70-7(4)
	46-7(4)		50-7(4)						
Control	15.5± 3.8		15.3± 4.9		16.6± 5.0	14.4± 2.7	16.5± 4.7	15.8± 2.9	16.0± 3.4
320 ppm	15.3± 5.6		13.9± 4.1		14.8± 4.2	13.6± 3.8	14.8± 4.4	15.1± 4.4	14.0± 4.8*
800 ppm	12.0± 2.9**		11.3± 2.0**		12.1± 2.8**	10.6± 1.4**	11.8± 2.2**	12.3± 2.9**	12.0± 2.4**
2000 ppm	9.3± 0.8**		9.2± 0.8**		9.6± 0.9**	9.4± 1.1**	10.2± 1.2**	10.4± 1.3**	10.8± 1.5**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration week-day(effective) 74-7(4)	78-7(4)	82-7(4)	86-7(4)	90-7(4)	94-7(4)	98-7(4)
Control	15.7± 4.3	15.1± 3.4	15.7± 5.1	15.4± 3.7	15.9± 2.8	16.5± 4.1	17.4± 5.0
320 ppm	14.1± 3.5	13.2± 2.5*	13.0± 2.4**	13.8± 3.6*	14.2± 3.5*	14.7± 5.8**	15.3± 6.1**
800 ppm	11.7± 2.0**	11.8± 4.7**	11.5± 1.9**	11.5± 2.5**	12.6± 3.9**	12.0± 2.6**	12.4± 2.8**
2000 ppm	10.8± 2.2**	11.1± 2.5**	11.0± 2.0**	11.3± 2.1**	12.0± 2.3**	12.8± 2.4**	13.5± 2.8**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 3

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 12

Group Name	Administration		week-day(effective)	
	102-7(4)		104-7(4)	
Control	18.1±	4.2	17.4±	4.1
320 ppm	16.5±	7.0**	14.5±	4.1**
800 ppm	13.0±	2.5**	12.7±	3.0**
2000 ppm	13.7±	4.2**	13.2±	2.5**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett				

(HAN260)

BAIS 3

APPENDIX D 1

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration week-day(effective)						
	1-7(7)	2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	14.3± 0.8	15.4± 0.8	15.9± 0.9	15.8± 0.8	15.6± 0.7	15.1± 0.9	15.5± 0.8
320 ppm	13.6± 1.1*	15.1± 0.9	15.5± 0.9*	15.5± 1.0	15.2± 0.9*	14.7± 0.9*	15.0± 0.9*
800 ppm	13.7± 0.7*	14.6± 0.9**	15.2± 0.8**	15.2± 0.7**	14.9± 0.8**	14.4± 0.8**	14.7± 0.8**
2000 ppm	11.9± 0.7**	13.4± 0.8**	14.2± 0.8**	14.3± 0.7**	14.3± 0.8**	13.8± 0.8**	14.0± 1.0**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration week-day(effective)						
	8-7(7)	9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)	14-7(7)
Control	14.9± 0.8	14.9± 0.9	14.7± 1.0	14.5± 0.9	14.2± 0.8	14.4± 0.9	14.0± 0.8
320 ppm	14.4± 0.9**	14.4± 1.1*	14.2± 0.9*	14.1± 0.9*	13.8± 0.9*	13.8± 0.8**	13.4± 0.8**
800 ppm	14.1± 0.8**	14.1± 0.9**	13.9± 0.8**	13.7± 0.7**	13.5± 0.8**	13.8± 0.8**	13.5± 0.7**
2000 ppm	13.5± 1.0**	13.6± 0.9**	13.1± 0.9**	13.3± 0.9**	13.3± 0.9**	13.3± 0.8**	12.9± 0.8**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration week-day(effective)						
	18-7(7)	22-7(7)	26-7(7)	30-7(7)	34-7(7)	38-7(7)	42-7(7)
Control	14.6± 0.8	14.6± 0.9	15.4± 0.7	14.9± 0.9	15.4± 0.9	15.6± 0.9	15.6± 1.0
320 ppm	14.2± 0.8*	14.0± 0.8**	14.7± 0.9**	14.4± 0.8**	14.7± 1.1**	14.6± 1.2**	14.7± 1.0**
800 ppm	13.9± 0.7**	14.0± 0.8**	14.5± 0.9**	14.4± 0.8*	14.7± 1.0**	14.8± 0.9**	15.2± 0.8
2000 ppm	13.5± 1.0**	13.6± 0.9**	14.2± 0.9**	14.1± 1.6**	14.7± 1.1**	14.9± 1.2**	14.9± 1.5*

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration week-day(effective)						
	46-7(7)	50-7(7)	54-7(7)	58-7(7)	62-7(7)	66-7(7)	70-7(7)
Control	15.4± 0.9	15.5± 0.8	15.9± 0.9	15.8± 1.0	15.8± 1.0	15.5± 2.0	16.2± 1.0
320 ppm	14.8± 1.0**	14.9± 1.1*	15.1± 1.1**	15.1± 1.0**	15.2± 1.1**	15.2± 1.1	15.5± 1.0**
800 ppm	15.0± 1.2	15.1± 1.0	15.3± 1.1*	15.5± 1.4	15.4± 1.0	15.4± 0.9	15.8± 1.1
2000 ppm	15.1± 1.0	15.2± 1.1	15.2± 1.0**	15.0± 1.0**	14.8± 1.2**	14.9± 1.0**	15.3± 1.0**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration 74-7(7)	week-day(effective) 78-7(7)	82-7(7)	86-7(7)	90-7(7)	94-7(7)	98-7(7)
Control	16.2± 1.0	15.9± 1.4	15.9± 1.2	15.8± 1.2	15.7± 1.6	15.9± 1.3	16.2± 1.5
320 ppm	15.7± 1.0	15.2± 1.1**	15.4± 1.0	15.4± 1.1	15.4± 1.1	15.7± 1.3	15.4± 1.4
800 ppm	15.6± 1.2*	15.5± 1.2	15.5± 1.3	15.6± 1.3	15.2± 1.0	15.7± 0.9	15.1± 1.4*
2000 ppm	15.2± 1.0**	15.0± 1.0**	15.1± 0.9**	15.0± 1.1**	14.8± 1.1**	15.0± 1.4**	14.5± 2.2**

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

(HAN260)

BAIS 3

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 6

Group Name	Administration week-day(effective)	
	102-7(7)	104-7(7)
Control	16.4± 1.8	15.7± 1.6
320 ppm	15.6± 1.5	15.2± 1.4
800 ppm	15.2± 2.2*	15.1± 1.4
2000 ppm	14.9± 1.4**	14.7± 1.6

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

Test of Dunnett

(HAN260)

BAIS 3

APPENDIX D 2

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration week-day(effective)						
	1-7(7)	2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	10.6± 0.5	10.5± 0.6	10.8± 0.6	10.9± 0.6	10.7± 0.8	10.3± 0.6	10.2± 0.7
320 ppm	10.4± 0.5	10.6± 0.6	10.6± 0.7	10.7± 0.9	10.7± 0.8	10.3± 0.7	10.2± 0.6
800 ppm	10.1± 0.5**	10.1± 0.6**	10.5± 0.7	10.4± 0.7**	10.3± 0.7*	10.0± 0.7	10.0± 0.8
2000 ppm	9.2± 0.5**	9.7± 0.5**	10.0± 0.6**	10.1± 0.6**	9.9± 0.6**	9.4± 0.8**	9.3± 0.7**

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

Test of Dunnett

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group Name	Administration week-day(effective)						
	8-7(7)	9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)	14-7(7)
Control	9.9± 0.7	10.1± 0.8	9.8± 0.8	9.8± 0.7	9.8± 0.7	9.7± 0.7	9.7± 0.7
320 ppm	9.8± 0.7	10.0± 0.7	9.8± 0.7	9.8± 0.7	9.8± 0.7	10.0± 0.7	9.9± 0.7
800 ppm	9.6± 0.7	9.5± 0.7**	9.5± 0.7	9.5± 0.6	9.6± 0.6	9.6± 0.6	9.6± 0.6
2000 ppm	9.1± 0.7**	9.0± 0.7**	8.7± 0.7**	8.7± 0.7**	8.8± 0.7**	8.8± 0.7**	9.0± 1.3**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 9

Group Name	Administration week-day(effective)						
	18-7(7)	22-7(7)	26-7(7)	30-7(7)	34-7(7)	38-7(7)	42-7(7)
Control	10.3± 0.8	10.1± 0.8	10.2± 0.8	10.6± 0.7	10.5± 0.8	10.6± 0.8	10.7± 0.7
320 ppm	10.2± 0.7	10.3± 0.8	10.3± 0.8	10.8± 0.7	10.7± 0.7	10.9± 0.8	10.9± 0.8
800 ppm	9.9± 0.6*	10.0± 0.7	10.1± 0.6	10.4± 0.7	10.2± 0.7	10.2± 1.2	10.5± 0.9
2000 ppm	9.1± 0.7**	9.3± 0.7**	9.5± 0.9**	9.6± 0.7**	9.6± 0.7**	9.8± 0.7**	10.0± 0.6**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 10

Group Name	Administration week-day(effective)						
	46-7(7)	50-7(7)	54-7(7)	58-7(7)	62-7(7)	66-7(7)	70-7(7)
Control	10.8± 0.8	10.7± 0.7	11.2± 0.8	10.9± 0.9	11.3± 0.9	11.5± 1.0	11.4± 0.9
320 ppm	11.0± 0.8	10.9± 0.9	11.4± 0.8	11.0± 0.8	11.4± 1.0	11.8± 1.1	11.4± 1.6
800 ppm	10.8± 0.8	10.4± 0.8	11.0± 0.9	10.6± 0.8	11.0± 0.9	11.0± 0.9	11.1± 0.9
2000 ppm	10.0± 0.7**	9.9± 0.8**	10.3± 0.7**	9.9± 0.9**	10.3± 0.9**	10.4± 1.0**	10.4± 0.8**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration 74-7(7)	week-day(effective) 78-7(7)	82-7(7)	86-7(7)	90-7(7)	94-7(7)	98-7(7)
Control	11.7± 0.9	11.9± 1.0	11.6± 1.8	11.7± 1.4	11.8± 1.1	11.8± 1.3	12.0± 1.0
320 ppm	11.9± 1.3	11.7± 1.1	11.9± 1.1	11.8± 1.1	11.7± 1.1	11.9± 1.2	11.6± 1.7
800 ppm	11.1± 0.9*	11.1± 1.5**	11.4± 1.0	11.2± 0.9**	11.1± 0.9**	11.4± 1.1	11.0± 1.9**
2000 ppm	10.3± 1.0**	10.1± 1.3**	10.6± 1.1**	10.8± 1.1**	10.4± 1.2**	10.7± 1.4**	10.9± 1.5**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 12

Group Name	Administration week-day(effective)	
	102-7(7)	104-7(7)
Control	12.1± 1.0	11.6± 1.4
320 ppm	12.0± 1.1	11.5± 1.5
800 ppm	11.3± 1.3*	11.0± 1.6
2000 ppm	10.6± 2.6**	10.6± 1.9*

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

Test of Dunnett

(HAN260)

BAIS 3

APPENDIX E 1

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration (weeks)						
	1	2	3	4	5	6	7
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
320 ppm	0.032± 0.004	0.029± 0.002	0.027± 0.001	0.025± 0.002	0.022± 0.001	0.021± 0.001	0.021± 0.004
800 ppm	0.075± 0.009	0.067± 0.018	0.062± 0.006	0.057± 0.003	0.051± 0.002	0.048± 0.004	0.046± 0.003
2000 ppm	0.165± 0.012	0.144± 0.008	0.141± 0.036	0.130± 0.028	0.116± 0.009	0.106± 0.006	0.102± 0.008

(HAN300)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration (weeks)		9	10	11	12	13	14
	8							
Control	0.000± 0.000		0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
320 ppm	0.020± 0.004		0.018± 0.001	0.018± 0.001	0.017± 0.002	0.017± 0.001	0.017± 0.002	0.016± 0.001
800 ppm	0.043± 0.003		0.042± 0.002	0.042± 0.003	0.039± 0.003	0.038± 0.002	0.039± 0.003	0.038± 0.002
2000 ppm	0.095± 0.005		0.094± 0.005	0.094± 0.005	0.088± 0.006	0.085± 0.005	0.087± 0.012	0.084± 0.010

(HAN300)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration (weeks)									
	18	22	26	30	34	38	42			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
320 ppm	0.015± 0.001	0.015± 0.002	0.014± 0.001	0.014± 0.003	0.013± 0.001	0.013± 0.001	0.013± 0.001	0.013± 0.001		
800 ppm	0.036± 0.004	0.033± 0.002	0.032± 0.002	0.032± 0.002	0.031± 0.003	0.031± 0.003	0.031± 0.003	0.031± 0.002		
2000 ppm	0.080± 0.004	0.075± 0.004	0.073± 0.004	0.071± 0.010	0.071± 0.003	0.073± 0.005	0.070± 0.009			

(HAN300)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration (weeks)									
	46	50	54	58	62	66	70			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
320 ppm	0.013± 0.001	0.013± 0.002	0.013± 0.001	0.013± 0.001	0.013± 0.001	0.013± 0.001	0.013± 0.001	0.014± 0.001		
800 ppm	0.030± 0.002	0.031± 0.001	0.032± 0.002	0.031± 0.002	0.032± 0.002	0.031± 0.002	0.033± 0.002	0.033± 0.002		
2000 ppm	0.073± 0.006	0.072± 0.003	0.074± 0.005	0.072± 0.005	0.076± 0.007	0.074± 0.007	0.077± 0.007	0.077± 0.007		

(HAN300)

BAIS 3

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
UNIT : g / kg / d a y
REPORT TYPE : A1 104
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks)									
	74	78	82	86	90	94	98			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
320 ppm	0.013± 0.001	0.013± 0.002	0.013± 0.001	0.013± 0.002	0.013± 0.001	0.014± 0.002	0.014± 0.002	0.014± 0.002		
800 ppm	0.032± 0.002	0.031± 0.002	0.032± 0.004	0.032± 0.004	0.035± 0.010	0.035± 0.006	0.038± 0.010	0.038± 0.010		
2000 ppm	0.077± 0.008	0.077± 0.009	0.076± 0.009	0.079± 0.010	0.083± 0.012	0.085± 0.017	0.097± 0.034	0.097± 0.034		

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
UNIT : g/kg/day
REPORT TYPE : A1 104
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 6

Group Name	Administration (weeks)	
	102	104
Control	0.000± 0.000	0.000± 0.000
320 ppm	0.015± 0.002	0.015± 0.003
800 ppm	0.040± 0.013	0.041± 0.015
2000 ppm	0.101± 0.026	0.102± 0.029

APPENDIX E 2

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration (weeks)		2	3	4	5	6	7
	1							
Control	0.000± 0.000		0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
320 ppm	0.038± 0.002		0.036± 0.008	0.036± 0.008	0.036± 0.012	0.033± 0.013	0.032± 0.011	0.030± 0.009
800 ppm	0.087± 0.012		0.077± 0.014	0.073± 0.010	0.071± 0.013	0.066± 0.025	0.066± 0.022	0.062± 0.020
2000 ppm	0.185± 0.023		0.162± 0.010	0.155± 0.017	0.149± 0.008	0.145± 0.039	0.146± 0.045	0.123± 0.008

(HAN300)

BALS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group Name	Administration (weeks)									
	8	9	10	11	12	13	14			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
320 ppm	0.030± 0.011	0.030± 0.010	0.029± 0.011	0.027± 0.010	0.028± 0.010	0.028± 0.011	0.028± 0.013			
800 ppm	0.059± 0.021	0.058± 0.009	0.057± 0.014	0.057± 0.023	0.058± 0.024	0.055± 0.011	0.054± 0.014			
2000 ppm	0.117± 0.008	0.123± 0.010	0.113± 0.007	0.116± 0.019	0.118± 0.017	0.111± 0.008	0.111± 0.007			

(HAN300)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : AI 104
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 9

Group Name	Administration (weeks)									
	18	22	26	30	34	38	42			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
320 ppm	0.027± 0.009	0.025± 0.008	0.025± 0.011	0.025± 0.010	0.024± 0.008	0.024± 0.009	0.025± 0.011			
800 ppm	0.054± 0.016	0.054± 0.021	0.051± 0.021	0.054± 0.022	0.046± 0.008	0.046± 0.015	0.049± 0.021			
2000 ppm	0.107± 0.009	0.105± 0.008	0.102± 0.010	0.101± 0.007	0.098± 0.006	0.098± 0.007	0.097± 0.006			

(HAN300)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 10

Group Name	Administration (weeks)									
	46	50	54	58	62	66	70			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
320 ppm	0.023± 0.008	0.021± 0.006	0.022± 0.006	0.020± 0.005	0.021± 0.006	0.021± 0.006	0.021± 0.006	0.019± 0.006		
800 ppm	0.047± 0.011	0.044± 0.007	0.046± 0.010	0.040± 0.005	0.043± 0.008	0.045± 0.012	0.045± 0.012	0.043± 0.009		
2000 ppm	0.099± 0.006	0.097± 0.007	0.100± 0.007	0.097± 0.015	0.105± 0.012	0.106± 0.013	0.106± 0.013	0.108± 0.016		

(HAN300)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 UNIT : g/kg/day
 REPORT TYPE : A1 104
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration (weeks)		78	82	86	90	94	98
	74							
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
320 ppm	0.019± 0.004	0.017± 0.003	0.016± 0.002	0.017± 0.004	0.018± 0.005	0.018± 0.007	0.019± 0.007	
800 ppm	0.041± 0.008	0.040± 0.014	0.038± 0.008	0.038± 0.010	0.042± 0.015	0.040± 0.009	0.041± 0.011	
2000 ppm	0.109± 0.023	0.111± 0.031	0.109± 0.026	0.109± 0.025	0.116± 0.028	0.123± 0.028	0.129± 0.032	

(HAN300)

BAIS 3

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
UNIT : g/kg/day
REPORT TYPE : A1 104
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration (weeks)	
	102	104
Control	0.000± 0.000	0.000± 0.000
320 ppm	0.020± 0.008	0.018± 0.005
800 ppm	0.043± 0.009	0.043± 0.011
2000 ppm	0.130± 0.034	0.128± 0.030

(HAN300)

BAIS 3

APPENDIX F 1

HEMATOLOGY : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ³ /μl	
Control	40	8.00±	1.60	13.5±	2.8	41.2±	7.2	52.2±	6.5	17.0±	1.6	32.6±	1.7	891±	277
320 ppm	44	8.50±	1.26	14.1±	1.8	42.9±	4.7	51.0±	5.7*	16.8±	1.6	32.9±	1.1	861±	228
800 ppm	37	8.36±	1.38	13.7±	2.1	42.0±	5.3	50.9±	5.2**	16.5±	1.1*	32.5±	1.6	932±	148
2000 ppm	34	8.47±	1.60	13.4±	2.4	41.8±	6.6	49.9±	3.9**	15.9±	1.0**	32.0±	1.2**	856±	163

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 3

STUDY NO. : 0347
 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	40	8.19±	11.57	1±	1	44±	10	2±	1	0±	0	5±	2	44±	11	5±	12
320 ppm	44	7.02±	2.63	1±	1	40±	8	2±	1	0±	0	6±	2	48±	8	4±	6
800 ppm	37	6.96±	2.68	1±	2	47±	10	1±	1	0±	0	6±	2	41±	9	4±	4
2000 ppm	34	11.15±	23.07	0±	1	41±	11	1±	1	0±	0	6±	2	46±	11	6±	15

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 3

APPENDIX F 2

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

STUDY NO. : 0347
 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	37	8.11±	0.74	14.8±	1.3	43.6±	2.9	53.9±	2.4	18.3±	0.5	34.0±	0.9	618±	103
320 ppm	37	8.00±	0.85	14.6±	1.3	43.1±	3.3	54.2±	3.2	18.3±	0.8	33.9±	0.7	645±	93
800 ppm	41	7.14±	1.92**	13.1±	3.3**	39.2±	8.5**	57.3±	10.6	18.7±	2.5	33.0±	2.3**	641±	169*
2000 ppm	42	7.09±	1.05**	13.1±	1.5**	39.5±	4.0**	56.4±	4.6**	18.7±	1.2	33.2±	0.8**	718±	77**

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 3

STUDY NO. : 0347
 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	37	13.51±	59.34	1±	1	35±	12	2±	1	0±	0	4±	2	51±	13	7±	17
320 ppm	37	4.04±	5.69	1±	1	36±	11	1±	1	0±	0	4±	2	51±	11	6±	14
800 ppm	41	5.03±	11.32	1±	1	39±	13	1±	1	0±	0	4±	3	46±	12	8±	16
2000 ppm	42	4.79±	13.31	1±	1	39±	12	1±	1	0±	0	5±	2	48±	11	7±	15

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 3

APPENDIX G 1

BIOCHEMISTRY : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0347
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	40	6.5±	0.5	3.3±	0.4	1.1±	0.1	0.22±	0.44	153±	18	164±	42	73±	51
320 ppm	44	6.7±	0.4**	3.4±	0.3	1.1±	0.2	0.66±	3.18*	155±	19	218±	50**	108±	83*
800 ppm	37	6.6±	0.4	3.3±	0.3	1.0±	0.1	0.22±	0.15**	142±	24*	252±	72**	115±	82**
2000 ppm	34	6.5±	0.3	3.4±	0.2	1.1±	0.1	0.33±	0.35**	146±	17	285±	43**	195±	148**

Significant difference : * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : MALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		GOT IU/l		GPT IU/l		LDH IU/l		ALP IU/l		G-GTP IU/l		CPK IU/l	
Control	40	232±	71	95±	62	41±	16	208±	58	231±	115	12±	8	106±	73
320 ppm	44	301±	70**	106±	87	52±	50	196±	39	283±	95*	24±	11**	94±	14
800 ppm	37	341±	87**	104±	24*	47±	15	177±	42**	335±	116**	46±	29**	94±	21
2000 ppm	34	409±	67**	171±	69**	66±	19**	193±	134**	484±	171**	111±	33**	107±	71

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 3

STUDY NO. : 0347
 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	40	19.2±	6.9	0.5±	0.1	142±	2	3.7±	0.4	107±	2	10.2±	0.4	4.3±	0.7
320 ppm	44	18.7±	3.1	0.5±	0.1	141±	2	3.8±	0.5	105±	2**	10.2±	0.9	4.3±	1.3
800 ppm	37	21.4±	4.0**	0.6±	0.1	141±	1**	3.8±	0.4	105±	2**	10.3±	0.3*	4.4±	0.5
2000 ppm	34	23.0±	4.0**	0.5±	0.1	140±	1**	4.0±	0.4*	105±	2*	10.4±	0.3**	4.2±	0.5

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 3

APPENDIX G 2

BIOCHEMISTRY : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0347
 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	37	6.9±	0.5	3.9±	0.3	1.3±	0.1	0.17±	0.11	145±	13	130±	26	64±	54
320 ppm	37	6.8±	0.4	3.9±	0.2	1.3±	0.1	0.16±	0.16	150±	14	140±	29	62±	44
800 ppm	41	6.7±	0.5	3.9±	0.3	1.4±	0.1	0.47±	1.42	140±	22	154±	36**	92±	98
2000 ppm	42	6.3±	0.4**	3.8±	0.2**	1.5±	0.2**	0.17±	0.11	144±	16	155±	23**	75±	116

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 3

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 5

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		GOT IU/l		GPT IU/l		LDH IU/l		ALP IU/l		G-GTP IU/l		CPK IU/l	
Control	37	231±	48	159±	111	63±	35	330±	225	125±	75	5±	4	150±	290
320 ppm	37	235±	46	110±	39	45±	18*	263±	78	115±	34	5±	2	96±	21
800 ppm	41	263±	63*	172±	199	52±	41*	379±	378	144±	101	8±	6*	158±	320
2000 ppm	42	261±	43*	120±	79*	42±	17**	261±	104	154±	58**	12±	8**	110±	47

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 3

STUDY NO. : 0347
 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	37	17.3±	1.7	0.5±	0.1	140±	1	3.8±	0.5	105±	2	10.2±	0.3	4.0±	0.8
320 ppm	37	17.4±	5.8	0.5±	0.1	140±	2	3.7±	0.4	105±	2	10.1±	0.4	3.9±	0.8
800 ppm	41	17.5±	3.1	0.5±	0.1	140±	2	3.9±	0.4	105±	3	10.2±	0.4	4.2±	0.6
2000 ppm	42	20.3±	3.2**	0.5±	0.1	140±	2	4.0±	0.5*	106±	2	10.1±	0.3	4.4±	0.5*

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 3

APPENDIX H 1

URINALYSIS : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
MEASURE. TIME : 1
SEX : MALE

URINALYSIS

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	pH							CHI	Protein							CHI	Glucose							CHI	Ketone body							CHI	Bilirubin				CHI
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		-	±	+	2+	3+	4+	-		±	+	2+	3+	4+	-	±		+	2+	3+	4+	-	+	2+		3+				
Control	40	0	1	3	12	20	3	1		0	0	0	2	27	11		40	0	0	0	0	0	0		39	1	0	0	0	0		39	0	1	0			
320 ppm	44	0	0	0	5	22	16	1	**	0	0	0	2	21	21		43	1	0	0	0	0	0		41	2	0	1	0	0		43	0	0	1			
800 ppm	38	0	2	3	7	14	12	0		0	0	0	0	12	26	**	38	0	0	0	0	0	0		36	2	0	0	0	0		36	1	1	0			
2000 ppm	35	0	2	0	6	16	11	0		0	0	0	0	18	17		35	0	0	0	0	0	0		35	0	0	0	0	0		33	1	1	0			

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

Test of CHI SQUARE

(HCL101)

BAIS 3

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
MEASURE. TIME : 1
SEX : MALE

URINALYSIS

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	Occult blood					CHI	Urobilinogen					CII
		-	±	+	2+	3+		±	+	2+	3+	4+	
Control	40	39	1	0	0	0		39	1	0	0	0	
320 ppm	44	42	0	0	1	1		43	0	1	0	0	
800 ppm	38	37	0	0	1	0		38	0	0	0	0	
2000 ppm	35	27	2	0	3	3	*	35	0	0	0	0	

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

Test of CHI SQUARE

(HCL101)

BAIS 3

APPENDIX H 2

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 MEASURE. TIME : 1
 SEX : FEMALE

URINALYSIS

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	pH							CHI	Protein						CHI	Glucose						CHI	Ketone body						CHI	Bilirubin				CHI
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		-	±	+	2+	3+	4+		-	±	+	2+	3+	4+		-	±	+	2+	3+	4+		-	+	2+	3+	
Control	37	0	0	3	11	12	9	2		0	2	10	16	6	3		37	0	0	0	0	0		24	12	1	0	0	0		37	0	0	0	
320 ppm	40	0	0	2	11	13	13	1		0	0	1	16	11	12	**	40	0	0	0	0	0		16	22	2	0	0	0		37	3	0	0	
800 ppm	42	0	0	5	12	13	10	2		0	0	0	9	21	12	**	42	0	0	0	0	0		20	20	1	0	1	0		38	3	0	1	
2000 ppm	45	0	1	12	8	10	13	1		0	0	1	6	27	11	**	45	0	0	0	0	0		32	12	0	0	1	0		41	2	0	2	

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

Test of CHI SQUARE

(HCL101)

BAIS 3

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
MEASURE. TIME : 1
SEX : FEMALE

URINALYSIS

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	Occult blood					CHI	Urobilinogen					CHI
		-	±	+	2+	3+		±	+	2+	3+	4+	
Control	37	35	1	0	1	0		37	0	0	0	0	
320 ppm	40	37	1	0	1	1		40	0	0	0	0	
800 ppm	42	30	4	0	0	8	*	41	0	1	0	0	
2000 ppm	45	9	2	0	0	34	**	43	0	2	0	0	

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

Test of CHI SQUARE

(HCL101)

BAIS 3

APPENDIX I 1

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

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrJ
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control	320 ppm	800 ppm	2000 ppm
			50 (%)	50 (%)	49 (%)	50 (%)
skin/app	nodule		3 (6)	5 (10)	6 (12)	5 (10)
subcutis	jaundice		0 (0)	3 (6)	0 (0)	0 (0)
	nodule		1 (2)	0 (0)	0 (0)	0 (0)
	mass		10 (20)	7 (14)	7 (14)	6 (12)
lung	red		0 (0)	1 (2)	0 (0)	1 (2)
	white zone		1 (2)	0 (0)	0 (0)	0 (0)
	red zone		0 (0)	2 (4)	0 (0)	0 (0)
	brown zone		1 (2)	0 (0)	0 (0)	0 (0)
	red patch		0 (0)	0 (0)	1 (2)	0 (0)
	edema		1 (2)	0 (0)	0 (0)	0 (0)
	nodule		3 (6)	3 (6)	5 (10)	0 (0)
	voluminous		0 (0)	0 (0)	0 (0)	1 (2)
lymph node	enlarged		1 (2)	0 (0)	2 (4)	0 (0)
spleen	enlarged		5 (10)	3 (6)	5 (10)	3 (6)
	atrophic		1 (2)	0 (0)	0 (0)	0 (0)
	white zone		1 (2)	2 (4)	0 (0)	0 (0)
	black zone		0 (0)	0 (0)	0 (0)	1 (2)
	nodule		0 (0)	0 (0)	1 (2)	2 (4)
heart	white		0 (0)	0 (0)	1 (2)	0 (0)
	white zone		0 (0)	0 (0)	1 (2)	1 (2)
	nodule		0 (0)	1 (2)	0 (0)	1 (2)
oral cavity	nodule		0 (0)	0 (0)	0 (0)	1 (2)

STUDY NO. : 0347
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	320 ppm	800 ppm	2000 ppm
			50 (%)	50 (%)	49 (%)	50 (%)
tongue	nodule		0 (0)	0 (0)	0 (0)	1 (2)
forestomach	nodule		0 (0)	1 (2)	0 (0)	1 (2)
small intes	nodule		1 (2)	0 (0)	0 (0)	0 (0)
liver	enlarged		0 (0)	0 (0)	2 (4)	0 (0)
	pale		0 (0)	0 (0)	0 (0)	1 (2)
	white patch		0 (0)	0 (0)	0 (0)	2 (4)
	white zone		0 (0)	1 (2)	0 (0)	2 (4)
	red zone		0 (0)	0 (0)	0 (0)	1 (2)
	nodule		1 (2)	1 (2)	5 (10)	9 (18)
	rough		2 (4)	1 (2)	1 (2)	3 (6)
	adhesion		1 (2)	0 (0)	0 (0)	0 (0)
	herniation		4 (8)	5 (10)	8 (16)	5 (10)
pancreas	nodule		0 (0)	0 (0)	0 (0)	1 (2)
kidney	dark		0 (0)	0 (0)	0 (0)	1 (2)
	white zone		1 (2)	0 (0)	0 (0)	0 (0)
	granular		1 (2)	2 (4)	10 (20)	7 (14)
	adhesion		1 (2)	0 (0)	0 (0)	0 (0)
urin bladd	hemorrhage		1 (2)	0 (0)	0 (0)	0 (0)
	urine:marked retention		0 (0)	0 (0)	2 (4)	0 (0)
pituitary	enlarged		2 (4)	4 (8)	2 (4)	6 (12)
	red zone		3 (6)	5 (10)	1 (2)	1 (2)
	black zone		0 (0)	0 (0)	1 (2)	0 (0)

STUDY NO. : 0347
 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	320 ppm	800 ppm	2000 ppm
			50 (%)	50 (%)	49 (%)	50 (%)
pituitary	nodule		6 (12)	2 (4)	4 (8)	2 (4)
thyroid	enlarged		1 (2)	3 (6)	3 (6)	5 (10)
	nodule		1 (2)	2 (4)	0 (0)	1 (2)
adrenal	enlarged		1 (2)	3 (6)	2 (4)	0 (0)
testis	atrophic		4 (8)	9 (18)	4 (8)	5 (10)
	nodule		25 (50)	25 (50)	30 (61)	30 (60)
prep/cli gl	nodule		0 (0)	1 (2)	0 (0)	0 (0)
brain	hemorrhage		1 (2)	0 (0)	1 (2)	1 (2)
spinal cord	hemorrhage		0 (0)	0 (0)	0 (0)	1 (2)
eye	white		4 (8)	9 (18)	4 (8)	6 (12)
Zymbal gl	nodule		1 (2)	2 (4)	0 (0)	1 (2)
bone	nodule		0 (0)	0 (0)	1 (2)	0 (0)
vertebra	mass		0 (0)	0 (0)	1 (2)	0 (0)
ploura	nodule		1 (2)	0 (0)	0 (0)	1 (2)
mediastinum	nodule		0 (0)	0 (0)	1 (2)	0 (0)
	mass		0 (0)	0 (0)	1 (2)	0 (0)
peritoneum	nodule		1 (2)	0 (0)	1 (2)	0 (0)
abdominal c	hemorrhage		0 (0)	0 (0)	1 (2)	0 (0)
	ascites		2 (4)	0 (0)	0 (0)	1 (2)
thoracic ca	hemorrhage		0 (0)	0 (0)	1 (2)	0 (0)
	pleural fluid		1 (2)	0 (0)	0 (0)	1 (2)
	ascites		0 (0)	0 (0)	1 (2)	0 (0)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name	Control		320 ppm		800 ppm		2000 ppm	
		NO. of Animals	50	(%)	50	(%)	49	(%)	50	(%)
other	tail:nodule		3	(6)	2	(4)	1	(2)	0	(0)
	ear:nodule		0	(0)	1	(2)	0	(0)	1	(2)
	hindlimb:nodule		2	(4)	0	(0)	0	(0)	0	(0)
	lower jaw:nodule		0	(0)	0	(0)	1	(2)	0	(0)
	tail:scab		1	(2)	2	(4)	4	(8)	1	(2)
whole body	anemic		1	(2)	0	(0)	0	(0)	0	(0)

(HPT080)

BAIS 3

APPENDIX I 2

GROSS FINDINGS : SUMMARY, RAT : FEMALE ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name	Control	320 ppm	800 ppm	2000 ppm
		NO. of Animals	50 (%)	50 (%)	50 (%)	50 (%)
skin/app	nodule		1 (2)	0 (0)	2 (4)	1 (2)
subcutis	jaundice		0 (0)	2 (4)	2 (4)	1 (2)
	dry		1 (2)	0 (0)	0 (0)	0 (0)
	mass		7 (14)	5 (10)	8 (16)	8 (16)
lung	white zone		1 (2)	0 (0)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	3 (6)	0 (0)
	voluminous		0 (0)	0 (0)	0 (0)	1 (2)
lymph node	enlarged		0 (0)	0 (0)	1 (2)	1 (2)
spleen	enlarged		3 (6)	4 (8)	6 (12)	2 (4)
	nodule		2 (4)	0 (0)	0 (0)	0 (0)
	deformed		0 (0)	0 (0)	0 (0)	1 (2)
heart	white zone		0 (0)	1 (2)	0 (0)	0 (0)
tongue	nodule		1 (2)	0 (0)	1 (2)	0 (0)
esophagus	food		0 (0)	0 (0)	2 (4)	0 (0)
forestomach	ulcer		0 (0)	1 (2)	0 (0)	0 (0)
stomach	nodule		1 (2)	0 (0)	0 (0)	0 (0)
small intes	red zone		0 (0)	1 (2)	0 (0)	0 (0)
large intes	red zone		0 (0)	1 (2)	0 (0)	0 (0)
liver	white zone		0 (0)	2 (4)	0 (0)	0 (0)
	nodulo		3 (6)	2 (4)	3 (6)	6 (12)
	rough		1 (2)	2 (4)	2 (4)	2 (4)
	herniation		7 (14)	6 (12)	6 (12)	12 (24)

STUDY NO. : 0347
 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	320 ppm	800 ppm	2000 ppm
			50 (%)	50 (%)	50 (%)	50 (%)
pancreas	nodule		1 (2)	0 (0)	0 (0)	0 (0)
kidney	nodule		1 (2)	0 (0)	1 (2)	0 (0)
	granular		0 (0)	0 (0)	3 (6)	0 (0)
urin bladd	nodule		0 (0)	1 (2)	0 (0)	0 (0)
pituitary	enlarged		8 (16)	8 (16)	7 (14)	3 (6)
	red zone		1 (2)	7 (14)	3 (6)	3 (6)
	black zone		1 (2)	0 (0)	0 (0)	1 (2)
	nodule		8 (16)	2 (4)	7 (14)	4 (8)
	cyst		0 (0)	0 (0)	1 (2)	1 (2)
thyroid	enlarged		0 (0)	2 (4)	0 (0)	0 (0)
	nodule		1 (2)	1 (2)	2 (4)	0 (0)
ovary	enlarged		1 (2)	0 (0)	0 (0)	0 (0)
	cyst		0 (0)	1 (2)	3 (6)	1 (2)
uterus	enlarged		1 (2)	0 (0)	0 (0)	0 (0)
	nodule		7 (14)	7 (14)	7 (14)	4 (8)
	mass		0 (0)	1 (2)	0 (0)	0 (0)
	cyst		2 (4)	2 (4)	2 (4)	0 (0)
vagina	nodule		0 (0)	0 (0)	0 (0)	1 (2)
prep/cli gl	nodule		0 (0)	1 (2)	1 (2)	2 (4)
brain	hemorrhago		2 (4)	0 (0)	0 (0)	1 (2)
	nodule		0 (0)	0 (0)	1 (2)	0 (0)
eye	turbid		0 (0)	1 (2)	0 (0)	0 (0)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 7

Organ	Findings	Group Name	Control		320 ppm		800 ppm		2000 ppm	
		NO. of Animals	50	(%)	50	(%)	50	(%)	50	(%)
eye	white		1	(2)	6	(12)	1	(2)	3	(6)
Harder gl	enlarged		0	(0)	1	(2)	0	(0)	0	(0)
mediastinum	mass		0	(0)	0	(0)	0	(0)	1	(2)
peritoneum	nodule		2	(4)	0	(0)	1	(2)	0	(0)
	mass		0	(0)	0	(0)	1	(2)	0	(0)
thoracic ca	hemorrhage		0	(0)	0	(0)	1	(2)	0	(0)
	pleural fluid		1	(2)	1	(2)	1	(2)	0	(0)
other	hindlimb:nodule		0	(0)	0	(0)	1	(2)	0	(0)
whole body	anemic		1	(2)	1	(2)	2	(4)	0	(0)

APPENDIX I 3

GROSS FINDINGS : SUMMARY, RAT : MALE

DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
 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 10 (%)	320 ppm 6 (%)	800 ppm 12 (%)	2000 ppm 15 (%)
skin/app	nodule		0 (0)	1 (17)	3 (25)	1 (7)
subcutis	jaundice		0 (0)	2 (33)	0 (0)	0 (0)
	mass		6 (60)	1 (17)	3 (25)	1 (7)
lung	red		0 (0)	1 (17)	0 (0)	1 (7)
	red zone		0 (0)	1 (17)	0 (0)	0 (0)
	brown zone		1 (10)	0 (0)	0 (0)	0 (0)
	red patch		0 (0)	0 (0)	1 (8)	0 (0)
	nodule		2 (20)	0 (0)	1 (8)	0 (0)
	voluminus		0 (0)	0 (0)	0 (0)	1 (7)
lymph node	enlarged		1 (10)	0 (0)	2 (17)	0 (0)
spleen	enlarged		3 (30)	1 (17)	5 (42)	2 (13)
	atrophic		1 (10)	0 (0)	0 (0)	0 (0)
	black zone		0 (0)	0 (0)	0 (0)	1 (7)
	nodule		0 (0)	0 (0)	0 (0)	1 (7)
heart	white		0 (0)	0 (0)	1 (8)	0 (0)
	white zone		0 (0)	0 (0)	0 (0)	1 (7)
	nodule		0 (0)	0 (0)	0 (0)	1 (7)
tongue	nodule		0 (0)	0 (0)	0 (0)	1 (7)
liver	enlarged		0 (0)	0 (0)	2 (17)	0 (0)
	pale		0 (0)	0 (0)	0 (0)	1 (7)
	red zone		0 (0)	0 (0)	0 (0)	1 (7)
	nodule		0 (0)	0 (0)	1 (8)	2 (13)

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name	Control	320 ppm	800 ppm	2000 ppm
		NO. of Animals	10 (%)	6 (%)	12 (%)	15 (%)
liver	rough		1 (10)	0 (0)	1 (8)	0 (0)
	herniation		1 (10)	1 (17)	1 (8)	3 (20)
pancreas	nodule		0 (0)	0 (0)	0 (0)	1 (7)
kidney	dark		0 (0)	0 (0)	0 (0)	1 (7)
	granular		0 (0)	0 (0)	1 (8)	2 (13)
urin bladd	hemorrhage		1 (10)	0 (0)	0 (0)	0 (0)
	urine:marked retention		0 (0)	0 (0)	2 (17)	0 (0)
pituitary	enlarged		1 (10)	1 (17)	1 (8)	4 (27)
	red zone		0 (0)	1 (17)	0 (0)	0 (0)
thyroid	enlarged		0 (0)	0 (0)	1 (8)	1 (7)
adrenal	enlarged		1 (10)	0 (0)	1 (8)	0 (0)
testis	atrophic		0 (0)	0 (0)	2 (17)	0 (0)
	nodule		2 (20)	2 (33)	4 (33)	5 (33)
brain	hemorrhage		1 (10)	0 (0)	1 (8)	1 (7)
spinal cord	hemorrhage		0 (0)	0 (0)	0 (0)	1 (7)
cye	white		0 (0)	1 (17)	0 (0)	3 (20)
Zymbal gl	nodule		0 (0)	0 (0)	0 (0)	1 (7)
bone	nodule		0 (0)	0 (0)	1 (8)	0 (0)
vertebra	mass		0 (0)	0 (0)	1 (8)	0 (0)
pleura	nodule		1 (10)	0 (0)	0 (0)	0 (0)
mediastinum	nodule		0 (0)	0 (0)	1 (8)	0 (0)
	mass		0 (0)	0 (0)	1 (8)	0 (0)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name	Control	320 ppm	800 ppm	2000 ppm
		NO. of Animals	10 (%)	6 (%)	12 (%)	15 (%)
peritoneum	nodule		1 (10)	0 (0)	0 (0)	0 (0)
abdominal c	hemorrhage		0 (0)	0 (0)	1 (8)	0 (0)
	ascites		1 (10)	0 (0)	0 (0)	1 (7)
thoracic ca	hemorrhage		0 (0)	0 (0)	1 (8)	0 (0)
	pleural fluid		0 (0)	0 (0)	0 (0)	1 (7)
other	tail:nodule		0 (0)	0 (0)	1 (8)	0 (0)
	ear:nodule		0 (0)	0 (0)	0 (0)	1 (7)
	hindlimb:nodule		2 (20)	0 (0)	0 (0)	0 (0)
	lower jaw:nodule		0 (0)	0 (0)	1 (8)	0 (0)
whole body	anemic		1 (10)	0 (0)	0 (0)	0 (0)

(HPT080)

BAIS 3

APPENDIX I 4

GROSS FINDINGS : SUMMARY, RAT : FEMALE

DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
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 13 (%)	320 ppm 10 (%)	800 ppm 8 (%)	2000 ppm 8 (%)
subcutis	jaundice		0 (0)	2 (20)	1 (13)	1 (13)
	mass		3 (23)	2 (20)	1 (13)	1 (13)
lung	white zone		1 (8)	0 (0)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	1 (13)	0 (0)
	voluminus		0 (0)	0 (0)	0 (0)	1 (13)
lymph node	enlarged		0 (0)	0 (0)	1 (13)	1 (13)
spleen	enlarged		2 (15)	2 (20)	1 (13)	2 (25)
	nodule		2 (15)	0 (0)	0 (0)	0 (0)
heart	white zone		0 (0)	1 (10)	0 (0)	0 (0)
esophagus	food		0 (0)	0 (0)	2 (25)	0 (0)
forestomach	ulcer		0 (0)	1 (10)	0 (0)	0 (0)
stomach	nodule		1 (8)	0 (0)	0 (0)	0 (0)
small intes	red zone		0 (0)	1 (10)	0 (0)	0 (0)
large intes	red zone		0 (0)	1 (10)	0 (0)	0 (0)
liver	white zone		0 (0)	1 (10)	0 (0)	0 (0)
	nodule		2 (15)	1 (10)	1 (13)	0 (0)
	rough		0 (0)	1 (10)	1 (13)	2 (25)
	herniation		2 (15)	0 (0)	1 (13)	2 (25)
pancreas	nodule		1 (8)	0 (0)	0 (0)	0 (0)
kidney	nodulo		1 (8)	0 (0)	0 (0)	0 (0)
pituitary	enlarged		4 (31)	5 (50)	1 (13)	2 (25)
	red zone		0 (0)	1 (10)	1 (13)	0 (0)

STUDY NO. : 0347
 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 13 (%)	320 ppm 10 (%)	800 ppm 8 (%)	2000 ppm 8 (%)
pituitary	cyst		0 (0)	0 (0)	1 (13)	0 (0)
thyroid	enlarged		0 (0)	1 (10)	0 (0)	0 (0)
ovary	enlarged		1 (8)	0 (0)	0 (0)	0 (0)
uterus	enlarged		1 (8)	0 (0)	0 (0)	0 (0)
	nodule		3 (23)	0 (0)	1 (13)	0 (0)
brain	hemorrhage		1 (8)	0 (0)	0 (0)	1 (13)
	nodule		0 (0)	0 (0)	1 (13)	0 (0)
eye	turbid		0 (0)	1 (10)	0 (0)	0 (0)
Harder gl	enlarged		0 (0)	1 (10)	0 (0)	0 (0)
mediastinum	mass		0 (0)	0 (0)	0 (0)	1 (13)
peritoneum	nodule		2 (15)	0 (0)	1 (13)	0 (0)
	mass		0 (0)	0 (0)	1 (13)	0 (0)
thoracic ca	hemorrhage		0 (0)	0 (0)	1 (13)	0 (0)
	pleural fluid		1 (8)	1 (10)	1 (13)	0 (0)
other	hindlimb:nodule		0 (0)	0 (0)	1 (13)	0 (0)
whole body	anemic		1 (8)	1 (10)	1 (13)	0 (0)

APPENDIX I 5

GROSS FINDINGS : SUMMARY, RAT : MALE

SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control	320 ppm	800 ppm	2000 ppm
			40 (%)	44 (%)	37 (%)	35 (%)
skin/app	nodule		3 (8)	4 (9)	3 (8)	4 (11)
subcutis	jaundice		0 (0)	1 (2)	0 (0)	0 (0)
	nodule		1 (3)	0 (0)	0 (0)	0 (0)
	mass		4 (10)	6 (14)	4 (11)	5 (14)
lung	white zone		1 (3)	0 (0)	0 (0)	0 (0)
	red zone		0 (0)	1 (2)	0 (0)	0 (0)
	edema		1 (3)	0 (0)	0 (0)	0 (0)
	nodule		1 (3)	3 (7)	4 (11)	0 (0)
spleen	enlarged		2 (5)	2 (5)	0 (0)	1 (3)
	white zone		1 (3)	2 (5)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	1 (3)	1 (3)
heart	white zone		0 (0)	0 (0)	1 (3)	0 (0)
	nodule		0 (0)	1 (2)	0 (0)	0 (0)
oral cavity	nodule		0 (0)	0 (0)	0 (0)	1 (3)
forestomach	nodule		0 (0)	1 (2)	0 (0)	1 (3)
small intes	nodule		1 (3)	0 (0)	0 (0)	0 (0)
liver	white patch		0 (0)	0 (0)	0 (0)	2 (6)
	white zone		0 (0)	1 (2)	0 (0)	2 (6)
	nodule		1 (3)	1 (2)	4 (11)	7 (20)
	rough		1 (3)	1 (2)	0 (0)	3 (9)
	adhesion		1 (3)	0 (0)	0 (0)	0 (0)
	herniation		3 (8)	4 (9)	7 (19)	2 (6)

STUDY NO. : 0347
 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	320 ppm	800 ppm	2000 ppm
			40 (%)	44 (%)	37 (%)	35 (%)
kidney	white zone		1 (3)	0 (0)	0 (0)	0 (0)
	granular		1 (3)	2 (5)	9 (24)	5 (14)
	adhesion		1 (3)	0 (0)	0 (0)	0 (0)
pituitary	enlarged		1 (3)	3 (7)	1 (3)	2 (6)
	red zone		3 (8)	4 (9)	1 (3)	1 (3)
	black zone		0 (0)	0 (0)	1 (3)	0 (0)
	nodule		6 (15)	2 (5)	4 (11)	2 (6)
thyroid	enlarged		1 (3)	3 (7)	2 (5)	4 (11)
	nodule		1 (3)	2 (5)	0 (0)	1 (3)
adrenal	enlarged		0 (0)	3 (7)	1 (3)	0 (0)
testis	atrophic		4 (10)	9 (20)	2 (5)	5 (14)
	nodule		23 (58)	23 (52)	26 (70)	25 (71)
prep/cli gl	nodule		0 (0)	1 (2)	0 (0)	0 (0)
eye	white		4 (10)	8 (18)	4 (11)	3 (9)
Zymbal gl	nodule		1 (3)	2 (5)	0 (0)	0 (0)
pleura	nodule		0 (0)	0 (0)	0 (0)	1 (3)
peritoneum	nodule		0 (0)	0 (0)	1 (3)	0 (0)
abdominal c	ascites		1 (3)	0 (0)	0 (0)	0 (0)
thoracic ca	pleural fluid		1 (3)	0 (0)	0 (0)	0 (0)
	ascites		0 (0)	0 (0)	1 (3)	0 (0)
other	tail:nodule		3 (8)	2 (5)	0 (0)	0 (0)
	ear:nodule		0 (0)	1 (2)	0 (0)	0 (0)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 3

Organ	Findings	Group Name	Control	320 ppm	800 ppm	2000 ppm
		NO. of Animals	40 (%)	44 (%)	37 (%)	35 (%)
other	tail:scab		1 (3)	2 (5)	4 (11)	1 (3)

(HPT080)

BAIS 3

APPENDIX I 6

GROSS FINDINGS : SUMMARY, RAT : FEMALE

SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 4

Organ	Findings	Group Name	Control	320 ppm	800 ppm	2000 ppm
		NO. of Animals	37 (%)	40 (%)	42 (%)	42 (%)
skin/app	nodule		1 (3)	0 (0)	2 (5)	1 (2)
subcutis	jaundice		0 (0)	0 (0)	1 (2)	0 (0)
	dry		1 (3)	0 (0)	0 (0)	0 (0)
	mass		4 (11)	3 (8)	7 (17)	7 (17)
lung	nodule		0 (0)	0 (0)	2 (5)	0 (0)
spleen	enlarged		1 (3)	2 (5)	5 (12)	0 (0)
	deformed		0 (0)	0 (0)	0 (0)	1 (2)
tongue	nodule		1 (3)	0 (0)	1 (2)	0 (0)
liver	white zone		0 (0)	1 (3)	0 (0)	0 (0)
	nodule		1 (3)	1 (3)	2 (5)	6 (14)
	rough		1 (3)	1 (3)	1 (2)	0 (0)
	herniation		5 (14)	6 (15)	5 (12)	10 (24)
kidney	nodule		0 (0)	0 (0)	1 (2)	0 (0)
	granular		0 (0)	0 (0)	3 (7)	0 (0)
urin bladd	nodule		0 (0)	1 (3)	0 (0)	0 (0)
pituitary	enlarged		4 (11)	3 (8)	6 (14)	1 (2)
	red zone		1 (3)	6 (15)	2 (5)	3 (7)
	black zone		1 (3)	0 (0)	0 (0)	1 (2)
	nodule		8 (22)	2 (5)	7 (17)	4 (10)
	cyst		0 (0)	0 (0)	0 (0)	1 (2)
thyroid	enlarged		0 (0)	1 (3)	0 (0)	0 (0)
	nodule		1 (3)	1 (3)	2 (5)	0 (0)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control	320 ppm	800 ppm	2000 ppm
			37 (%)	40 (%)	42 (%)	42 (%)
ovary	cyst		0 (0)	1 (3)	3 (7)	1 (2)
uterus	nodule		4 (11)	7 (18)	6 (14)	4 (10)
	mass		0 (0)	1 (3)	0 (0)	0 (0)
	cyst		2 (5)	2 (5)	2 (5)	0 (0)
vagina	nodule		0 (0)	0 (0)	0 (0)	1 (2)
prep/cli gl	nodule		0 (0)	1 (3)	1 (2)	2 (5)
brain	hemorrhage		1 (3)	0 (0)	0 (0)	0 (0)
eye	white		1 (3)	6 (15)	1 (2)	3 (7)
whole body	anemic		0 (0)	0 (0)	1 (2)	0 (0)

APPENDIX J 1

ORGAN WEIGHT, ABSOLUTE : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0347
 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	40	384±	42	0.070±	0.015	2.665±	1.057	1.178±	0.118	1.442±	0.373	2.515±	0.197
320 ppm	44	359±	33**	0.081±	0.066	2.599±	1.004	1.127±	0.105	1.370±	0.155	2.666±	0.276**
800 ppm	37	330±	33**	0.083±	0.121	2.597±	0.877	1.103±	0.091**	1.347±	0.168	2.764±	0.210**
2000 ppm	35	296±	30**	0.090±	0.170*	2.787±	0.748	1.023±	0.089**	1.377±	0.400**	2.791±	0.217**

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

Test of Dunnett

(HCL040)

BAIS 3

STUDY NO. : 0347
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	40	1.570±	3.764	10.574±	2.260	2.017±	0.063
320 ppm	44	1.566±	3.674	11.038±	1.625	2.020±	0.050
800 ppm	37	1.035±	0.762	11.425±	1.535**	2.023±	0.053
2000 ppm	35	1.380±	2.353	11.545±	2.291**	2.019±	0.054

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

Test of Dunnett

(HCL040)

BAIS 3

APPENDIX J 2

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

STUDY NO. : 0347
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	37	249± 23	0.067± 0.011	0.129± 0.019	0.842± 0.100	1.066± 0.186	1.666± 0.103
320 ppm	40	244± 27	0.067± 0.009	0.135± 0.033	0.837± 0.077	1.046± 0.191	1.897± 0.300**
800 ppm	42	225± 28**	0.065± 0.010	0.142± 0.102	0.818± 0.092	1.030± 0.157	1.902± 0.230**
2000 ppm	42	195± 22**	0.058± 0.013**	0.122± 0.027	0.745± 0.050**	0.949± 0.115**	1.786± 0.128**

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

Test of Dunnett

(HCL040)

BAIS 3

STUDY NO. : 0347
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	37	0.854±	1.247	6.493±	1.190	1.861±	0.047
320 ppm	40	0.743±	0.869	6.592±	1.002	1.848±	0.042
800 ppm	42	1.313±	2.631	6.702±	1.160	1.835±	0.046*
2000 ppm	42	0.599±	0.406	6.347±	0.981	1.835±	0.039*
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HCL040)

BAIS 3

APPENDIX K 1

ORGAN WEIGHT, RELATIVE : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0347
 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	40	384± 42	0.018± 0.003	0.706± 0.295	0.309± 0.035	0.380± 0.125	0.660± 0.071
320 ppm	44	359± 33**	0.023± 0.019	0.726± 0.275	0.316± 0.032	0.385± 0.057	0.750± 0.117**
800 ppm	37	330± 33**	0.027± 0.048	0.782± 0.231	0.338± 0.051**	0.415± 0.094**	0.846± 0.108**
2000 ppm	35	296± 30**	0.030± 0.054**	0.937± 0.213**	0.350± 0.049**	0.486± 0.261**	0.956± 0.150**

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

Test of Dunnett

(HCL042)

BAIS 3

STUDY NO. : 0347
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	40	0.442± 1.186	2.770± 0.669	0.530± 0.048
320 ppm	44	0.456± 1.151	3.091± 0.485**	0.568± 0.051*
800 ppm	37	0.314± 0.232*	3.473± 0.403**	0.619± 0.065**
2000 ppm	35	0.469± 0.805**	3.922± 0.757**	0.693± 0.105**

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

Test of Dunnett

(HCL042)

BAIS 3

APPENDIX K 2

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

STUDY NO. : 0347
 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	37	249± 23	0.027± 0.004	0.052± 0.009	0.340± 0.040	0.431± 0.079	0.672± 0.046
320 ppm	40	244± 27	0.027± 0.004	0.056± 0.016	0.344± 0.027	0.434± 0.109	0.784± 0.157**
800 ppm	42	225± 28**	0.029± 0.005	0.063± 0.040	0.370± 0.074*	0.466± 0.104	0.854± 0.116**
2000 ppm	42	195± 22**	0.030± 0.010	0.063± 0.015**	0.385± 0.035**	0.492± 0.077*	0.924± 0.086**

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

Test of Dunnott

(HCL042)

BAIS 3

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

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

PAGE : 4

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	37	0.346± 0.488	2.606± 0.388	0.754± 0.078
320 ppm	40	0.308± 0.374	2.697± 0.283	0.766± 0.097
800 ppm	42	0.619± 1.269	2.996± 0.503**	0.830± 0.118**
2000 ppm	42	0.315± 0.230*	3.277± 0.512**	0.953± 0.104**

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

Test of Dunnett

(HCL042)

BAIS 3

APPENDIX L 1

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : MALE : ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
 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				320 ppm 50				800 ppm 49				2000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																		
skin/app			<50>				<50>				<49>				<50>			
	fibrosis		1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:epidermis		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)
	scab		1	0	0	0	3	0	0	0	4	1	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(2)	(0)	(0)	(2)	(0)	(0)	(0)
	epidermal cyst		2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
			(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
{Respiratory system}																		
nasal cavit			<50>				<50>				<49>				<50>			
	thrombus		3	0	0	0	2	0	0	0	3	0	0	0	2	0	0	0
			(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	mineralization		38	0	0	0	30	0	0	0	29	0	0	0	31	0	0	0
			(76)	(0)	(0)	(0)	(60)	(0)	(0)	(0)	(59)	(0)	(0)	(0)	(62)	(0)	(0)	(0)
	cosinophilic change:olfactory epithelium		28	6	1	0	32	10	0	0	22	11	0	0	30	10	2	0
			(56)	(12)	(2)	(0)	(64)	(20)	(0)	(0)	(45)	(22)	(0)	(0)	(60)	(20)	(4)	(0)

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

STUDY NO. : 0347
 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				320 ppm 50				800 ppm 49				2000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavity			<50>				<50>				<49>				<50>			
	inflammation:foreign body		15	0	0	0	10	1	1	0	9	0	1	0	11	2	0	0
			(30)	(0)	(0)	(0)	(20)	(2)	(2)	(0)	(18)	(0)	(2)	(0)	(22)	(4)	(0)	(0)
	inflammation:respiratory epithelium		7	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
			(14)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	inflammation:olfactory epithelium		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	respiratory metaplasia:olfactory epithelium		3	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0
			(6)	(0)	(0)	(0)	(2)	(2)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium		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)
lung			<50>				<50>				<49>				<50>			
	congestion		1	0	0	0	3	0	0	0	4	0	0	0	5	0	0	0
			(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	hemorrhage		1	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(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)	(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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				320 ppm 50				800 ppm 49				2000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																					
lung		<50>				<50>				<49>				<50>							
	foreign body granuloma	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	osseous metaplasia	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	accumulation of foamy cells	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	bronchiopneumonia	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	bronchiolar-alveolar cell hyperplasia	2 (4)	2 (4)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)
{Hematopoietic system}																					
bone marrow		<50>				<50>				<49>				<50>							
	atrophy:focal	3 (6)	0 (0)	0 (0)	0 (0)	3 (6)	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)
	granulation	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	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)

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. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	50				50				49				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
bone marrow			<50>				<50>				<49>				<50>			
	increased hematopoiesis		7	1	0	0	3	0	0	0	6	0	0	0	5	0	0	0
			(14)	(2)	(0)	(0)	(6)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
lymph node			<50>				<50>				<49>				<50>			
	lymphadenitis		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
spleen			<50>				<50>				<49>				<50>			
	thrombus		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)
			<50>				<50>				<49>				<50>			
	deposit of hemosiderin		32	0	0	0	37	3	0	0	33	3	0	0	27	2	0	0
			(64)	(0)	(0)	(0)	(74)	(6)	(0)	(0)	(67)	(6)	(0)	(0)	(54)	(4)	(0)	(0)
			<50>				<50>				<49>				<50>			
	fibrosis		1	1	1	0	1	3	0	0	3	1	0	0	0	1	3	0
			(2)	(2)	(2)	(0)	(2)	(6)	(0)	(0)	(6)	(2)	(0)	(0)	(0)	(2)	(6)	(0)
			<50>				<50>				<49>				<50>			
	extramedullary hematopoiesis		5	2	5	0	7	0	0	0	4	1	2	0	3	1	0	0
			(10)	(4)	(10)	(0)	(14)	(0)	(0)	(0)	(8)	(2)	(4)	(0)	(6)	(2)	(0)	(0)
{Circulatory system}																		
heart			<50>				<50>				<49>				<50>			
	thrombus		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 5

Organ_____	Findings_____	Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	50				50				49				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}																		
heart			<50>				<50>				<49>				<50>			
	fibrosis:focal		0	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	myocardial fibrosis		22	0	0	0	27	0	0	0	23	1	0	0	25	0	0	0
		(44)	(0)	(0)	(0)	(54)	(0)	(0)	(0)	(47)	(2)	(0)	(0)	(50)	(0)	(0)	(0)	
	arteritis		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)
{Digestive system}																		
tooth			<50>				<50>				<49>				<50>			
	inflammation		9	0	0	0	6	0	0	0	7	0	0	0	4	0	0	0
		(18)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	
stomach			<50>				<50>				<49>				<50>			
	ulcer:forestomach		2	1	0	0	0	0	0	0	0	1	0	0	3	0	0	0
			(4)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(6)	(0)	(0)	(0)
	erosion:glandular stomach		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)	(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. : 0347
 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				Control 50				320 ppm 50				800 ppm 49				2000 ppm 50			
		Grade				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																					
stomach	squamous cell hyperplasia:forestomach	<50>				3	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)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
liver	herniation	<50>				4	0	0	0	6	0	0	0	8	0	0	0	5	0	0	0
		(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	necrosis:central	<50>				0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
	granulation	<50>				22	0	0	0	14	3	0	0	14	0	0	0	15	1	0	0
		(44)	(0)	(0)	(0)	(28)	(6)	(0)	(0)	(28)	(6)	(0)	(0)	(29)	(0)	(0)	(0)	(30)	(2)	(0)	(0)
	clear cell focus	<50>				3	0	0	0	0	0	0	0	1	0	0	0	4	0	1	0
		(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(8)	(0)	(2)	(0)
	acidophilic cell focus	<50>				1	0	0	0	5	0	0	0	4	0	0	0	5	2	0	0
		(2)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(10)	(4)	(0)	(0)
	basophilic cell focus	<50>				9	0	0	0	8	0	0	0	15	7	0	0 **	16	7	0	0 **
		(18)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(31)	(14)	(0)	(0)	(32)	(14)	(0)	(0)
	spongiosis hepatitis	<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)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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

STUDY NO. : 0347
 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	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	50				50				49				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<50>				<50>				<49>				<50>			
	bile duct hyperplasia	43 (86)	7 (14)	0 (0)	0 (0)	42 (84)	7 (14)	0 (0)	0 (0)	37 (76)	12 (24)	0 (0)	0 (0)	39 (78)	9 (18)	0 (0)	0 (0)	
	cholangiofibrosis	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	
pancreas			<50>				<50>				<49>				<50>			
	atrophy	7 (14)	0 (0)	0 (0)	0 (0)	13 (26)	2 (4)	0 (0)	0 (0)	13 (27)	0 (0)	1 (2)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	
	islet cell hyperplasia	5 (10)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	
{Urinary system}																		
kidney			<50>				<50>				<49>				<50>			
	infarct	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	
	chronic nephropathy	10 (20)	25 (50)	13 (26)	0 (0)	3 (6)	13 (26)	28 (56)	2 ** (4)	4 (8)	15 (31)	26 (53)	3 * (6)	3 (6)	7 (14)	36 (72)	2 ** (4)	

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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 8

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				320 ppm 50				800 ppm 49				2000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney			<50>				<50>				<49>				<50>			
	hydronephrosis		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)
	papillary necrosis		1	0	0	0	12	0	0	0 **	14	1	0	0 **	20	4	0	0 **
			(2)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(29)	(2)	(0)	(0)	(40)	(8)	(0)	(0)
	mineralization:papilla		3	0	0	0	2	0	0	0	11	0	0	0 *	19	0	0	0 **
			(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(38)	(0)	(0)	(0)
	dilatation:tubular lumen		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)
	urothelial hyperplasia:pelvis		16	0	0	0	18	0	0	0	25	0	0	0	25	1	0	0
			(32)	(0)	(0)	(0)	(36)	(0)	(0)	(0)	(51)	(0)	(0)	(0)	(50)	(2)	(0)	(0)
urin bladd			<50>				<50>				<49>				<50>			
	transitional cell hyperplasia		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
{Endocrine system}																		
pituitary			<50>				<49>				<49>				<50>			
	cyst		2	0	0	0	5	0	0	0	5	0	0	0	1	1	0	0
			(4)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(2)	(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. : 0347
 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	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	50				50				49				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
pituitary			<50>				<49>				<49>				<50>			
	hyperplasia		12	0	0	0	16	0	0	0	14	0	0	0	11	0	0	0
			(24)	(0)	(0)	(0)	(33)	(0)	(0)	(0)	(29)	(0)	(0)	(0)	(22)	(0)	(0)	(0)
	Rathke pouch		4	0	0	0	4	0	0	0	2	0	0	0	3	0	0	0
			(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	aberrant craniopharyngeal tissue		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)
thyroid			<50>				<50>				<49>				<50>			
	ultimibranhial body remanet		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)
	C-cell hyperplasia		4	0	0	0	6	0	0	0	3	0	0	0	4	1	0	0
			(8)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(2)	(0)	(0)
adrenal			<50>				<50>				<49>				<50>			
	hyperplasia:cortical cell		6	0	0	0	4	0	0	0	5	0	0	0	1	0	0	0
			(12)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	hyperplasia:medulla		1	0	0	0	5	0	0	0	4	0	0	0	4	0	0	0
			(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(8)	(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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 10

		Group Name No. of Animals on Study	Control 50				320 ppm 50				800 ppm 49				2000 ppm 50			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
adrenal			<50>				<50>				<49>				<50>			
	focal fatty change:cortex		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Reproductive system}																		
testis			<50>				<50>				<49>				<50>			
	atrophy		41	0	0	0	40	0	0	0	41	0	0	0	32	0	0	0
			(82)	(0)	(0)	(0)	(80)	(0)	(0)	(0)	(84)	(0)	(0)	(0)	(64)	(0)	(0)	(0)
	arteritis		1	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	interstitial cell hyperplasia		5	0	0	0	4	0	0	0	2	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
epididymis			<50>				<50>				<49>				<50>			
	arteritis		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)
prostate			<50>				<50>				<49>				<50>			
	inflammation		10	0	0	0	16	0	0	0	5	1	0	0	9	0	0	0
			(20)	(0)	(0)	(0)	(32)	(0)	(0)	(0)	(10)	(2)	(0)	(0)	(18)	(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. : 0347
 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	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	50				50				49				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
prostate			<50>				<50>				<49>				<50>			
	hyperplasia		5	0	0	0	9	0	0	0	6	0	0	0	9	0	0	0
			(10)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(18)	(0)	(0)	(0)
mammary gl			<50>				<50>				<49>				<50>			
	duct ectasia		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)	(2)	(0)	(0)	(0)
	galactocelo		6	0	0	0	6	0	0	0	5	0	0	0	8	0	0	0
			(12)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(16)	(0)	(0)	(0)
{Nervous system}																		
brain			<50>				<50>				<49>				<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)
{Special sense organs/appendage}																		
eye			<50>				<50>				<49>				<50>			
	cataract		9	0	0	0	12	0	0	0	8	0	0	0	12	0	0	0
			(18)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(24)	(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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 12

		Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	50				50				49				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>				<49>				<50>			
	retinal atrophy		3	0	0	0	6	0	0	0	5	0	0	0	5	0	0	0
			(6)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
	keratitis		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)
	iritis		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	
	mineralization:cornea		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)
Harder gl			<50>				<50>				<49>				<50>			
	lymphocytic infiltration		15	0	0	0	11	1	0	0	13	0	0	0	12	0	0	0
			(30)	(0)	(0)	(0)	(22)	(2)	(0)	(0)	(27)	(0)	(0)	(0)	(24)	(0)	(0)	(0)
Zymbal gl			<50>				<50>				<49>				<50>			
	inflammation		0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Body cavities}																		
peritoneum			<50>				<50>				<49>				<50>			
	peritonitis		0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	

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

APPENDIX L 2

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE: ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 13

Organ	Findings	Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			<50>				<50>				<50>				<50>			
	thrombus		1	0	0	0	3	0	0	0	3	0	0	0	3	0	0	0
			(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	mineralization		19	0	0	0	18	0	0	0	20	0	0	0	23	0	0	0
			(38)	(0)	(0)	(0)	(36)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(46)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		19	22	3	0	23	24	1	0	20	27	0	0	18	30	1	0
		(38)	(44)	(6)	(0)	(46)	(48)	(2)	(0)	(40)	(54)	(0)	(0)	(36)	(60)	(2)	(0)	
	inflammation:foreign body		0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation:respiratory epithelium		1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium		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)
lung			<50>				<50>				<50>				<50>			
	congestion		6	0	0	0	5	0	0	0	3	0	0	0	3	0	0	0
			(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	hemorrhage		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Grade	1 : Slight 2 : Moderate 3 : Marked 4 : Severe																	
< a >	a : Number of animals examined at the site																	
b	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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 14

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				320 ppm 50				800 ppm 50				2000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
lung			<50>				<50>				<50>				<50>			
	edema		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)
	osseous metaplasia		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	accumulation of foamy cells		0	0	0	0	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)
	bronchiolar-alveolar cell hyperplasia		3	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(6)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}																		
bone marrow			<50>				<50>				<50>				<50>			
	atrophy:focal		5	1	0	0	14	1	0	0	11	0	0	0	8	2	0	0
			(10)	(2)	(0)	(0)	(28)	(2)	(0)	(0)	(22)	(0)	(0)	(0)	(16)	(4)	(0)	(0)
	granulation		2	0	0	0	4	0	0	0	2	0	0	0	3	0	0	0
			(4)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	increased hematopoiesis		2	0	0	0	3	0	0	0	3	0	0	0	2	0	0	0
			(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 15

Organ	Findings	Group Name No. of Animals on Study				Control 50				320 ppm 50				800 ppm 50				2000 ppm 50			
		Grade																			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																					
lymph node		<50>				<50>				<50>				<50>				<50>			
	lymphadenitis	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
spleen		<50>				<50>				<50>				<50>				<50>			
	deposit of hemosiderin	15	26	0	0	17	25	1	0	12	28	0	0	16	22	0	0	16	22	0	0
		(30)	(52)	(0)	(0)	(34)	(50)	(2)	(0)	(24)	(56)	(0)	(0)	(32)	(44)	(0)	(0)	(32)	(44)	(0)	(0)
	fibrosis	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	extramedullary hematopoiesis	7	1	4	0	5	0	2	0	4	4	2	0	7	1	0	0	7	1	0	0
		(14)	(2)	(8)	(0)	(10)	(0)	(4)	(0)	(8)	(8)	(4)	(0)	(14)	(2)	(0)	(0)	(14)	(2)	(0)	(0)
{Circulatory system}																					
heart		<50>				<50>				<50>				<50>				<50>			
	thrombus	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 16

Organ	Findings	Group Name No. of Animals on Study				Control 50				320 ppm 50				800 ppm 50				2000 ppm 50			
		Grade																			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}																					
heart	mineralization	<50>				<50>				<50>				<50>				<50>			
		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)
	inflammatory cell nest	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)
	fibrosis:focal	0	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	myocardial fibrosis	22	0	0	0	30	0	0	0	23	0	0	0	23	0	0	0	23	0	0	0
		(44)	(0)	(0)	(0)	(60)	(0)	(0)	(0)	(46)	(0)	(0)	(0)	(46)	(0)	(0)	(0)	(46)	(0)	(0)	(0)
{Digestive system}																					
tooth	inflammation	<50>				<50>				<50>				<50>				<50>			
		0	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
tongue	squamous cell hyperplasia	<50>				<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 17

Organ_____	Findings_____	Group Name	Control				320 ppm				800 ppm				2000 ppm						
		No. of Animals on Study	50				50				50				50						
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)			
(Digestive system)																					
stomach		<50>					<50>					<50>					<50>				
	basal cell hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	
	ulcer:forestomach	0	1	0	0	1	1	0	0	1	1	1	0	0	1	0	0	0	0	0	
		(0)	(2)	(0)	(0)	(2)	(2)	(0)	(0)	(2)	(2)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	
	erosion:glandular stomach	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0		
		(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)		
	squamous cell hyperplasia:forestomach	1	0	0	0	3	0	0	0	3	0	0	0	4	0	0	0	0	0		
		(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)		
liver		<50>					<50>					<50>					<50>				
	herniation	8	0	0	0	6	0	0	0	8	0	0	0	11	0	0	0	0	0		
		(16)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(0)	(0)		
	necrosis:central	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0		
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		
	fatty change:central	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		
	granulation	23	8	0	0	20	4	1	0	16	4	0	0	23	2	1	0	0	0		
		(46)	(16)	(0)	(0)	(40)	(8)	(2)	(0)	(32)	(8)	(0)	(0)	(46)	(4)	(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. : 0347
 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	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<50>				<50>				<50>				<50>			
	acidophilic cell focus		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)
	basophilic cell focus		3 (6)	1 (2)	0 (0)	0 (0)	3 (6)	1 (2)	0 (0)	0 (0)	4 (8)	0 (0)	1 (2)	0 (0)	6 (12)	0 (0)	0 (0)	0 (0)
	bile duct hyperplasia		8 (16)	1 (2)	0 (0)	0 (0)	10 (20)	0 (0)	0 (0)	0 (0)	10 (20)	1 (2)	0 (0)	0 (0)	12 (24)	0 (0)	0 (0)	0 (0)
	cholangiofibrosis		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)
pancreas			<50>				<50>				<50>				<50>			
	atrophy		3 (6)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)
	islet cell hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
{Urinary system}																		
kidney			<50>				<50>				<50>				<50>			
	infarct		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 19

Organ_____	Findings_____	Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney			<50>				<50>				<50>				<50>			
	cyst		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)
	chronic nephropathy		15	2	2	0	18	6	7	0 *	16	13	6	0 **	31	6	0	0 **
			(30)	(4)	(4)	(0)	(36)	(12)	(14)	(0)	(32)	(26)	(12)	(0)	(62)	(12)	(0)	(0)
	hydronephrosis		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)	
	papillary necrosis		0	0	0	0	7	0	0	0 *	23	0	0	0 **	7	19	2	0 **
			(0)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(46)	(0)	(0)	(0)	(14)	(38)	(4)	(0)
	mineralization:papilla		3	0	0	0	3	0	0	0	6	1	0	0	22	1	0	0 **
			(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(12)	(2)	(0)	(0)	(44)	(2)	(0)	(0)
	urothelial hyperplasia:pelvis		9	0	0	0	9	0	0	0	9	0	0	0	27	0	0	0 **
			(18)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(54)	(0)	(0)	(0)
urin bladd			<50>				<50>				<50>				<50>			
	transitional cell hyperplasia		0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(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 : 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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 20

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				320 ppm 50				800 ppm 50				2000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
pituitary	cyst		<50>				<50>				<50>				<49>			
			12	0	0	0	16	2	0	0	15	3	0	0	19	2	0	0
			(24)	(0)	(0)	(0)	(32)	(4)	(0)	(0)	(30)	(6)	(0)	(0)	(39)	(4)	(0)	(0)
	hyperplasia		8	0	0	0	16	0	0	0	13	0	0	0	11	0	0	0
			(16)	(0)	(0)	(0)	(32)	(0)	(0)	(0)	(26)	(0)	(0)	(0)	(22)	(0)	(0)	(0)
			0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0
	Rathke pouch		(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
thyroid	ultimibranhial body remanet		<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)
	C-cell hyperplasia		6	0	0	0	6	0	0	0	4	0	0	0	8	0	0	0
			(12)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(16)	(0)	(0)	(0)
adrenal	poliosis-like lesion		<49>				<50>				<50>				<50>			
			30	0	0	0	26	0	0	0	25	0	0	0	21	0	0	0
			(61)	(0)	(0)	(0)	(52)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(42)	(0)	(0)	(0)
	hyperplasia:cortical cell		9	0	0	0	4	0	0	0	5	0	0	0	3	1	0	0
			(18)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(6)	(2)	(0)	(0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
 < a > a : Number of animals examined at the site
 b 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. : 0347
 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				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
adrenal			<49>				<50>				<50>				<50>			
	hyperplasia:medulla		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)	(4)	(0)	(0)	(0)	
	focal fatty change:cortex		0	0	0	0	5	0	0	0	4	0	0	4	0	0	0	
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(8)	(0)	(0)	(8)	(0)	(0)	(0)	
{Reproductive system}																		
ovary			<50>				<50>				<50>				<50>			
	cyst		0	0	0	0	1	0	0	0	2	0	0	1	0	0	0	
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(2)	(0)	(0)	(0)	
uterus			<50>				<50>				<50>				<50>			
	dilatation		1	0	0	0	1	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)	
	decidual change		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
	hyperplasia:epithelium		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 22

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				320 ppm 50				800 ppm 50				2000 ppm 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>			
			0	0	0	0	3	0	0	0	3	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
vagina	edema		<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)
mammary gl	galactoceles		<50>				<50>				<50>				<50>			
			1	0	0	0	4	0	0	0	7	0	0	0	2	0	0	0
			(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
{Nervous system}																		
brain	hemorrhage		<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)
	gliosis		<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)
{Special sense organs/appendage}																		
eye	cataract		<50>				<50>				<50>				<50>			
			5	0	0	0	8	0	0	0	5	0	0	0	6	0	0	0
			(10)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(12)	(0)	(0)	(0)

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

STUDY NO. : 0347
 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				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye	retinal atrophy		<50>				<50>				<50>				<50>			
		2	0	0	0	6	0	0	0	2	0	0	0	3	0	0	0	
		(4)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	
keratitis		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)		
Harder gl	inflammatory infiltration		<50>				<49>				<50>				<50>			
		0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
		(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
lymphocytic infiltration		27	1	0	0	20	0	0	0	19	0	0	0	19	0	0	0	
	(54)	(2)	(0)	(0)	(41)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(38)	(0)	(0)	(0)		
{Musculoskeletal system}																		
bone	osteosclerosis		<50>				<50>				<50>				<50>			
		2	0	0	0	2	0	0	0	2	0	0	0	1	0	0	0	
		(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	

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

APPENDIX L 3

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : MALE : DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

		Group Name No. of Animals on Study Grade	Control 10				320 ppm 6				800 ppm 12				2000 ppm 15				
Organ_____	Findings_____		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	
{Intogumentary system/appandage}																			
skin/app			<10>				< 6>				<12>				<15>				
	hyperplasia:epidermis		0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	scab		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
{Respiratory system}																			
nasal cavit			<10>				< 6>				<12>				<15>				
	thrombus		3 (30)	0 (0)	0 (0)	0 (0)	1 (17)	0 (0)	0 (0)	0 (0)	0 (0)	3 (25)	0 (0)	0 (0)	0 (0)	2 (13)	0 (0)	0 (0)	0 (0)
	mineralization		6 (60)	0 (0)	0 (0)	0 (0)	3 (50)	0 (0)	0 (0)	0 (0)	5 (42)	0 (0)	0 (0)	0 (0)	11 (73)	0 (0)	0 (0)	0 (0)	0 (0)
	eosinophilic change:olfactory epithelium		2 (20)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	8 (53)	0 (0)	0 (0)	0 (0)	0 (0)
	inflammation:foreign body		1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	0 (0)	3 (25)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)	0 (0)
	inflammation:respiratory epithelium		2 (20)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

		Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	10				6				12				15			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																		
nasal cavit			<10>				< 6>				<12>				<15>			
	respiratory metaplasia:olfactory epithelium		0	0	0	0	0	1	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)
lung			<10>				< 6>				<12>				<15>			
	congestion		1	0	0	0	3	0	0	0	4	0	0	0	4	0	0	0
			(10)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(33)	(0)	(0)	(0)	(27)	(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)	(7)	(0)	(0)	(0)
	bronchopneumonia		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	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)	(13)	(0)	(0)	(0)
{Hematopoietic system}																		
bone marrow			<10>				< 6>				<12>				<15>			
	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)	(7)	(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. : 0347
 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 10				320 ppm 6				800 ppm 12				2000 ppm 15			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																		
bone marrow	increased hematopoiesis		<10>				< 6>				<12>				<15>			
			3	0	0	0	0	0	0	0	4	0	0	0	3	0	0	0
			(30)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(33)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
spleen	thrombus		<10>				< 6>				<12>				<15>			
			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)	(7)	(0)
	deposit of hemosiderin		0	0	0	0	1	2	0	0 *	2	3	0	0	5	2	0	0 *
			(0)	(0)	(0)	(0)	(17)	(33)	(0)	(0)	(17)	(25)	(0)	(0)	(33)	(13)	(0)	(0)
	fibrosis		0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
			(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)
	extramedullary hematopoiesis		0	1	4	0	0	0	0	0	0	1	1	0	1	0	0	0 *
			(0)	(10)	(40)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(8)	(0)	(7)	(0)	(0)	(0)
{Circulatory system}																		
heart	thrombus		<10>				< 6>				<12>				<15>			
			1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(17)	(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																	

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 DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 4

		Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	10				6				12				15			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}																		
heart	myocardial fibrosis		<10>				< 6>				<12>				<15>			
		3	0	0	0	5	0	0	0	8	1	0	0	10	0	0	0	
		(30)	(0)	(0)	(0)	(83)	(0)	(0)	(0)	(67)	(8)	(0)	(0)	(67)	(0)	(0)	(0)	
{Digestive system}																		
tooth	inflammation		<10>				< 6>				<12>				<15>			
		3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	
		(30)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
stomach	ulcer:forestomach		<10>				< 6>				<12>				<15>			
		2	1	0	0	0	0	0	0	0	1	0	0	2	0	0	0	
			(20)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(13)	(0)	(0)	(0)
	erosion:glandular stomach		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)	(7)	(0)	(0)	(0)	
liver	squamous cell hyperplasia:forestomach		2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	
				(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
	herniation		<10>				< 6>				<12>				<15>			
		1	0	0	0	1	0	0	0	1	0	0	0	3	0	0	0	
		(10)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	

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

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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 10				320 ppm 6				800 ppm 12				2000 ppm 15			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<10>				< 6>				<12>				<15>			
	necrosis:central		0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)
	granulation		3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
			(30)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(27)	(0)	(0)	(0)
	clear cell focus		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
pancreas			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	basophilic cell focus		1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	spongiosis hepatitis		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	bile duct hyperplasia		9	1	0	0	4	1	0	0	8	4	0	0	10	3	0	0
kidney			(90)	(10)	(0)	(0)	(67)	(17)	(0)	(0)	(67)	(33)	(0)	(0)	(67)	(20)	(0)	(0)
			<10>				< 6>				<12>				<15>			
	atrophy		1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(0)	(17)	(0)	(0)	(8)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	chronic nephropathy		3	3	2	0	0	1	1	0	4	6	1	0	3	2	7	1
			(30)	(30)	(20)	(0)	(0)	(17)	(17)	(0)	(33)	(50)	(8)	(0)	(20)	(13)	(47)	(7)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe
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 Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

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PAGE : 6

		Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	10				6				12				15			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Organ_____	Findings_____		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
{Urinary system}																		
kidney			<10>				< 6>				<12>				<15>			
	hydronephrosis		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)
	papillary necrosis		0	0	0	0	0	0	0	0	3	0	0	0	3	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(20)	(7)	(0)	(0)
	mineralization:papilla		0	0	0	0	1	0	0	0	2	0	0	0	4	0	0	0
			(0)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(27)	(0)	(0)	(0)
	urothelial hyperplasia:pelvis		2	0	0	0	0	0	0	0	2	0	0	0	7	0	0	0
			(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(47)	(0)	(0)	(0)
{Endocrine system}																		
pituitary			<10>				< 6>				<12>				<15>			
	cyst		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia		0	0	0	0	0	0	0	0	1	0	0	0	4	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(27)	(0)	(0)	(0)	
	Rathke pouch		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(10)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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< a > a : Number of animals examined at the site
b : Number of animals with lesion
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Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

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DEAD AND MORIBUND ANIMALS (0-105W)

PAGE : 7

		Group Name No. of Animals on Study Grade	Control 10				320 ppm 6				800 ppm 12				2000 ppm 15			
Organ	Findings		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
<hr/>																		
{Endocrine system}																		
thyroid			<10>				< 6>				<12>				<15>			
	C-cell hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)
adrenal			<10>				< 6>				<12>				<15>			
	hyperplasia:cortical cell		2 (20)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
			<10>				< 6>				<12>				<15>			
	hyperplasia:medulla		0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)
{Reproductive system}																		
testis			<10>				< 6>				<12>				<15>			
	atrophy		7 (70)	0 (0)	0 (0)	0 (0)	1 (17)	0 (0)	0 (0)	0 (0)	9 (75)	0 (0)	0 (0)	0 (0)	3 (20)	0 (0)	0 (0)	0 (0)
			<10>				< 6>				<12>				<15>			
	interstitial cell hyperplasia		2 (20)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
prostate			<10>				< 6>				<12>				<15>			
	inflammation		2 (20)	0 (0)	0 (0)	0 (0)	1 (17)	0 (0)	0 (0)	0 (0)	3 (25)	1 (8)	0 (0)	0 (0)	4 (27)	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

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

PAGE : 8

		Group Name No. of Animals on Study Grade	Control 10				320 ppm 6				800 ppm 12				2000 ppm 15			
Organ	Findings		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
{Reproductive system}																		
prostate			<10>				< 6>				<12>				<15>			
	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)	1 (7)	0 (0)	0 (0)	0 (0)
mammary gl			<10>				< 6>				<12>				<15>			
	galactoceles		2 (20)	0 (0)	0 (0)	0 (0)	2 (33)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	4 (27)	0 (0)	0 (0)	0 (0)
{Nervous system}																		
brain			<10>				< 6>				<12>				<15>			
	hemorrhage		1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
{Special sense organs/appendage}																		
eye			<10>				< 6>				<12>				<15>			
	cataract		4 (40)	0 (0)	0 (0)	0 (0)	4 (67)	0 (0)	0 (0)	0 (0)	4 (33)	0 (0)	0 (0)	0 (0)	8 (53)	0 (0)	0 (0)	0 (0)
	retinal atrophy		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (13)	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. : 0347
 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 10				320 ppm 6				800 ppm 12				2000 ppm 15			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Special sense organs/appendage}																		
eye	keratitis		<10>				< 6>				<12>				<15>			
			0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	iritis		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
Harder gl	lymphocytic infiltration		<10>				< 6>				<12>				<15>			
			3	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
			(30)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Body cavities}																		
peritoneum	peritonitis		<10>				< 6>				<12>				<15>			
			0	0	0	0	0	0	1	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)

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

(HPT150)

BAIS3

APPENDIX L 4

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE: DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 10

Organ	Findings	Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	13				10				8				8			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
{Respiratory system}																		
nasal cavit			<13>				<10>				< 8>				< 8>			
	thrombus		1	0	0	0	3	0	0	0	2	0	0	0	3	0	0	0
			(8)	(0)	(0)	(0)	(30)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(38)	(0)	(0)	(0)
	mineralization		6	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0
			(46)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(25)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		5	3	0	0	6	2	0	0	3	3	0	0	2	6	0	0 *
			(38)	(23)	(0)	(0)	(60)	(20)	(0)	(0)	(38)	(38)	(0)	(0)	(25)	(75)	(0)	(0)
	inflammation:foreign body		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lung			<13>				<10>				< 8>				< 8>			
	congestion		6	0	0	0	5	0	0	0	3	0	0	0	3	0	0	0
			(46)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(38)	(0)	(0)	(0)
	edema		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Hematopoietic system}																		
bone marrow			<13>				<10>				< 8>				< 8>			
	increased hematopoiesis		2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(15)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	
Grade	1 : Slight	2 : Moderate	3 : Marked	4 : Severe														
< a >	a : Number of animals examined at the sito																	
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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 11

Organ	Findings	Group Name No. of Animals on Study Grade	Control 13				320 ppm 10				800 ppm 8				2000 ppm 8			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																		
spleen			<13>				<10>				< 8>				< 8>			
	deposit of hemosiderin		4	4	0	0	0	6	1	0	2	4	0	0	0	2	0	0
			(31)	(31)	(0)	(0)	(0)	(60)	(10)	(0)	(25)	(50)	(0)	(0)	(0)	(25)	(0)	(0)
	extramedullary hematopoiesis		3	0	4	0	0	0	2	0	0	1	0	0	0	0	0	0 *
			(23)	(0)	(31)	(0)	(0)	(0)	(20)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)
(Circulatory system)																		
heart			<13>				<10>				< 8>				< 8>			
	thrombus		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	necrosis:focal		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
	mineralization		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammatory cell nest		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)	(13)	(0)	(0)	(0)
	myocardial fibrosis		5	0	0	0	5	0	0	0	1	0	0	0	3	0	0	0
			(38)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(38)	(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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 12

Organ_____	Findings_____	Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	13				10				8				8			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
tooth	inflammation		<13>				<10>				< 8>				< 8>			
		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	
		(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	
stomach	ulcer:forestomach		<13>				<10>				< 8>				< 8>			
		0	1	0	0	1	1	0	0	1	1	1	0	0	1	0	0	
			(0)	(8)	(0)	(0)	(10)	(10)	(0)	(0)	(13)	(13)	(13)	(0)	(0)	(13)	(0)	(0)
	erosion:glandular stomach		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)	(0)	(0)	(0)		
	squamous cell hyperplasia:forestomach		1	0	0	0	3	0	0	0	3	0	0	0	3	0	0	0
				(8)	(0)	(0)	(0)	(30)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(38)	(0)	(0)
	herniation		<13>				<10>				< 8>				< 8>			
		2	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
		(15)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	
	necrosis:central		1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
				(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(0)	(0)	(0)
	fatty change:central		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
				(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 13

		Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	13				10				8				8			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Organ_____	Findings_____		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Digestive system}																		
liver			<13>				<10>				< 8>				< 8>			
	granulation		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)
	basophilic 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)	(13)	(0)	(0)	(0)
	bile duct hyperplasia		1	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0
			(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(25)	(0)	(0)	(0)
pancreas			<13>				<10>				< 8>				< 8>			
	atrophy		1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0
			(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(25)	(0)	(0)	(0)
{Urinary system}																		
kidney			<13>				<10>				< 8>				< 8>			
	cyst		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	chronic nephropathy		3	0	0	0	2	0	2	0	1	1	1	0	3	1	0	0
			(23)	(0)	(0)	(0)	(20)	(0)	(20)	(0)	(13)	(13)	(13)	(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 ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 14

Organ	Findings	Group Name No. of Animals on Study Grade	Control 13				320 ppm 10				800 ppm 8				2000 ppm 8			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																		
kidney			<13>				<10>				< 8>				< 8>			
	papillary necrosis		0	0	0	0	2	0	0	0	1	0	0	0	0	4	1	0 **
			(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(50)	(13)
	mineralization:papilla		0	0	0	0	1	0	0	0	0	0	0	0	4	0	0	0 *
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(50)	(0)	(0)	(0)
	urothelial hyperplasia:pelvis		1	0	0	0	1	0	0	0	1	0	0	0	4	0	0	0
			(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(50)	(0)	(0)	(0)
{Endocrine system}																		
pituitary			<13>				<10>				< 8>				< 8>			
	cyst		4	0	0	0	2	1	0	0	1	1	0	0	0	0	0	0
			(31)	(0)	(0)	(0)	(20)	(10)	(0)	(0)	(13)	(13)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
thyroid			<13>				<10>				< 8>				< 8>			
	C-cell hyperplasia		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)	(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. : 0347
 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 13				320 ppm 10				800 ppm 8				2000 ppm 8			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
adrenal			<13>				<10>				< 8>				< 8>			
	peliosis-like lesion		3	0	0	0	4	0	0	0	2	0	0	0	1	0	0	0
			(23)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
	hyperplasia:cortical cell		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:medulla		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
	focal fatty change:cortex		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
{Reproductive system}																		
uterus			<13>				<10>				< 8>				< 8>			
	cystic endometrial hyperplasia		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)	(0)	(0)	(0)	(0)
mammary gl			<13>				<10>				< 8>				< 8>			
	galactoceles		0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(13)	(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	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. : 0347
 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 13				320 ppm 10				800 ppm 8				2000 ppm 8			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Nervous system}																		
brain			<13>				<10>				< 8>				< 8>			
	gliosis		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)	(0)	(0)	(0)
{Special sense organs/appendage}																		
eye			<13>				<10>				< 8>				< 8>			
	cataract		4	0	0	0	3	0	0	0	4	0	0	0	2	0	0	0
			(31)	(0)	(0)	(0)	(30)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(25)	(0)	(0)	(0)
	retinal atrophy		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)	(0)	(0)	(0)	(0)
	keratitis		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)
Harder gl			<13>				< 9>				< 8>				< 8>			
	inflammatory infiltration		0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	lymphocytic infiltration		3	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0
			(23)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(25)	(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	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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 17

Organ	Findings	Group Name No. of Animals on Study Grade	Control 13				320 ppm 10				800 ppm 8				2000 ppm 8			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

(Musculoskeletal system)

bone	osteosclerosis	<13>				<10>				< 8>				< 8>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

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

b b : Number of animals with lesion

(c) c : b / a * 100

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

(HPT150)

BAIS3

APPENDIX L 5

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : MALE : SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

Organ	Findings	Control 40				320 ppm 44				800 ppm 37				2000 ppm 35			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Integumentary system/appandage}																	
skin/app		<40>				<44>				<37>				<35>			
	fibrosis	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:epidermis	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)
	scab	1	0	0	0	3	0	0	0	3	1	0	0	1	0	0	0
		(3)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(8)	(3)	(0)	(0)	(3)	(0)	(0)	(0)
	epidermal cyst	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
		(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
{Respiratory system}																	
nasal cavit		<40>				<44>				<37>				<35>			
	thrombus	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)
	mineralization	32	0	0	0	27	0	0	0	24	0	0	0	20	0	0	0
		(80)	(0)	(0)	(0)	(61)	(0)	(0)	(0)	(65)	(0)	(0)	(0)	(57)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	26	6	1	0	32	10	0	0	20	11	0	0	22	10	2	0
		(65)	(15)	(3)	(0)	(73)	(23)	(0)	(0)	(54)	(30)	(0)	(0)	(63)	(29)	(6)	(0)

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

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Organ	Findings	Control No. of Animals on Study Grade				320 ppm 44				800 ppm 37				2000 ppm 35			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																	
nasal cavit		<40>				<44>				<37>				<35>			
	inflammation:foreign body	14	0	0	0	10	1	0	0	6	0	1	0	10	2	0	0
		(35)	(0)	(0)	(0)	(23)	(2)	(0)	(0)	(16)	(0)	(3)	(0)	(29)	(6)	(0)	(0)
	inflammation:respiratory epithelium	5	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
		(13)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	inflammation:olfactory epithelium	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	respiratory metaplasia:olfactory epithelium	3	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lung		<40>				<44>				<37>				<35>			
	congestion	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	hemorrhage	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(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)	(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. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

Organ	Findings	Control 40				320 ppm 44				800 ppm 37				2000 ppm 35			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																	
lung		<40>				<44>				<37>				<35>			
	foreign body granuloma	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	osseous metaplasia	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	accumulation of foamy cells	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	bronchiolar-alveolar cell hyperplasia	2	2	0	0	1	1	0	0	4	0	0	0	2	0	0	0
		(5)	(5)	(0)	(0)	(2)	(2)	(0)	(0)	(11)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
{Hematopoietic system}																	
bone marrow		<40>				<44>				<37>				<35>			
	atrophy:focal	3	0	0	0	3	0	0	0	2	0	0	0	1	0	0	0
		(8)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	granulation	1	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	increased hematopoiesis	4	1	0	0	3	0	0	0	2	0	0	0	2	0	0	0
		(10)	(3)	(0)	(0)	(7)	(0)	(0)	(0)	(5)	(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 losion															
(c)		c : b / a * 100															
Significant difference ;		* : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square															

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 4

Organ	Findings	Control No. of Animals on Study Grade				320 ppm 44				800 ppm 37				2000 ppm 35			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Hematopoietic system}																	
lymph node		<40>				<44>				<37>				<35>			
	lymphadenitis	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)
spleen		<40>				<44>				<37>				<35>			
	deposit of hemosiderin	32	0	0	0	36	1	0	0	31	0	0	0	22	0	0	0
		(80)	(0)	(0)	(0)	(82)	(2)	(0)	(0)	(84)	(0)	(0)	(0)	(63)	(0)	(0)	(0)
	fibrosis	1	1	0	0	1	3	0	0	3	1	0	0	0	1	1	0
		(3)	(3)	(0)	(0)	(2)	(7)	(0)	(0)	(8)	(3)	(0)	(0)	(0)	(3)	(3)	(0)
	extramedullary hematopoiesis	5	1	1	0	7	0	0	0	4	0	1	0	2	1	0	0
		(13)	(3)	(3)	(0)	(16)	(0)	(0)	(0)	(11)	(0)	(3)	(0)	(6)	(3)	(0)	(0)
{Circulatory system}																	
heart		<40>				<44>				<37>				<35>			
	fibrosis:focal	0	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	myocardial fibrosis	19	0	0	0	22	0	0	0	15	0	0	0	15	0	0	0
		(48)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(41)	(0)	(0)	(0)	(43)	(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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 5

Organ	Findings	Control 40				320 ppm 44				800 ppm 37				2000 ppm 35			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Circulatory system}																	
heart		<40>				<44>				<37>				<35>			
	arteritis	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Digestive system}																	
tooth		<40>				<44>				<37>				<35>			
	inflammation	6	0	0	0	6	0	0	0	4	0	0	0	4	0	0	0
		(15)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(11)	(0)	(0)	(0)
stomach		<40>				<44>				<37>				<35>			
	ulcer:forestomach	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	erosion:glandular stomach	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	squamous cell hyperplasia:forestomach	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)	(9)	(0)	(0)	(0)
liver		<40>				<44>				<37>				<35>			
	herniation	3	0	0	0	5	0	0	0	7	0	0	0	2	0	0	0
		(8)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(19)	(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 ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study Grade				Control 40				320 ppm 44				800 ppm 37				2000 ppm 35			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																					
liver		<40>				<44>				<37>				<35>							
	granulation	19	0	0	0	14	3	0	0	14	0	0	0	11	1	0	0				
		(48)	(0)	(0)	(0)	(32)	(7)	(0)	(0)	(38)	(0)	(0)	(0)	(31)	(3)	(0)	(0)				
	clear cell focus	3	0	0	0	0	0	0	0	1	0	0	0	3	0	1	0				
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(9)	(0)	(3)	(0)				
	acidophilic cell focus	1	0	0	0	5	0	0	0	4	0	0	0	5	2	0	0 *				
		(3)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(14)	(6)	(0)	(0)				
	basophilic cell focus	8	0	0	0	8	0	0	0	13	7	0	0 **	15	7	0	0 **				
		(20)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(35)	(19)	(0)	(0)	(43)	(20)	(0)	(0)				
	bile duct hyperplasia	34	6	0	0	38	6	0	0	29	8	0	0	29	6	0	0				
		(85)	(15)	(0)	(0)	(86)	(14)	(0)	(0)	(78)	(22)	(0)	(0)	(83)	(17)	(0)	(0)				
	cholangiofibrosis	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)				
pancreas		<40>				<44>				<37>				<35>							
	atrophy	6	0	0	0	13	1	0	0	12	0	1	0	4	0	0	0				
		(15)	(0)	(0)	(0)	(30)	(2)	(0)	(0)	(32)	(0)	(3)	(0)	(11)	(0)	(0)	(0)				
	islet cell hyperplasia	5	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0				
		(13)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(3)	(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. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 7

Organ	Findings	Control No. of Animals on Study Grade				320 ppm 44				800 ppm 37				2000 ppm 35			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																	
kidney		<40>				<44>				<37>				<35>			
	infarct	1	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0
		(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(3)	(0)	(0)	(0)
	chronic nephropathy	7	22	11	0	3	12	27	2 **	0	9	25	3 **	0	5	29	1 **
		(18)	(55)	(28)	(0)	(7)	(27)	(61)	(5)	(0)	(24)	(68)	(8)	(0)	(14)	(83)	(3)
	papillary necrosis	1	0	0	0	12	0	0	0 **	11	1	0	0 **	17	3	0	0 **
		(3)	(0)	(0)	(0)	(27)	(0)	(0)	(0)	(30)	(3)	(0)	(0)	(49)	(9)	(0)	(0)
	mineralization:papilla	3	0	0	0	1	0	0	0	9	0	0	0	15	0	0	0 **
		(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(43)	(0)	(0)	(0)
	dilatation:tubular lumen	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)
	urothelial hyperplasia:pelvis	14	0	0	0	18	0	0	0	23	0	0	0 *	18	1	0	0
		(35)	(0)	(0)	(0)	(41)	(0)	(0)	(0)	(62)	(0)	(0)	(0)	(51)	(3)	(0)	(0)
urin bladd		<40>				<44>				<37>				<35>			
	transitional cell hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
{Endocrine system}																	
pituitary		<40>				<43>				<37>				<35>			
	cyst	2	0	0	0	5	0	0	0	4	0	0	0	1	1	0	0
		(5)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(3)	(3)	(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. : 0347
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				Control 40				320 ppm 44				800 ppm 37				2000 ppm 35			
		Grade																			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)				
{Endocrine system}																					
pituitary		<40>				<43>				<37>				<35>							
	hyperplasia	12	0	0	0	16	0	0	0	13	0	0	0	7	0	0	0				
		(30)	(0)	(0)	(0)	(37)	(0)	(0)	(0)	(35)	(0)	(0)	(0)	(20)	(0)	(0)	(0)				
	Rathke pouch	3	0	0	0	3	0	0	0	2	0	0	0	3	0	0	0				
		(8)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(9)	(0)	(0)	(0)				
	aberrant craniopharyngeal tissue	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)				
thyroid		<40>				<44>				<37>				<35>							
	ultimibranhial body remanet	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0				
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)				
	C-cell hyperplasia	4	0	0	0	6	0	0	0	3	0	0	0	3	1	0	0				
		(10)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(9)	(3)	(0)	(0)				
adrenal		<40>				<44>				<37>				<35>							
	hyperplasia:cortical cell	4	0	0	0	4	0	0	0	5	0	0	0	1	0	0	0				
		(10)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(3)	(0)	(0)	(0)				
	hyperplasia:medulla	4	0	0	0	4	0	0	0	4	0	0	0	3	0	0	0				
		(10)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(9)	(0)	(0)	(0)				
Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe																					
< a > a : Number of animals examined at the site																					
b 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. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 9

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				320 ppm 44				800 ppm 37				2000 ppm 35			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																		
adrenal	focal fatty change:cortex		<40>				<44>				<37>				<35>			
			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)
{Reproductive system}																		
testis	atrophy		<40>				<44>				<37>				<35>			
			34	0	0	0	39	0	0	0	32	0	0	0	29	0	0	0
			(85)	(0)	(0)	(0)	(89)	(0)	(0)	(0)	(86)	(0)	(0)	(0)	(83)	(0)	(0)	(0)
	arteritis		<40>				<44>				<37>				<35>			
			1	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0
			(3)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	interstitial cell hyperplasia		<40>				<44>				<37>				<35>			
			3	0	0	0	4	0	0	0	2	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
epididymis	arteritis		<40>				<44>				<37>				<35>			
			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)
prostate	inflammation		<40>				<44>				<37>				<35>			
			8	0	0	0	15	0	0	0	2	0	0	0	5	0	0	0
			(20)	(0)	(0)	(0)	(34)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(14)	(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. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 10

Organ	Findings	Control No. of Animals on Study Grade				320 ppm 44				800 ppm 37				2000 ppm 35			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																	
prostate		<40>				<44>				<37>				<35>			
	hyperplasia	5	0	0	0	9	0	0	0	6	0	0	0	8	0	0	0
		(13)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(23)	(0)	(0)	(0)
mammary gl		<40>				<44>				<37>				<35>			
	duct ectasia	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	galactocoele	4	0	0	0	4	0	0	0	4	0	0	0	4	0	0	0
		(10)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(11)	(0)	(0)	(0)
{Special sense organs/appendage}																	
eye		<40>				<44>				<37>				<35>			
	cataract	5	0	0	0	8	0	0	0	4	0	0	0	4	0	0	0
		(13)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(11)	(0)	(0)	(0)
	retinal atrophy	3	0	0	0	6	0	0	0	5	0	0	0	3	0	0	0
		(8)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(9)	(0)	(0)	(0)
	mineralization:cornea	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 11

Organ	Findings	Group Name No. of Animals on Study				Control 40				320 ppm 44				800 ppm 37				2000 ppm 35			
		Grade				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)				(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

{Special sense organs/appendage}

Harder gl	lymphocytic infiltration	<40>				<44>				<37>				<35>			
		12	0	0	0	11	1	0	0	11	0	0	0	12	0	0	0
		(30)	(0)	(0)	(0)	(25)	(2)	(0)	(0)	(30)	(0)	(0)	(0)	(34)	(0)	(0)	(0)
Zymbal gl	inflammation	<40>				<44>				<37>				<35>			
		0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

(HPT150)

BAIS3

APPENDIX L 6

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE: SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 12

Organ	Findings	Group Name No. of Animals on Study Grade				Control 37				320 ppm 40				800 ppm 42				2000 ppm 42			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Respiratory system}																					
nasal cavit		<37>				<40>				<42>				<42>				<42>			
	thrombus	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	mineralization	13	0	0	0	16	0	0	0	18	0	0	0	21	0	0	0	21	0	0	0
		(35)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(43)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(50)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	14	19	3	0	17	22	1	0	17	24	0	0	16	24	1	0	(38)	(57)	(2)	(0)
		(38)	(51)	(8)	(0)	(43)	(55)	(3)	(0)	(40)	(57)	(0)	(0)	(38)	(57)	(2)	(0)				
lung	inflammation:foreign body	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	(0)	(0)	(0)	(0)
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)				
	inflammation:respiratory epithelium	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	(2)	(0)	(0)	(0)
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)				
	squamous cell metaplasia:respiratory epithelium	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	(2)	(0)	(0)	(0)
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)				
lung		<37>				<40>				<42>				<42>				<42>			
	hemorrhage	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)	(0)	(0)
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)				
lung	osseous metaplasia	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	(0)	(0)	(0)	(0)
		(3)	(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	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. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 13

Organ	Findings	Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	37				40				42				42			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																		
lung			<37>				<40>				<42>				<42>			
	accumulation of foamy cells	0	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)	(2)	(0)	(0)	(0)	
	bronchiolar-alveolar cell hyperplasia	3	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
		(8)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
(Hematopoietic system)																		
bone marrow			<37>				<40>				<42>				<42>			
	atrophy:focal	5	1	0	0	14	1	0	0	11	0	0	0	8	2	0	0	
		(14)	(3)	(0)	(0)	(35)	(3)	(0)	(0)	(26)	(0)	(0)	(0)	(19)	(5)	(0)	(0)	
	granulation	2	0	0	0	4	0	0	0	2	0	0	0	3	0	0	0	
		(5)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	
	increased hematopoiesis	0	0	0	0	3	0	0	0	3	0	0	0	1	0	0	0	
		(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	
lymph node			<37>				<40>				<42>				<42>			
	lymphadenitis	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	
		(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	
Grade	1 : Slight 2 : Moderate 3 : Marked 4 : Severe																	
< a >	a : Number of animals examined at the site																	
b	b : Number of animals with lesion																	
(c)	c : b / a * 100																	
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square																		
(HPT150)																		

(HPT150)

BAIS3

STUDY NO. : 0347
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 37				320 ppm 40				800 ppm 42				2000 ppm 42			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																		
spleen			<37>				<40>				<42>				<42>			
	deposit of hemosiderin		11	22	0	0	17	19	0	0	10	24	0	0	16	20	0	0
			(30)	(59)	(0)	(0)	(43)	(48)	(0)	(0)	(24)	(57)	(0)	(0)	(38)	(48)	(0)	(0)
	fibrosis		0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	extramedullary hematopoiesis		4	1	0	0	5	0	0	0	4	3	2	0	7	1	0	0
			(11)	(3)	(0)	(0)	(13)	(0)	(0)	(0)	(10)	(7)	(5)	(0)	(17)	(2)	(0)	(0)
(Circulatory system)																		
heart			<37>				<40>				<42>				<42>			
	thrombus		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)
	fibrosis:focal		0	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	myocardial fibrosis		17	0	0	0	25	0	0	0	22	0	0	0	20	0	0	0
			(46)	(0)	(0)	(0)	(63)	(0)	(0)	(0)	(52)	(0)	(0)	(0)	(48)	(0)	(0)	(0)
(Digestive system)																		
tooth			<37>				<40>				<42>				<42>			
	inflammation		0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 15

		Group Name No. of Animals on Study Grade				Control 37				320 ppm 40				800 ppm 42				2000 ppm 42			
Organ	Findings	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)				
(Digestive system)																					
tongue		<37>				<40>				<42>				<42>							
	squamous cell hyperplasia	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)			
stomach		<37>				<40>				<42>				<42>							
	basal cell hyperplasia	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)			
	erosion:glandular stomach	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)			
	squamous cell hyperplasia:forestomach	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)			
liver		<37>				<40>				<42>				<42>							
	herniation	6 (16)	0 (0)	0 (0)	0 (0)	6 (15)	0 (0)	0 (0)	0 (0)	7 (17)	0 (0)	0 (0)	0 (0)	0 (0)	9 (21)	0 (0)	0 (0)	0 (0)			
	granulation	22 (59)	8 (22)	0 (0)	0 (0)	20 (50)	4 (10)	1 (3)	0 (0)	16 (38)	4 (10)	0 (0)	0 (0)	0 (0)	23 (55)	2 (5)	1 (2)	0 (0)			
	acidophilic 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)	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. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 16

		Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	37				40				42				42			
Organ_____	Findings_____	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
(Digestive system)																		
liver			<37>				<40>				<42>				<42>			
	basophilic cell focus		3	1	0	0	3	1	0	0	4	0	1	0	5	0	0	0
			(8)	(3)	(0)	(0)	(8)	(3)	(0)	(0)	(10)	(0)	(2)	(0)	(12)	(0)	(0)	(0)
	bile duct hyperplasia		7	1	0	0	9	0	0	0	9	1	0	0	10	0	0	0
			(19)	(3)	(0)	(0)	(23)	(0)	(0)	(0)	(21)	(2)	(0)	(0)	(24)	(0)	(0)	(0)
	cholangiofibrosis		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)
pancreas			<37>				<40>				<42>				<42>			
	atrophy		2	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
			(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(5)	(0)	(0)	(0)
	islet cell hyperplasia		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
<hr/>																		
(Urinary system)																		
kidney			<37>				<40>				<42>				<42>			
	infarct		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)	(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. : 0317
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 37				320 ppm 40				800 ppm 42				2000 ppm 42			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Urinary system}																					
kidney		<37>				<40>				<42>				<42>				<42>			
	chronic nephropathy	12	2	2	0	16	6	5	0	15	12	5	0 **	28	5	0	0 **	28	5	0	0 **
		(32)	(5)	(5)	(0)	(40)	(15)	(13)	(0)	(36)	(29)	(12)	(0)	(67)	(12)	(0)	(0)	(67)	(12)	(0)	(0)
	hydronephrosis	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	papillary necrosis	0	0	0	0	5	0	0	0	22	0	0	0 **	7	15	1	0 **	7	15	1	0 **
		(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(52)	(0)	(0)	(0)	(17)	(36)	(2)	(0)	(17)	(36)	(2)	(0)
	mineralization:papilla	3	0	0	0	2	0	0	0	6	1	0	0	18	1	0	0 **	18	1	0	0 **
		(8)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(14)	(2)	(0)	(0)	(43)	(2)	(0)	(0)	(43)	(2)	(0)	(0)
	urothelial hyperplasia:pelvis	8	0	0	0	8	0	0	0	8	0	0	0	23	0	0	0 **	23	0	0	0 **
		(22)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(55)	(0)	(0)	(0)	(55)	(0)	(0)	(0)
urin bladd		<37>				<40>				<42>				<42>				<42>			
	transitional cell hyperplasia	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	nodular hyperplasia:transitional epithelium	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
{Endocrine system}																					
pituitary		<37>				<40>				<42>				<41>				<41>			
	cyst	8	0	0	0	14	1	0	0	14	2	0	0	19	2	0	0 *	19	2	0	0 *
		(22)	(0)	(0)	(0)	(35)	(3)	(0)	(0)	(33)	(5)	(0)	(0)	(46)	(5)	(0)	(0)	(46)	(5)	(0)	(0)

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

STUDY NO. : 0347
 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 37				320 ppm 40				800 ppm 42				2000 ppm 42			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																					
pituitary		<37>				<40>				<42>				<41>							
	hyperplasia	8	0	0	0	16	0	0	0	12	0	0	0	10	0	0	0	10	0	0	0
		(22)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(29)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(24)	(0)	(0)	(0)
	Rathke pouch	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
thyroid		<37>				<40>				<42>				<42>				<42>			
	ultimibranhial body remanot	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)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	C-cell hyperplasia	6	0	0	0	4	0	0	0	4	0	0	0	8	0	0	0	8	0	0	0
		(16)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(19)	(0)	(0)	(0)
adrenal		<36>				<40>				<42>				<42>				<42>			
	peliosis-like lesion	27	0	0	0	22	0	0	0	23	0	0	0	20	0	0	0	20	0	0	0 *
		(75)	(0)	(0)	(0)	(55)	(0)	(0)	(0)	(55)	(0)	(0)	(0)	(48)	(0)	(0)	(0)	(48)	(0)	(0)	(0)
	hyperplasia:cortical cell	8	0	0	0	4	0	0	0	4	0	0	0	3	1	0	0	3	1	0	0
		(22)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(7)	(2)	(0)	(0)	(7)	(2)	(0)	(0)
	hyperplasia:medulla	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)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe																					
< a > a : Number of animals examined at the site																					
b 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. : 0347
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				Control 37				320 ppm 40				800 ppm 42				2000 ppm 42			
		Grade				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Endocrine system}																					
adrenal		<36>								<40>				<42>				<42>			
	focal fatty change:cortex	0	0	0	0	5	0	0	0	3	0	0	0	3	0	0	0	3	0	0	0
		(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
{Reproductive system}																					
ovary		<37>				<40>				<42>				<42>				<42>			
	cyst	0	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
uterus		<37>				<40>				<42>				<42>				<42>			
	dilatation	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	decidual change	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia:epithelium	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	cystic endometrial hyperplasia	0	0	0	0	2	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 20

		Group Name	Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study	37				40				42				42			
Organ_____	Findings_____	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
{Reproductive system}																		
vagina			<37>				<40>				<42>				<42>			
	edema		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)
mammary gl			<37>				<40>				<42>				<42>			
	galactoceles		1	0	0	0	2	0	0	0	6	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
{Nervous system}																		
brain			<37>				<40>				<42>				<42>			
	hemorrhage		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	gliosis		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)
{Special sense organs/appendage}																		
eye			<37>				<40>				<42>				<42>			
	cataract		1	0	0	0	5	0	0	0	1	0	0	0	4	0	0	0
			(3)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(10)	(0)	(0)	(0)

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 21

		Group Name				Control				320 ppm				800 ppm				2000 ppm			
		No. of Animals on Study				37				40				42				42			
		Grade																			
Organ_____	Findings_____	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)			

{Special sense organs/appendage}

eye	retinal atrophy	<37>				<40>				<42>				<42>			
		2	0	0	0	5	0	0	0	2	0	0	0	3	0	0	0
		(5)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(7)	(0)	(0)	(0)

Harder gl	lymphocytic infiltration	<37>				<40>				<42>				<42>			
		24	1	0	0	20	0	0	0	17	0	0	0 *	17	0	0	0 *
		(65)	(3)	(0)	(0)	(50)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(40)	(0)	(0)	(0)

{Musculoskeletal system}

bone	osteosclerosis	<37>				<40>				<42>				<42>			
		1	0	0	0	2	0	0	0	2	0	0	0	1	0	0	0
		(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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

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

b b : Number of animals with lesion

(c) c : b / a * 100

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

(HPT150)

BAIS3

APPENDIX M 1

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

RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0347
 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	320 ppm	800 ppm	2000 ppm
0 - 52	NO. OF EXAMINED ANIMALS		0	0	0	1
	NO. OF ANIMALS WITH TUMORS		0	0	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		0	0	0	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	0
	NO. OF MALIGNANT TUMORS		0	0	0	0
	NO. OF TOTAL TUMORS		0	0	0	0
53 - 78	NO. OF EXAMINED ANIMALS		1	3	3	4
	NO. OF ANIMALS WITH TUMORS		1	1	2	4
	NO. OF ANIMALS WITH SINGLE TUMORS		1	1	2	4
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	1
	NO. OF MALIGNANT TUMORS		1	1	2	3
	NO. OF TOTAL TUMORS		1	1	2	4
79 - 104	NO. OF EXAMINED ANIMALS		9	3	9	10
	NO. OF ANIMALS WITH TUMORS		9	3	9	10
	NO. OF ANIMALS WITH SINGLE TUMORS		2	1	2	4
	NO. OF ANIMALS WITH MULTIPLE TUMORS		7	2	7	6
	NO. OF BENIGN TUMORS		9	5	13	16
	NO. OF MALIGNANT TUMORS		7	1	9	3
	NO. OF TOTAL TUMORS		16	6	22	19
105 - 105	NO. OF EXAMINED ANIMALS		40	44	37	35
	NO. OF ANIMALS WITH TUMORS		39	42	36	34
	NO. OF ANIMALS WITH SINGLE TUMORS		16	10	15	6
	NO. OF ANIMALS WITH MULTIPLE TUMORS		23	32	21	28
	NO. OF BENIGN TUMORS		71	88	64	71
	NO. OF MALIGNANT TUMORS		6	10	9	8
	NO. OF TOTAL TUMORS		77	98	73	79

STUDY NO. : 0347
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	320 ppm	800 ppm	2000 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	49	50
	NO. OF ANIMALS WITH TUMORS		49	46	47	48
	NO. OF ANIMALS WITH SINGLE TUMORS		19	12	19	14
	NO. OF ANIMALS WITH MULTIPLE TUMORS		30	34	28	34
	NO. OF BENIGN TUMORS		80	93	77	88
	NO. OF MALIGNANT TUMORS		14	12	20	14
	NO. OF TOTAL TUMORS		94	105	97	102

(HPT070)

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APPENDIX M 2

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

RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0347
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	320 ppm	800 ppm	2000 ppm
0 - 52	NO. OF EXAMINED ANIMALS		1	0	1	0
	NO. OF ANIMALS WITH TUMORS		1	0	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		1	0	0	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	0
	NO. OF MALIGNANT TUMORS		1	0	0	0
	NO. OF TOTAL TUMORS		1	0	0	0
53 - 78	NO. OF EXAMINED ANIMALS		2	2	1	0
	NO. OF ANIMALS WITH TUMORS		2	1	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		2	1	0	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		2	1	0	0
	NO. OF MALIGNANT TUMORS		0	0	0	0
	NO. OF TOTAL TUMORS		2	1	0	0
79 - 104	NO. OF EXAMINED ANIMALS		10	8	6	8
	NO. OF ANIMALS WITH TUMORS		9	8	6	7
	NO. OF ANIMALS WITH SINGLE TUMORS		7	5	3	5
	NO. OF ANIMALS WITH MULTIPLE TUMORS		2	3	3	2
	NO. OF BENIGN TUMORS		6	7	3	4
	NO. OF MALIGNANT TUMORS		5	4	6	5
	NO. OF TOTAL TUMORS		11	11	9	9
105 - 105	NO. OF EXAMINED ANIMALS		37	40	42	42
	NO. OF ANIMALS WITH TUMORS		27	26	32	29
	NO. OF ANIMALS WITH SINGLE TUMORS		15	17	18	21
	NO. OF ANIMALS WITH MULTIPLE TUMORS		12	9	14	8
	NO. OF BENIGN TUMORS		33	33	43	40
	NO. OF MALIGNANT TUMORS		8	6	9	4
	NO. OF TOTAL TUMORS		41	39	52	44

STUDY NO. : 0347
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	320 ppm	800 ppm	2000 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		39	35	38	36
	NO. OF ANIMALS WITH SINGLE TUMORS		25	23	21	26
	NO. OF ANIMALS WITH MULTIPLE TUMORS		14	12	17	10
	NO. OF BENIGN TUMORS		41	41	46	44
	NO. OF MALIGNANT TUMORS		14	10	15	9
	NO. OF TOTAL TUMORS		55	51	61	53

(HPT070)

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APPENDIX N 1

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS : SUMMARY

RAT : MALE: ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
 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	320 ppm 50	800 ppm 49	2000 ppm 50
{Integumentary system/appandage}						
skin/app			<50>	<50>	<49>	<50>
	squamous cell papilloma		1 (2%)	2 (4%)	1 (2%)	1 (2%)
	trichoepithelioma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	keratoacanthoma		3 (6%)	2 (4%)	1 (2%)	2 (4%)
	squamous cell carcinoma		0 (0%)	0 (0%)	1 (2%)	1 (2%)
	trichoepithelioma:malignant		1 (2%)	0 (0%)	0 (0%)	0 (0%)
subcutis	melanoma:malignant		0 (0%)	0 (0%)	0 (0%)	1 (2%)
			<50>	<50>	<49>	<50>
	fibroma		7 (14%)	2 (4%)	4 (8%)	3 (6%)
	lipoma		0 (0%)	1 (2%)	1 (2%)	0 (0%)
	schwannoma:malignant		1 (2%)	0 (0%)	0 (0%)	0 (0%)
{Respiratory system}	carcinoma:NOS		0 (0%)	0 (0%)	1 (2%)	0 (0%)
			<50>	<50>	<49>	<50>
nasal cavit	adenoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
lung			<50>	<50>	<49>	<50>
	bronchiolar-alveolar adenoma		1 (2%)	3 (6%)	2 (4%)	1 (2%)

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

STUDY NO. : 0347
 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	320 ppm 50	800 ppm 49	2000 ppm 50
{Respiratory system}						
lung	bronchiolar-alveolar carcinoma		<50> 0 (0%)	<50> 0 (0%)	<49> 1 (2%)	<50> 0 (0%)
{Hematopoietic system}						
spleen	mononuclear cell leukemia		<50> 6 (12%)	<50> 4 (8%)	<49> 6 (12%)	<50> 5 (10%)
	hemangiosarcoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
{Digestive system}						
tongue	squamous cell carcinoma		<50> 0 (0%)	<50> 0 (0%)	<49> 0 (0%)	<50> 1 (2%)
salivary gl	adenocarcinoma		<50> 0 (0%)	<50> 0 (0%)	<49> 2 (4%)	<50> 0 (0%)
stomach	squamous cell papilloma		<50> 1 (2%)	<50> 1 (2%)	<49> 0 (0%)	<50> 0 (0%)
	squamous cell carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
small intes	leiomyoma		<50> 1 (2%)	<50> 0 (0%)	<49> 1 (2%)	<50> 0 (0%)
liver	hepatocellular adenoma		<50> 1 (2%)	<50> 4 (8%)	<49> 4 (8%)	<50> 10 (20%)
pancreas	islet cell adenoma		<50> 3 (6%)	<50> 3 (6%)	<49> 0 (0%)	<50> 3 (6%)
{Urinary system}						
kidney	lipoma		<50> 1 (2%)	<50> 0 (0%)	<49> 0 (0%)	<50> 0 (0%)

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

STUDY NO. : 0347
 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	320 ppm 50	800 ppm 49	2000 ppm 50
{Urinary system}						
urin bladd	transitional cell papilloma		<50> 0 (0%)	<50> 1 (2%)	<49> 0 (0%)	<50> 0 (0%)
{Endocrine system}						
pituitary	adenoma		<50> 21 (42%)	<49> 22 (45%)	<49> 14 (29%)	<50> 13 (26%)
thyroid	C-cell adenoma		<50> 7 (14%)	<50> 10 (20%)	<49> 6 (12%)	<50> 11 (22%)
	follicular adenoma		0 (0%)	0 (0%)	1 (2%)	2 (4%)
	C-cell carcinoma		1 (2%)	4 (8%)	2 (4%)	2 (4%)
	follicular adenocarcinoma		0 (0%)	1 (2%)	0 (0%)	1 (2%)
adrenal	pheochromocytoma		<50> 3 (6%)	<50> 3 (6%)	<49> 3 (6%)	<50> 3 (6%)
	cortical adenoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
	pheochromocytoma:malignant		1 (2%)	2 (4%)	2 (4%)	0 (0%)
{Reproductive system}						
testis	interstitial cell tumor		<50> 28 (56%)	<50> 31 (62%)	<49> 35 (71%)	<50> 35 (70%)
	rete testis adenoma		1 (2%)	1 (2%)	1 (2%)	2 (4%)

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

(HPT085)

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STUDY NO. : 0347
 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	320 ppm 50	800 ppm 49	2000 ppm 50
{Reproductive system}						
epididymis			<50>	<50>	<49>	<50>
	fibroma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
mammary gl			<50>	<50>	<49>	<50>
	adenoma		0 (0%)	2 (4%)	0 (0%)	0 (0%)
	fibroadenoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
prep/cli gl			<50>	<50>	<49>	<50>
	adenoma		0 (0%)	1 (2%)	2 (4%)	1 (2%)
{Nervous system}						
brain			<50>	<50>	<49>	<50>
	malignant reticulosis		0 (0%)	1 (2%)	0 (0%)	0 (0%)
{Special sense organs/appendage}						
Zymbal gl			<50>	<50>	<49>	<50>
	adenoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	squamous cell carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
{Musculoskeletal system}						
bone			<50>	<50>	<49>	<50>
	osteoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
	osteosarcoma		1 (2%)	0 (0%)	1 (2%)	0 (0%)
vertebra			<50>	<50>	<49>	<50>
	chordoma:malignant		0 (0%)	0 (0%)	1 (2%)	0 (0%)
< a > a : Number of animals examined at the site b (c) b : Number of animals with neoplasm c : b / a * 100						
(IPT085)						

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STUDY NO. : 0347
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	320 ppm 50	800 ppm 49	2000 ppm 50
(Musculoskeletal system)						
vertebra	sarcoma:NOS		<50> 0 (0%)	<50> 0 (0%)	<49> 1 (2%)	<50> 0 (0%)
(Body cavities)						
peritoneum	mesothelioma		<50> 3 (6%)	<50> 0 (0%)	<49> 1 (2%)	<50> 1 (2%)

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

(HPT085)

BAIS3

APPENDIX N 2

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS : SUMMARY

RAT : FEMALE: ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
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	320 ppm 50	800 ppm 50	2000 ppm 50
{Integumentary system/appandage}						
skin/app			<50>	<50>	<50>	<50>
	trichoepithelioma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	keratoacanthoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
subcutis			<50>	<49>	<50>	<50>
	fibroma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	sarcoma:NOS		1 (2%)	0 (0%)	0 (0%)	0 (0%)
{Respiratory system}						
lung			<50>	<50>	<50>	<50>
	bronchiolar-alveolar adenoma		1 (2%)	0 (0%)	1 (2%)	0 (0%)
	bronchiolar-alveolar carcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
{Hematopoietic system}						
spleen			<50>	<50>	<50>	<50>
	mononuclear cell leukemia		7 (14%)	6 (12%)	6 (12%)	8 (16%)
{Digestive system}						
stomach			<50>	<50>	<50>	<50>
	squamous cell papilloma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
liver			<50>	<50>	<50>	<50>
	hepatocellular adenoma		0 (0%)	1 (2%)	0 (0%)	3 (6%)
pancreas			<50>	<50>	<50>	<50>
	acinar cell adenocarcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
< a > a : Number of animals examined at the site b (c) b : Number of animals with neoplasm c : b / a * 100						
(IPT085)						BAIS3

STUDY NO. : 0347
 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	320 ppm 50	800 ppm 50	2000 ppm 50
{Urinary system}						
urin bladd	transitional cell papilloma		<50> 0 (0%)	<50> 1 (2%)	<50> 1 (2%)	<50> 0 (0%)
{Endocrine system}						
pituitary	adenoma		<50> 19 (38%)	<50> 15 (30%)	<50> 16 (32%)	<49> 15 (31%)
	adenocarcinoma		0 (0%)	0 (0%)	1 (2%)	1 (2%)
thyroid	C-cell adenoma		<50> 6 (12%)	<50> 4 (8%)	<50> 5 (10%)	<50> 8 (16%)
	follicular adenoma		1 (2%)	2 (4%)	0 (0%)	0 (0%)
	C-cell carcinoma		0 (0%)	2 (4%)	1 (2%)	0 (0%)
adrenal	pheochromocytoma		<49> 1 (2%)	<50> 1 (2%)	<50> 2 (4%)	<50> 0 (0%)
{Reproductive system}						
ovary	mesothelioma:benign		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
uterus	leiomyoma		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
	endometrial stromal polyp		7 (14%)	8 (16%)	11 (22%)	7 (14%)
	adenocarcinoma		1 (2%)	0 (0%)	2 (4%)	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. : 0347
 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	320 ppm 50	800 ppm 50	2000 ppm 50
(Reproductive system)						
uterus			<50>	<50>	<50>	<50>
	endometrial stromal sarcoma		4 (8%)	1 (2%)	0 (0%)	0 (0%)
mammary gl			<50>	<50>	<50>	<50>
	adenoma		1 (2%)	1 (2%)	0 (0%)	1 (2%)
	fibroadenoma		3 (6%)	3 (6%)	6 (12%)	7 (14%)
	adenocarcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
prep/cli gl			<50>	<50>	<50>	<50>
	adenoma		1 (2%)	2 (4%)	3 (6%)	2 (4%)
(Nervous system)						
brain			<50>	<50>	<50>	<50>
	malignant reticulosis		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	pinealoma:malignant		0 (0%)	0 (0%)	1 (2%)	0 (0%)
spinal cord			<49>	<50>	<50>	<50>
	glioma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
(Musculoskeletal system)						
bone			<50>	<50>	<50>	<50>
	osteosarcoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
< a > a : Number of animals examined at the site b (c) b : Number of animals with neoplasm c : b / a * 100						

(HPT085)

BAIS3

APPENDIX O 1

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

RAT : MALE: (2-YEAR STUDY)

STUDY No. : 0347
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : skin/appendage TUMOR : keratoacanthoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	2/50(4.0)	1/49(2.0)	2/50(4.0)
Adjusted rates(b)	7.50	4.55	2.70	4.44
Terminal rates(c)	3/40(7.5)	2/44(4.5)	1/37(2.7)	1/35(2.9)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.5947			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.7049			
Fisher Exact test(e)		P = 0.5000	P = 0.3163	P = 0.5000
SITE : skin/appendage TUMOR : squamous cell papilloma, keratoacanthoma				
Tumor rate				
Overall rates(a)	4/50(8.0)	4/50(8.0)	2/49(4.1)	3/50(6.0)
Adjusted rates(b)	10.00	9.09	4.68	6.67
Terminal rates(c)	4/40(10.0)	4/44(9.1)	1/37(2.7)	2/35(5.7)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.6351			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.6354			
Fisher Exact test(e)		P = 0.6425	P = 0.3485	P = 0.5000
SITE : skin/appendage TUMOR : squamous cell papilloma, keratoacanthoma, squamous cell carcinoma				
Tumor rate				
Overall rates(a)	4/50(8.0)	4/50(8.0)	3/49(6.1)	4/50(8.0)
Adjusted rates(b)	10.00	9.09	7.32	8.89
Terminal rates(c)	4/40(10.0)	4/44(9.1)	1/37(2.7)	3/35(8.6)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.4471			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.9948			
Fisher Exact test(e)		P = 0.6425	P = 0.5114	P = 0.6425

STUDY No. : 0347
 ANIMAL : RAT F344/DuCrj
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : subcutis TUMOR : fibroma				
Tumor rate				
Overall rates(a)	7/50(14.0)	2/50(4.0)	4/49(8.2)	3/50(6.0)
Adjusted rates(b)	13.95	4.55	9.76	6.98
Terminal rates(c)	4/40(10.0)	2/44(4.5)	3/37(8.1)	2/35(5.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 1.0000 ?			
Prevalence method(d)	P = 0.6939			
Combined analysis(d)	P = 0.7741			
Cochran-Armitage test(e)	P = 0.3665			
Fisher Exact test(e)		P = 0.0798	P = 0.2740	P = 0.1589
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	3/50(6.0)	2/49(4.1)	1/50(2.0)
Adjusted rates(b)	2.50	6.82	5.41	2.86
Terminal rates(c)	1/40(2.5)	3/44(6.8)	2/37(5.4)	1/35(2.9)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.5875			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.6496			
Fisher Exact test(e)		P = 0.3087	P = 0.4923	P = 0.7525
SITE : lung TUMOR : bronchiolar-alveolar adenoma, bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	3/50(6.0)	3/49(6.1)	1/50(2.0)
Adjusted rates(b)	2.50	6.82	8.11	2.86
Terminal rates(c)	1/40(2.5)	3/44(6.8)	3/37(8.1)	1/35(2.9)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.5694			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.6770			
Fisher Exact test(e)		P = 0.3087	P = 0.3010	P = 0.7525

STUDY No. : 0347
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : spleen TUMOR : mononuclear cell leukemia				
Tumor rate				
Overall rates(a)	6/50(12.0)	4/50(8.0)	6/49(12.2)	5/50(10.0)
Adjusted rates(b)	8.51	4.55	2.70	5.71
Terminal rates(c)	3/40(7.5)	2/44(4.5)	1/37(2.7)	2/35(5.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2653			
Prevalence method(d)	P = 0.7036			
Combined analysis(d)	P = 0.4531			
Cochran-Armitage test(e)	P = 0.9281			
Fisher Exact test(e)		P = 0.3703	P = 0.6058	P = 0.5000
SITE : liver TUMOR : hepatocellular adenoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	4/50(8.0)	4/49(8.2)	10/50(20.0)
Adjusted rates(b)	2.50	9.09	10.81	23.68
Terminal rates(c)	1/40(2.5)	4/44(9.1)	4/37(10.8)	8/35(22.9)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0008**			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0022**			
Fisher Exact test(e)		P = 0.1811	P = 0.1748	P = 0.0039**
SITE : pancreas TUMOR : islet cell adenoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	3/50(6.0)	0/49(0.0)	3/50(6.0)
Adjusted rates(b)	7.50	6.82	0.0	7.32
Terminal rates(c)	3/40(7.5)	3/44(6.8)	0/37(0.0)	2/35(5.7)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.4397			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.9789			
Fisher Exact test(e)		P = 0.6611	P = 0.1250	P = 0.6611

(HPT360A)

BAIS3

STUDY No. : 0347
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	21/50(42.0)	22/49(44.9)	14/49(28.6)	13/50(26.0)
Adjusted rates(b)	47.50	45.45	32.50	25.71
Terminal rates(c)	19/40(47.5)	19/43(44.2)	12/37(32.4)	9/35(25.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0620			
Prevalence method(d)	P = 0.9909			
Combined analysis(d)	P = 0.9270			
Cochran-Armitage test(e)	P = 0.0405*			
Fisher Exact test(e)		P = 0.4649	P = 0.1175	P = 0.0695
SITE : thyroid TUMOR : C-cell adenoma				
Tumor rate				
Overall rates(a)	7/50(14.0)	10/50(20.0)	6/49(12.2)	11/50(22.0)
Adjusted rates(b)	15.56	22.73	15.00	28.21
Terminal rates(c)	6/40(15.0)	10/44(22.7)	5/37(13.5)	9/35(25.7)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.1141			
Combined analysis(d)	P = -----			
Cochran Armitage test(e)	P = 0.3890			
Fisher Exact test(e)		P = 0.2977	P = 0.5158	P = 0.2178
SITE : thyroid TUMOR : C-cell carcinoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	4/50(8.0)	2/49(4.1)	2/50(4.0)
Adjusted rates(b)	2.50	9.09	5.41	5.71
Terminal rates(c)	1/40(2.5)	4/44(9.1)	2/37(5.4)	2/35(5.7)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.4244			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.9503			
Fisher Exact test(e)		P = 0.1811	P = 0.4923	P = 0.5000

STUDY No. : 0347
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 5

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : thyroid TUMOR : C-cell adenoma, C-cell carcinoma				
Tumor rate				
Overall rates(a)	8/50(16.0)	14/50(28.0)	8/49(16.3)	13/50(26.0)
Adjusted rates(b)	17.78	31.82	20.00	33.33
Terminal rates(c)	7/40(17.5)	14/44(31.8)	7/37(18.9)	11/35(31.4)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.1268			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.4495			
Fisher Exact test(e)		P = 0.1135	P = 0.5900	P = 0.1631
SITE : thyroid TUMOR : follicular adenoma, follicular adenocarcinoma				
Tumor rate				
Overall rates(a)	0/50(0.0)	1/50(2.0)	1/49(2.0)	3/50(6.0)
Adjusted rates(b)	0.0	2.27	2.70	8.57
Terminal rates(c)	0/40(0.0)	1/44(2.3)	1/37(2.7)	3/35(8.6)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0245*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0555			
Fisher Exact test(e)		P = 0.5000	P = 0.4949	P = 0.1212
SITE : adrenal gland TUMOR : pheochromocytoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	3/50(6.0)	3/49(6.1)	3/50(6.0)
Adjusted rates(b)	7.50	6.82	6.82	8.57
Terminal rates(c)	3/40(7.5)	3/44(6.8)	2/37(5.4)	3/35(8.6)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.4122			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.9996			
Fisher Exact test(e)		P = 0.6611	P = 0.6515	P = 0.6611

STUDY No. : 0347
 ANIMAL : RAT F344/DuCrj
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 6

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : adrenal gland TUMOR : pheochromocytoma, pheochromocytoma:malignant				
Tumor rate				
Overall rates(a)	4/50(8.0)	5/50(10.0)	5/49(10.2)	3/50(6.0)
Adjusted rates(b)	7.50	11.36	9.30	8.57
Terminal rates(c)	3/40(7.5)	5/44(11.4)	3/37(8.1)	3/35(8.6)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.6858			
Prevalence method(d)	P = 0.5313			
Combined analysis(d)	P = 0.6189			
Cochran-Armitage test(e)	P = 0.5808			
Fisher Exact test(e)		P = 0.5000	P = 0.4870	P = 0.5000
SITE : testis TUMOR : interstitial cell tumor				
Tumor rate				
Overall rates(a)	28/50(56.0)	31/50(62.0)	35/49(71.4)	35/50(70.0)
Adjusted rates(b)	63.41	65.96	79.49	83.33
Terminal rates(c)	25/40(62.5)	29/44(65.9)	29/37(78.4)	29/35(82.9)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0136*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.1541			
Fisher Exact test(e)		P = 0.3423	P = 0.0826	P = 0.1069
SITE : mammary gland TUMOR : adenoma, fibroadenoma				
Tumor rate				
Overall rates(a)	0/50(0.0)	3/50(6.0)	0/49(0.0)	0/50(0.0)
Adjusted rates(b)	0.0	6.82	0.0	0.0
Terminal rates(c)	0/40(0.0)	3/44(6.8)	0/37(0.0)	0/35(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.8192			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.2920			
Fisher Exact test(e)		P = 0.1212	P = N. C.	P = N. C.

STUDY No. : 0347
ANIMAL : RAT F344/DuCrj
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 7

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : mammary gland TUMOR : adenoma, fibroadenoma, adenocarcinoma				
Tumor rate				
Overall rates(a)	0/50(0.0)	3/50(6.0)	0/49(0.0)	0/50(0.0)
Adjusted rates(b)	0.0	6.82	0.0	0.0
Terminal rates(c)	0/40(0.0)	3/44(6.8)	0/37(0.0)	0/35(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.8192			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.2920			
Fisher Exact test(e)		P = 0.1212	P = N. C.	P = N. C.
SITE : peritoneum TUMOR : mesothelioma				
Tumor rate				
Overall rates(a)	3/50(6.0)	0/50(0.0)	1/49(2.0)	1/50(2.0)
Adjusted rates(b)	5.00	0.0	2.70	2.86
Terminal rates(c)	2/40(5.0)	0/44(0.0)	1/37(2.7)	1/35(2.9)
Statistical analysis				
Peto test				
Standard method(d)	P = 1.0000 ?			
Prevalence method(d)	P = 0.4968			
Combined analysis(d)	P = 0.6734			
Cochran-Armitage test(e)	P = 0.5132			
Fisher Exact test(e)		P = 0.1212	P = 0.3163	P = 0.3087

(HPT360A)

BAIS3

- (a): Number of tumor-bearing animals/number of animals examined at the site.
 (b): Kaplan-Meire estimated tumor incidence at the end of the study after adjusting for intercurrent mortality.
 (c): Observed tumor incidence at terminal kill.
 (d): Beneath the control incidence are the P-values associated with the trend test.
 Standard method : Death analysis
 Prevalence method : Incidental tumor test
 Combined analysis : Death analysis + Incidental tumor test
 (e): The Cochran-Armitage and Fisher exact test compare directly the overall incidence rates.
 ? : The conditional probabilities of the largest and smallest possible 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.

APPENDIX O 2

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

RAT : FEMALE: (2-YEAR STUDY)

STUDY No. : 0347
ANIMAL : RAT F344/DuCrj
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 8

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : spleen TUMOR : mononuclear cell leukemia				
Tumor rate				
Overall rates(a)	7/50(14.0)	6/50(12.0)	6/50(12.0)	8/50(16.0)
Adjusted rates(b)	16.22	7.50	9.52	9.52
Terminal rates(c)	6/37(16.2)	3/40(7.5)	4/42(9.5)	4/42(9.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1610			
Prevalence method(d)	P = 0.6977			
Combined analysis(d)	P = 0.4086			
Cochran-Armitage test(e)	P = 0.6512			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	P = 0.5000
SITE : liver TUMOR : hepatocellular adenoma				
Tumor rate				
Overall rates(a)	0/50(0.0)	1/50(2.0)	0/50(0.0)	3/50(6.0)
Adjusted rates(b)	0.0	2.50	0.0	7.14
Terminal rates(c)	0/37(0.0)	1/40(2.5)	0/42(0.0)	3/42(7.1)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0279*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0334*			
Fisher Exact test(e)		P = 0.5000	P = N.C.	P = 0.1212
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	19/50(38.0)	15/50(30.0)	16/50(32.0)	15/49(30.6)
Adjusted rates(b)	40.54	25.00	34.88	31.11
Terminal rates(c)	15/37(40.5)	10/40(25.0)	14/42(33.3)	12/41(29.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9742			
Prevalence method(d)	P = 0.6093			
Combined analysis(d)	P = 0.8619			
Cochran-Armitage test(e)	P = 0.5894			
Fisher Exact test(e)		P = 0.2634	P = 0.3377	P = 0.2872

STUDY No. : 0347
ANIMAL : RAT F344/DuCrj
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 9

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : pituitary gland TUMOR : adenoma, adenocarcinoma				
Tumor rate				
Overall rates(a)	19/50(38.0)	15/50(30.0)	17/50(34.0)	16/49(32.7)
Adjusted rates(b)	40.54	25.00	34.88	31.11
Terminal rates(c)	15/37(40.5)	10/40(25.0)	14/42(33.3)	12/41(29.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8868			
Prevalence method(d)	P = 0.6093			
Combined analysis(d)	P = 0.7980			
Cochran-Armitage test(e)	P = 0.7739			
Fisher Exact test(e)		P = 0.2634	P = 0.4176	P = 0.3648
SITE : thyroid TUMOR : C-cell adenoma				
Tumor rate				
Overall rates(a)	6/50(12.0)	4/50(8.0)	5/50(10.0)	8/50(16.0)
Adjusted rates(b)	16.22	9.52	11.90	19.05
Terminal rates(c)	6/37(16.2)	3/40(7.5)	5/42(11.9)	8/42(19.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.2663			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.3298			
Fisher Exact test(e)		P = 0.3703	P = 0.5000	P = 0.3871
SITE : thyroid TUMOR : C-cell adenoma, C-cell carcinoma				
Tumor rate				
Overall rates(a)	6/50(12.0)	6/50(12.0)	6/50(12.0)	8/50(16.0)
Adjusted rates(b)	16.22	14.29	14.29	19.05
Terminal rates(c)	6/37(16.2)	5/40(12.5)	6/42(14.3)	8/42(19.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.3792			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.4995			
Fisher Exact test(e)		P = 0.6202	P = 0.6202	P = 0.3871

STUDY No. : 0347
ANIMAL : RAT F344/DuCrj
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 10

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : uterus TUMOR : endometrial stromal polyp				
Tumor rate				
Overall rates(a)	7/50(14.0)	8/50(16.0)	11/50(22.0)	7/50(14.0)
Adjusted rates(b)	16.22	20.00	23.81	16.67
Terminal rates(c)	6/37(16.2)	8/40(20.0)	10/42(23.8)	7/42(16.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 1.0000 ?			
Prevalence method(d)	P = 0.5480			
Combined analysis(d)	P = 0.6255			
Cochran-Armitage test(e)	P = 0.9241			
Fisher Exact test(e)		P = 0.5000	P = 0.2178	P = 0.6129
SITE : uterus TUMOR : endometrial stromal sarcoma				
Tumor rate				
Overall rates(a)	4/50(8.0)	1/50(2.0)	0/50(0.0)	0/50(0.0)
Adjusted rates(b)	2.70	2.50	0.0	0.0
Terminal rates(c)	1/37(2.7)	1/40(2.5)	0/42(0.0)	0/42(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9895			
Prevalence method(d)	P = 0.8937			
Combined analysis(d)	P = 0.9960			
Cochran-Armitage test(e)	P = 0.0328*			
Fisher Exact test(e)		P = 0.1811	P = 0.0587	P = 0.0587
SITE : uterus TUMOR : endometrial stromal polyp, endometrial stromal sarcoma				
Tumor rate				
Overall rates(a)	11/50(22.0)	9/50(18.0)	11/50(22.0)	7/50(14.0)
Adjusted rates(b)	18.92	22.50	23.81	16.67
Terminal rates(c)	7/37(18.9)	9/40(22.5)	10/42(23.8)	7/42(16.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9964			
Prevalence method(d)	P = 0.6770			
Combined analysis(d)	P = 0.8836			
Cochran-Armitage test(e)	P = 0.3475			
Fisher Exact test(e)		P = 0.4016	P = 0.5952	P = 0.2178

STUDY No. : 0347
ANIMAL : RAT F344/DuCrJ
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 11

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : uterus TUMOR : leiomyoma, endometrial stromal polyp, endometrial stromal sarcoma				
Tumor rate				
Overall rates(a)	11/50(22.0)	10/50(20.0)	11/50(22.0)	7/50(14.0)
Adjusted rates(b)	18.92	25.00	23.81	16.67
Terminal rates(c)	7/37(18.9)	10/40(25.0)	10/42(23.8)	7/42(16.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9964			
Prevalence method(d)	P = 0.7181			
Combined analysis(d)	P = 0.9031			
Cochran-Armitage test(e)	P = 0.2991			
Fisher Exact test(e)		P = 0.5000	P = 0.5952	P = 0.2178
SITE : mammary gland TUMOR : fibroadenoma				
Tumor rate				
Overall rates(a)	3/50(6.0)	3/50(6.0)	6/50(12.0)	7/50(14.0)
Adjusted rates(b)	7.14	7.50	14.29	14.29
Terminal rates(c)	2/37(5.4)	3/40(7.5)	6/42(14.3)	6/42(14.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1361			
Prevalence method(d)	P = 0.1373			
Combined analysis(d)	P = 0.0787			
Cochran-Armitage test(e)	P = 0.1169			
Fisher Exact test(e)		P = 0.6611	P = 0.2435	P = 0.1589
SITE : mammary gland TUMOR : adenoma, fibroadenoma				
Tumor rate				
Overall rates(a)	4/50(8.0)	3/50(6.0)	6/50(12.0)	8/50(16.0)
Adjusted rates(b)	9.52	7.50	14.29	16.67
Terminal rates(c)	3/37(8.1)	3/40(7.5)	6/42(14.3)	7/42(16.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1361			
Prevalence method(d)	P = 0.1232			
Combined analysis(d)	P = 0.0712			
Cochran-Armitage test(e)	P = 0.1024			
Fisher Exact test(e)		P = 0.5000	P = 0.3703	P = 0.1783

STUDY No. : 0347
ANIMAL : RAT F344/DuCrj
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 12

Group Name	Control	320 ppm	800 ppm	2000 ppm
SITE : mammary gland TUMOR : adenoma, fibroadenoma, adenocarcinoma				
Tumor rate				
Overall rates(a)	5/50(10.0)	3/50(6.0)	6/50(12.0)	8/50(16.0)
Adjusted rates(b)	11.90	7.50	14.29	16.67
Terminal rates(c)	4/37(10.8)	3/40(7.5)	6/42(14.3)	7/42(16.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1361			
Prevalence method(d)	P = 0.1844			
Combined analysis(d)	P = 0.1132			
Cochran-Armitage test(e)	P = 0.1712			
Fisher Exact test(e)		P = 0.3575	P = 0.5000	P = 0.2768
SITE : preputial/clitoral gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	1/50(2.0)	2/50(4.0)	3/50(6.0)	2/50(4.0)
Adjusted rates(b)	0.0	4.35	7.14	4.76
Terminal rates(c)	0/37(0.0)	1/40(2.5)	3/42(7.1)	2/42(4.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 1.0000 ?			
Prevalence method(d)	P = 0.2392			
Combined analysis(d)	P = 0.3756			
Cochran-Armitage test(e)	P = 0.7040			
Fisher Exact test(e)		P = 0.5000	P = 0.3087	P = 0.5000

(HPT360A)

BAIS3

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

APPENDIX P 1

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : MALE: ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study	Control 50	320 ppm 50	800 ppm 49	2000 ppm 50
{Integumentary system/appendage}						
subcutis	metastasis:bone tumor		<50> 1	<50> 0	<49> 0	<50> 0
{Respiratory system}						
lung	leukemic cell infiltration		<50> 4	<50> 4	<49> 4	<50> 3
	metastasis:adrenal tumor		0	0	1	0
	metastasis:thyroid tumor		0	1	1	0
	metastasis:bone tumor		1	0	1	0
	metastasis:vertebra tumor		0	0	1	0
	metastasis:skin/appendage tumor		1	0	0	0
	metastasis:salivary gland tumor		0	0	1	0
{Hematopoietic system}						
bone marrow	leukemic cell infiltration		<50> 2	<50> 1	<49> 3	<50> 0
lymph node	leukemic cell infiltration		<50> 1	<50> 1	<49> 4	<50> 1
	metastasis:skin/appendage tumor		1	0	0	0
	metastasis:salivary gland tumor		0	0	1	0
{Digestive system}						
liver	leukemic cell infiltration		<50> 5	<50> 2	<49> 4	<50> 5

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

Group Name No. of Animals on Study		Control 50	320 ppm 50	800 ppm 49	2000 ppm 50
Organ	Findings				
(Digestive system)					
liver		<50>	<50>	<49>	<50>
	metastasis:peritoneum tumor	1	0	0	0
(Urinary system)					
kidney		<50>	<50>	<49>	<50>
	leukemic cell infiltration	2	0	3	2
(Endocrine system)					
pituitary		<50>	<49>	<49>	<50>
	leukemic cell infiltration	1	0	1	0
adrenal		<50>	<50>	<49>	<50>
	leukemic cell infiltration	2	0	2	0
(Nervous system)					
brain		<50>	<50>	<49>	<50>
	leukemic cell infiltration	1	0	2	1
spinal cord		<50>	<50>	<49>	<50>
	leukemic cell infiltration	1	0	2	1
(Special sense organs/appendage)					
eye		<50>	<50>	<49>	<50>
	leukemic cell infiltration	2	0	0	0
Harder gl		<50>	<50>	<49>	<50>
	leukemic cell infiltration	1	0	1	1
< a > a : Number of animals examined at the site b b : Number of animals with lesion					

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

		Group Name	Control	320 ppm	800 ppm	2000 ppm
Organ	Findings	No. of Animals on Study	50	50	49	50
{Body cavities}						
mediastinum	metastasis:bone tumor		<50> 0	<50> 0	<49> 1	<50> 0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

(JPT150)

BAIS3

APPENDIX P 2

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : FEMALE: ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name No. of Animals on Study	Control 50	320 ppm 50	800 ppm 50	2000 ppm 50
(Respiratory system)						
lung	leukemic cell infiltration		<50> 5	<50> 4	<50> 4	<50> 7
	metastasis:uterus tumor		1	0	0	0
	metastasis:pancreas tumor		0	0	1	0
	metastasis:bone tumor		0	0	1	0
(Hematopoietic system)						
bone marrow	leukemic cell infiltration		<50> 1	<50> 3	<50> 2	<50> 3
	metastasis:pancreas tumor		0	0	1	0
lymph node	leukemic cell infiltration		<50> 4	<50> 0	<50> 0	<50> 1
	metastasis:pancreas tumor		0	0	1	0
spleen	metastasis:uterus tumor		<50> 2	<50> 0	<50> 0	<50> 0
	metastasis:pancreas tumor		0	0	1	0
(Digestive system)						
stomach	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
	metastasis:uterus tumor		1	0	0	0
	metastasis:pancreas tumor		0	0	1	0
large intes	metastasis:uterus tumor		<50> 1	<50> 0	<50> 0	<50> 0

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

STUDY NO. : 0347
 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	320 ppm 50	800 ppm 50	2000 ppm 50
Organ	Findings				
{Digestive system}					
liver	leukemic cell infiltration	<50> 5	<50> 5	<50> 5	<50> 7
	metastasis:uterus tumor	2	0	0	0
	metastasis:pancreas tumor	0	0	1	0
{Urinary system}					
kidney	leukemic cell infiltration	<50> 1	<50> 1	<50> 0	<50> 0
	metastasis:uterus tumor	1	0	0	0
{Endocrine system}					
thyroid	leukemic cell infiltration	<50> 0	<50> 0	<50> 0	<50> 1
	adrenal	<50> 1	<50> 2	<50> 0	<50> 2
{Reproductive system}					
uterus	metastasis:pancreas tumor	<50> 0	<50> 0	<50> 1	<50> 0
	metastasis:bone tumor	0	0	1	0
{Nervous system}					
brain	leukemic cell infiltration	<50> 0	<50> 1	<50> 0	<50> 1

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 6

		Group Name	Control	320 ppm	800 ppm	2000 ppm
		No. of Animals on Study	50	50	50	50
Organ	Findings					
{Nervous system}						
brain	metastasis:pituitary tumor		<50> 0	<50> 0	<50> 1	<50> 1
spinal cord	leukemic cell infiltration		<50> 1	<50> 0	<50> 0	<50> 0
{Special sense organs/appendage}						
eye	leukemic cell infiltration		<50> 0	<50> 1	<50> 0	<50> 0
Harder gl	leukemic cell infiltration		<50> 1	<50> 0	<50> 0	<50> 0
{Body cavities}						
mediastinum	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
peritoneum	metastasis:uterus tumor		<50> 2	<50> 0	<50> 0	<50> 0
	metastasis:pancreas tumor		0	0	1	0
< a > a : Number of animals examined at the site b b : Number of animals with lesion						
(JPT150)						BAIS3

APPENDIX P 3

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : MALE: DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
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 10	320 ppm 6	800 ppm 12	2000 ppm 15
Organ	Findings				
{Integumentary system/appendage}					
subcutis		<10>	< 6>	<12>	<15>
	metastasis:bone tumor	1	0	0	0
{Respiratory system}					
lung		<10>	< 6>	<12>	<15>
	leukemic cell infiltration	3	2	4	2
	metastasis:adrenal tumor	0	0	1	0
	metastasis:bone tumor	1	0	1	0
	metastasis:skin/appendage tumor	1	0	0	0
	metastasis:salivary gland tumor	0	0	1	0
{Hematopoietic system}					
bone marrow		<10>	< 6>	<12>	<15>
	leukemic cell infiltration	1	1	3	0
lymph node		<10>	< 6>	<12>	<15>
	leukemic cell infiltration	0	0	2	0
	metastasis:skin/appendage tumor	1	0	0	0
	metastasis:salivary gland tumor	0	0	1	0
{Digestive system}					
liver		<10>	< 6>	<12>	<15>
	leukemic cell infiltration	3	1	4	3

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

STUDY NO. : 0347
 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 10	320 ppm 6	800 ppm 12	2000 ppm 15
{Digestive system}						
liver			<10>	< 6>	<12>	<15>
	metastasis:peritoneum tumor		1	0	0	0
{Urinary system}						
kidney			<10>	< 6>	<12>	<15>
	leukemic cell infiltration		1	0	3	2
{Endocrine system}						
pituitary			<10>	< 6>	<12>	<15>
	leukemic cell infiltration		0	0	1	0
adrenal			<10>	< 6>	<12>	<15>
	leukemic cell infiltration		1	0	2	0
{Nervous system}						
brain			<10>	< 6>	<12>	<15>
	leukemic cell infiltration		1	0	2	1
spinal cord			<10>	< 6>	<12>	<15>
	leukemic cell infiltration		1	0	2	1
{Special sense organs/appendage}						
eye			<10>	< 6>	<12>	<15>
	leukemic cell infiltration		1	0	0	0
Harder gl			<10>	< 6>	<12>	<15>
	leukemic cell infiltration		1	0	1	1

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

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study	Control 10	320 ppm 6	800 ppm 12	2000 ppm 15
-------	----------	---------------------------------------	---------------	--------------	---------------	----------------

{Body cavities}

mediastinum			<10>	< 6>	<12>	<15>
	metastasis:bone tumor		0	0	1	0

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

(JPT150)

BAIS3

APPENDIX P 4

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : FEMALE: DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 4

Group Name No. of Animals on Study		Control 13	320 ppm 10	800 ppm 8	2000 ppm 8
Organ	Findings				
{Respiratory system}					
lung		<13>	<10>	< 8>	< 8>
	leukemic cell infiltration	1	3	1	4
	metastasis:uterus tumor	1	0	0	0
	metastasis:pancreas tumor	0	0	1	0
	metastasis:bone tumor	0	0	1	0
{Hematopoietic system}					
bone marrow		<13>	<10>	< 8>	< 8>
	leukemic cell infiltration	0	3	1	3
lymph node		<13>	<10>	< 8>	< 8>
	leukemic cell infiltration	2	0	0	1
	metastasis:pancreas tumor	0	0	1	0
spleen		<13>	<10>	< 8>	< 8>
	metastasis:uterus tumor	2	0	0	0
	metastasis:pancreas tumor	0	0	1	0
{Digestive system}					
stomach		<13>	<10>	< 8>	< 8>
	leukemic cell infiltration	0	0	0	1
	metastasis:uterus tumor	1	0	0	0
	metastasis:pancreas tumor	0	0	1	0
large intes		<13>	<10>	< 8>	< 8>
	metastasis:uterus tumor	1	0	0	0

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

STUDY NO. : 0347
 ANIMAL : RAT F344/DuCrj
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name No. of Animals on Study	Control 13	320 ppm 10	800 ppm 8	2000 ppm 8
{Digestive system}						
liver	leukemic cell infiltration		<13> 1	<10> 3	< 8> 1	< 8> 4
	metastasis:uterus tumor		2	0	0	0
	metastasis:pancreas tumor		0	0	1	0
{Urinary system}						
kidney	leukemic cell infiltration		<13> 1	<10> 1	< 8> 0	< 8> 0
	metastasis:uterus tumor		1	0	0	0
{Endocrine system}						
thyroid	leukemic cell infiltration		<13> 0	<10> 0	< 8> 0	< 8> 1
	adrenal		<13> 0	<10> 1	< 8> 0	< 8> 2
{Reproductive system}						
uterus	metastasis:pancreas tumor		<13> 0	<10> 0	< 8> 1	< 8> 0
	metastasis:bone tumor		0	0	1	0
{Nervous system}						
brain	leukemic cell infiltration		<13> 0	<10> 1	< 8> 0	< 8> 1

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

STUDY NO. : 0347
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	Control	320 ppm	800 ppm	2000 ppm
		No. of Animals on Study	13	10	8	8
Organ	Findings					
(Nervous system)						
brain	metastasis:pituitary tumor		<13> 0	<10> 0	< 8> 1	< 8> 1
spinal cord	leukemic cell infiltration		<13> 1	<10> 0	< 8> 0	< 8> 0
(Special sense organs/appendage)						
eye	leukemic cell infiltration		<13> 0	<10> 1	< 8> 0	< 8> 0
Harder gl	leukemic cell infiltration		<13> 1	<10> 0	< 8> 0	< 8> 0
(Body cavities)						
mediastinum	leukemic cell infiltration		<13> 0	<10> 0	< 8> 0	< 8> 1
peritoneum	metastasis:uterus tumor		<13> 2	<10> 0	< 8> 0	< 8> 0
	metastasis:pancreas tumor		0	0	1	0
< a > a : Number of animals examined at the site b b : Number of animals with lesion						
(JPT150)						

BAIS3

APPENDIX P 5

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : MALE: SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
 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 40	320 ppm 44	800 ppm 37	2000 ppm 35
Organ	Findings				
(Respiratory system)					
lung		<40>	<44>	<37>	<35>
	leukemic cell infiltration	1	2	0	1
	metastasis:thyroid tumor	0	1	1	0
	metastasis:vertebra tumor	0	0	1	0
(Hematopoietic system)					
bone marrow		<40>	<44>	<37>	<35>
	leukemic cell infiltration	1	0	0	0
lymph node		<40>	<44>	<37>	<35>
	leukemic cell infiltration	1	1	2	1
(Digestive system)					
liver		<40>	<44>	<37>	<35>
	leukemic cell infiltration	2	1	0	2
(Urinary system)					
kidney		<40>	<44>	<37>	<35>
	leukemic cell infiltration	1	0	0	0
(Endocrine system)					
pituitary		<40>	<43>	<37>	<35>
	leukemic cell infiltration	1	0	0	0
adrenal		<40>	<44>	<37>	<35>
	leukemic cell infiltration	1	0	0	0

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

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

		Group Name	Control	320 ppm	800 ppm	2000 ppm
		No. of Animals on Study	40	44	37	35
Organ	Findings					
(Special sense organs/appendage)						
eye	leukemic cell infiltration		<40> 1	<44> 0	<37> 0	<35> 0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

(JPT150)

BAIS3

APPENDIX P 6

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR : SUMMARY

RAT : FEMALE: SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0347
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 3

Group Name		Control	320 ppm	800 ppm	2000 ppm
No. of Animals on Study		37	40	42	42
Organ	Findings				
{Respiratory system}					
lung	leukemic cell infiltration	<37> 4	<40> 1	<42> 3	<42> 3
{Hematopoietic system}					
bone marrow	leukemic cell infiltration	<37> 1	<40> 0	<42> 1	<42> 0
lymph node	leukemic cell infiltration	<37> 2	<40> 0	<42> 0	<42> 0
{Digestive system}					
liver	leukemic cell infiltration	<37> 4	<40> 2	<42> 4	<42> 3
{Endocrine system}					
adrenal	leukemic cell infiltration	<37> 1	<40> 1	<42> 0	<42> 0

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

(JPT150)

BAIS3

APPENDIX Q 1

IDENTITY AND IMPURITY OF 2-HYDROXYETHYL ACRYLATE IN THE 2-YEAR DRINKING WATER STUDY

IDENTITY AND IMPURITY OF 2-HYDROXYETHYL ACRYLATE IN THE 2-YEAR DRINKING WATER STUDY

Test Substance : 2-Hydroxyethyl Acrylate (Wako Pure Chemical Industries, Ltd.)

A. Lot No. : WTP4588

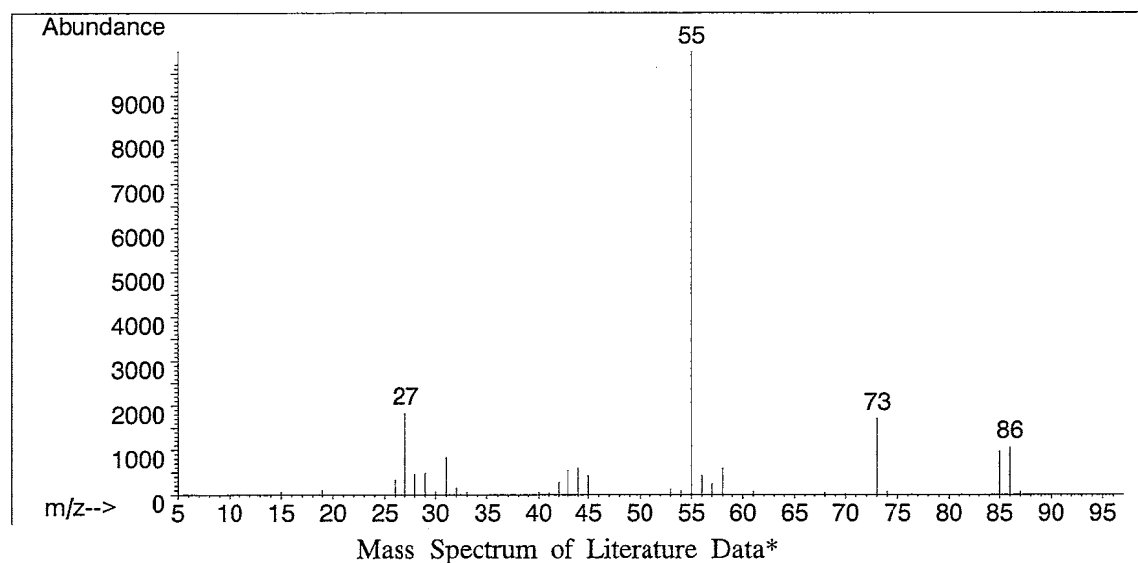
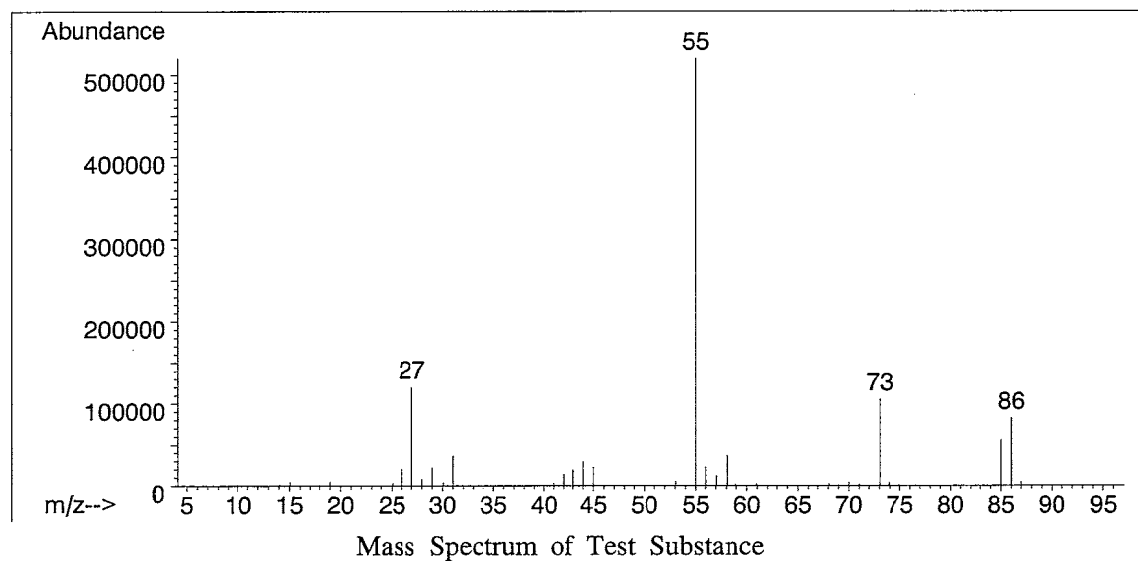
1. Spectral Data

Mass Spectrometry

Instrument : Hewlett Packard 5989B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



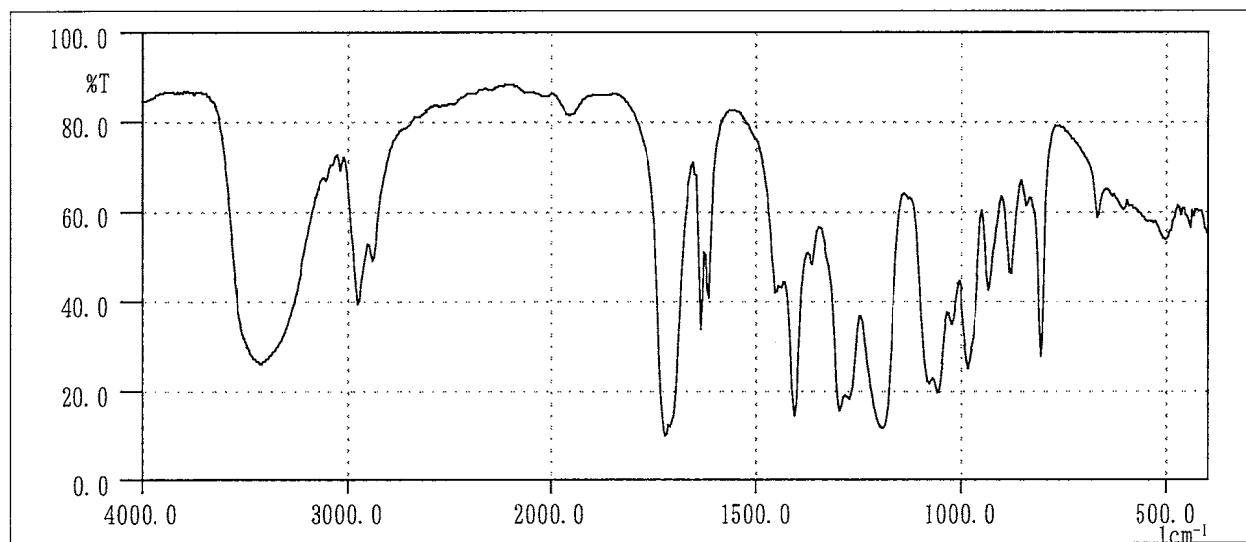
Results: The mass spectrum was consistent with literature spectrum.

(*Fred W. McLafferty (1994) Wiley Registry of Mass Spectral Data, 6th edition.
John Wiley and Sons, Inc. (U.S.), Entry Number 12762)

Infrared Spectrometry

Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2 cm^{-1} 

Infrared Spectrum of Test Substance

Determined ValuesWave Number (cm^{-1})

650~ 680

770~ 850

850~ 910

910~ 950

950~ 1010

1010~ 1140

1140~ 1250

1250~ 1350

1350~ 1550

1580~ 1660

1660~ 1850

1920~ 2000

2750~ 3020

3060~ 3700

Literature Values*Wave Number (cm^{-1})

650~ 680

770~ 850

850~ 910

910~ 950

950~ 1010

1010~ 1140

1140~ 1250

1250~ 1350

1350~ 1550

1580~ 1660

1660~ 1850

1920~ 2000

2750~ 3020

3060~ 3700

Results: The infrared spectrum was consistent with literature spectrum.

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

2. Impurity

Instrument : Hewlett Packard 5890A Gas Chromatograph
Column : FFAP (0.53 mm ϕ \times 30 m)
Column Temperature : 180 °C
Flow Rate : 3 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.965	Acrylic Acid
	2	96.466	2-Hydroxyethyl Acrylate
	3	2.514	Material which cannot be identified
	4	0.055	p-Methoxyphenol

Results: Gas chromatography indicated one major peak (peak No.2) and three impurities. It was identified only by comparing gas chromatograph with that of acrylic acid (peak No.1), material which cannot be identified (peak No.3) and p-methoxyphenol (peak No.4) in the 2-hydroxyethyl acrylate, the amount in the test substance were 0.965%, 2.514% and 0.055%.

3. Conclusions: The test substance was identified as 2-hydroxyethyl acrylate by the mass spectrum and the infrared spectrum. Gas chromatography indicated one major peak (peak No.2) and three impurities. It was identified only by comparing gas chromatograph with that of acrylic acid, material which cannot be identified and p-methoxyphenol, the amount in the test substance were 0.965%, 2.514% and 0.055%.

B. Lot No. : WTH5799

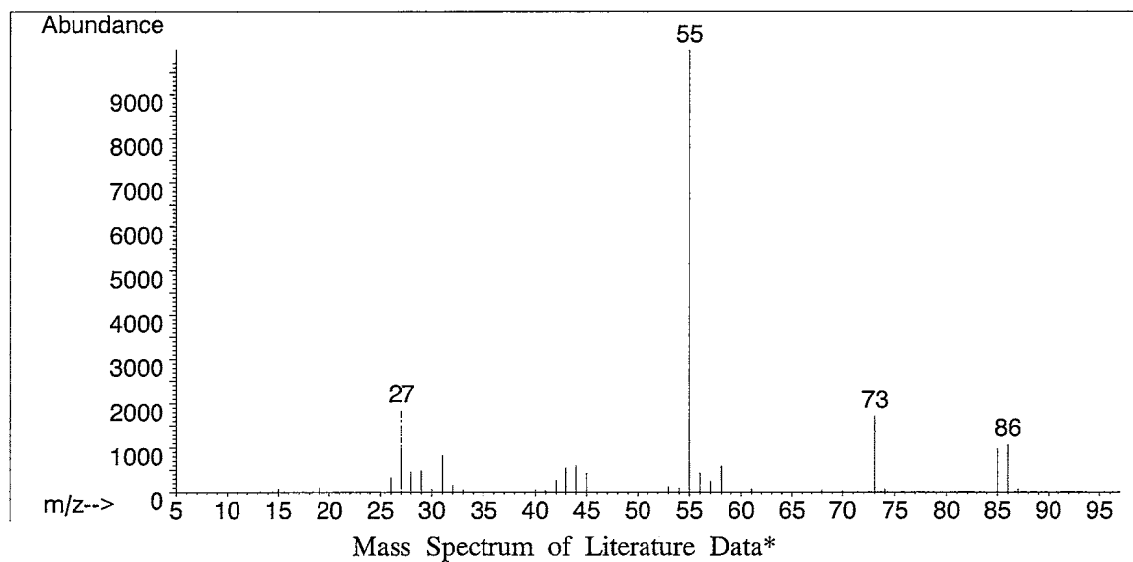
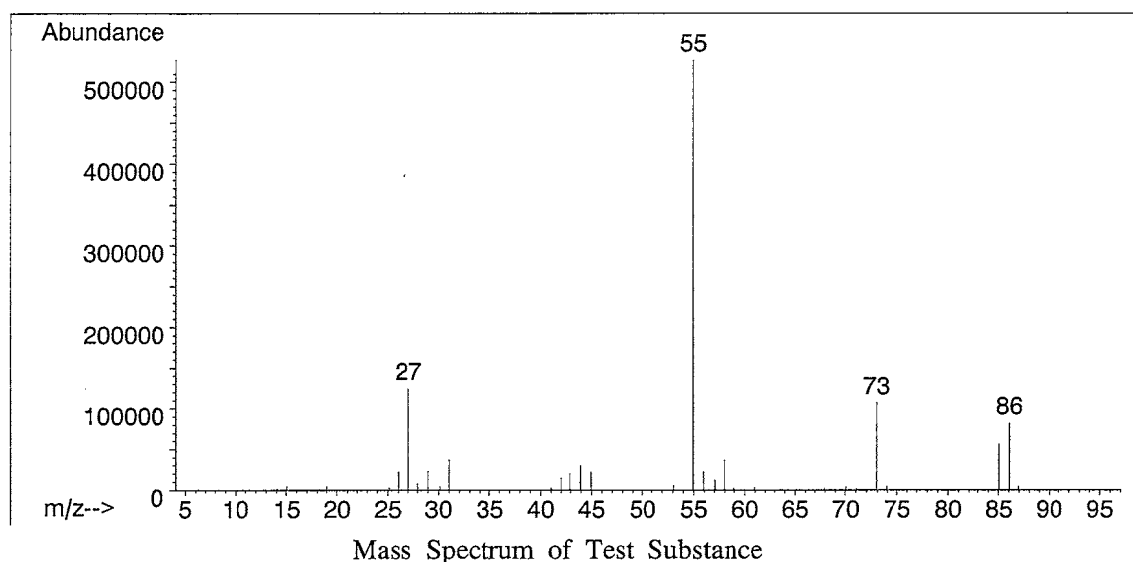
1. Spectral Data

Mass Spectrometry

Instrument : Hewlett Packard 5989B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



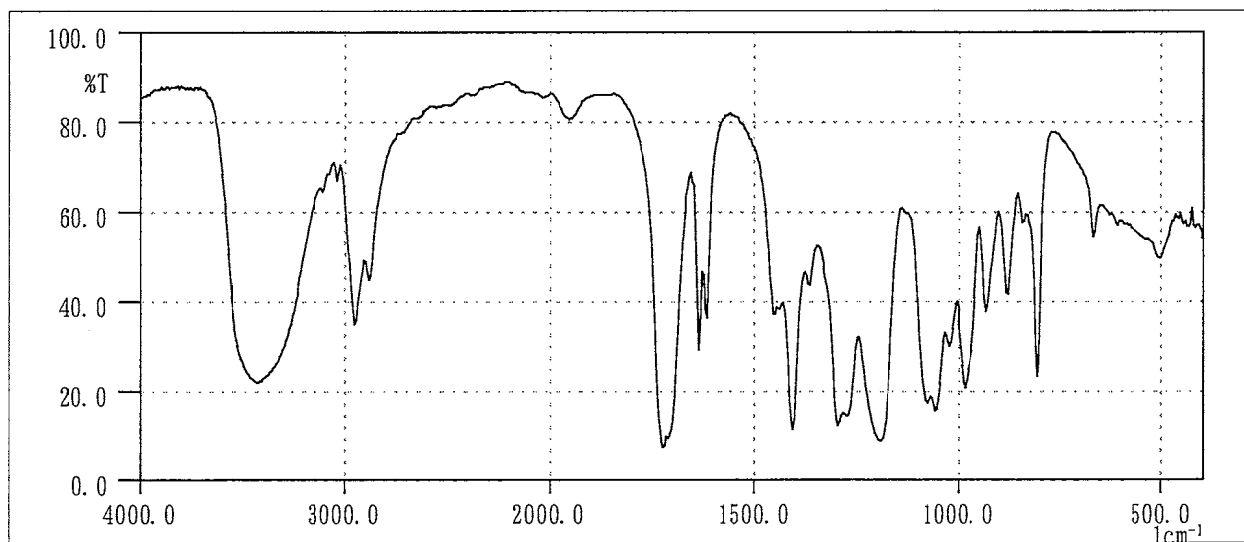
Results: The mass spectrum was consistent with literature spectrum.

(*Fred W. McLafferty (1994) Wiley Registry of Mass Spectral Data, 6th edition.
John Wiley and Sons, Inc. (U.S.), Entry Number 12762)

Infrared Spectrometry

Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2 cm^{-1} 

Infrared Spectrum of Test Substance

Determined Values
Wave Number (cm^{-1})

650~ 680
770~ 850
850~ 910
910~ 950
950~ 1010
1010~ 1140
1140~ 1250
1250~ 1350
1350~ 1550
1580~ 1660
1660~ 1850
1920~ 2000
2750~ 3020
3060~ 3700

Literature Values^{*}
Wave Number (cm^{-1})

650~ 680
770~ 850
850~ 910
910~ 950
950~ 1010
1010~ 1140
1140~ 1250
1250~ 1350
1350~ 1550
1580~ 1660
1660~ 1850
1920~ 2000
2750~ 3020
3060~ 3700

Results: The infrared spectrum was consistent with literature spectrum.

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

2. Impurity

Instrument : Hewlett Packard 5890A Gas Chromatograph
Column : FFAP (0.53 mm ϕ \times 30 m)
Column Temperature : 180 °C
Flow Rate : 3 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.855	Acrylic Acid
	2	96.295	2-Hydroxyethyl Acrylate
	3	2.794	Material which cannot be identified
	4	0.056	p-Methoxyphenol

Results: Gas chromatography indicated one major peak (peak No.2) and three impurities. It was identified only by comparing gas chromatograph with that of acrylic acid (peak No.1), material which cannot be identified (peak No.3) and p-methoxyphenol (peak No.4) in the 2-hydroxyethyl acrylate, the amount in the test substance were 0.855%, 2.794% and 0.056%.

3. Conclusions: The test substance was identified as 2-hydroxyethyl acrylate by the mass spectrum and the infrared spectrum. Gas chromatography indicated one major peak (peak No.2) and three impurities. It was identified only by comparing gas chromatograph with that of acrylic acid, material which cannot be identified and p-methoxyphenol, the amount in the test substance were 0.855%, 2.794% and 0.056%.

C. Lot No. : CKQ4839

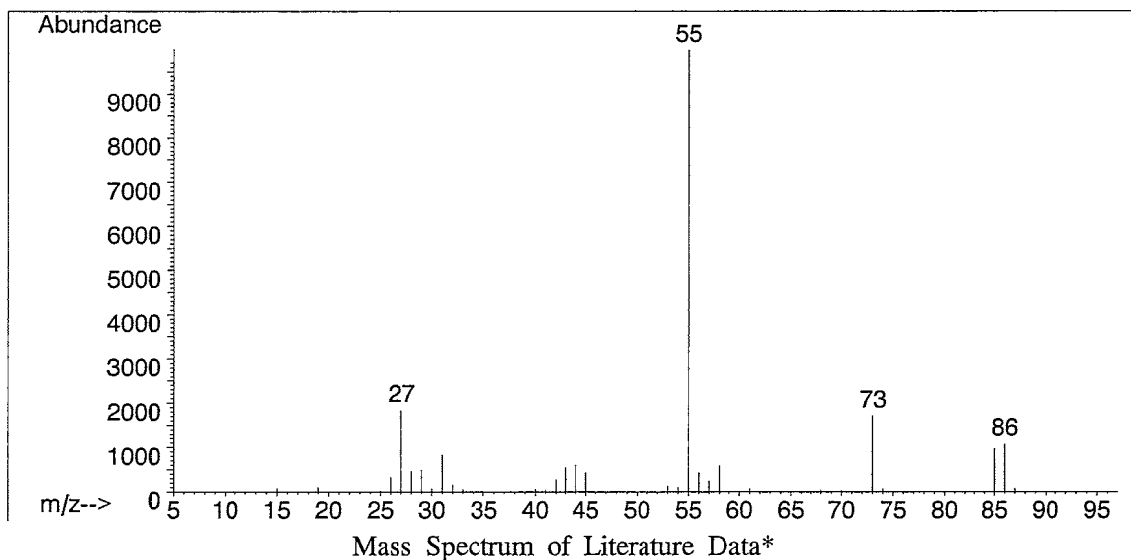
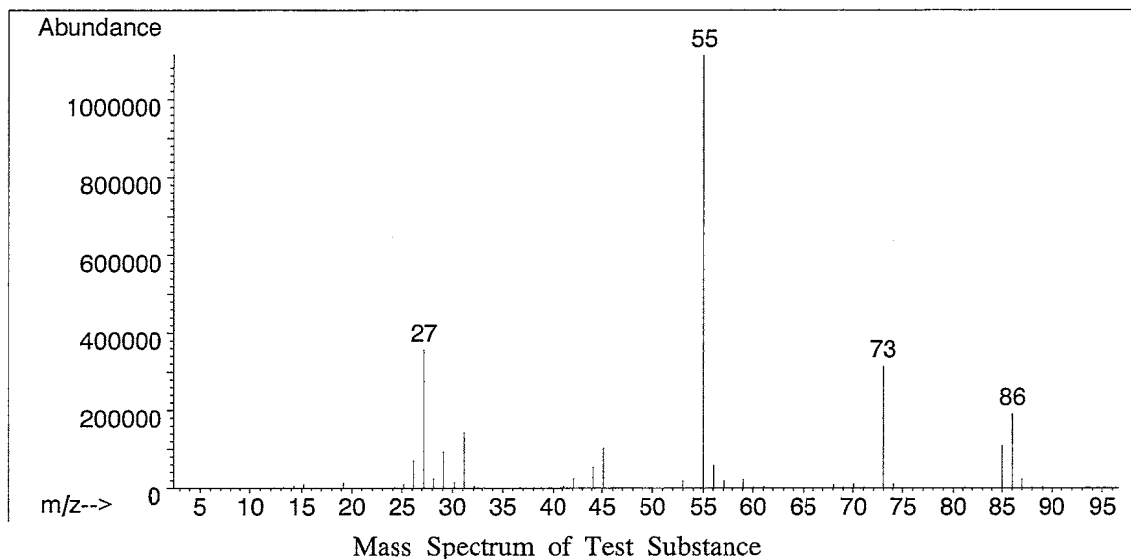
1. Spectral Data

Mass Spectrometry

Instrument : Hewlett Packard 5989B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



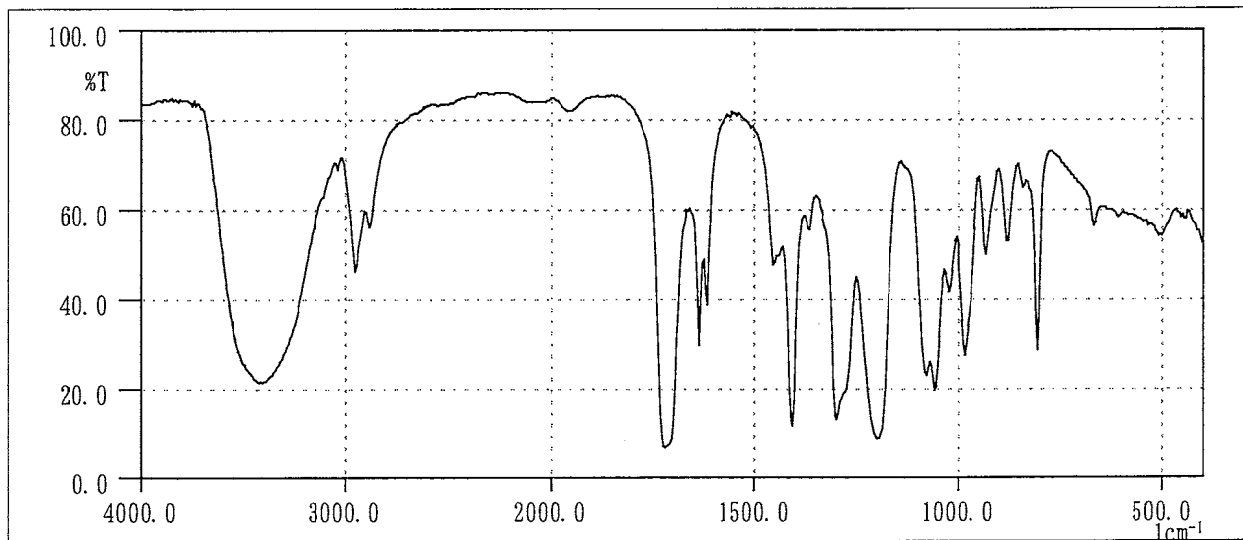
Results: The mass spectrum was consistent with literature spectrum.

(*Fred W. McLafferty (1994) Wiley Registry of Mass Spectral Data, 6th edition.
John Wiley and Sons, Inc. (U.S.), Entry Number 12762)

Infrared Spectrometry

Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2 cm^{-1} 

Infrared Spectrum of Test Substance

Determined ValuesWave Number (cm^{-1})

650~680

770~850

850~910

910~950

950~1010

1010~1140

1140~1250

1250~1350

1350~1550

1580~1660

1660~1850

1920~2000

2750~3020

3060~3700

Literature Values*Wave Number (cm^{-1})

650~680

770~850

850~910

910~950

950~1010

1010~1140

1140~1250

1250~1350

1350~1550

1580~1660

1660~1850

1920~2000

2750~3020

3060~3700

Results: The infrared spectrum was consistent with literature spectrum.

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

2. Impurity

Instrument : Hewlett Packard 5890A Gas Chromatograph
Column : FFAP (0.53 mm ϕ \times 30 m)
Column Temperature : 180 °C
Flow Rate : 3 mL/min
Detector : FID (Flame Ionization Detector)
Injection Volume : 1 μ L

Sample Name	Peak No.	Area (%)	Peak Name
Test Substance	1	0.789	Acrylic Acid
	2	97.556	2-Hydroxyethyl Acrylate
	3	1.602	Material which cannot be identified
	4	0.053	p-Methoxyphenol

Results: Gas chromatography indicated one major peak (peak No.2) and three impurities. It was identified only by comparing gas chromatograph with that of acrylic acid (peak No.1), material which cannot be identified (peak No.3) and p-methoxyphenol (peak No.4) in the 2-hydroxyethyl acrylate, the amount in the test substance were 0.789%, 1.602% and 0.053%.

3. Conclusions: The test substance was identified as 2-hydroxyethyl acrylate by the mass spectrum and the infrared spectrum. Gas chromatography indicated one major peak (peak No.2) and three impurities. It was identified only by comparing gas chromatograph with that of acrylic acid, material which cannot be identified and p-methoxyphenol, the amount in the test substance were 0.789%, 1.602% and 0.053%.

APPENDIX Q 2

STABILITY OF 2-HYDROXYETHYL ACRYLATE IN THE 2-YEAR DRINKING WATER STUDY

STABILITY OF 2-HYDROXYETHYL ACRYLATE IN THE 2-YEAR DRINKING WATER STUDY

Test Substance : 2-Hydroxyethyl Acrylate (Wako Pure Chemical Industries, Ltd.)

A. Lot No. : WTP4588

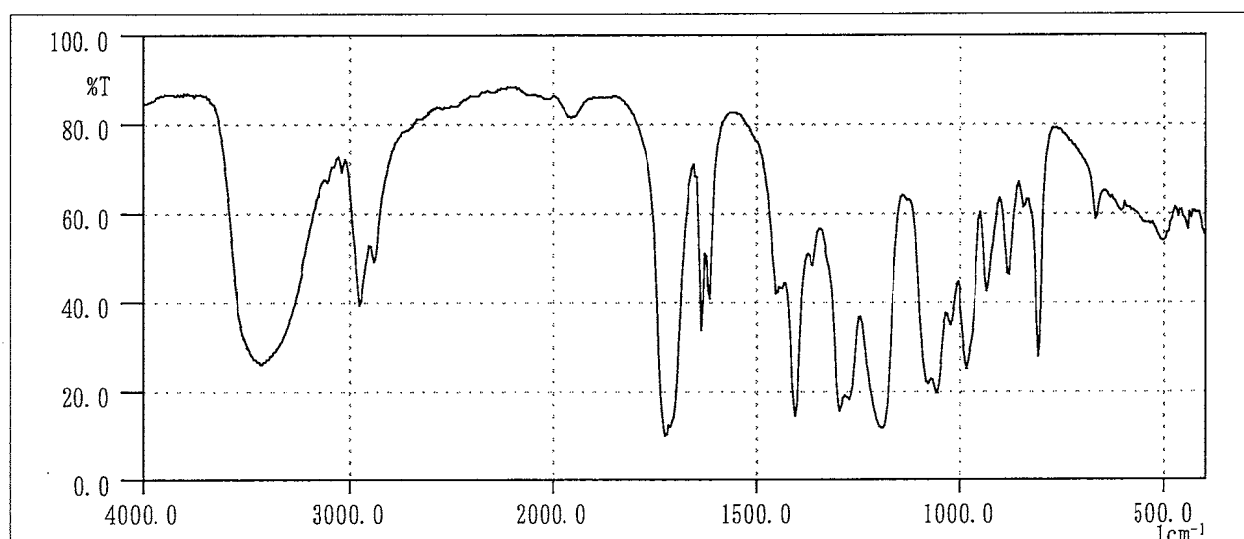
1. Sample : This lot was used from 1997.11.11 to 1998.3.17. Test substance was stored in a dark place at room temperature.

2. Infrared Spectrometry

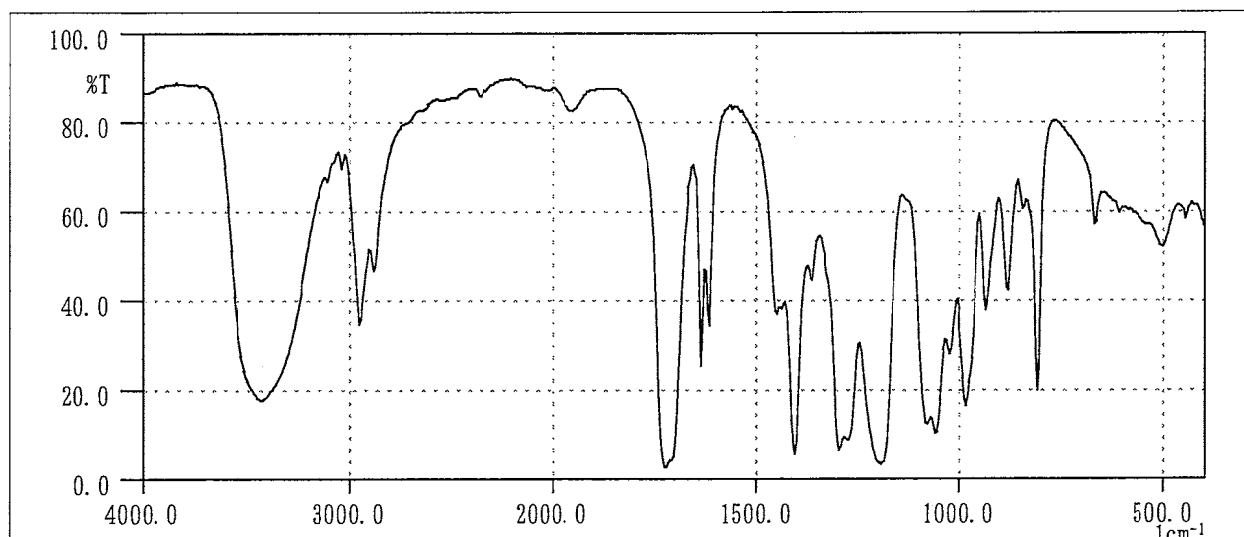
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2 cm^{-1}



Infrared Spectrum of Test Substance (date analyzed : 1997.10.27)



Infrared Spectrum of Test Substance (date analyzed : 1998.03.18)

Results: The results of infrared spectrum did not change before and after the period.

3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : FFAP (0.53 mm ϕ \times 30 m)

Column Temperature : 180 °C

Flow Rate : 3 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
1997.10.24	1	2.487	0.965
	2	3.151	96.466
	3	7.018	2.514
	4	18.977	0.055
1998.03.18	1	2.509	0.990
	2	3.173	96.436
	3	7.084	2.520
	4	19.197	0.054

Results: Gas chromatography indicated one major peak (peak No.2) and three impurities (peaks No.1, No.3 and No.4 < 4% of total area) analyzed on 1997.10.24 and one major peak (peak No.2) and three impurities (peaks No.1, No.3 and No.4 < 4% of total area) analyzed on 1998.3.18. No new trace impurity peak in the test substance analyzed on 1998.3.18 was detected.

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

B. Lot No. : WTH5799

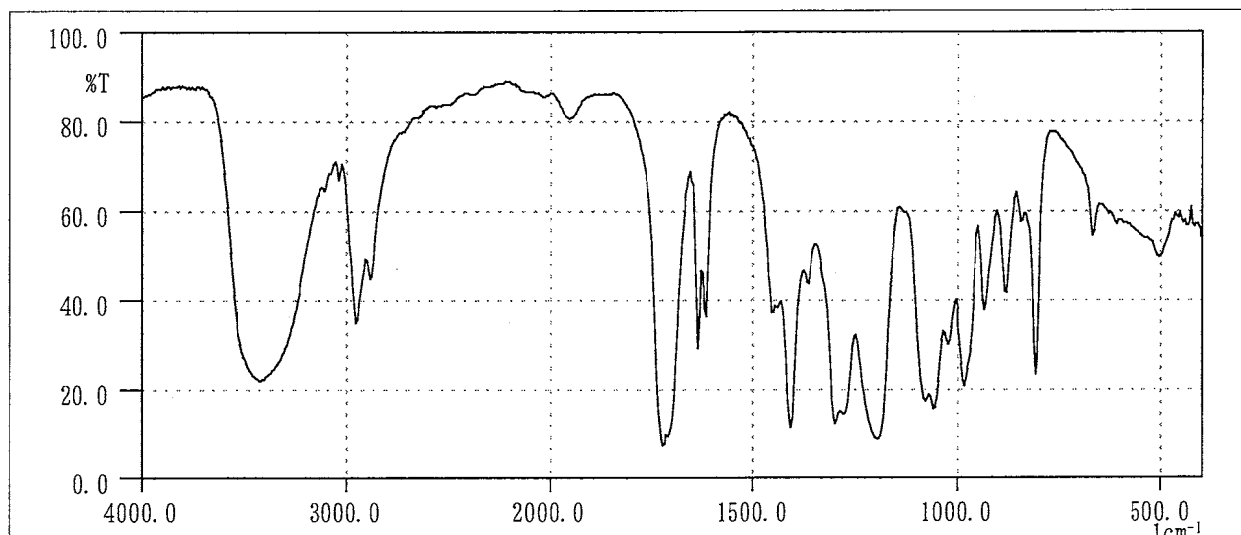
1. Sample : This lot was used from 1998.3.17 to 1999.9.14. Test substance was stored in a dark place at room temperature.

2. Infrared Spectrometry

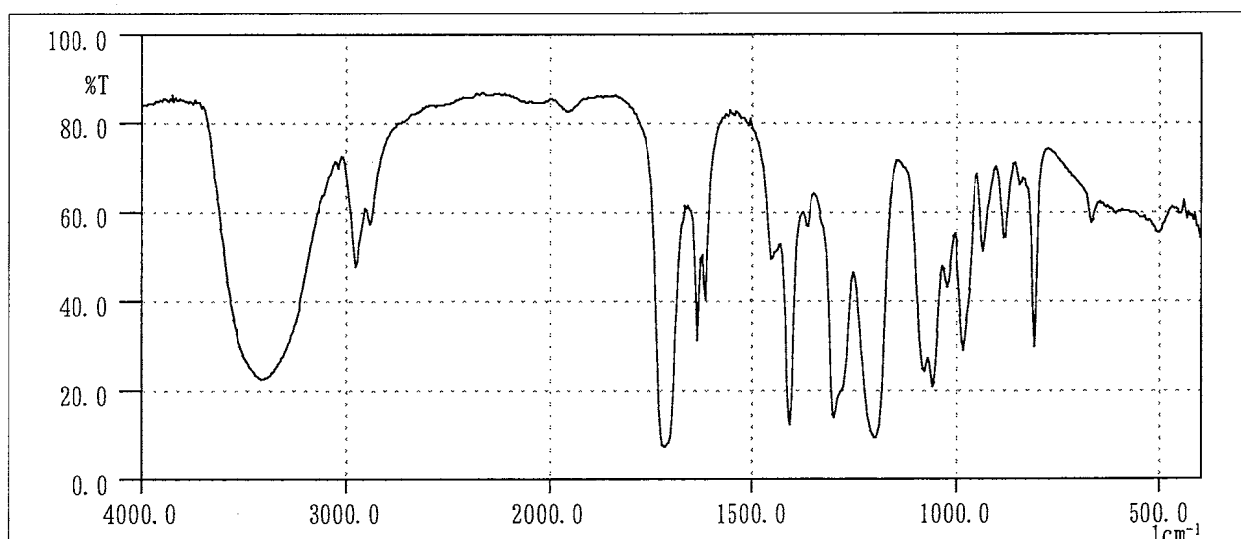
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2 cm^{-1}



Infrared Spectrum of Test Substance (date analyzed : 1997.11.05)



Infrared Spectrum of Test Substance (date analyzed : 1999.09.17)

Results: The results of infrared spectrum did not change before and after the period.

3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : FFAP (0.53 mm ϕ \times 30 m)

Column Temperature : 180 °C

Flow Rate : 3 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
1997.11.05	1	2.595	0.855
	2	3.287	96.295
	3	7.321	2.794
	4	19.812	0.056
1999.09.14	1	2.465	0.742
	2	3.114	96.456
	3	6.960	2.748
	4	18.895	0.055

Results: Gas chromatography indicated one major peak (peak No.2) and three impurities (peaks No.1, No.3 and No.4 < 4% of total area) analyzed on 1997.11.5 and one major peak (peak No.2) and three impurities (peaks No.1, No.3 and No.4 < 4% of total area) analyzed on 1999.9.14. No new trace impurity peak in the test substance analyzed on 1999.9.14 was detected.

4. Conclusions: The test substance was stable for about 22 months in a dark place at room temperature.

C. Lot No. : CKQ4839

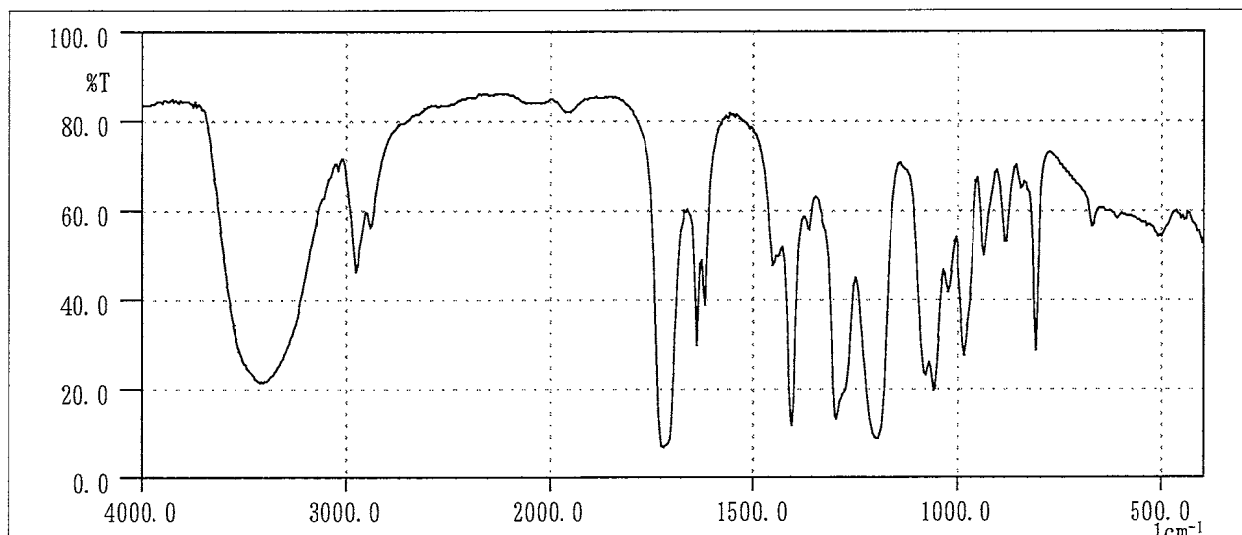
1. Sample : This lot was used from 1999.9.14 to 1999.11.16. Test substance was stored in a dark place at room temperature.

2. Infrared Spectrometry

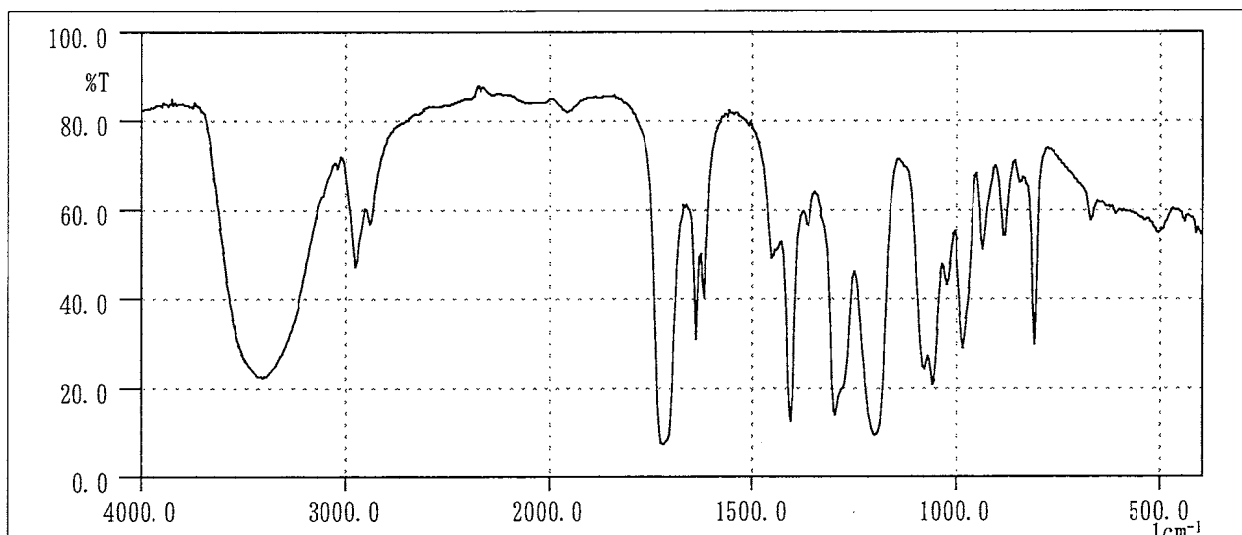
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2 cm^{-1}



Infrared Spectrum of Test Substance (date analyzed : 1999.09.09)



Infrared Spectrum of Test Substance (date analyzed : 1999.12.10)

Results: The results of infrared spectrum did not change before and after the period.

3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : FFAP (0.53 mm ϕ \times 30 m)

Column Temperature : 180 °C

Flow Rate : 3 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
1999.09.13	1	2.659	0.789
	2	3.368	97.556
	3	7.512	1.602
	4	20.444	0.053
1999.12.10	1	2.667	0.787
	2	3.378	97.626
	3	7.538	1.534
	4	20.519	0.054

Results: Gas chromatography indicated one major peak (peak No.2) and three impurities (peaks No.1, No.3 and No.4 < 3% of total area) analyzed on 1999.9.13 and one major peak (peak No.2) and three impurities (peaks No.1, No.3 and No.4 < 3% of total area) analyzed on 1999.12.10. No new trace impurity peak in the test substance analyzed on 1999.12.10 was detected.

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

APPENDIX Q 3

CONCENTRATION OF 2-HYDROXYETHYL ACRYLATE IN FORMULATED WATER
IN THE 2-YEAR DRINKING WATER STUDY

CONCENTRATION OF 2-HYDROXYETHYL ACRYLATE IN FORMULATED WATER IN THE 2-YEAR DRINKING WATER STUDY

Date Analyzed	Target Concentration		
	320 ^a	800	2000
1997.11.11	312 (97.5) ^b	797 (99.6)	2070 (104)
1998.02.02	325 (102)	829 (104)	2120 (106)
1998.04.28	313 (97.8)	802 (100)	1970 (98.5)
1998.07.21	318 (99.4)	783 (97.9)	1940 (97.0)
1998.10.13	324 (101)	834 (104)	2000 (100)
1999.01.05	318 (99.4)	753 (94.1)	1980 (99.0)
1999.03.30	319 (99.7)	815 (102)	2010 (101)
1999.06.22	332 (104)	821 (103)	2050 (103)
1999.09.14	321 (100)	810 (101)	2100 (105)

^a ppm

^b %

Analytical Method : The samples were analyzed by gas chromatography.

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : FFAP (0.53 mm ϕ \times 30 m)

Column Temperature : 180 °C

Flow Rate : 3 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

APPENDIX Q 4

STABILITY OF 2-HYDROXYETHYL ACRYLATE IN FORMULATED WATER
IN THE 2-YEAR DRINKING WATER STUDY

STABILITY OF 2-HYDROXYETHYL ACRYLATE IN FORMULATED WATER IN THE 2-YEAR DRINKING WATER STUDY

Date Prepared	Date Analyzed	Target Concentration	
		320 ^a	2000
1997.10.27	1997.10.27	315 (100) ^b	2000 (100)
	1997.10.31 ^c	316 (100)	2020 (101)
	1997.11.04 ^c	320 (102)	2000 (100)
	1997.11.07 ^c	314 (99.7)	1980 (99.0)

^a ppm

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

^c Animal room samples

Analytical Method : The samples were analyzed by gas chromatography.

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : FFAP (0.53 mm ϕ \times 30 m)

Column Temperature : 180 °C

Flow Rate : 3 mL/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1 μ L

APPENDIX R 1

METHODS FOR HEMATOLOGY AND BIOCHEMISTRY IN THE 2-YEAR DRINKING WATER STUDY OF 2-HYDROXYETHYL ACRYLATE

METHODS FOR HEMATOLOGY,BIOCHEMISTRY AND URINALYSIS
IN THE 2-YEAR DRINKING WATER STUDY OF 2-HYDROXYETHYL ACRYLATE

Item	Method
Hematology	
Red blood cell (RBC)	Light scattering method ¹⁾
Hemoglobin (Hgb)	Cyanmethemoglobin method ¹⁾
Hematocrit (Hct)	Calculated as $RBC \times MCV / 10$ ¹⁾
Mean corpuscular volume (MCV)	Light scattering method ¹⁾
Mean corpuscular hemoglobin (MCH)	Calculated as $Hgb / RBC \times 10$ ¹⁾
Mean corpuscular hemoglobin concentration (MCHC)	Calculated as $Hgb / Hct \times 100$ ¹⁾
Platelet	Light scattering method ¹⁾
White blood cell (WBC)	Light scattering method ¹⁾
Differential WBC	Pattern recognition method ²⁾ (Wright staining)
Biochemistry	
Total protein (TP)	Biuret method ³⁾
Albumin (Alb)	BCG method ³⁾
A/G ratio	Calculated as $Alb / (TP - Alb)$ ³⁾
T-bilirubin	Alkaline azobilirubin method ³⁾
Glucose	GlcK · G-6-PDH method ³⁾
T-cholesterol	CE · COD · POD method ³⁾
Triglyceride	LPL · GK · GPO · POD method ³⁾
Phospholipid	PLD · ChOD · POD method ³⁾
Glutamic oxaloacetic transaminase (GOT)	JSCC method ³⁾
Glutamic pyruvic transaminase (GPT)	JSCC method ³⁾
Lactate dehydrogenase (LDH)	SFBC method ³⁾
Alkaline phosphatase (ALP)	GSCC method ³⁾
γ -Glutamyl transpeptidase (γ -GTP)	L- γ -Glutamyl-p-nitroanilide method ³⁾
Creatine phosphokinase (CPK)	JSCC method ³⁾
Urea nitrogen	Urease · GLDH method ³⁾
Creatinine	Jaffe method ³⁾
Sodium	Ion selective electrode method ³⁾
Potassium	Ion selective electrode method ³⁾
Chloride	Ion selective electrode method ³⁾
Calcium	OCPC method ³⁾
Inorganic phosphorus	PNP · XOD · POD method ³⁾
Urinalysis	
pH,Protein,Glucose,Ketone body,Bilirubin,Occult blood, Urobilinogen	Urinalysis reagent paper method ⁴⁾

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.)

4) Ames reagent strips for urinalysis (Multistix : Bayer Corporation)

APPENDIX R 2

UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE
2-YEAR DRINKING WATER STUDY OF 2-HYDROXYETHYL ACRYLATE

UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY
IN THE 2-YEAR DRINKING WATER STUDY OF 2-HYDROXYETHYL ACRYLATE

Item	Unit	Decimal place
Hematology		
Red blood cell (RBC)	$\times 10^6 / \mu\text{L}$	2
Hemoglobin	g/dL	1
Hematocrit	%	1
Mean corpuscular volume (MCV)	fL	1
Mean corpuscular hemoglobin (MCH)	pg	1
Mean corpuscular hemoglobin concentration (MCHC)	g/dL	1
Platelet	$\times 10^3 / \mu\text{L}$	0
White blood cell (WBC)	$\times 10^3 / \mu\text{L}$	2
Differential WBC	%	0
Biochemistry		
Total protein	g/dL	1
Albumin	g/dL	1
A/G ratio	—	1
T-bilirubin	mg/dL	2
Glucose	mg/dL	0
T-cholesterol	mg/dL	0
Triglyceride	mg/dL	0
Phospholipid	mg/dL	0
Glutamic oxaloacetic transaminase (GOT)	IU/L	0
Glutamic pyruvic transaminase (GPT)	IU/L	0
Lactate dehydrogenase (LDH)	IU/L	0
Alkaline phosphatase (ALP)	IU/L	0
γ -Glutamyl transpeptidase (γ -GTP)	IU/L	0
Creatine phosphokinase (CPK)	IU/L	0
Urea nitrogen	mg/dL	1
Creatinine	mg/dL	1
Sodium	mEq/L	0
Potassium	mEq/L	1
Chloride	mEq/L	0
Calcium	mg/dL	1
Inorganic phosphorus	mg/dL	1